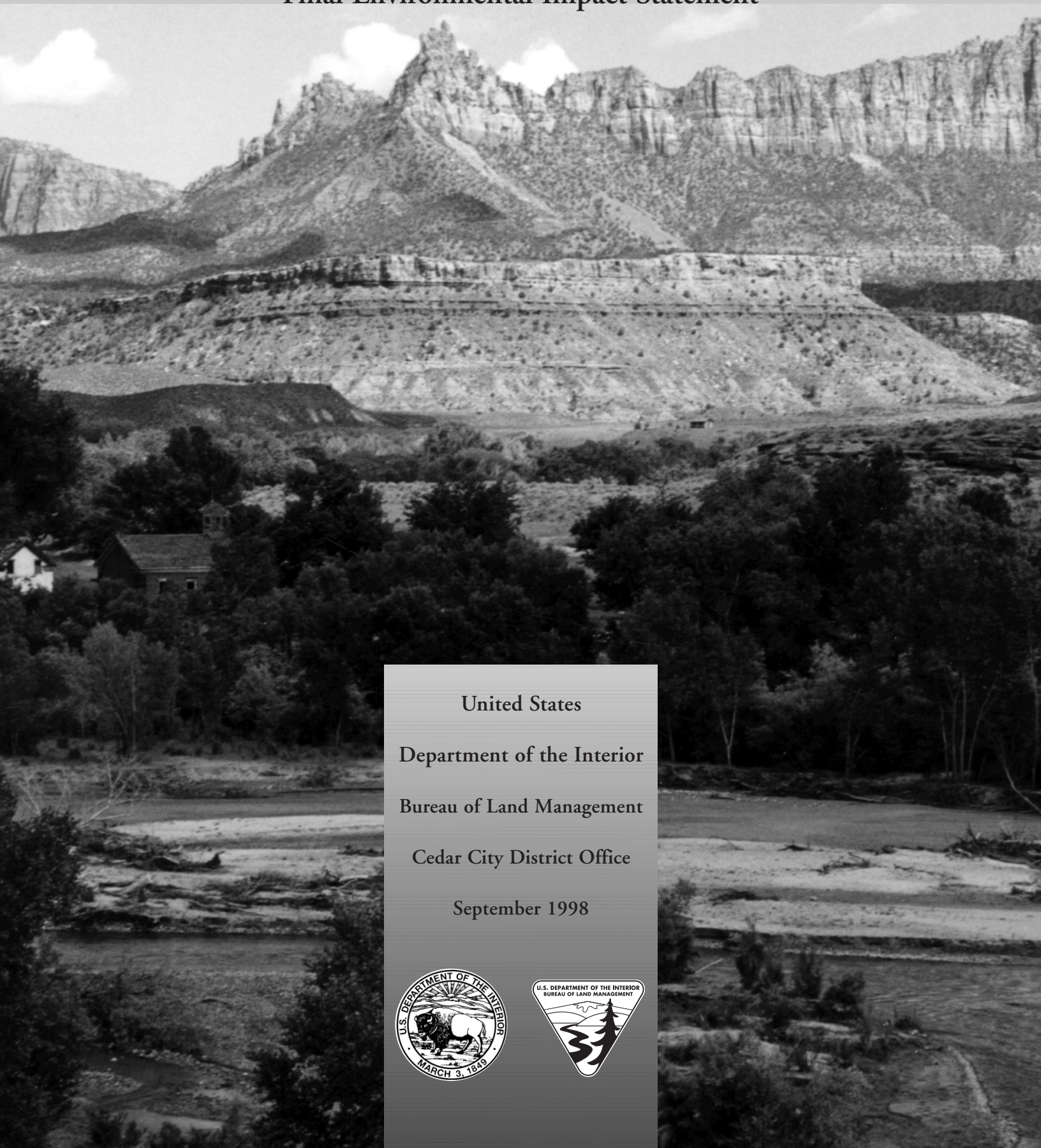
DIXIE RESOURCE AREA

Proposed Resource Management Plan and Final Environmental Impact Statement



United States

Department of the Interior

Bureau of Land Management

Cedar City District Office

September 1998

The Bureau of Land Management is responsible for the stewardship of our public lands. It is committed to manage, protect, and improve these lands in a manner to serve the needs of the American people for all times. Management is based on the principles of multiple use and the sustained yield of our Nation's resources within a framework of environmental and scientific technology. These resources include recreation, rangelands, timber, minerals, watershed, fish and wildlife, wilderness, air, and scenic, scientific, and cultural values.

BLM/UT/PT-98/004+1610

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
DIXIE RESOURCE AREA
345 E. Riverside Drive
St. George, Utah 84790
Phone (435)688-3200 . Fax (435)688-3252

In reply refer to:

1600
(UT-045)

Dear Reader:

Enclosed for your review is the Dixie Resource Area's Proposed Resource Management Plan and Final Environmental Impact Statement (Proposed Plan). The Proposed Plan is a refinement of the Preferred Alternative and accompanying environmental analysis contained in the Dixie Resource Area Draft Resource Management Plan and Environmental Impact Statement (Draft Plan) that was issued to the public in October 1995. Elements of each of the four alternatives analyzed in the Draft Plan were drawn upon to create this new Proposed Plan. The Proposed Plan reflects consideration given to public comments, corrections, and rewording for clarification.

The Proposed Plan is published in a condensed format and can be used in conjunction with the Draft Plan to facilitate review of the initial four alternatives. The description of the affected environment and detailed descriptions of alternatives contained in the Draft Plan, as well as some of the appendices, are referenced but not reproduced in the Proposed Plan.

The Proposed Plan shall become final at the end of the 30-day protest period and after the Governor's consistency review. Approval shall be withheld on any portion of the Proposed Plan under protest until final action has been completed on such protest. The Record of Decision and the Approved Resource Management Plan will then be prepared.

We appreciate the time and effort you have given during your involvement in this process. Your continued participation is essential to achieve wise management of public lands and resources in the Dixie Resource Area.

Sincerely,

Jim Crisp
Dixie Resource Area Manager

DIXIE RESOURCE AREA

Proposed Resource Management Plan and Final Environmental Impact Statement

September 1998

Prepared by:
United States Department of the Interior
Bureau of Land Management
Utah State Office
Cedar City District
Dixie Resource Area

Approved by:

G. William Lamb
State Director, Utah

JOSHUA TREE
SCENIC AREA
REMOVAL OF ANY
VEGETATION PROHIBITED

DIXIE RESOURCE AREA

Proposed Resource Management Plan and Final Environmental Impact Statement

Draft ( ) Final (X)

Lead Agency: United States Department of the Interior, Bureau of Land Management

Type of Action: Administrative (X) Legislative ( )

Abstract

This is the Proposed Resource Management Plan and Final Environmental Impact Statement (Proposed Plan) for the Dixie Resource Area.

This document responds to public comments received on the Dixie Resource Area Draft Resource Management Plan and Environmental Impact Statement (Draft Plan). The Proposed Plan also corrects errors in the Draft Plan identified through the public comment process and internal BLM review. The Proposed Plan and associated analysis presents a refined and modified version of the Preferred Alternative and the accompanying impact analysis contained in the Draft Plan.

This document is published in condensed form and should be used in conjunction with the Draft Plan, which was published in October 1995, to facilitate review.

For further information on this Proposed Plan, contact Lauren Mermejo, RMP Team Leader, Bureau of Land Management, 345 E. Riverside Drive, Suite 102, St. George, Utah 84790; telephone number (435) 688-3216.

Protests to this RMP must be received within 30 days of the date of publication of the Notice of Availability by the U.S. Environmental Protection Agency. That notice is published in the Federal Register. A news release will also be provided to local newspapers in St. George, Cedar City, Salt Lake City, and Kanab, Utah, as well as Mesquite and Las Vegas in Nevada.

PROTEST PROCEDURES

The resource management planning process provides for an administrative review to the BLM Director if you believe approval of the Dixie Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (Proposed Plan) would be in error (See 43 CFR 1610.5-2). Careful adherence to the following guidelines will assist you in the preparation of a protest that will assure the greatest consideration to your point of view.

Only those persons or organizations who participated in the scoping or comment period for the 1995 Draft Resource Management Plan/Environmental Impact Statement planning process leading to this Proposed Plan may protest. If our records do not indicate that you had any involvement in any stage in the preparation of the Proposed Plan, your protest will be dismissed without any further review.

A protesting party may raise only those issues which he/she submitted for the record during the planning process. New issues raised in the protest period should be directed to the Dixie Resource Area Manager for consideration in plan implementation, as a potential plan amendment, or as otherwise appropriate.

The period for filing a plan protest begins with the Environmental Protection Agency publication of the Notice of Availability of the Final Environmental Impact Statement containing the Proposed Plan in the Federal Register. The protest period extends for 30 days. There is no provision for an extension of time. To be considered timely, your protest must be postmarked no later than the last day of the protest period. Although not a requirement, we suggest that you send your protest by certified mail, return receipt requested.

Protests must be in writing to:
Director, Bureau of Land Management
Attn: Ms. Brenda Williams, Protests Coordinator
WO-210/LS-1075
Department of the Interior
Washington, DC 20240

Overnight Mail address is:
Director, Bureau of Land Management
Attn: Ms. Brenda Williams, Protests Coordinator (WO-210)
1620 L Street, NW, Rm 1075
Washington, DC 20036
Phone: 202/452-5110

To expedite consideration, in addition to the original sent by mail or overnight mail, a copy of the protest may be sent by:
FAX to 202/452-5112; or
E-mail to bhudgens@wo.blm.gov.

Protests filed late, or filed with the State Director, or District, Field, or Area Manager shall be rejected by the Washington Office. To be considered complete, your protest must contain, at a minimum, the following information:

1. The name, mailing address, telephone number, and interest of the person filing the protest.

2. A statement of the issue or issues being raised.

3. Identification of the part or parts of the Proposed Plan being protested. To the extent possible, this should be done by reference to specific pages, paragraphs, sections, tables, maps, etc., included in the document.

4. A copy of all documents addressing the issue or issues that you submitted during the planning process, or a reference to the date the issue or issues were discussed by you for the record.

5. A concise statement explaining why the Utah BLM State Director's proposed decision is believed to be incorrect. This is a critical part of your protest. Take care to document all relevant facts. As much as possible, reference or cite the planning documents, environmental analysis documents, or available planning records (i.e., meeting minutes or summaries, correspondence). A protest which merely expresses disagreement with the proposed decision, without any data, will not provide us with the benefit of your information and insight. In this case, the Director's review will be based on the existing analysis and supporting data.

At the end of the 30-day protest period and after the Governor's consistency review, the Proposed Plan, excluding any portions under protest, will become final. Approval will be withheld on any portion of the Proposed Plan under protest until final action has been completed on such protest.

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SUMMARY

Introduction

The Dixie Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (Proposed Plan) will establish land use allocations and management guidelines for Bureau of Land Management (BLM) administered land in the Dixie Resource Area. This Proposed Plan has been prepared in accordance with BLM planning regulations issued under authority of the Federal Land Policy and Management Act (FLPMA) and written in accordance with the Council for Environmental Quality regulations issued under the authority of the National Environmental Policy Act (NEPA).

The Dixie Resource Area is located in the scenic southwestern portion of Utah and falls almost completely within Washington County. Approximately 40 percent, or 629,000 acres, of the county is made up of public lands administered by BLM. In addition, the resource area manages approximately 46,990 acres of subsurface federal mineral estate within the county.

In October 1995, the Draft Dixie Resource Area Resource Management Plan and Environmental Impact Statement (Draft RMP/EIS) was released for public review. The comment period for this document was from October 27, 1995, through May 1, 1996. The Draft RMP/EIS provided four alternatives with an array of management opportunities for public lands in Washington County. The land use or resource allocations are summarized by alternative in Chapter 1, Table 1-2. Over 800 comment letters, as well as hundreds of oral comments, were received on the Draft RMP/EIS.

This Proposed Plan reflects potential management decisions that have been selected from all four alternatives in the Draft RMP. In addition, changes to the Proposed Plan have transpired as a result of the careful consideration of comments, concerns, and issues brought forward during the Draft RMP/EIS comment and review period. The potential decisions in this Proposed Plan have been developed from BLM's perspective to best meet the needs of local, regional, and national interests for public land management. This document is in a condensed Final EIS format, and does not include the detailed description of the four alternatives or their environmental analyses presented in the Draft RMP.

Proposed Plan

As a result of rapid urban growth, numerous conflicts with sensitive resources on public lands have ensued. This Proposed Plan primarily focuses on the resolution of direct, indirect, and cumulative effects from this growth impact on the management of public lands in the county and surrounding region. Major issues driving potential decisions in the Proposed Plan include:

- Protection of endangered species through conformance with the Endangered Species Act
- Availability of desired public lands and impacts to local entities as a result of land exchanges necessary to facilitate implementation of the Washington County HCP
- Future management of public lands for outdoor recreation and off-highway vehicle use
- Availability of public lands for rights-of-way placement, designated utility corridors, and recreation and public purpose act leases to accommodate local and regional needs
- Protection of important resources such as riparian habitat, water quality, cultural values, and scenic vistas
- Acknowledgment of scarce potential reservoir sites on public lands warranting federal awareness

- Effects on livestock grazing operations relative to land exchanges, sensitive resource protection, and implementation of Utah's Standards for Rangeland Health and Guidelines for Grazing Management

- Protection of sensitive resources through the designation of ten ACECs

- Evaluation and recommendation of eligible and suitable river segments for inclusion into the National Wild and Scenic Rivers System

- Consistency with other plans of local, state, federal, and tribal governments to the extent possible under federal law, regulation, and policies

- Opportunities for collaborative management and cooperative management agreements with federal and state agencies, local communities, conservation groups, and other interested entities, to facilitate and enhance the management of public lands and associated resources

Chapter 1, *Introduction*, describes the setting of the resource area and Washington County. It outlines the purpose and need for this planning process, the management focus under the USDI/BLM Strategic Goals Framework (Figure 1.1), the relationship to other agency plans, collaborative management goals, and how this Plan, when completed, will be maintained, revised, and implemented in the future. A comparison table (Table 1-2) summarizes the resource allocations described in the four alternatives in the Draft RMP/EIS and the Proposed Plan.

Chapter 2, *Proposed Resource Management Plan*, presents the objectives, decisions, and allocations proposed for the management of BLM-administered public lands in the Dixie Resource Area for the next 20 years and beyond. Seventeen maps and 12 tables help facilitate an understanding of these decisions and allocations. Resources and other values represented are:

- Lands (including potential land acquisition and transfer, easement acquisitions, rights-of-way, and withdrawals and classifications)

- Energy and Minerals (including fluid, locatable, and mineral materials)

- Transportation

- Air Quality

- Soil and Water (including watersheds)

- Riparian

- Vegetation (including vegetation composition and special status plant species)

- Fish and Wildlife Habitat (including special status animal species)

- Livestock Grazing

- Forestry

- Recreation (including extensive and special recreation management areas)

- Off-Highway Vehicles

- Visual Sensitivity

- Wilderness (including wilderness study areas)

- Cultural and Paleontological

- Hazardous Wastes

- Fire

- Special Emphasis Areas (including Wild and Scenic Rivers, proposed Areas of Critical Environmental Concern, Native American coordination, and Zion National Park coordination)

Chapter 3, *Environmental Consequences*, analyzes the environmental impacts of the Proposed Plan management decisions presented in Chapter 2. Analysis assumptions and guidelines that set forth the parameters for completing the environmental analysis are presented, followed by an overview of issues analyzed in detail and issues that were considered but not analyzed in detail. The direct and indirect impact analysis (short-term and long-term) of the proposed decisions on resources and other values, including socioeconomic factors, is the primary focus of this chapter. In addition, a discussion of irreversible and irretrievable commitments of resources as a result of the decisions in the Plan is addressed. Lastly, this chapter provides a general analysis of the cumulative impacts that could result from the Proposed Plan when considering past, present, and future actions within the county and surrounding region.

Chapter 4, *Public Participation*, outlines the key coordination events that were held to solicit public and agency input during the development of the Proposed Plan. The chapter further describes how decisions in the Proposed Plan are consistent or not consistent with other approved agency plans. A consistency table (Table 4-1) is provided to simplify the review. Chapter 4 also provides a list of agencies, organizations, businesses, and interest groups that were sent a copy of the Proposed Plan; a directory of persons who helped write and prepare the document; and a list of addresses where copies of the Proposed Plan will be available for inspection and review.

Chapter 5, *Public Comments on Draft RMP/EIS and Responses*, documents the public comments received on the Draft RMP and presents an accompanying table depicting the 817 organizations and individuals who provided those written comments. For ease of organization and understanding, each comment letter was assigned a letter number and substantive comments in each letter were ascribed a category and corresponding response number. The rest of the chapter responds to the 177 comments that were extracted from the comment letters.

The Proposed Plan presents nine appendices to facilitate an understanding of the information provided throughout the document.

Appendix 1, *Standard Procedures Applied to Surface Disturbing Activities*, provides standard mitigation information for extractive or surface disturbing use of public lands.

Appendix 2, *Oil and Gas Leasing Stipulations*, summarizes the restrictions to be placed on leasing categories in the resource area.

Appendix 3, *Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah*, presents the overall goals for future management of natural resources on public lands, and establishes guidelines for grazing management.

Appendix 4, *Threatened and Endangered Listed Species, Candidate Species, and Nonlisted Sensitive Species*, provides a list of federally listed threatened, endangered, and candidate species in Washington County, as well as state-listed sensitive plant and animal species.

Appendix 5, *Grazing Summary Table - 1998*, summarizes, among other things, the allotments, grazing systems, seasons of use, and authorized use of the 110 grazing allotments in the resource area.

Appendix 6, *Visual Resource Class Objectives*, outlines the objectives for management of visual resource classes designated in the Proposed Plan for the resource area.

The last three appendices provide understanding and clarification of the wild and scenic rivers planning process:

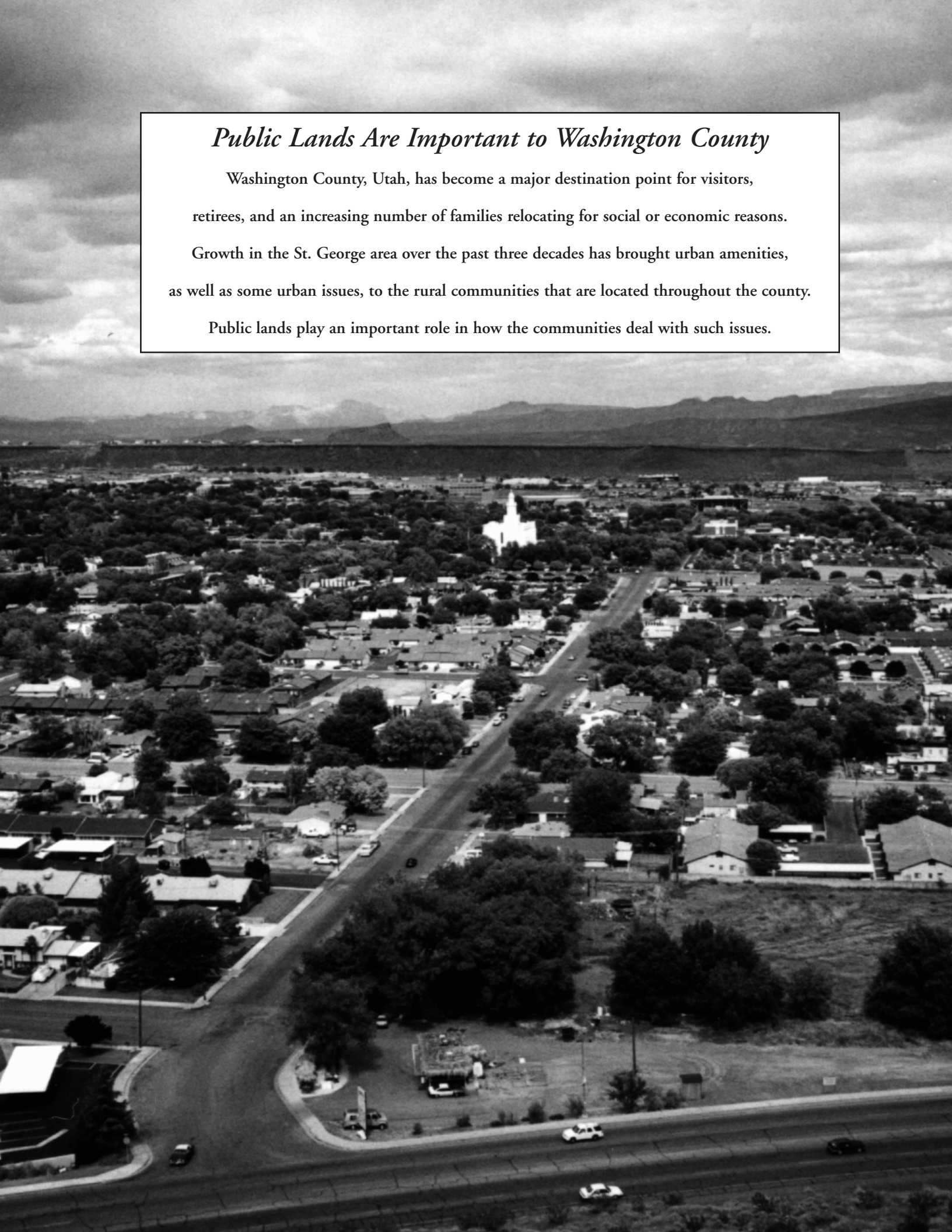
Appendix 7, *A Summary of Eligibility and Tentative Classification Determinations for Rivers in the Dixie Resource Area*, discusses the inventory process, free-flowing and outstandingly remarkable values, and eligibility findings.

Appendix 8, *Dixie Resource Area Wild and Scenic Rivers Suitability Evaluation Report,* contains a detailed report that applies the suitability criteria to the rivers found potentially eligible for inclusion into the National Wild and Scenic Rivers System.

Appendix 9, *Management of Designated Wild and Scenic Rivers,* provides an overview of potential wild and scenic river management if designated by Congress.

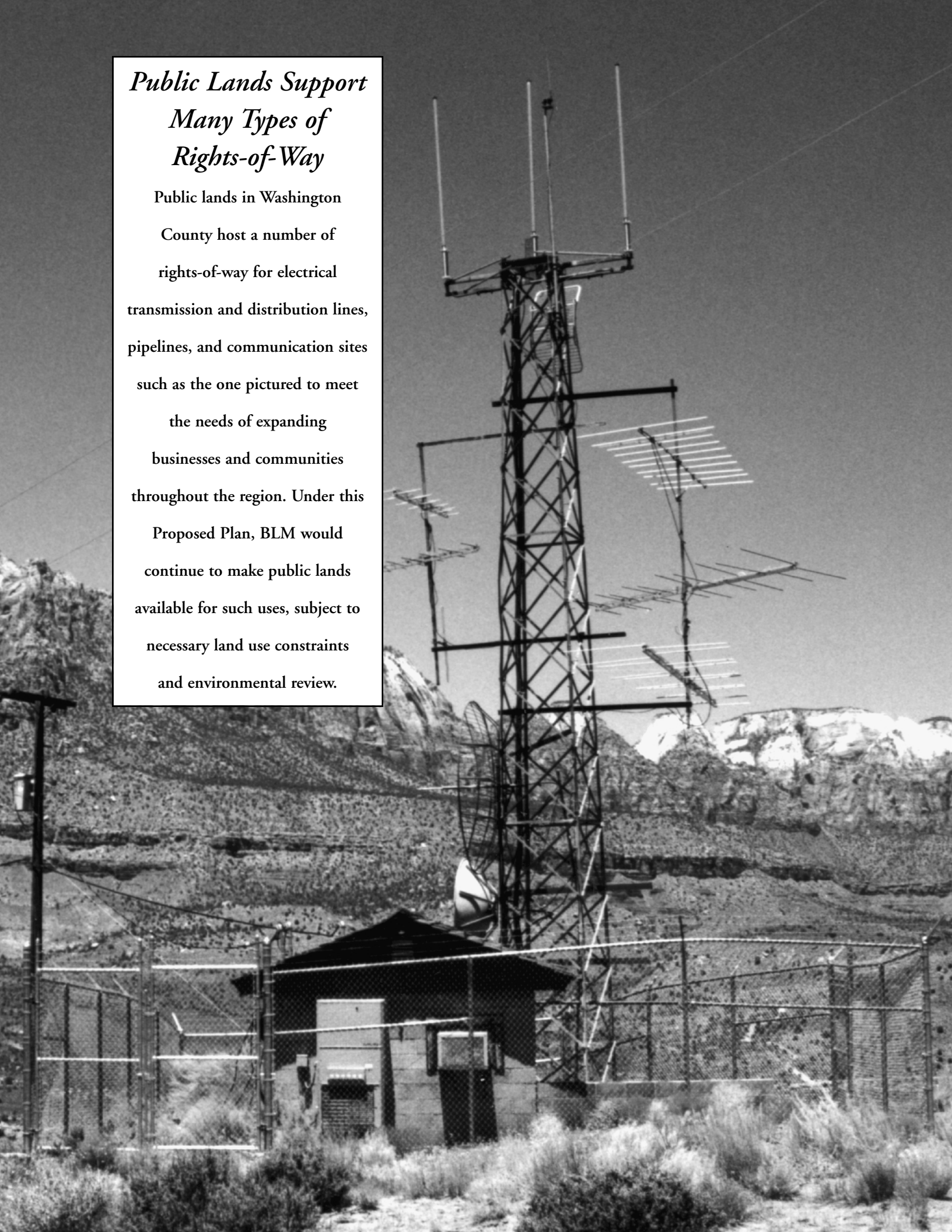
Proposed Plan References cites references that have been used in the Proposed Plan in addition to those that were cited in the Draft RMP/EIS.

Errata Pertaining to the Draft RMP/EIS cites specific passages, statements, tables, or maps where apparent inaccuracies in the Draft RMP/EIS are in need of correction. In some instances, new information that was provided during the comment period has been added to the Draft RMP/EIS to clarify or supplement inadequate information.



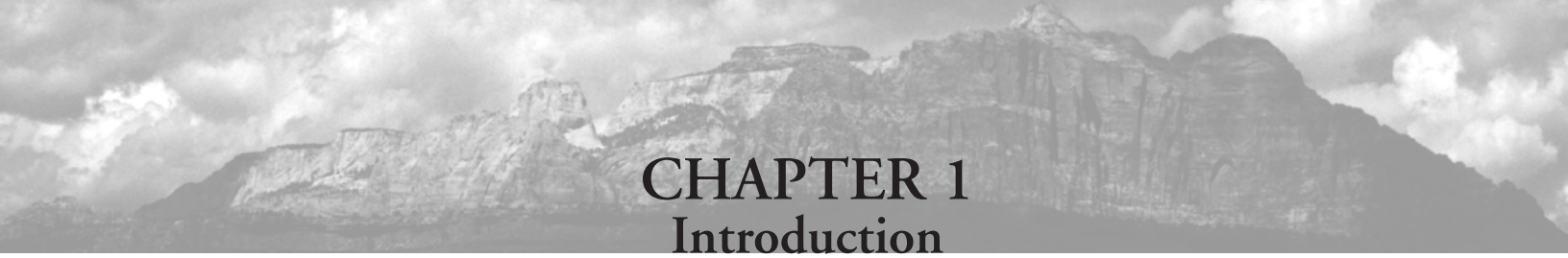
Public Lands Are Important to Washington County

Washington County, Utah, has become a major destination point for visitors, retirees, and an increasing number of families relocating for social or economic reasons. Growth in the St. George area over the past three decades has brought urban amenities, as well as some urban issues, to the rural communities that are located throughout the county. Public lands play an important role in how the communities deal with such issues.



Public Lands Support Many Types of Rights-of-Way

Public lands in Washington County host a number of rights-of-way for electrical transmission and distribution lines, pipelines, and communication sites such as the one pictured to meet the needs of expanding businesses and communities throughout the region. Under this Proposed Plan, BLM would continue to make public lands available for such uses, subject to necessary land use constraints and environmental review.



CHAPTER 1
Introduction

The Plan

This Proposed Resource Management Plan (hereafter referred to as the Plan, Proposed Plan, or Proposed RMP) sets forth a vision, objectives, and land use prescriptions for the management of public lands and associated natural resources in Washington County, Utah. The lands are administered by the U.S. Department of the Interior's Bureau of Land Management (BLM). How the lands are used and managed is of great importance to a wide variety of local, regional, and national interests and has considerable impact on communities, agencies, businesses, interest groups, individuals, and others who use or depend on the lands.

Overall direction for the management of public lands, including land use planning, is provided by the Federal Land Policy and Management Act (FLPMA) of October 21, 1976. The Proposed Plan has been prepared with the intent of meeting the requirements of that Act and associated federal regulations including the need for extensive public and agency consultations. Moreover, the Plan attempts to deal honestly and comprehensively with the numerous and often contentious issues that surround public land management in Utah. BLM intends to use the goals, prescriptions, and criteria established in the Plan to reach beyond the adverse positions of various constituencies and find common interests on which to build an integrated approach to resolving land management issues in the county. The approach would rely heavily on collaboration with willing partners at the local, state, and federal levels and shared decisionmaking across agency and jurisdictional boundaries. In this fashion, BLM would look to meet the reasonable needs and expectations of affected agencies and the community at large in allocating limited resources and promoting the long-term sustainability and health of the land.

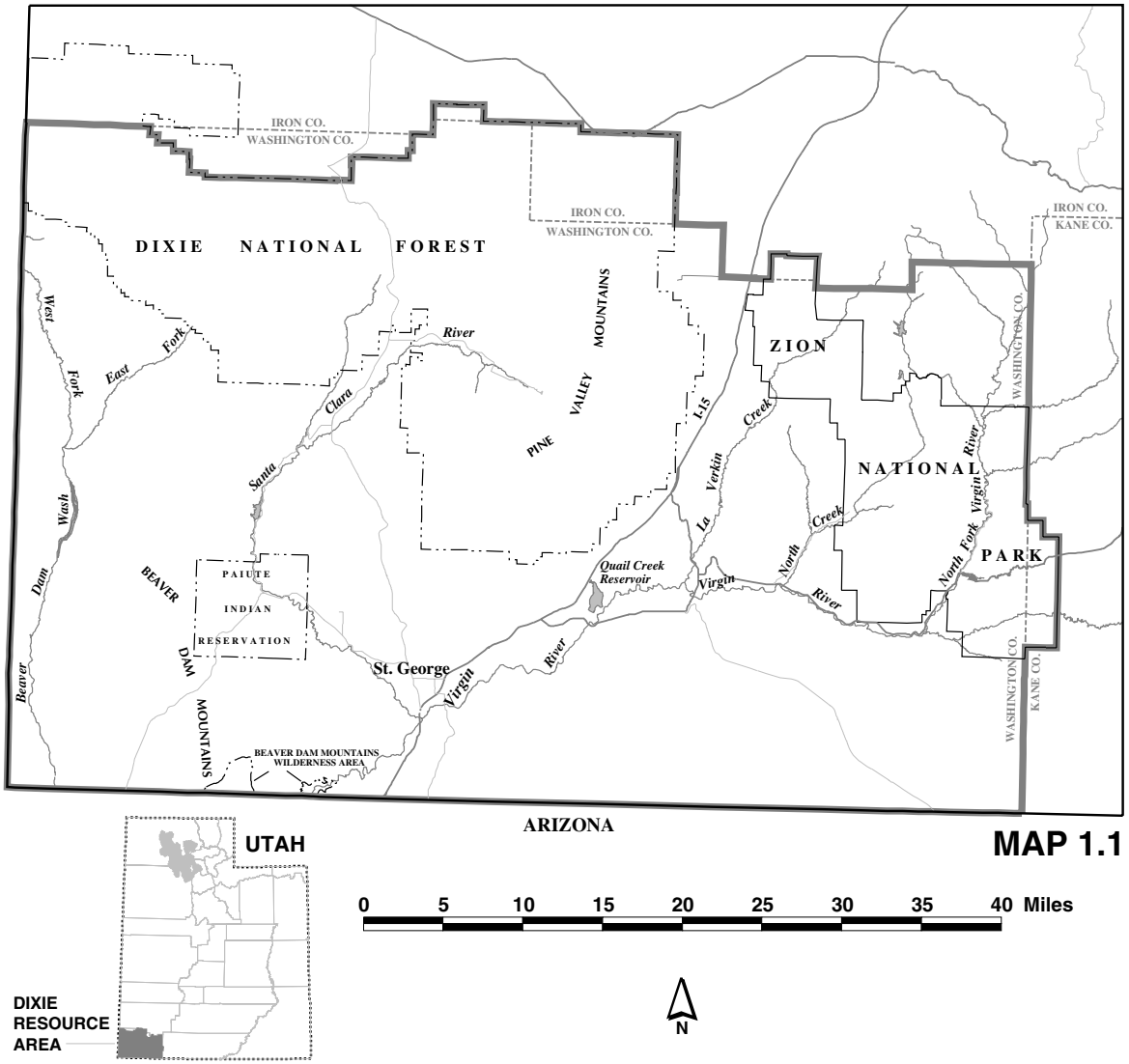
Setting

Washington County is an exceptional place. Situated in the southwestern corner of Utah, it lies astride the transition between three major physiographic provinces including the Colorado Plateau, the Great Basin, and the Mojave Desert. This unique blend of geologic landforms creates a wealth of varying landscapes, open vistas, and spectacular scenery that is recognized in national and international sectors. Majestic Zion National Park and the beautiful Pine Valley Mountains of the Dixie National Forest define the eastern and northern boundaries of the county. To the west lie the desert valleys and mountains of Nevada, while the broad, undeveloped expanses and rugged topography of the Arizona Strip lie immediately to the south. The geographic setting is depicted on Map 1.1, General Location.

The Virgin River and its many tributaries flow through portions of the county and provide the lifeblood to the desert and mountain ecosystems and human populations that reside therein. Countless numbers of wildlife and vegetation species, many at the extreme end of their natural ranges, contribute to a rich biological diversity that is otherwise uncommon in parts of the arid, intermountain west. Elevations range from a low of 2,200 feet at the Arizona border to nearly 10,400 feet in the Pine Valley Mountains. Average yearly precipitation ranges from a low of 7.5 inches in the desert to 35 inches in the higher elevations.

In prehistoric times, lands within Washington County were occupied by peoples of various Archaic, Anasazi, and Southern Paiute cultures. Evidence of these cultures is found in extensive archeological remains throughout a major portion of the county. European settlement first occurred in the 1850s under the direction of Brigham Young. Early Mormon settlers in Utah's "Dixie" were instructed to establish agricultural developments suited to the warm climate in order to produce staples such as cotton, sugar, grapes, tobacco, figs, almonds, olive oil, and other useful articles (Washington County, 1997). As a result of this settlement, numerous small communities were established and extensive

DIXIE RESOURCE AREA
GENERAL LOCATION MAP



MAP 1.1

irrigation works put in place to support the growth of farms and agricultural enterprises.

Today, nearly 80,000 people make Washington County their home, while millions of others are drawn to it annually for recreation, business, or cultural activities. The high quality of life is sustained by a favorable climate, open space, scenic quality, opportunities for outdoor recreation, and cultural values and amenities associated with the area's unique history. These attractions, in turn, have led to a significant in-migration of retirees and other families moving primarily from metropolitan areas outside of the county. The resulting population growth in the communities of St. George, Washington, and Hurricane is creating an urban corridor, that along with other expanding rural communities along the major transportation routes, make Washington County one of the fastest growing counties in the western United States. The rapid growth poses some challenges as residential, commercial, and industrial development is diminishing privately-owned lands used or oth-

erwise suitable for agriculture. Not only has urbanization impacted agricultural lifestyles, but larger populations have increased demand on the adjacent state and federally-managed lands for products and services including water development, mineral materials, woodland products, recreation, and rights-of-way for utilities and transportation.

Most public lands in Washington County are managed by the BLM's Dixie Resource Area office in St. George. About 4,800 acres of public land situated north of the Dixie National Forest near Enterprise are managed by BLM's Cedar City office and are not addressed in this Proposed RMP. Land ownership in the county is depicted in Table 1-1 and shown on Map 1.2 (some recent changes in ownership are not reflected on the map). Privately-owned lands are concentrated primarily around the major transportation routes, river corridors, and areas suitable for agricultural development. The Shivwits Band of Paiute Indians occupies a reservation 4 miles west of St. George. Lands owned by the State of Utah include three state parks and a significant amount of acreage managed by the Utah School and Institutional Trust Lands Administration. The latter properties are intermingled with public lands throughout the county with consolidated blocks adjacent to the urban areas of Washington and St. George to take advantage of anticipated growth and opportunities for economic return.

TABLE 1-1 • Land Ownership in Washington County

MANAGER	ACREAGE	PERCENT
Bureau of Land Management	629,005	40
USDA Forest Service	425,285	27
National Park Service	143,605	9
Bureau of Indian Affairs	27,890	2
State of Utah	101,040	6
Private Lands	255,060	16
Total	1,581,885	100

Lands managed by federal agencies in the Dixie National Forest, Zion National Park, and BLM's Dixie Resource Area dominate the land ownership pattern and, by virtue of their location and extent, exert considerable influence on the economic, ecologic, and cultural health of the county. Local residents and municipalities rely heavily on public lands, in particular, for access, utility corridors, water development, mineral and forest products, recreation, and livestock grazing. The intermingled nature of the public, state, and private lands increases the importance of continued access to public lands for residents, agency personnel, and users dependent on them for their livelihoods, leisure activities, and the orderly conduct of business. It is also recognized that the health of the local economy and maintenance of the quality of life is dependent in large part on the health of the land including clean air and water and the maintenance of healthy wildlife populations and natural systems which contribute to the beauty, diversity, and overall desirability of the region (Utah Governor's Rural Partnerships Office, 1997).

Purpose and Need for Action

Since 1981, management of public lands throughout most of Washington County has been guided by BLM's Virgin River Management Framework Plan (MFP). Since that time, population growth, public land transfers, new water demands, increased pressure for outdoor recreation and use of public land resources, and conflicts with threatened or endangered species have created land use issues which exceed the vision and scope of the MFP. In addition, local, state, and multicounty agencies have prepared or revised land use plans of their own which have created a need for expanded federal collaboration to address issues which cross agency jurisdictions. Section 202 of FLPMA requires the Secretary of the Interior to develop, maintain, and revise land use plans that provide for the use of public lands. Among other things, the plans are to use the principles of multiple use and sustained yield, integrate consideration of physical, biological, and economic sciences, give priority to designation and protection of areas of critical environmental concern (ACECs), and consider present and future uses of the lands. The same section requires the Secretary to coordinate such plans with the plans and pro-

grams of affected local, state, and federal agencies and Indian tribes.

The Dixie Resource Management Plan is being prepared to fulfill the planning requirements of FLPMA and to provide a vision and direction for future public land management in Washington County. The planning process used is intended to provide a means for the public and affected agencies to provide information and express their views on the numerous issues addressed in the Plan. Upon approval and publication of the Record of Decision, the Dixie Resource Management Plan would supplant the Virgin River Management Framework Plan and provide management direction for public lands in Washington County.

Management Focus

On September 30, 1997, the Secretary of the Interior approved and forwarded to Congress a Strategic Plan for the management of public lands administered by BLM. In approving the document, the Secretary considered the views of the states and their political subdivisions as well as the public at large. The Strategic Plan ratifies and builds upon BLM's mission, which is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations. The Strategic Plan recognizes that a growing and increasingly urban population is placing new demands on public lands. Such demands—coupled with growing concern over the health of the environment, new federal mandates, and scientific and technological advances affecting natural resource management—are creating profound challenges for BLM. The Strategic Plan describes these challenges and how BLM intends to address them. Among other things, the Strategic Plan sets general and outcome-based goals for the agency and describes how these goals would be achieved. The goals are depicted in Figure 1-1.

Overall management of public lands within Washington County will be guided by the Strategic Plan as supplemented by the approved decisions of this Proposed RMP. Land use prescriptions and commitments described later in this document would be implemented and evaluated to determine how well they achieve the strategic goals. To the extent practical, BLM would also seek to integrate these goals with the compatible goals of local, state, and tribal governments and other federal agencies with a stake in the management of public lands. Promoting collaborative land and resource

FIGURE 1-1 • USDI/BLM Strategic Goals Framework (Adapted from USDI BLM Strategic Plan, September 1997)

management with other agencies and interested parties would be employed as an essential tool in restoring and maintaining the health of the land across jurisdictional boundaries. In serving current and future publics, BLM would focus on improving its business practices and human resource management so as to increase efficiency, reduce costs, and improve the quality of products and services provided to the public.

During the formative stages of this Proposed Plan, the major issues driving plan development centered around how to meet public needs for recreation and water storage and how best to manage natural resources on the public lands in the face of unprecedented urban growth and human-caused impacts. While the issues remain valid, additional components of these issues have emerged as needing special management focus in order to resolve pressing conflicts and preserve desirable options for the long term. Chief among the emerging areas of concern are the following:

- management of lands and resources appurtenant to and, in many cases, dependent upon the Virgin River and major tributaries;
- preservation of habitats for plants and animals listed, proposed for listing, or being studied for possible listing under the Endangered Species Act; and
- finding common ground and achieving consistency with the plans of affected local, state, and tribal governments and other federal agencies in resolving conflicts, meeting public needs, and maintaining healthy environments where more than one jurisdiction is involved.

The above issues are highly interrelated and touch upon a majority of the elements in the fabric of social, economic, and ecologic life in Washington County. Success in resolving conflicts related to any of the above issues will require a significant commitment from a variety of sources including government agencies at multiple levels, the private sector, and interested organizations. Over the past several years, numerous partnerships have been established with active BLM participation to address issues of importance affecting a wide spectrum of interests in the county. The partnerships include efforts such as the Washington County Habitat Conservation Plan for preservation of the desert tortoise and related desert ecosystems, the Virgin River Management Plan, the proposed Virgin River Basin Integrated Resource Management and Recovery Program, the Santa Clara River Reserve, the Virgin Falls Park Initiative, the Grafton Heritage Partnership, the Three Rivers Trails Project, and the Virgin River Focus Area Plan. In order to achieve many of the strategic goals depicted previously and the resource objectives defined later in this Proposed Plan, BLM would continue to promote and support such partnerships.

Relationship to Other Agency Plans

Local, state, and other federal agencies and Indian tribes in the immediate region routinely prepare plans that establish goals and direction for land use, economic development, or resource management within their jurisdictions. Many of these plans bear directly on or are significantly affected by BLM plans for managing public lands within the Dixie Resource Area. Under this Proposed RMP, BLM would collaborate with such agencies and tribes on planning implementation and achieving consistency with other approved plans. Moreover, BLM would pursue integration of such plans to the extent that they are determined consistent with applicable federal laws, regulations, and policies. The principles of community-based planning would be employed where timing, mutual interest, and the availability of resources were appropriate to address economic, ecologic, and land use issues of concern. The following list of plans relate to the management of lands in or around this resource area and would be given full consideration as land use decisions are made.

- Washington County General Plan
- Coordination Plan for Washington County's Urbanizing Region
- Washington County Habitat Conservation Plan
- General Plans of Incorporated Municipalities in Washington County

- Virgin River Management Plan
- Snow Canyon State Park Resource Management Plan
- State of Utah Plans Relating to Water Management, Water Quality, Nonpoint Source Pollution, Watershed Management, and Air Quality
- Utah's State Comprehensive Outdoor Recreation Plan
- Utah Regional Plans for Game and Non-Game Wildlife Management
- Utah Regional Transportation Plans
- Zion National Park General Management Plan
- Dixie National Forest Land and Resource Management Plan
- Resource Management Plans for BLM's Arizona Strip, Cedar City, Kanab, Las Vegas, and Ely Field Offices

Collaborative Management

BLM recognizes that social, economic, and environmental issues cross land ownership lines and that extensive cooperation at the planning stage and beyond is needed to actively address issues of mutual concern. It is also recognized that resource and land use demands will likely exceed BLM's ability to effectively respond to all issues currently before the agency in Washington County and those which will arise in the future. Consequently, under this Proposed Plan, BLM would seek to:

- form innovative partnerships with local and state governments, Indian tribes, qualified organizations, and adjacent federal agencies to manage lands or programs for mutual benefit consistent with the goals and objectives of this RMP;

- work with communities, state agencies, and interested organizations, in seeking nontraditional sources of funding including challenge cost-share programs, grants, and contributions-in-kind to support specific projects needed to achieve plan objectives;

- place greater emphasis, where appropriate, on contracting out to the private sector, nonprofit organizations, academic institutions, or local and state agencies to accomplish essential studies, monitoring, or project developments; and

- increase the use of citizen and organizational volunteers to provide greater monitoring of resource conditions under site-steward programs and to complete on-the-ground developments for resource management and human use and enjoyment.

Moreover, where it is found mutually advantageous, BLM would enter into cooperative agreements or memorandums of understanding with federal, state, local, tribal, and private entities to manage lands or programs consistent with the goals and objectives of this RMP. Such agreements could provide for the sharing of human or material resources, the management of specific tracts of lands for specific purposes, or the adjustment of management responsibilities on prescribed lands to eliminate redundancy and reduce costs. BLM would also encourage the participation of land trusts and similar organizations in facilitating land exchanges or acquisitions that achieve planning objectives. Nonprofit associations, citizens, and user groups that have adequate resources and expertise could enter into cooperative agreements to assist in the management of public lands in Washington County including, but not limited to, resource monitoring, site cleanups, and the construction of interpretive facilities, trails, or other authorized projects.

Plan Maintenance, Revision, and Implementation

During the life of this Proposed RMP, BLM expects that new information gathered from field inventories, other agency studies, resource themes from shared interagency databanks, and other sources would change baseline data used to arrive at proposed land use decisions and resource allocations. To the extent such new information or actions bear on issues covered in the Plan, BLM would integrate the data through a process called plan maintenance or updating.

Where BLM considers taking or approving actions which would alter or not conform to the approved decisions of this Plan, BLM would prepare a plan amendment and environmental study of appropriate scope in making its determinations and in seeking public comment. The RMP must be dynamic over the course of its life to respond to the numerous changes that would inevitably impact public lands in Washington County during that time. Amendments would be considered a normal and anticipated part of the planning process. Where changes would be of a significant magnitude and would affect a variety of resource programs, a full or partial plan revision would be considered. BLM would review the RMP periodically after the record of decision was approved to determine whether the Plan remained effective in guiding BLM's management of lands and resources so as to achieve the objectives set forth in this and other applicable planning documents. Where it is found wholly or partly ineffective, BLM would consider adjustments of appropriate scope to restore the Plan's effectiveness.

In implementing the Plan, BLM would focus its limited resources at any given time on those highest priority issues which BLM determines have the greatest significance to the health of the public lands involved and the socioeconomic well-being of local communities dependent on them. Less important issues would be deferred until priority programs and projects were implemented and found to be effective in accomplishing their intended purpose. Factors that would be used in setting priorities include, among other things, 1) legal and administrative mandates, 2) the extent to which critical resources or opportunities may be lost if action is not quickly taken, 3) the presence of committed partners willing to share in costs and administration, 4) consistency with priority plans and programs of local, state, and other federal agencies, and 5) geographic areas BLM determines would result in the greatest return for the time and resources applied.

For many of the actions proposed in this RMP, BLM would prepare or collaborate in preparation of detailed, site specific plans called activity level plans that better define actual projects and examine site specific impacts to affected resources. Such plans would address specific resource issues in prescribed geographic areas and would be completed with appropriate public and agency participation and environmental analysis. Planning at this level would allow BLM to focus on particular land management opportunities or problems needing resolution in a manner not possible in the broad overview provided in this RMP. To the extent practical, such plans would be integrated with the plans of other interested or affected agencies.

Plan Alternatives

A comparative summary of the planning alternatives addressed in the Draft RMP and the Proposed Plan presented in this document is provided in Table 1-2.

TABLE 1-2 • Summary of Proposed Plan and Draft RMP Alternatives

RESOURCE	PROPOSED PLAN	DRAFT RMP ALTERNATIVE A (NO ACTION)	DRAFT RMP ALTERNATIVE B	DRAFT RMP ALTERNATIVE C (PREFERRED)	DRAFT RMP ALTERNATIVE D
LANDS Land Tenure Adjustments	Pools of land that include:	Pool of land that includes:	Pools of land that include:	Pools of land that include:	Pools of land that include:
	18,262 acres Disposal, RFA of 18,000 acres	10,554 acres Disposal, 55 Parcels	29,280 acres Disposal, 99 Parcels	16,001 acres Disposal, 63 Parcels	7,220 acres Disposal, 54 Parcels
	30,030 acres Acquisition, RFA of 18,000 acres	No specific parcels identified for acquisition.	14,076 acres Acquisition, 83 Parcels	32,686 acres Acquisition, 77 Parcels	51,890 acres Acquisition, 104 Parcels
	Subject to Land Adjustment Criteria		Subject to Land Adjustment Criteria	Subject to Land Adjustment Criteria	Subject to Land Adjustment Criteria
Easement Acquisition	13 proposed easements	No easements proposed	7 proposed easements	27 proposed easements	12 proposed easements
Avoidance Areas	308,889 acres	156,770 acres	144,295 acres	281,525 acres	230,395 acres
Exclusion Areas	2,690 acres	91,715 acres	2,690 acres	16,415 acres	117,530 acres
Rights-of-Way	12 proposed utility corridors, 1-mile wide	No corridors proposed 380,520 acres lands provided for ROW on case-by-case basis, IPP preferred corridor	12 proposed utility corridors, 1-mile wide	7 proposed utility corridors, 1-mile wide	6 proposed utility corridors, 1-mile wide
	1 proposed transportation route		1 proposed transportation route	1 proposed transportation route	1 proposed transportation route
	1 proposed communication site		1 proposed communication site	1 proposed communication site	
			2 proposed pipeline corridors		
Withdrawal and Classification	56,149 acres: 6 areas proposed for withdrawal	125 acres: 3 areas proposed for withdrawal	165 acres: 4 areas proposed for withdrawal	29,230 acres: 8 areas proposed for withdrawal	185,290 acres: 12 areas proposed for withdrawal
	R&PP Leases provided where justified and not in conflict with Plan			400 acres provided for R&PP lease	

TABLE 1-2 ***(continued)*** • Summary of Proposed Plan and Draft RMP Alternatives

RESOURCE	PROPOSED PLAN	DRAFT RMP ALTERNATIVE A (NO ACTION)	DRAFT RMP ALTERNATIVE B	DRAFT RMP ALTERNATIVE C (PREFERRED)	DRAFT RMP ALTERNATIVE D
MINERALS Fluid Minerals	239,059 acres Category 1	475,640 acres Category 1	316,035 acres Category 1	314,535 acres Category 1	243,470 acres Category 1
	186,225 acres Category 2	29,310 acres Category 2	264,960 acres Category 2	127,090 acres Category 2	171,690 acres Category 2
	176,895 acres Category 3	16,260 acres Category 3	33,040 acres Category 3	162,305 acres Category 3	188,770 acres Category 3
	26,826 acres Category 4	108,335 acres Category 4	14,970 acres Category 4	25,075 acres Category 4	25,075 acres Category 4
Locatable Minerals	405,486 acres open	494,010 acres open	566,335 acres open	315,620 acres open	315,620 acres open
	168,496 acres open with Plan of Operation	128,280 acres open with Plan of Operation	55,915 acres open with Plan of Operation	277,965 acres open with Plan of Operation	121,910 acres open with Plan of Operation
	41,169 acres open with restrictions	49,130 acres open with restrictions	49,130 acres open with restrictions	48,730 acres open with restrictions	48,725 areas open with restrictions
	56,149 acres proposed for withdrawal	125 acres proposed for withdrawal	165 acres proposed for withdrawal	29,230 acres proposed for withdrawal	185,290 acres proposed for withdrawal
	4,450 acres closed	4,450 acres closed	4,450 acres closed	4,450 acres closed	4,450 acres closed
Mineral Materials	345,104 acres open to sales	457,230 acres open to sales	428,370 acres open to sales	325,030 acres open to sales	244,495 acres open to sales
	10 sites open	10 sites open	10 sites open	10 sites open	10 sites open
	64,775 acres restricted	126,780 acres restricted	102,225 acres restricted	79,410 areas restricted	153,150 acres restricted
	265,732 acres closed to sales	91,985 acres closed to sales	145,400 acres closed to sales	271,555 acres closed to sales	278,350 acres closed to sales

TABLE 1-2 *(continued)* • Summary of Proposed Plan and Draft RMP Alternatives

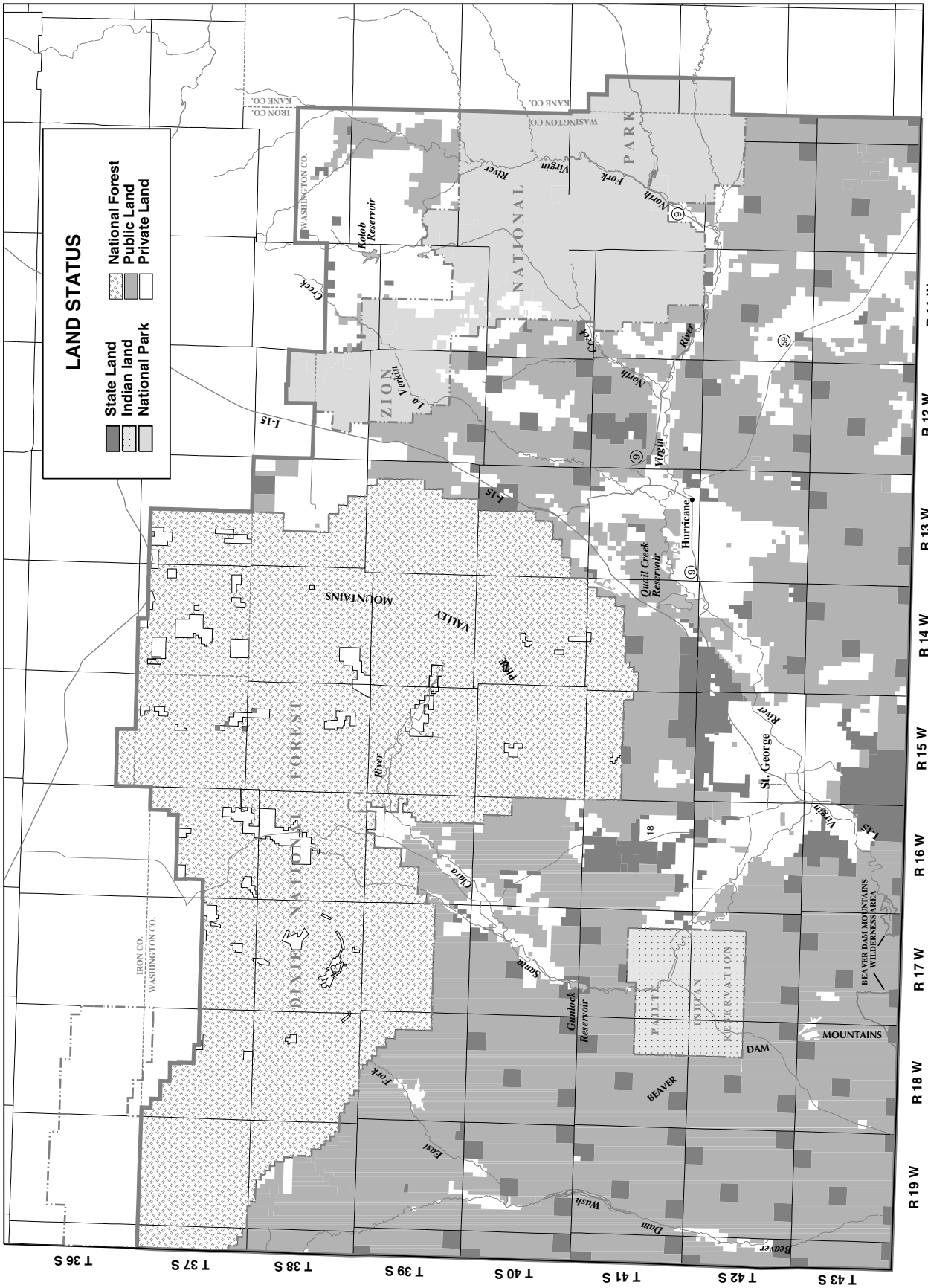
RESOURCE	PROPOSED PLAN	DRAFT RMP ALTERNATIVE A (NO ACTION)	DRAFT RMP ALTERNATIVE B	DRAFT RMP ALTERNATIVE C (PREFERRED)	DRAFT RMP ALTERNATIVE D
WATER RESOURCES	6 reservoir sites identified, RFA of 2	Reservoir sites analyzed on a case-by-case basis	11 reservoir sites identified, RFA of 2	6 reservoir sites identified, RFA of 1	No reservoir sites identified
LIVESTOCK GRAZING	Eliminate grazing on all or portions of 4 allotments within the HCP Reserve and defer spring grazing on portions of 3 allotments within the Beaver Dam Slope ACEC	Current livestock grazing authorizations would continue.	Eliminate all or portions of 7 allotments within desert tortoise habitat.	Eliminate all or portions of 7 allotments and eliminate spring grazing in 4 allotments within desert tortoise habitat.	Eliminate all or portions of 11 allotments within desert tortoise habitat.
FORESTRY MANAGEMENT	126,192 acres of PJ-type open to PJ fuelwood harvest	416,260 acres open to PJ fuelwood harvest	448,395 acres open to PJ fuelwood harvest	368,175 acres open to PJ fuelwood harvest	350,480 acres open to PJ fuelwood harvest
	28,530 acres of PJ-type open to PJ fuelwood harvest with seasonal restrictions	34,550 acres open to PJ fuelwood harvest, with seasonal stipulations	34,550 acres open to PJ fuelwood harvest, with seasonal stipulations	34,550 acres open to PJ fuelwood harvest, with seasonal restrictions	29,735 acres open to PJ fuelwood harvest, with seasonal restrictions
	51,530 acres of PJ-type closed to PJ fuelwood harvest	177,195 acres closed to PJ fuelwood harvest	145,030 acres closed to PJ fuelwood harvest	226,280 acres closed to PJ fuelwood harvest	248,790 acres closed to PJ fuelwood harvest
	500 Christmas Tree permits per year	500 Christmas Tree permits per year	500 Christmas Tree permits per year	500 Christmas Tree permits per year	500 Christmas Tree permits per year
	4,095 acres open to post cutting	4,095 acres open to post cutting	4,095 acres open to post cutting	4,095 acres open to post cutting	4,095 acres open to post cutting
	500 acre commercial wood cutting sale in Potters Peak area	500 acre commercial wood cutting sale in Potters Peak area	500 acre commercial wood cutting sale in Potters Peak area	500 acre commercial wood cutting sale in Potters Peak area	500 acre commercial wood cutting sale in Potters Peak area

TABLE 1-2 *(continued)* • Summary of Proposed Plan and Draft RMP Alternatives

RESOURCE	PROPOSED PLAN	DRAFT RMP ALTERNATIVE A (NO ACTION)	DRAFT RMP ALTERNATIVE B	DRAFT RMP ALTERNATIVE C (PREFERRED)	DRAFT RMP ALTERNATIVE D
RECREATION	501,630 acres ERMA	592,755 acres ERMA	587,260 acres ERMA	481,590 acres ERMA	522,315 acres ERMA
	127,375 acres SRMA: - 1 existing, 4 proposed - 110 mile horse riding trail near Red Mountain and Sand Mountain	34,085 acres SRMA: - 2 existing	41,680 acres SRMA: - 1 existing, 1 proposed - 40-acre day-use recreation site developed near La Verkin falls - 205-acre campground developed on Gooseberry Mesa - 60-mile horse riding trail near Red Mountain	147,415 acres SRMA: - 1 existing, 5 proposed - 110-mile horse riding trail near Red Mountain and Sand Mountain	106,690 acres SRMA: - 1 existing, 4 proposed
OFF-HIGHWAY VEHICLE USE DESIGNATIONS	89,235 acres open	496,535 acres open	331,910 acres open	2,000 acres open	No acres open
	335,780 acres open for use on existing roads and trails	95,400 acres open for use on existing roads and trails	108,845 acres open for use on existing roads and trails	338,565 acres open for use on existing roads and trails	248,055 acres open for use on existing roads and trails
			121,810 acres with seasonal restrictions	45,545 acres with seasonal restrictions	26,670 acres with seasonal restrictions
	112,286 acres open for use on designated roads and trails	1,015 acres open for use on designated roads and trails	355 acres open for use on designated roads and trails	32,515 acres open for use on designated roads and trails	132,195 acres open for use on designated roads and trails
	91,704 acres closed	36,055 acres closed	66,085 acres closed	210,380 acres closed	222,085 acres closed
MOUNTAIN BIKE USE DESIGNATIONS	421,852 acres open	626,315 acres open	626,315 acres open	478,375 acres open	475,385 acres open
	3,163 acres open for use on existing roads and trails			98,510 acres open for use on existing roads and trails	82,510 acres open for use on existing roads and trails
	112,286 acres open for use on designated roads and trails			7,510 acres open for use on designated roads and trails	6,430 acres open for use on designated roads and trails
	91,704 acres closed	2,690 acres closed	2,690 acres closed	44,610 acres closed	64,680 acres closed

TABLE 1-2 *(concluded)* • Summary of Proposed Plan and Draft RMP Alternatives

RESOURCE	PROPOSED PLAN	DRAFT RMP ALTERNATIVE A (NO ACTION)	DRAFT RMP ALTERNATIVE B	DRAFT RMP ALTERNATIVE C (PREFERRED)	DRAFT RMP ALTERNATIVE D
VISUAL RESOURCES	40,877 acres VRM Class I	2,690 acres VRM Class I	2,690 acres VRM Class I	63,155 acres VRM Class I	117,530 acres VRM Class I
	111,407 acres VRM Class II	132,685 acres VRM Class II	113,380 acres VRM Class II	136,725 acres VRM Class II	263,585 acres VRM Class II
	417,925 acres VRM Class III	335,355 acres VRM Class III	314,965 acres VRM Class III	352,830 acres VRM Class III	217,575 acres VRM Class III
	58,546 acres VRM Class IV	158,275 acres VRM Class IV	197,970 acres VRM Class IV	76,295 acres VRM Class IV	30,315 acres VRM Class IV
WILD & SCENIC RIVERS	Five of the 11 eligible river segments (31.81 miles) would be determined suitable and would be recommended to Congress for designation into the NWSRS.	Suitability determinations would not be made on the 10 eligible river segments (63 miles). No recommendation for designations into the NWSRS would be made to Congress.	None of the 10 eligible river segments (63 miles) would be determined suitable. No recommendation for designations into the NWSRS would be made to Congress.	Six of the 10 eligible river segments (50 miles) would be determined suitable and would be recommended to Congress for designation into the NWSRS.	All of the 10 eligible river segments (63 miles) would be determined suitable and would be recommended to Congress for designation into the NWSRS.
PROPOSED ACECs	10 ACECs proposed: 153,008 acres	11 ACECs identified: none proposed	No ACECs proposed	11 ACECs proposed: 134,760 acres	11 ACECs proposed: 152,745 acres


LAND STATUS
State Land
Indian land
National Park
National Forest
Public Land
Private Land
ZION
NATIONAL
PARK
DIXIE
NATIONAL
FOREST
MOUNTAINS
VALLEY
PINE
WASHINGTON CO.
IRON CO.
KANE CO.
Kolob Reservoir
Quail Creek Reservoir
Gunlock Reservoir
Hurricane
St. George
I-15
BEAVER DAM MOUNTAINS WILDERNESS AREA
MOUNTAINS
DAM
BEAVER
TRIBAL
INDIAN
RESERVATION
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
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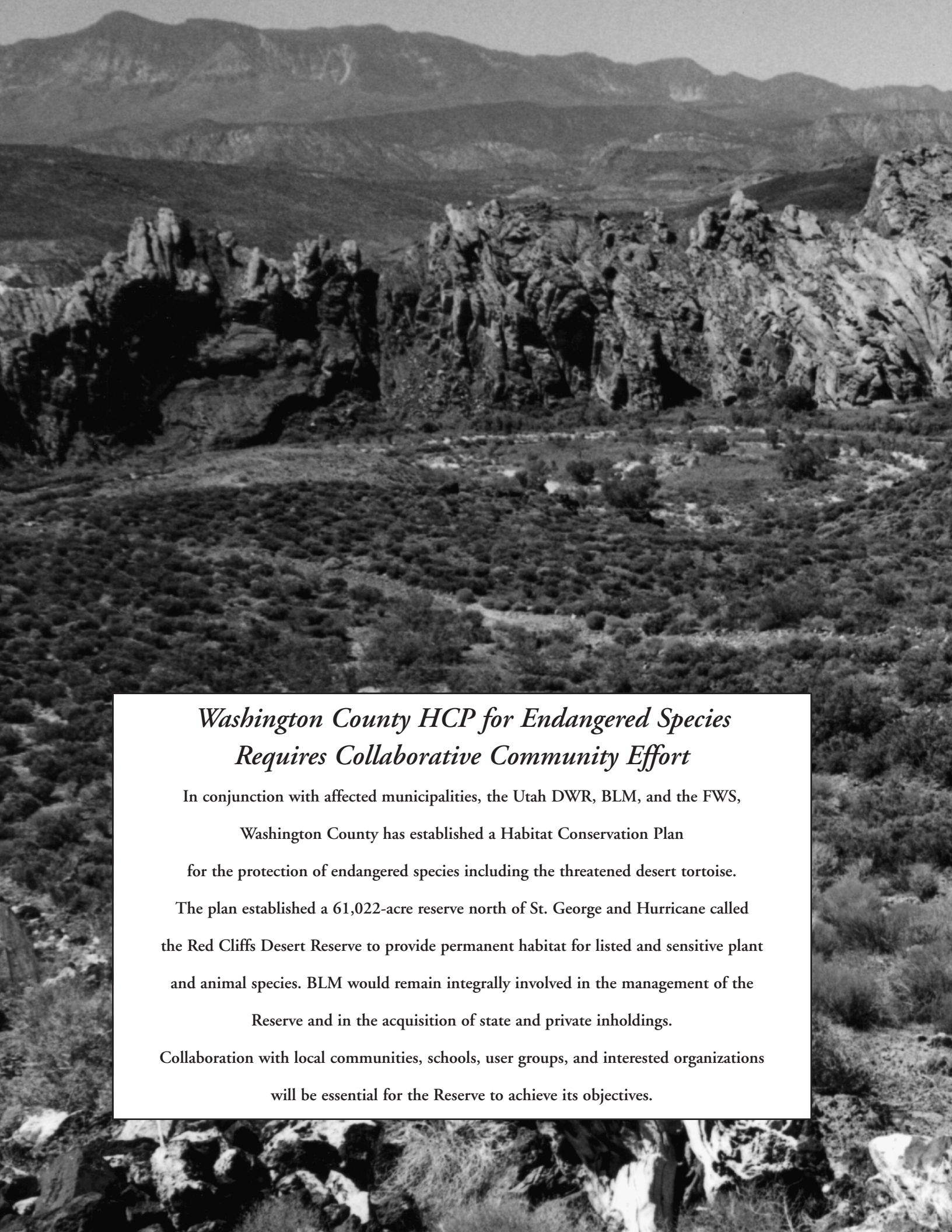
MAP 1.2



Washington County HCP for Endangered Species Requires Collaborative Community Effort

In conjunction with affected municipalities, the Utah DWR, BLM, and the FWS, Washington County has established a Habitat Conservation Plan for the protection of endangered species including the threatened desert tortoise. The plan established a 61,022-acre reserve north of St. George and Hurricane called the Red Cliffs Desert Reserve to provide permanent habitat for listed and sensitive plant and animal species. BLM would remain integrally involved in the management of the Reserve and in the acquisition of state and private inholdings. Collaboration with local communities, schools, user groups, and interested organizations will be essential for the Reserve to achieve its objectives.

CHAPTER 2
Proposed Resource Management

Plan Development

In October 1995, BLM published the Draft Dixie Resource Area Resource Management Plan and Environmental Impact Statement (Draft RMP/EIS). The Draft RMP/EIS considered four different alternatives for addressing management of public lands in Washington County. Alternative A represented the No Action alternative or the continuation of present management. Alternative B represented a multiple-use approach to resource management with an emphasis on development and land use projects. Alternative C, the preferred alternative, represented a multiple-use approach to resource management with an emphasis on balancing resource development and resource protection. Alternative D represented a multiple-use approach with an emphasis on preserving biological systems and scenic values.

During a 7-month comment period following publication of the Draft RMP/EIS, BLM received over 800 letters and hundreds of verbal comments from local, state, and federal agencies, citizens, and organizations. The comments recommended changes, corrections, additions, or clarifications throughout the draft document. After careful consideration of all of the comments, BLM has prepared the following proposed resource management plan for the Dixie Resource Area. Based on the preferred alternative (Alternative C), the Proposed Plan draws from Alternatives A, B, and D to respond to issues, questions, and recommendations in the comments. Clarifications have also been made to the text, tables, and maps where needed to correct errors or to more effectively convey agency intent. Final agency decisions made or actions taken outside the purview of this Plan since the draft was written and bearing on the issues addressed have been integrated into the planning prescriptions. Although every effort has been made to use the most current and accurate data available through BLM's Geographic Information System, BLM recognizes that some mapping and statistical errors will likely occur throughout the Plan. As BLM is made aware of such errors, it will take action to correct them through the plan maintenance process. A summary of the alternatives addressed in the Draft RMP/EIS and the Proposed RMP is included in Table 1-2.

Lands

Public lands within Washington County support numerous critical resources and uses that are essential to the ecologic and economic well-being of the county and which have regional or national significance. In accordance with national policy, BLM would retain lands within its administration except where necessary to accomplish the objectives described below.

BLM would transfer lands out of federal ownership or acquire non-federal lands where needed to accomplish important resource management goals or to meet essential community needs. Based on current BLM policy and the demands created by urbanization throughout Washington County, it is expected that acres transferred out of federal ownership would equal or exceed acres of land acquired during the life of this Plan.

In accordance with Department of the Interior policy, land exchanges would be the preferred method of transferring lands out of federal ownership and, in most instances, for acquiring non-federal lands. Exchange allows for better public land management by meeting the land, resource, or economic needs of all parties to the agreement. Exchanges can also minimize the outlay of capital or appropriated funds needed to complete the transaction. Moreover, public lands available for transfer out of federal ownership in Washington County are critical to the success of exchanges needed to satisfy land acquisition commitments for the Washington County Habitat Conservation Plan and the Utah School and Institutional Trust inholdings exchange program. Land exchanges involving large acreages, multiple parties, or statewide

impacts may be conducted using "pooling" or assembled exchange principles to cut costs, reduce processing time, and increase net acres exchanged in any given transaction. Lease or transfer of lands under the Recreation and Public Purposes Act would occur where such is determined to be the most appropriate method for achieving desired public and municipal purposes.

Land ownership changes would be considered on lands not specifically identified in the RMP for disposal or acquisition if the changes are in accordance with resource management objectives and other RMP decisions and would accomplish one or more of the following criteria:

- Such changes are determined to be in the public interest and would accommodate the needs of local and state governments, including needs for the economy, public purposes, and community growth.
- Such changes result in a net gain of important and manageable resources on public lands such as crucial wildlife habitat, significant cultural sites, quality riparian areas, live water, listed species habitat, or areas key to productive ecosystems.
- Such changes ensure public access to lands in areas where access is needed and cannot otherwise be obtained.
- Such changes would promote more effective management and meet essential resource objectives through land ownership consolidation.
- Such changes result in acquisition of lands which serve regional or national priorities identified in applicable policy directives.

If the above criteria are not met, proposed land ownership changes outside of designated transfer areas would not be approved or would require a plan amendment.

Public lands would be managed in accordance with applicable city and county zoning restrictions and municipal ordinances to the extent such restrictions and ordinances are consistent with federal laws, regulations, and policies, and with approved decisions of this Plan.

Land Acquisition

Under this Plan, BLM would acquire selected non-federal lands, with owner consent, for such purposes as ensuring public access to key use areas, consolidating public ownership of lands critical to recovery of species listed under the Endangered Species Act, providing essential public recreation opportunities, protecting important resources such as floodplains, riparian areas, wildlife habitat, cultural sites, and wilderness, and meeting the mutually agreed upon objectives of local, state, and federal plans or programs. Although most acquisitions would occur through exchange, they could also be made through purchase, donation, or conservation easement.

Over the life of the Plan, it is expected that BLM could acquire up to 18,000 acres of land within Washington County. Nearly all of these acres would result from BLM's fulfilling its commitment to acquire available state and private lands within the Washington County Habitat Conservation Plan (HCP) Reserve and to fulfill existing statewide exchange agreements with the Utah School and Institutional Trust Land Administration to remove trust inholdings from within federally reserved areas. A pool of 30,030 acres of non-federal lands which may meet the criteria listed above is shown on Map 2.1 for potential acquisition as opportunities arise to help meet objectives for resource management described elsewhere in this Plan. BLM would not expect to acquire all of the lands contained in the pool due to such constraints as other workload commitments, lack of suitable exchange lands, insufficient Land and Water Conservation Fund appropriations, and inability to obtain landowner consent.

Land Transfer

Over the life of the Plan, it is expected that up to 18,000 acres of public lands could be transferred out of public ownership in Washington County. Most of these transfers would occur as a result of land exchanges needed to complete

acquisition of state and private lands within the Washington County HCP Reserve or to support the statewide inholdings exchange with the Utah School and Institutional Trust Lands Administration. Generally, public lands within the designated transfer areas shown on Map 2.1 constitute a pool of lands which could be transferred through sale, exchange, or lease and conveyance under the Recreation and Public Purposes Act or other applicable authority. Actual transfer of such lands would be dependent on further site analysis to identify and resolve conflicts with cultural resources, wildlife habitats, current or potential land uses, or other significant resources. Land transfer areas were selected because of their proximity to expanding communities and transportation corridors, expressed interest from state or local governments, and/or their potential suitability for private or municipal use. Lands not contained in this pool may be transferred (other than under land sale authority) if subsequent analysis determines that such transfer would meet the land transfer criteria established above. During final preparation and printing of this Proposed Resource Management Plan/Final EIS, several parcels of land identified for transfer have left federal ownership through exchange. To avoid further disruption to the planning process through continuous revision of maps, tables, and analysis, these recent changes are not depicted.

The State of Utah has designated the section of Highway 9 along the Zion Corridor from LaVerkin to Zion National Park as a Scenic Highway. Generally, federal lands within view of this scenic corridor would be retained in public ownership, unless as a result of coordination with local, affected communities or government agencies, it is determined that transfer of a specific tract would be in the public interest and serve essential municipal purposes. Land transfers so proposed should not substantially detract from the scenic quality of the corridor. This retention policy would not prohibit the proposed transfer of 240 acres of public lands in or near the town of Virgin previously determined to meet the above criteria and shown on Map 2.1. Retention policies affecting other resources including floodplains, critical habitats, riparian areas, livestock grazing stabilization, prime recreation lands, and areas of critical environmental concern (ACECs) are described in greater detail in the applicable sections of this Proposed Plan.

Since publication of the Draft RMP, the city of Hurricane has approached BLM regarding the need for eventual relocation of the existing municipal airstrip due to encroaching residential development. BLM would coordinate with the city in identifying and analyzing potential alternative sites on public land in or near the city. BLM would also continue its work with the Washington County School District to evaluate public lands for critically needed school sites in or adjacent to developing areas near St. George, Washington, Hurricane, and other communities.

Under federal law, the State of Utah may exercise its right to acquire public lands through state quantity or other special grants. Such lands may or may not be identified for land transfer in this RMP. Lands so selected by the state and subsequently classified as suitable for transfer by BLM in accordance with federal regulations would be considered consistent with the Plan.

Resolution of public land trespass would focus on removal of structures or facilities, particularly those in riparian areas or critical wildlife habitat. Where removal is not feasible or found to be in the public interest, trespass in those areas would be settled by exchange for equal or better value riparian areas, critical habitat, or lands supporting other significant resource values identified for acquisition.

Easement Acquisitions

Where needed to provide public access to important use areas on public lands or to link significant public tracts isolated by state or private lands, BLM would seek to obtain easements for roads or other access. Easements would be acquired only with the landowner's consent. Table 2-1 lists desired easement acquisitions and the resource programs to be benefitted. Funding constraints and workload demands would likely mean that only the most critical easements listed would be pursued.

TABLE 2-1 • Potential Access Easements

LOCATION	BENEFITTING ACTIVITY
Canaan Mountain North - (Springdale West & Smithsonian Butte Quads.) T.42 S., R.11 W., sec. 23 & 24	Recreation
Canaan Mountain South - (Smithsonian Butte Quad.) T.42 S., R.11 W., sec. 36	Recreation
Dalton Wash (Administrative only) - (Springdale West & Virgin Quads.) T.41 S., R.11 W., sec. 8	Range
Deep Creek - (Kolob Reservoir & Cogswell Point Quads.) Access is needed from Kolob Reservoir Road at a point approximately in the center of the SE 1/4 of sec. 36, T.38 S., R.11 W., to Volcano Knoll above Deep Creek located in sec. 14, T.39 S., R.10 W.	Recreation and Range
Diamond Valley Gravel Pit Road - (Saddle Mountain Quad.) T.40 S., R.16 W., sec. 34, E1/2E1/2T.40 S., R.16 W., sec. 34, E1/2E1/2	Minerals and Range
Gooseberry (Virgin & Springdale West Quads.) T.42 S., R.11 W., sec. 17, 18, & 20, T.42 S., R.12 W., sec. 2, 12, & 13	Recreation
Hell Hole Pass Road - (Shivwits and West Mtn. Peak Quads) T. 42 S., R. 18 W., sec. 16, N1/2NW1/4 & NE1/4SE1/4	Range and Recreation
La Verkin Creek North - (Smith Mesa Quad.) T.40 S., R.12 W., sec. 18, W1/2E1/2	Recreation
La Verkin Creek South - (Smith Mesa Quad.) T.40 S., R.12 W., sec. 21 & 28	Recreation
Land Hill Archaeological sites (Public) T.42 S., R.16 W., sec. 6 & 7	Cultural
Sand Cove - (Veyo Quad.) T.40 S., R.17 W., sec. 24, SW1/4SW1/4, sec. 25, E1/2, sec. 36,E 1/2	Range
Santa Clara - (Santa Clara Quad.) T.42 S., R.16 W., sec. 16, SW 1/4NW1/4, NW1/4SW1/4, sec. 17, NE1/4SE1/4	Range
Terry Bench - (Terry Bench Quad.) T.42 S., R.20 W., sec. 36	Range

Rights-of-Way

Public lands in Washington County, because of their location and extent, provide essential routes for a variety of rights-of-way needs. Private, municipal, industrial, and government entities require such authorizations for transportation routes, utilities, transmission lines, communication sites, and local access. This Proposed Plan would continue to make public lands available for such purposes where consistent with planning goals and prescriptions for other resources. Where possible, BLM would encourage project sponsors to locate new rights-of-way in existing or designated utility and transportation corridors. Outside of such corridors, BLM would define public lands in Washington County as 1) generally open to new rights-of-way, 2) avoidance areas which

encourage alternate locations, where feasible, to reduce adverse environmental or land use impacts, or 3) closed to new rights-of-way to protect critical resources, scenic values, or designated wilderness areas.

Applications for new rights-of-way on public lands would be considered and analyzed on a case-by-case basis. Proposals would be reviewed for consistency with planning decisions and evaluated under requirements of the National Environmental Policy Act and other applicable laws for resource protection. Mitigation needed to avoid adverse impacts would be integrated into project proposals and, where appropriate, alternatives identified to further reduce environmental impacts to lands, resources, or adjacent land uses. New utility lines and long-distance transmission lines would be designed and located so as to reduce visual impacts to travelers along I-15 and visually sensitive highways in the county.

All new rights-of-way would be subject to applicable standards listed in Appendix 1 for surface disturbing activities. Where needed, wildlife seasonal use restrictions would apply to right-of-way construction. Rights-of-way would generally remain open to other public uses that do not conflict with the purposes for which the rights-of-way are established.

Utility corridors would be designated to provide a preferred location for meeting utility transmission and distribution needs. Such corridors would generally be 1-mile wide on public lands but could vary in width according to topography, surrounding land use, and the need to protect adjacent resources. New facilities within the Navajo-McCullough corridor would be placed north of the existing powerline to reduce potential for impacts to resources within adjacent portions of the Beaver Dam Mountains Wilderness Area. Utilities within designated corridors would be managed under VRM Class III guidelines regardless of the surrounding designation. Nonetheless, scenic areas traversed by the corridors such as the Springdale to LaVerkin corridor would continue to carry a Class II designation for all other land use activities. Proposed and existing utility corridors are depicted in Table 2-2 and on Map 2.2. These

TABLE 2-2 • Proposed and Existing Utility Corridors

- Navajo McCullough Corridor (existing) - north of the Beaver Dam Mountains Wilderness Area boundary.
- Intermountain Power Project Corridor (existing).
- Following the route of the Garkane and UP&L power line from Hildale to Hurricane.
- UP&L substation at Dammeron Valley to the Sand Cove Reservoir power plant and from there to Veyo and Central following existing line.
- UP&L substation at Harrisburg Junction to Hurricane following existing line.
- La Verkin to Anderson Junction following the route of SR-17.
- Following the route of old Highway 91 across the Beaver Dam slope from the Arizona border to the Shivwits Indian Reservation, then from the northern boundary of the Shivwits Indian Reservation to Gunlock Reservoir following the Gunlock road. This corridor would be the width of the currently fenced road rights-of-way.
- Following SR-18 Highway from St. George to Veyo. This corridor would be the width of the currently fenced road right-of-way.
- Hurricane south to the Arizona border and over to Hildale. Route would follow the existing road from Hurricane south to border and from there to Hildale following the Arizona border.
- Springdale to La Verkin following the route of the UP&L line.
- Motoqua to Shivwits Indian Reservation following existing road.
- I-15 from beginning of public land to the north to below Harrisburg Junction.

corridors, where applicable, are designed to conform to the long range corridor needs established by the utility industry in the Western Regional Corridor Study (Western Utility Group, 1992). They also correlate to the extent possible with corridor designations on adjacent public lands in Arizona and Nevada and with corridors on the adjacent Dixie National Forest. New utility construction within the Washington County HCP Reserve would continue to be guided by protocols established in the HCP (Washington County, 1995).

Although a utility corridor was not carried forward into this Proposed Plan between the municipal water well field below Gunlock to the Shivwits Indian Reservation, BLM recognizes that rights-of-way for new wells, water pipelines, and small distribution lines to service the pump houses would be necessary to support essential municipal purposes and would continue to process applications for such actions on a case-by-case basis. Such rights-of-way would be considered to be within the scope of this Proposed Plan. In not designating a new corridor, it is BLM's intent to not draw large transmission facilities or other projects into this area that would be incompatible with management objectives for the adjacent Santa Clara River/Gunlock Area of Critical Environmental Concern and other resource values in the immediate area.

BLM would continue to work with project sponsors to further identify and analyze a suitable route for the Southern Transportation Corridor route from Hildale along the Arizona border to I-15. The route would include a bypass spur that would branch off at the base of the Hurricane Cliffs along the existing road and connect with State Route 9. These actions would be considered within the scope of this Plan. BLM would also work with project sponsors to identify and analyze a suitable alignment for an extension of the route from I-15 to Old U.S. Highway 91 between Santa Clara and Ivins. The extension would be analyzed and evaluated for conformance with this Proposed Plan when a feasibility study is completed and a project proposal is submitted. Among other things, the route and extensions would allow heavy truck and through traffic to bypass congested urban centers and resolve growing public safety issues.

Scrub Peak would be added to the four existing communication sites at West Mountain, Little Creek Mountain, South Rockville, and Black Ridge north of Toquerville as shown on Map 2-2. To the extent practical, new users would be required to share site facilities to reduce impacts and lessen the need for additional sites. Access roads and additional power lines would not be approved to the Black Ridge site to avoid visible scarring and to maintain naturalness on the ridge.

Since completion of the Draft RMP, the Washington County Water Conservancy District (WCWCD) filed a right-of-way application with affected federal agencies to construct and maintain a pipeline across federal lands to transport water from Lake Powell to the proposed Sand Hollow Reservoir. One or more proposed route alternatives would also affect state, private, and Indian lands. The application was received too late to consider that portion of the proposed right-of-way that would traverse public lands in this resource area. A feasibility study for the pipeline was published in March 1995 by the WCWCD. However, no detailed environmental studies have been completed by affected agencies and conformance with applicable land use plans has yet to be determined. BLM would coordinate with project sponsors, Indian tribes, and other state and federal agencies in seeing that required technical and environmental studies are prepared. If the project is not found to be in conformance with this Proposed Plan, a plan amendment could be considered.

Rights-of-way avoidance areas, totaling 308,889 acres, are depicted in Table 2-3 and on Map 2.3. New rights-of-way would be granted in these areas only when feasible alternative routes or designated corridors are not available. Measures to reduce impacts to affected resources would be applied based on site-specific analysis. Rights-of-way exclusion areas, totaling 2,690 acres, are also depicted in Table 2-3 and on Map 2.3. New rights-of-way would be granted in these areas only when required by law or federal court action.

TABLE 2-3 • Rights-of-Way Avoidance and Exclusion Areas (Subject to Proposed and Designated Corridors)

AVOIDANCE AREAS	TOTAL ACRES
Washington County HCP Reserve	308,889
OHV Closed Areas	
OHV Designated Roads & Trails Areas	
Proposed ACECs	
Riparian Areas	
Smithsonian Butte National Back Country Byway (1/2 mile on each side)	
River segments with a tentative classification of Wild, proposed as suitable for Congressional NWSRS designation	
T&E and Candidate Species Habitat	
VRM Class I and II areas	
Watershed Protection Areas (Curly and Frog Hollows)	
EXCLUSION AREAS	**TOTAL ACRES**
Beaver Dam Mountains Wilderness Area	2,690

Land Withdrawals and Classifications

Land withdrawals are used to transfer jurisdiction of public lands from BLM to another federal agency or to remove the public lands from the operation of one or more of the public land and mineral laws to protect facilities or special resource values. By law, withdrawals are made by the Secretary of the Interior or created by an act of Congress. Proposed withdrawals from mining location, totaling 56,149 acres, are depicted in Table 2-4 and on Map 2.4. Withdrawals and land classifications that become obsolete would be recommended for revocation or termination.

Energy and Mineral Resources

Mineral resources play a limited but important economic role on public lands in Washington County. Oil and gas potential is low throughout most of the area, and leasing opportunities are being curtailed by rapid urbanization and expansion of incorporated city limits into areas of federal mineral ownership. Economic conditions have not been favorable for the development of locatable minerals in recent years even though moderate to high potential exists on nearly half the lands administered by BLM. Public lands do, however, provide valuable sources of saleable mineral materials in the county including sand, gravel, cinders, and decorative stone. Although increasing encroachment from urban and rural residential development is diminishing the suitability of present and potential sites, it is expected that public lands would continue to provide such materials to private individuals, construction firms, businesses, and state and local agencies.

TABLE 2-4 • Proposed Withdrawals From Mining Location

	TOTAL ACRES
Washington County HCP Reserve w/Split Estate Lands (45,270 acres)	56,149
Warner Ridge/Fort Pearce Proposed ACEC (4,281 acres)	
Red Bluff Proposed ACEC (6,168 acres)	
Dinosaur Trackway (40 acres)	
Baker Dam Recreation Area (270 acres)	
Red Cliffs Recreation Area (120 acres outside of HCP Reserve)	

Consistent with the need to protect sensitive resources at risk from development, BLM's objectives would be to (a) continue to provide mineral materials needed for community and economic purposes through the designation and management of materials sites for individual and community use, and (b) provide continued opportunity for exploration and development under the mining and mineral leasing laws by leaving public lands open for such purposes consistent with and subject to reasonable measures allowed by law needed to protect the environment. The latter objective is intended to support national goals for energy and strategic minerals independence and local and state goals for economic health and diversity.

Fluid Minerals

BLM would employ four categories for fluid mineral leasing to protect natural and human resources while providing the maximum opportunity for exploration and development. The categories are 1) open to leasing with standard stipulations, 2) open to leasing with special stipulations, 3) open to leasing with no surface occupancy (NSO), and 4) closed to leasing. Leasing categories are proposed so as to apply the least restrictive measures to the land needed to protect the facilities or resources at risk from potential development. By law, all public lands within designated wilderness areas, wilderness study areas, and incorporated city limits are closed to leasing. Categories shown in this Proposed Plan for leasing within wilderness study areas reflect what stipulations BLM would employ should the study areas be released from further consideration for wilderness designation. Proposed categories for fluid mineral leasing on public lands in Washington County are depicted in Table 2-5 and on Map 2.5.

Within areas open to leasing with standard or special stipulations, sensitive resources needing protection from fluid mineral exploration, development, or production activity would be protected by applicable standard lease terms and the provisions of regulations in Part 3100 of Title 43 of the Code of Federal Regulations. Among other things, the regulations allow the

TABLE 2-5 • Fluid Mineral Leasing Categories

CATEGORY	ACRES
Open with Standard Stipulation (Category 1)	**239,059**
Open with Special Stipulations (Category 2)	**186,225**
Upper Beaver Dam Wash ACEC	
Santa Clara River-Gunlock ACEC	
Severe Erosion Soils	
Curly Hollow and Frog Hollow Watersheds	
Navajo Aquifer (High Recharge Area)	
Municipal Watersheds	
Crucial Deer Winter Habitat and Elk Calving Areas	
Mexican Spotted Owl Habitat	
Desert Tortoise Critical Habitat Outside of ACECs	
T&E Plant Habitat Outside of ACECs	
Candidate Plant Species Habitat Outside of ACECs	
Power Site and FERC Withdrawals	
Open with No Surface Occupancy Stipulations (Category 3)	**176,895**
Washington County HCP Reserve	
OHV Closed Areas	
River Segments with a tentative classification of Wild, proposed as suitable for Congressional NWSRS designation	
Riparian Zones	
Red Bluff ACEC	
Warner Ridge/Fort Pearce ACEC	
Canaan Mountain ACEc	
Beaver Dam Wash ACEC	
Lower Virgin River ACEC	
Santa Clara River-Land Hill ACEC	
Red Mountain ACEC	
Red Cliffs and Baker Dam Recreation Areas	
Smithsonian Butte National Backcountry Byway (within 1/2 mile radius)	
Administrative Withdrawals	
Public Water Reserves	
Recreation and Public Purpose Act Leases	
Closed to Fluid Mineral Leasing (Category 4)	**26,826**
Beaver Dam Mountains Wilderness Area	
Lands within Incorporated City Boundaries	

authorized officer to move proposed activities up to 200 meters or prohibit new surface disturbing operations up to 60 days in any lease year (see 43 CFR 3101.1-2). Federal Onshore Oil and Gas Orders and applicable state and local regulations also provide extensive resource protection.

Lands where the United States owns the oil and gas but does not own the surface estate would generally receive the same leasing categories as adjacent public lands as determined by the BLM's authorized officer. Such split-estate lands outside of incorporated city boundaries within approved residential subdivisions would be placed in category 3 (NSO) to protect such developments from impacts associated with oil and gas exploration and development activity. After the initial categorization, updates would only occur at scheduled revisions of the resource management plan.

Detailed descriptions of leasing stipulations and lease notices that would be applied to leasing exploration, development, and production are included in Appendix 2, Oil and Gas Leasing Stipulations. These descriptions also explain how and when exceptions, modifications, and waivers to the stipulations would be approved.

Exploration, drilling, and production would be subject to the operation and reclamation standards contained in Appendix 1 for surface disturbing activities.

Locatable Minerals

Public lands in Washington County would remain available to mining location under the General Mining Act of 1872 and applicable regulations on 615,151 acres. Map 2.6 depicts mineral areas that would remain open (405,486 acres), open with restrictions (41,169 acres), and open with a plan of operation (168,496 acres). Restricted areas are those lands where mining locations are subject to special requirements of law and regulation as a result of powersite withdrawals, public water reserves, and split-estate created under the Stockraising Homestead Act.

Areas currently withdrawn from mineral location totaling 4,450 acres would remain withdrawn in accordance with applicable law so long as the purposes for which the withdrawals were put in place remain valid. Where BLM determines that any withdrawal is no longer needed, it would take action to have such withdrawal terminated or revoked.

New withdrawals from mining location would be recommended on 56,149 acres to protect developed recreation sites, lands, and critical resources within the Washington County HCP Reserve, the Dinosaur Trackway, the Fort Pearce historic site, and critical habitats for threatened and endangered plant species in the Red Bluff and Warner Ridge/Fort Pearce ACECs. Withdrawals would be put into place only after approval by the Secretary of the Interior, and in some specific instances, review by both houses of Congress. Proposed withdrawals are depicted in Table 2-4 and on Map 2.4.

By regulation, mining activity involving greater than 5 acres of surface disturbance would require a plan of operation. Plans of operation would also be required for all mining activities regardless of size other than casual use within proposed ACECs, areas closed to OHV use, and river segments proposed as suitable for addition to the National Wild and Scenic Rivers System.

Where applicable, surface disturbing activities would be subject to the reclamation standards listed in Appendix 1.

Mineral Materials

Numerous mineral materials sites have been located on public lands in Washington County to meet the needs of private landowners, contractors, and government agencies. Sale of materials from these sites would continue until depletion occurs on individual sites or the lands are transferred out of public ownership. Sites may also be closed and restored where needed to resolve conflicts associated with emerging resource issues or adjacent land uses. New sites would be identified and developed from time to time as sites are retired or as demand increases. Free use of materials would be authorized from selected areas for municipal or noncommercial purposes. All established sites would be managed under VRM Class IV objectives. Site reclamation or a reclamation fee would be required

from all users, including those qualifying for free use. Reclamation of depleted areas would be completed according to governing regulations and the standards set in Appendix 1.

A total of 345,104 acres of land would remain open for mineral materials sales on a case-by-case basis, subject to additional environmental review. Areas to be closed to mineral materials sales are depicted in Table 2-6 and on Map 2.7 and total 265,732 acres.

Sale or disposal of mineral materials would continue to be prohibited on unpatented mining claims and would generally not be approved on lands encumbered with nonmineral applications such as land sales and exchanges where the mineral estate would leave federal ownership. Additional restrictions would be placed on mineral materials sales in crucial big game habitats, split-estate lands, administrative withdrawals, powersite classifications, and leases issued under the Recreation and Public Purposes Act. Such restrictions cover 64,775 acres.

The collection of petrified wood on public lands would be limited to 250 pounds per person per year for personal use only. No commercial use would be permitted to avoid the rapid depletion of the resource.

Transportation

Public lands in Washington County support a network of transportation corridors, paved roads, unpaved roads, and trails that serves the needs of local residents, public land users, recreationists, businesses, agency officials at all levels, and millions of travelers that visit or pass through the county each year. Use of the road network is essential to virtually all economic, leisure, and life sustaining activities in the county and bears directly on the health, safety, welfare, and lifestyles of a large number of people and communities in the local region. Interstate 15 provides the major transportation corridor connecting Washington County with Las Vegas to the southwest and Salt Lake City and other destinations to the north. Five designated state routes and Old U.S. Highway 91 provide access to communities and destination areas throughout the county or in the adjacent vicinity.

Several hundreds of miles of unpaved roads serve essential purposes on public lands in the

TABLE 2-6 • Mineral Materials Sales Designations

	ACRES
Open	**345,104**
Restricted	**64,775**
Crucial Mule Deer Winter Habitat	
Elk Calving Areas	
Split Estate Lands	
Powersite Classifications	
Administrative Withdrawals	
Recreation and Public Purpose Act Leases	
Closed	**265,732**
Washington County HCP Reserve	
All ACECs (exclusive of the cinder pit on Little Creek Mountain ACEC)	
Baker Dam and Red Cliff Recreation Areas	
OHV Closed Areas (See Table 2-10)	
Threatened and Endangered Plant and Animal Species Habitat	
Candidate Plant and Animal Species Habitat	
Riparian Areas	
River segments with a tentative classification of Wild, proposed as suitable for Congressional NWSRS designation	
Municipal Watersheds	
Navajo Sandstone Aquifer (High Recharge Area)	
Beaver Dam Mountains Wilderness Area	
Public Water Reserves	

county. Included are such needs as access to livestock operations, mining properties, utility and communication facilities, range and wildlife developments, special use areas, recreation sites, research areas, monitoring stations, and intermingled private and state-owned lands. Increasingly, such roads and trails are used for touring and general recreation. Portions of over 800 of these roads and trails have been asserted by Washington County under Revised Statute (R.S.) 2477. Nothing in this Plan is intended to provide evidence bearing on or addressing the validity of any R.S. 2477 assertions. Rather, this Plan is intended to identify roads as they presently exist and to describe the uses that will continue under the decisions in this Plan.

It is BLM's objective to continue to work closely with Washington County officials to ensure that use and enjoyment of existing roads and trails is permitted under safe and prudent conditions and that responsibility for maintenance is properly defined in road maintenance agreements or other appropriate documents. It is also BLM's objective to work with municipalities, Washington County, the Utah Department of Transportation, and other affected parties in defining and planning for future transportation needs, locating environmentally compatible route alternatives, and resolving land use conflicts related to transportation systems where public lands are involved.

BLM would continue to maintain those roads for which it holds maintenance responsibility and which are deemed essential for access for resource management purposes. These include 358 roads and jeep trails, three of which constitute collector roads, six of which constitute local roads, and the remainder which constitute resource access roads. Most of the latter are dirt, two-wheel or four-wheel drive, dry weather roads or trails. BLM would seek to enter into cooperative agreements with other federal and non-federal agencies to share limited resources and equipment needed for periodic maintenance so as to eliminate organizational redundancy and reduce costs to the public.

BLM would continue to honor existing road maintenance agreements with Washington County and amend them as needed to reflect changing conditions and circumstances. Such agreements describe roads by name, class, miles, and maintenance responsibility. It is expected that Washington County would continue to maintain roads so listed where they have accepted the responsibility.

BLM would continue to provide directional signing on roads under its jurisdiction in remote areas, within the limits of available funding, to increase public enjoyment and safety. Where needed to facilitate travel across public lands, BLM would consider installing cattleguards at fencelines on roads having increased levels of vehicle use.

Upon application from Washington County, BLM would grant FLPMA Title V rights-of-way in perpetuity on existing, uncontested roads asserted by the county to be highways under R.S. 2477. Right-of-way width and standards would be commensurate with the class and purpose of each road. Such rights-of-way would be issued without cost to the county. The issuance by BLM of a FLPMA Title V right-of-way to the county would be conditioned so as not to affect county assertions under R.S. 2477.

Where roads on public lands are determined to no longer serve a useful purpose, to constitute a public nuisance, or to cause unnecessary environmental harm, BLM would seek to close such roads through coordination with applicable Washington County or municipal officials. Proper exercise of Utah state law and federal regulation regarding public notice and hearings would be followed in pursuing such closures.

Once issues related to road jurisdiction under R.S. 2477 are resolved, BLM would anticipate completing a reinventory of roads on public lands within Washington County and updating its transportation plan accordingly in collaboration with representatives of the county and affected municipalities. BLM would then evaluate the need to adjust off-road vehicle management designations through the plan amendment process to reflect changes that may have occurred in jurisdiction and other elements of the revised transportation plan.

BLM would work with the Utah Department of Transportation, Washington County, and project sponsors to identify a suitable route for the

Southern Transportation Corridor and major connectors along the Arizona border from State Route 59 near Hildale to a proposed I-15 interchange on state land near Atkinville. For further details, see the discussion on the proposed route under Rights-of-Way in the Lands section of this Proposed Plan.

Within the Washington County Habitat Conservation Plan (HCP) Reserve, road maintenance, upgrades, and new construction would continue to be guided by HCP requirements and protocols as described in Appendix A of the HCP. Where public lands are involved, upgrades and new construction would be subject to applicable environmental study and consultation with the U.S. Fish and Wildlife Service (FWS).

Air Quality

Air quality within Washington County is typical of rural areas in the western United States and is generally good to excellent (Bill Wagner, personal communication, 1997). The area is characterized by limited industrial activity and has no large emission sources of air pollution. Ambient pollutant levels are usually near or below measurable limits in undeveloped areas. Exceptions include high, short-term localized concentrations of total suspended particulates (TSP) primarily in the form of wind-blown dust or smoke from natural or human-caused fires. Ozone and carbon monoxide may periodically be measurable, particularly around the growing communities of St. George and Hurricane.

All public lands within the county have been designated as either attainment areas or unclassified for all pollutants and have been placed in Class II under the prevention of significant deterioration (PSD) guidelines. This classification allows air quality deterioration associated with moderate, well-controlled growth. TSP concentrations are expected to be higher near towns, developed agricultural lands, and areas crossed by numerous unpaved roads. Recent studies indicate that road dust may contribute substantially to visibility impairment throughout the Colorado Plateau (Grand Canyon Visibility Transport Commission, 1996). Studies by the Utah Department of Environmental Quality (DEQ), the U.S. Environmental Protection Agency, and the National Park Service reveal that periodic deterioration from pollutants occurs as a result of long-range, regional pollution from metropolitan sources elsewhere in the southwestern United States.

Zion National Park lies at the eastern end of Washington County within the resource area boundary. It is designated a Class I area under the PSD regulations. The designation allows only small incremental increases to pollutant levels and establishes protection for visibility and other related values. Regional deterioration of visibility in national parks and special management areas due to haze, dust, and various pollutants in the Colorado Plateau area is being addressed through the Grand Canyon Visibility Transport Commission with assistance from affected local, state, federal, and tribal interests. The Commission acknowledges that urban growth, fugitive dust, and increased use of fire in resource management will continue to add to visibility concerns in the region (GCVTC, 1996).

BLM's objective would be to ensure that authorizations granted to use public lands and that BLM's own management programs would comply with and support local, state, and federal laws, regulations, and implementation plans pertaining to air quality.

In particular, all BLM actions and use authorizations would be designed or stipulated so as to protect the high-quality airshed within Zion National Park and other Class I areas in the region and to otherwise minimize impacts to visibility.

Prescribed burns would be approved through the State of Utah permitting process and timed so as to maximize smoke dispersal. In accordance with state agency consultation, ignition would be approved only when the burning index is 500 or greater.

Industry proposals for development on public lands that would involve new emission sources would be analyzed under new source review procedures by the Utah DEQ for PSD and visibility impacts prior to approval and measures applied to ensure compliance with applicable standards.

Soil and Water Resources

Because most of the public lands in Washington County are in a desert or arid environment, the management of water-related resources is critical to sustaining a healthy, productive land base and meeting a large variety of human and economic needs. In areas of the county experiencing rapid urbanization, public lands are intermingled with state and private lands and management of drainages and watersheds is highly fragmented. In these and other areas of public ownership, municipalities, local governments, state wildlife agencies, livestock operators, mining ventures, adjacent landowners, and increasing numbers of recreationists are dependent on public lands for access to water resources, management of important watersheds, and/or the storage and transportation of water through permits or rights-of-way from source to point of use. Because of these factors, it is essential that BLM work collaboratively with local, state, and other federal agencies, Indian tribes, user groups, university researchers, and diverse interested publics to develop plans and implement approved recommendations to achieve a sound balance in how these resources are used to meet the community's needs and to support the conservation of natural resources in the county.

BLM's objectives would be to work with municipalities, state and local agencies, and other interested parties to (a) protect community watersheds and sources of culinary water, (b) reduce erosion, stream sedimentation, and salinization, (c) improve water quality in streams and rivers, (d) promote water conservation, (e) ensure compliance with state and federal laws pertaining to water quality and pollution prevention, (f) ensure water availability for the maintenance of key natural systems and human enjoyment, and (g) where necessary to meet essential community needs, identify environmentally suitable sites for water storage and routes for water transport.

Soils and Watershed

BLM would implement the following measures to achieve goals for sound watershed management in collaboration with user groups, municipalities, and other local, state, and federal agencies. Such measures would be designed to protect fragile soils, reduce erosion and stream sedimentation, and lessen impacts of saline runoff into streams and rivers throughout the county.

- The proposed Red Bluff, Upper Beaver Dam Wash, and Warner Ridge/Fort Pearce ACECs would be managed, in part, to protect critical watersheds, saline soils, and/or water quality. Specific management prescriptions that would be applied under this Plan are contained under Special Emphasis Areas in the section on proposed ACECs. Protection would include no surface occupancy or special stipulations for fluid mineral leasing, off-road travel limitations or closures, selected mineral withdrawals, designation as right-of-way avoidance areas, and restrictions on fuelwood and mineral materials sales. The critical watershed in the City Creek area would be fully protected by provisions of the Washington County HCP as carried forward into this Proposed Plan. Among other things, such planned actions would restrict or prohibit future development incompatible with HCP Reserve goals, retire affected grazing permits, and limit vehicle travel to designated roads and trails (for details, see the HCP discussion in the section on Special Status Animal Species under Fish and Wildlife Habitat Management).

- Critically eroding soils in the West Santa Clara River watershed would be evaluated for nonstructural projects to reduce erosion in accordance with the findings and recommendations of the Virgin River Basin - Utah Cooperative Study (1990). Projects could focus on improving vegetation composition and cover, enhancing and maintaining properly functioning riparian systems, and where necessary, adjusting grazing management and patterns of human use in the watershed. In conducting the evaluations and designing projects, BLM would involve affected operators and local communities in accordance with provisions of BLM Utah's Standards for Rangeland Health included in Appendix 3. Such actions would also be designed to complement planned actions in the Virgin Spinedace Conservation Agreement and Strategy.

- The Curly Hollow and Frog Hollow watersheds, important riparian zones, and specified areas of highly erosive soils would be protected through off-road travel restrictions or closures. Project-related surface disturbances would be reclaimed to stabilize soils and encourage the reestablishment of vegetation and protective cryptogamic crusts, where appropriate. The Curly Hollow and Frog hollow watersheds would also be designated rights-of-way avoidance areas and placed in fluid mineral leasing Category 2 along with other public lands with a severe erosion hazard. Leasing stipulations would require submission and approval of a plan of development that ensures soil productivity would be maintained and adequate controls applied to prevent erosion and degradation of water quality.

- Watershed control structures already in place and continuing to serve valid purposes would be maintained by the sponsoring agency so as to continue their proper functioning. Generally, lands containing such structures would be retained in public ownership unless transfer could guarantee long-term management of the structures for the purposes for which they were built.

BLM would retain public lands within the 100-year floodplain along rivers and major streams in Washington County unless transfer would accomplish important objectives that significantly outweigh floodplain concerns and measures could be applied to the transfer that would prohibit or fully mitigate risks of floodplain development, or transfer would occur to an agency or owner who would manage effectively for floodplain protection. BLM would comply with the provisions of Executive Orders 11988 and 11990 that require federal agencies to protect wetlands under their jurisdiction and avoid development within floodplains wherever possible. Specific protection that would be applied to floodplain management include the following:

- Public lands within floodplains would generally be managed so as to preserve or restore the natural and beneficial values served by the floodplains. Structural developments within the floodplain that would be subject to recurring flood damage or which, in turn, would create adverse impacts to lands, resources, or developments in or adjacent to the floodplain would be discouraged or not authorized. Multiple uses of the floodplain, including recreation, would be encouraged where such would not disrupt the broad purposes for which the floodplain is being managed.

- Prior to taking actions within designated floodplains, BLM would work with project sponsors to seek alternatives that involve no floodplain disturbance. Where suitable alternatives do not exist, BLM would work with local and state agencies to evaluate the potential effects of such actions and apply measures needed to minimize the impact of floods on human safety, health, and welfare and to maintain the functionality of the floodplain and related natural values. Where suitable mitigation cannot be applied to eliminate unacceptable impacts, BLM would not approve the action.

- Non-federal lands within designated floodplains could be acquired as a result of collaboration with local, state, and federal partners through multijurisdictional planning efforts such as the Washington County HCP, approved conservation agreements, cooperative management agreements, and plans to restore important riparian values or habitat for special status species. Such lands could be acquired through purchase, exchange, donation, or conservation easement.

BLM would apply Standards for Rangeland Health approved for BLM in Utah (Appendix 3) in its various management programs to ensure that upland soils exhibit permeability and infiltration rates that sustain or improve site productivity, considering the specific soil type, climate, and landform. Best management practices appropriate to each site and resource management program would be implemented for sediment control and monitored for effectiveness in meeting objectives for reducing sedimentation

and stream salinity. Where standards and objectives are not being met, BLM would work with state, local, and affected partners to determine the cause and adjust management practices accordingly.

Water Resources

Population growth in Washington County has resulted in additional demands being placed on surface and groundwater resources in recent years (Utah DEQ, 1996). Numerous municipalities within the resource area have developed springs or wells on public lands as sources of culinary water. Protection of these resources would be afforded priority in accordance with state and federal requirements. The Navajo Sandstone Aquifer recharge area and other existing or proposed culinary water sources on or adjacent to public land would be identified and managed as municipal watersheds. These would include properties with state-approved water rights used for municipal purposes. The following measures or management practices would be applied to municipal watersheds: (a) BLM would coordinate with local and state agencies as water protection plans are developed to ensure that federal land management actions or practices do not jeopardize drinking water quality; (b) municipal watersheds would be closed to mineral materials sales; (c) fluid mineral exploration and development would be subject to state and federal requirements for casing of drill holes and use of cement plugs to prevent migration of contaminants or low quality water and special leasing stipulations requiring submission of a plan of development that protects surface and groundwater quality; d) no hazardous material or landfill sites would be approved within the watersheds or in a location that would jeopardize watershed integrity; and (e) where BLM determines that proposed uses would degrade water quality within the watershed below standards set by the State of Utah in R317-2, BLM would not approve such use. Nonpoint sources of water pollution are believed to be the largest single cause of water pollution in the State of Utah (Utah DEQ, 1996). Nutrient and sediment loading from agricultural practices associated with grazing and irrigation along with road proliferation, off-road travel, recreation practices, and resource extraction in certain areas contribute to the impairment of water quality in rivers and streams. BLM would continue to support and implement current agreements and memoranda of understanding with the Utah DEQ and Department of Agriculture to coordinate planning activities for the conservation of public land waters and to improve, maintain, and protect the quality of such for beneficial uses. It would also seek to prevent, abate, and control new or existing pollution of waters within Washington County and the surrounding region in collaboration with local, state, and federal partners. To achieve such goals, BLM would take the following actions:

- Continue work with the Utah Nonpoint Source Task Force, under the provisions of the State of Utah Nonpoint Source Management Plan, to (a) prioritize waterbodies for nonpoint source control activities, (b) seek funding for nonpoint source control projects, (c) develop and implement coordinated resource activity plans to resolve nonpoint source related water quality problems, and (d) identify and develop best management practices to be employed on public rangelands to reduce nonpoint source pollution.

- Fulfill its role as the designated management agency for controlling nonpoint source pollution on public lands in the resource area.

- Wherever practical, require best management practices be employed by holders of various use authorizations involving public lands and employ such practices in its own watershed management activities. At the minimum, such would include the application of permit stipulations described in Appendix 1 and the Utah Standards and Guidelines described in Appendix 3.

- Complementary to BLM's objectives for improving rangeland health, become an active partner in the Utah DEQ's Utah Watershed Approach Framework initiative (1996) and work closely with other stakeholders in the Lower Colorado Watershed Unit in (a) building public support for a comprehensive, basinwide approach to resolving water quality

problems, (b) collecting essential data relative to water quality and pollutant sources, (c) ranking watershed concerns and targeting specific sites for planned actions, (d) developing management strategies to be employed, (e) jointly preparing watershed management unit plans, (f) implementing planning recommendations, and (g) monitoring and evaluating the results.

- Meet the goals of the Colorado River Basin Salinity Control Act by implementing administrative actions in this Proposed Plan and continuing to require the use of best management practices in areas of highly erodible, saline soils to reduce or prevent the movement of salts into drainages and waterways that flow into the Virgin River or its tributaries.

- Collaborate with Washington County, municipalities, Indian tribes, affected state and federal agencies, user groups, and interested organizations in formulating and analyzing the proposed Virgin River Management Plan as it relates to water quality, water conservation, floodplain management, and protection of related resources along the Virgin River and its major tributaries. Among other things, the plan would propose to (a) protect and improve aquatic habitats for native wildlife species, (b) improve water quality, (c) implement water conservation strategies, (d) protect the 100-year floodplain and watersheds, (e) restore water flows to historic riverine habitat areas, (f) establish minimum water flows needed for habitat protection, (g) improve irrigation practices and efficiency of water storage, (h) recycle treated water, (i) develop a river trail and parkway system, and (j) provide water resources to meet human consumptive needs up to the year 2020.

- Coordinate the implementation of planning recommendations approved through this Proposed Plan with the Utah Divisions of Water Quality and Water Resources to ensure consistency with the goals of the 1990 Utah State Water Plan and the 1993 supplement for the Kanab Creek/Virgin River Basin. The state plan and its supplement provide a comprehensive overview of water issues and management recommendations that are directly applicable to public lands in Washington County.

- Implement those planning prescriptions outlined in this Plan under sections pertaining to Riparian Resources, Fish and Wildlife Habitat Management, and Special Emphasis Areas that bear directly on the reduction of chemical pollutants and sediments in streams or rivers and the improvement and maintenance of healthy, properly functioning waterways, riparian zones, and associated natural systems.

BLM would collaborate with partners in local, state, and federal agencies to ensure that the collective programs for management of lands and waters in Washington County are effective in meeting the objectives of and complying with water quality standards established by the federal Clean Water and Safe Drinking Water Acts. In so doing, BLM would manage discretionary actions on public lands so as to fully support the designated beneficial uses described in the Standards of Quality for Waters for the State of Utah (R.317-2) for surface and groundwater.

To protect reservoirs and perennial streams from unnecessary pollution and sedimentation from fluid mineral leasing activity, BLM would prohibit surface disturbance within 100 yards of the high water line of permanent water bodies through application of the 200-meter rule in federal regulations at 43 CFR 3101.1-2.

BLM would collaborate with the State of Utah's Water Engineer, the Washington County Water Conservancy District, Indian Tribes, the Utah Division of Wildlife Resources, and other affected local, state, and federal agencies in assessing stream segments throughout Washington County to determine which segments possess resource values warranting minimum instream flows to maintain desired values. BLM would work with such agencies to develop strategies using Utah State law and other appropriate mechanisms including agreements with water users to establish and maintain such flows. Where appropriate, such studies would also evaluate options for protection of floodplains, improvement of water

quality, and conservation measures to eliminate wasteful practices. Table 2-7 depicts water-based resource values that could be the subject of such studies along stretches of creeks and rivers where the lands are currently in public ownership.

On December 4, 1996, the United States entered into a settlement agreement with the State of Utah, the Washington County Water Conservancy District, and the Kane County Water Conservancy District that recognizes reserved water rights for Zion National Park,

TABLE 2-7 • Water-Based Resource Values

STREAM SEGMENT	MILES	WATER DEPENDENT RESOURCE VALUES
East Fork Beaver Dam Wash Salt Lake Base Meridian T. 40 S., R. 19 W., Secs. 9 & 10	3.1	Riparian vegetation, nongame fisheries, forage production and watering, undeveloped recreation.
Santa Clara River South of Ivins	2.0	Riparian vegetation, undeveloped recreation, nongame fisheries, forage production and watering.
Santa Clara River Gunlock Reservoir to private land	3.2	Riparian vegetation, undeveloped recreation, forage production and watering.
Santa Clara Baker Dam South to private land	1.0	Riparian vegetation, cold-water fisheries, recreation, wildlife forage and watering.
West Fork Beaver Dam Wash Headwaters to private land north to Motoqua	12.7	Riparian vegetation, forage production and watering, undeveloped recreation.
Quail Creek U. S. Forest boundary to private land	1.0	Riparian vegetation, developed recreation area, wildlife forage and watering, nongame fisheries.
North Creek T. 42 S., R. 11 W., sec. 6: private land	1.5	Riparian vegetation, undeveloped recreation, nongame fisheries, wildlife forage and watering.
La Verkin Creek Private land near Toquerville to Zion National Park boundary	13.0	Riparian vegetation, nongame fisheries, forage production and watering, undeveloped recreation.
Deep Creek/Crystal Creek Zion National Park Boundary north to private land	7.5	Riparian vegetation, game fisheries, forage production and watering, undeveloped recreation.
Kolob Creek North of Zion National Park	3.0	Riparian vegetation, cold-water fisheries forage protection and watering, undeveloped recreation.
Virgin River Quail Creek Reservoir to confluence with Ash Creek	6.0	Riparian vegetation, woundfin minnow habitat, undeveloped recreation.
Virgin River Atkinville to Stateline	6.0	Riparian vegetation, wilderness, undeveloped recreation, woundfin minnow habitat.
Ash Creek Ash Creek Reservoir to confluence with Virgin River	1.0	Riparian vegetation, nongame fisheries, wildlife and livestock forage.

subordinates the federal reserved water rights to existing state water law, and allows for some potential development of water above Zion National Park. In managing water resources on public lands and making decisions concerning any resource management program, BLM would take no action that would abrogate the intent or provisions of the agreement.

BLM would work with the State of Utah and other affected agencies to evaluate designation and management of approximately 7 miles of the West Fork of the Beaver Dam Wash as an antidegradation segment. The designation would require proposed surface uses to be mitigated through the application of best management practices to reduce adverse impacts to the watershed. Mining exploration and development would require plans of operation. BLM would continue to protect high quality waters on public land segments of the North Fork of the Virgin River and tributaries already designated as Category 1 by the Utah Division of Water Quality under R317-2-12 of the Utah Administrative Code.

Surface or underground waters arising on or flowing over and through public lands are essential for the management of numerous public resources. By law, the State of Utah administers unappropriated waters within its boundaries through the Utah State Water Engineer. Where needed to support public land management purposes including consumptive uses for livestock, wildlife, and public land user groups, BLM would seek to acquire water rights under Utah State law where such rights have not already been established. Acquisitions could occur through purchase, exchange, donation, or filing with the Utah State water engineer.

Water rights that have been appropriated by non-federal parties on public lands through the state water engineer and which are supported by legal and physical access across public lands would continue to be recognized. Waters in excess of BLM's needs for consumptive uses or resource management would remain available for downstream water users in accordance with state law. BLM would continue to provide access across public lands and to approve facilities needed to collect, divert, or transport water, based on legally recognized water rights. Such actions would be analyzed on a case-by-case basis with public participation and approved where the review determines the action would not adversely affect the management of important public resources or otherwise conflict with the objectives of this Plan.

A total of six potential reservoir sites identified by the State of Utah's Water Engineer and the Washington County Water Conservancy District on public lands in Washington County would be recognized as special resources warranting federal awareness and attention in future land management planning and decisionmaking processes (see Map 2.8). In evaluating land use proposals and management options for each of the six sites, BLM would give full consideration to the unique values associated with the potential for water storage and related purposes prior to making decisions which would preempt the use of such sites for future reservoir development. Where such preemption is considered, the State of Utah and local, affected agencies would be consulted and given sufficient opportunity to respond to the proposal before decisions are made. Development of any of the following sites for reservoir purposes would require complete environmental and engineering analysis and public participation prior to consideration for approval.

- Anderson Junction
- Warner Valley
- Leeds Creek
- Dry Creek
- LaVerkin Creek (lower site)
- Grapevine Wash

A sixth proposed reservoir site located at Sand Hollow has recently been transferred to the Washington County Water Conservancy District (WCWCD) in accordance with provisions of the Omnibus Parks and Public Lands Management Act of 1996 (November 12, 1996). It is presumed that reservoir construction would commence in accordance with WCWCD plans (for additional details, see the Sand Hollow Reservoir Project Report, Greystone, July 1997).

Five additional reservoir sites listed in the Draft RMP/EIS were recognized by the state and the WCWCD as having potential for water storage

but are not carried forward into the Proposed Plan. These sites include the Shem site, the Gunlock Reservoir enlargement, the West Fork of the Beaver Dam Wash, the Lower Santa Clara River, and LaVerkin Creek (upper site). The Shem site, one of several options being considered to resolve Indian water rights issues, is proposed on the Santa Clara River in the Shivwits Indian Reservation and would not fall within BLM's jurisdiction. Should reservoir design result in potential extension onto public lands, conflicts could occur with plans for Virgin spinedace restoration. The Gunlock Reservoir enlargement would occur almost entirely on state land and also would not fall within BLM's jurisdiction.

Reservoir development on the remaining three potential sites would conflict with one or more decisions or objectives of this Plan. Development of a reservoir on the upper part of the West Fork of the Beaver Dam Wash within the proposed ACEC would conflict with management objectives for maintenance of important riparian systems, restoration of Virgin spinedace populations, and protection of potential habitat for the Southwestern willow flycatcher. Because of the hydraulic connection of groundwater to surface water in the wash, development of a municipal water well field in the wash could cause loss of streamflow and be detrimental to surface water resource values identified in a recent hydrologic study of Beaver Dam Wash (Fogg, et al., 1998). To be consistent with the objectives of this Plan, well field configuration and pumpage would need to be evaluated prior to development. Well field planning would need to show, among other things, that groundwater withdrawals could be sustained in the long term without adversely affecting surface flows and dependent resource values downstream of the development. Reservoir development on the Lower Santa Clara River within the proposed ACEC would conflict with management objectives for the maintenance of important riparian systems, restoration of Virgin spinedace populations, and protection of significant cultural resources. Reservoir development at the upper site on LaVerkin Creek would conflict with objectives to manage for natural values under the primitive recreation classification. Development would also conflict with BLM's suitability recommendation for Wild and Scenic River designation on this segment of the creek.

Previous to publication of the Draft RMP/EIS, BLM managers had rejected potential reservoir sites on North Creek and Fort Pearce Wash. Concerns on North Creek involved potential water contamination from old well sites within an abandoned oil well field and potential impacts to Virgin spinedace habitat. Water storage development on Fort Pearce would destroy the National Historic Register property at Fort Pearce and impact a small but important riparian system and associated habitat for the spotted bat.

BLM recognizes that additional sites with water storage potential may yet be identified by state or local water management agencies as a result of new studies or reevaluation and redesign of sites previously eliminated by the respective agencies or BLM. New proposals for development of such sites would be subject to additional environmental review with appropriate public participation and would be considered through the plan amendment process. Actual project approval and development of such sites could occur only after appropriate engineering studies and environmental analysis were completed and favorable decisions issued by respective state, local, and federal agencies.

An application has been filed by the Washington County Water Conservancy District to construct a pipeline to convey water from Lake Powell near Wahweap to the proposed Sand Hollow Reservoir. Possible route locations and project features are described in the Lake Powell Pipeline Feasibility Study (Boyle Engineering Corp./Alpha Engineering Inc., 1995). The proposal was not addressed in the Draft RMP and is not carried forward into the Proposed Plan/Final EIS. It will, however, be analyzed in a separate environmental impact statement prepared under a joint agency process and, if necessary, a plan amendment prepared for affected public lands within the right-of-way. According to Water Conservancy District officials and statements in the Purpose and Need Study (WCWCD, 1995), approval and construction of the pipeline could satisfy long-term municipal, industrial, and instream flow require-

ments and eliminate the need for most, if not all, other reservoir proposals on public lands in Washington County (Ron Thompson, personal communication, 1997).

Riparian Resources

BLM estimates that there are 6,770 acres of riparian habitat on public lands in the Dixie Resource Area (USDI/BLM, 1988). These are areas along streams, rivers, and desert washes where the vegetation reflects the permanent influence of surface or subsurface water (see Map 2.8). Of this total, approximately 4,600 acres are associated with surface water. In a desert environment, these areas are critical to the integrity of natural systems important to people and wildlife. Riparian zones are key to the quality of most recreation experiences along major streams and rivers as well as the beauty of the landscape wherever they are found in Washington County. Healthy riparian zones store water, sustain quality fisheries, nesting sites, winter resting places for migrating waterfowl, and help maintain water quality in the affected rivers and streams. Moreover, they link habitat zones, provide travel lanes for wildlife, and support numerous species listed under state and federal laws. In proper condition, they can also lessen the adverse impacts of serious flood events that occur from time to time in drainages throughout Washington County.

BLM's objective, to the extent practical, would be to manage riparian areas so as to maintain or restore them to properly functioning conditions and to ensure that stream channel morphology and functions are appropriate to the local soil type, climate, and landform. Currently, 56 percent of riparian habitats in the resource area are in properly functioning condition, 29 percent are functioning at risk, and 5 percent are nonfunctioning. Condition is unknown on 10 percent. Site specific plans, where appropriate, would be prepared in collaboration with affected livestock operators, the Utah Division of Wildlife Resources, the Washington County Water Conservancy District, and other interested parties, agencies, or organizations to identify desired plant communities, establish specific management objectives, and recommend practices to be employed to achieve desired results. Specific priorities for riparian improvement are listed in the sections of this Proposed Plan on Livestock Grazing, Fish and Wildlife Habitat Management, Soil and Water Resources, and Proposed Areas of Critical Environmental Concern. Monitoring and evaluation strategies would be implemented to measure progress in accordance with Utah's Standards for Rangeland Health and Guidelines for Grazing Management (Appendix 3).

Riparian areas would be protected by standard or special stipulations in leases and permits including those listed in Appendix 1, Standards Applied to Surface Disturbing Activities. In accordance with Utah BLM riparian policy (1993), major new surface disturbing activity would not be approved on public lands within 100 yards of riparian areas unless (a) there are no practical alternatives, (b) long-term impacts could be fully mitigated, or (c) the action was designed to enhance the riparian resources.

To avoid contamination of water resources and inadvertent damage to nontarget plants and animals, aerial application of pesticides would not be approved within 100 feet of a riparian area unless the product is registered for such use with the Environmental Protection Agency.

Livestock salt blocks and other nutritional supplements would be located at a sufficient distance from natural waters and riparian areas to ensure that livestock concentrations do not impact the values being managed.

Monitoring studies would be established in riparian areas where increased recreation, OHV use, or grazing patterns are believed to be adversely impacting goals for riparian management. Impacts on key riparian species would be monitored on the following priority river segments: Santa Clara River (below Gunlock), Santa Clara River (Land Hill segment), Fort Pearce Wash (ruins area), and the Virgin River near Zion National Park. Other segments could be added at a later time as resource conditions warrant and priorities allow. Regular monitoring of species and sites would be conducted to determine whether vegetative conditions and objectives are being achieved. If declining trends were identified, BLM would work with

livestock operators, user groups, and other affected agencies, communities, or organizations to identify causes of the declining trends and to recommend and take corrective action. Options could include but are not limited to fencing, barriers, selected closures, vegetative manipulations, seasonal use restrictions for camping or recreation, and adjustments in grazing management. Degraded sites along the Santa Clara River below Gunlock Reservoir and segments of the Virgin River near Zion National Park would receive priority attention. The riparian demonstration project on North Creek would be maintained and used as an example of best management practices that could be employed for other zones being impacted by heavy recreation use, off-road travel, or grazing.

Where consistent with other objectives of this Proposed Plan, control of exotic or undesirable plant species could be employed to achieve desired plant communities on selected reaches of the Virgin and Santa Clara Rivers and major tributaries. Such action would be coordinated through agreements with interested local, state, and federal agencies and be subject to appropriate consultation with the FWS.

Generally, riparian areas would be retained in public ownership unless they are small and isolated and cannot be effectively managed through agreement with local, state, or other federal agencies or interested conservation groups. Changes in ownership would be permissible if such would result in the acquisition of lands with superior public values or if such changes were intended to meet riparian management objectives.

Where small or isolated parcels of public land contain riparian resources in unsatisfactory condition, BLM would work with surrounding landowners, municipalities, affected permittees, concerned organizations, and local or state agencies to develop cooperative agreements that would (a) help reestablish desired vegetation, (b) implement sound management to accomplish mutual objectives, and (c) restore the areas to a healthy condition.

With landowner consent, BLM would acquire lands containing important riparian areas in proximity to other public lands where riparian management is being emphasized. The presence of high public values related to special status species habitats, floodplains, water quality issues, and recreation opportunities would be considered in evaluating such proposals. Acquisitions would be considered where partnerships, funding, and management priorities would assure long-term commitments to maintain or restore the riparian areas to properly functioning conditions.

To minimize destruction of essential vegetation, OHV use in riparian areas would be limited to existing roads and trails unless a more restrictive designation is specified. Trails found to impede restoration of degraded areas would be closed, relocated, or subjected to seasonal restrictions to achieve desired conditions. Because of current high use levels and extensive degradation of streamside vegetation, OHV use on portions of the Virgin and Santa Clara Rivers would be limited to designated roads and trails. Mountain bike use would be limited to existing roads and trails in riparian areas unless subject to a more restrictive designation. See the section on Off-Highway Vehicle Management for proposed OHV use designations.

To minimize disturbance to riparian values, riparian areas would be placed in a right-of-way avoidance category (except in designated corridors) and closed to sales of fuelwood and mineral materials outside of established community pits. No surface occupancy would be allowed for fluid mineral leasing activity in riparian zones.

Vegetation Resources

Public lands in Washington County support a wide variety of vegetation types depending on soils, climate, and landform as well as effects of past and present land use and the presence of exotic plant species. Healthy, productive vegetation communities are key to soil retention, wildlife habitat, livestock grazing, riparian systems, watershed, and human use and enjoyment including recreation and scenic attraction. BLM's overall objective for vegetation management would be to ensure that the amount, type, and distribution of vegetation on public lands in Washington County reflects desired plant com-

munities. These are defined as plant communities that produce the kind, proportion, and amount of vegetation necessary to meet or exceed management objectives for a given ecological site. Development of such communities would sustain a desired level of productivity for wildlife, livestock, and nonconsumptive purposes while maintaining properly functioning ecological conditions. BLM would apply Utah Standards for Rangeland Health and Guidelines for Grazing Management (Appendix 3) in managing its various resource programs and monitor the results to ensure vegetation management objectives were being met. Collaboration with affected operators, government agencies, Indian tribes, and interested organizations would bring together resources needed to complete specific management plans, implement approved recommendations, and monitor and evaluate the results.

Vegetation Composition

BLM would implement management practices on selected vegetation types in areas of suitable soils and annual precipitation to increase the relative composition of desirable browse and grass species to meet important wildlife, livestock, and watershed goals. Objectives for specific vegetation types include the following:

- In mountain shrub and sagebrush vegetation types, maximize habitat diversity by reducing the amount of shrubs and sagebrush and increasing grass and forbs in selected areas.

- In the pinyon-juniper woodland type, maximize habitat diversity in selected areas by reducing the number of trees and increasing desirable shrubs, grasses, and forbs.

- In riparian areas within the mountain shrub type, maximize habitat diversity by maintaining woody species composition while providing for stream bank protection through adequate forb and grass cover.

These objectives would be achieved through specific actions identified and analyzed in the proposed Dixie Fire Management Plan, allotment management plans, habitat management plans, and other activity plans in the wildlife, watershed, livestock, and riparian programs.

The use and perpetuation of native plant species would be emphasized. However, when restoring or rehabilitating disturbed or degraded rangelands, nonintrusive and non-native species would be approved for use where native species (a) are not available, (b) are not economically feasible, (c) cannot achieve ecological objectives as well as non-native species, and/or (d) cannot compete with already established non-native species.

Seed mixes used for rehabilitation would reflect a diversity of plant types suitable to the soils, climate, and landform of the area being restored. Mixes would be designed to meet a range of purposes appropriate for the land involved including wildlife, watershed, soil retention, livestock, and fire ecology.

Rangelands that have been burned, reseeded, or otherwise treated to alter vegetative composition would be closed to livestock grazing as follows: (a) burned rangelands, whether by wildfire or prescribed burning, would be ungrazed for a minimum of one complete growing season following the burn, and (b) rangelands that have been reseeded or otherwise chemically or mechanically treated would be ungrazed for a minimum of two complete growing seasons following treatment.

In accordance with national and state policies, BLM would continue working with the Washington County Weed Supervisor through written agreement for the control of noxious weeds on and near public lands. In order to prevent the introduction and spread of noxious weed species, BLM would seek to develop partnerships with landowners, Washington County, state agencies, other federal land management agencies, and interested organizations. Such partnerships would formulate and analyze an integrated weed management approach to develop public awareness programs, establish weed management objectives and priorities, develop and apply common inventory techniques, implement approved treatments and control measures, and monitor and report results.

Specific weed treatments would be determined by plant species, site characteristics, and management objectives. A combination of approaches could be employed to achieve the most environmentally sound results including mechanical, biological, and chemical techniques or changes in land use.

Because demand would rapidly exhaust available supply, desert vegetation sales would be limited to designated salvage areas only. These areas typically include lands under construction for rights-of-way or other projects undertaken or approved by BLM. Specific authorization for the collection of vegetation could be approved for scientific purposes. Except for federally-listed species described in this section, collection of vegetative products for Native American ceremonial or religious purposes would be allowed.

Special Status Plant Species

In addition to the vegetation objectives described above, BLM would apply appropriate management to special status plant species located in the resource area. Special status plant species include (a) threatened or endangered species listed or species proposed for such listing under the Endangered Species Act, (b) candidate species, and (c) state-listed sensitive species (see Appendix 4). BLM's objective would be to help recover listed species and manage candidate and sensitive species so that additional listings are not necessary. Management would focus on the development and implementation of recovery plans for listed species and conservation agreements and strategies for candidate and other sensitive species.

Where threatened or endangered plant species occur on public lands in Washington County, BLM would collaborate with affected local, state, and federal agencies and researchers in the implementation of approved recovery plans to stabilize and recover such species. In addition to on-the-ground actions, strategies would be developed to provide public education on species at risk, significance of the species to the human and biological communities, and reasons for protective measures that would be applied to the lands involved.

Generally, public lands supporting federally-listed or sensitive plant species would be retained in public ownership unless exchange or transfer would result in acquisition of better habitat for the same species or provide for suitable management by another qualified agency or organization. Habitats for such species could be acquired where logical to block up management areas and where BLM or qualified partners have the resources needed to effectively manage for the intended purpose.

The following additional measures would be applied to the plant species indicated to promote their survival and recovery. Other measures could also be employed as a result of yearly monitoring studies and consultations with the FWS, the Utah DWR, and other interested parties:

Dwarf Bear-Claw Poppy and Siler Pincushion Cactus

- BLM would continue to implement existing recovery plans, habitat management plans, and the Washington County Habitat Conservation Plan as they apply to these two species. Among other things, the plans call for monitoring and studies, habitat consolidation, selected fencing, public education, signing, law enforcement, and protection from mining, off-road travel, and other forms of impacting land use.

- The Red Bluff and Warner Ridge/Fort Pearce habitat areas would be designated and managed as Areas of Critical Environmental Concern (ACECs). Specific prescriptions that would be applied to these areas are described in the section of this plan on ACECs under Special Emphasis Areas.

- To reduce conflicts and additional disturbance, habitat areas would be designated as rights-of-way avoidance areas and closed to fuelwood and mineral materials sales. Plants would be protected by restricting mountain bike use and off-road vehicle travel to designated roads and trails.

- Dwarf bear-claw poppy habitat adjacent to Webb Hill would be consolidated

through land exchange with the Utah School and Institutional Trust Lands Administration, fenced, and signed to increase public awareness of efforts to recover the plant. The area is within the St. George City limits and would remain closed to fluid mineral leasing.

Holmgren Milkvetch and Hermit's Milkvetch

- In collaboration with interested local, state, and federal agencies, institutions, and Indian tribes, BLM would prepare conservation agreements and strategies designed to stabilize declining populations and promote protective management to ensure survival of the species.

- To reduce conflicts and additional disturbance, habitat areas would be designated as rights-of-way avoidance areas and closed to fuelwood and mineral materials sales. Plants would be protected by restricting mountain bike use and off-road vehicle travel to designated roads and trails.

- Prior to surface disturbing exploration or development associated with fluid mineral leasing, botanical surveys would be completed and known populations avoided to eliminate the taking of plants.

- Habitat areas would be kept free from use of chemical pesticides and herbicides.

- Where necessary to protect small, isolated populations of Hermit's Milkvetch under 10 acres in size, BLM would fence areas to prevent inadvertent destruction of plants.

Other Sensitive Plant Species

- BLM would continue to work with interested local, state, and federal partners in conducting or authorizing field inventories and studies to establish or refine ranges of occurrence, population data, habitat requirements, and baseline species conditions and subsequent trends. Based on the results of these studies, joint strategies could be developed for habitat protection and to eliminate the need for formal listing.

Fish and Wildlife Habitat Management

Within Washington County, BLM manages public lands as habitat for a great variety of wildlife species. Because much of the county lies in the transition zone between the Basin and Range, the Mojave Desert, and the Colorado Plateau, many wildlife species are at the extreme end of their natural ranges. Seven animal species are listed as threatened or endangered under the Endangered Species Act. Some animals are also listed by BLM and the State of Utah as "sensitive" because of limited distribution or declining populations or status as threatened or endangered under state rules and policies. By law, wildlife is managed directly under the Utah Division of Wildlife Resources (DWR). Consequently, state officials work closely with BLM and other interested parties to achieve goals for healthy, diverse, and sustainable wildlife populations.

Under this Proposed Plan, BLM's overall objective for fish and wildlife habitat management would be to maintain habitats in properly functioning conditions to support natural wildlife diversity, reproductive capability, and appropriate human use and enjoyment. An important objective of BLM's habitat management program would be to work with state, local, and other federal partners to minimize or eliminate the need for additional listing of species under the Endangered Species Act in Washington County.

To meet the above objective, BLM would manage suitable public land habitats for the recovery or reestablishment of native populations through collaborative planning with local, state, and federal agencies, user groups, and interested organizations. BLM would also seek to limit additional adverse impacts to crucial habitats on public lands from urbanization and encroachment to preserve the integrity of wildlife corridors and migration routes and access to key forage, nesting, and spawning areas.

Consistent with other priorities, BLM would consolidate blocks of public lands resulting in improved habitat management capability. Such would occur in key habitat areas for listed species and other important wildlife populations including, but not limited to, lands within the Washington County Habitat Conservation Plan Reserve, the Beaver Dam Slope, the Deep Creek drainage, and in key riparian zones.

Crucial mule deer winter range would be protected from the potential effects of fluid mineral leasing with a Category 2 seasonal stipulation to close the lands to exploration or development from November 1 to April 15. Elk calving areas would be closed for the same reason from May 1 to July 30. These seasonal use restrictions would also be applied to mineral materials sales, forest product sales, and rights-of-way construction.

Desert bighorn sheep habitat in the Beaver Dam Mountains would continue to be managed in collaboration with the Utah DWR to support the existing herd in that location. Existing water developments would be maintained with the help of volunteers and interested organizations.

A West Zion Habitat Management Plan (HMP) would be developed in collaboration with the Utah DWR and other interested parties to guide management of 192,200 acres of wildlife habitat in eastern Washington County. Seven existing HMPs throughout the rest of the county would continue to be implemented.

Prescribed burns in selected areas (including wildfires which meet approved prescriptions in the proposed Dixie Fire Management Plan) would be utilized to improve vegetation composition to benefit wildlife habitat for big game and other species. See the sections of this Plan on Fire Management and Vegetation Composition for further details. A 500-acre sale of pinyon and juniper trees would be approved in the Potters Peak area to improve mule deer habitat.

BLM would collaborate with local, state, and federal agencies, adjacent landowners, users groups, and interested parties to protect and enhance viable fisheries habitat on segments of the Santa Clara River immediately below Baker Dam Reservoir, the upper West Fork of the Beaver Dam Wash, Deep Creek, Crystal Creek, and Kolob Creek. Protective measures would include OHV restrictions, Category 2 and 3 mineral leasing stipulations, pesticide restrictions, and closures to mineral materials sales described in the sections of this Plan on Fluid Minerals, Water Resources, Riparian Resources, Recreation, and Off-Highway Vehicle Management. Enhancement would occur through riparian improvements, stream bank stabilization, gabion construction in suitable areas, water quality improvements, and selected land acquisitions in conjunction with riparian management objectives. Virgin spinedace recovery objectives would take precedence if conflicts develop with fisheries habitat proposals.

BLM would work with the Utah DWR to restrict camping from October 15 to November 15 within 0.25 mile of the following water sources west of the Santa Clara River: twelve springs including Cove, Jackson, Red Hollow, Quail, Grapevine, Crazy, Indian, Welcome, Middle, Reber, Summit, and Dodge, all water catchments, and all DWR guzzlers. This seasonal restriction is needed to protect wildlife access to these critical water sources during the fall big game hunting season.

In collaboration with the Utah DWR and other interested parties, BLM would develop new wildlife waters in areas where field studies reveal the need for such to maintain healthy, viable populations of mule deer or other game and nongame species. Such waters would be developed in accordance with the objectives and guidelines of applicable game and nongame management plans, habitat management plans, and allotment management plans.

Special Status Animal Species

BLM would manage public lands to meet the goals and objectives of recovery plans, conservation agreements and strategies, approved activity level plans, and the Washington County HCP Implementation Agreement related to the recovery of special status animals in Washington County. As part of its plan implementation, BLM would work with its partners to promote public education on species at risk, significance to the human and biological communities, and

reasons for protective measures that would be applied to the lands involved.

BLM's objective would be to collaboratively manage habitat for federally-listed species so as to achieve recovery and delisting. Approved recovery plans would guide management decisions. Recovery plan actions already implemented would be evaluated for effectiveness in achieving desired effects and revised where studies show objectives have not been met.

BLM would also collaborate with appropriate local, state, and federal agencies in the management of habitat for nonlisted special status animal species with the objective of eliminating the need for additional listings. Management actions would be guided by conservation agreements and strategies. Special attention would be given to those animals listed as "sensitive" under the Utah Sensitive Species List maintained by the Utah DWR.

Critical habitat for federally-listed species and habitat for candidate species would be designated right-of-way avoidance areas and closed to mineral materials sales. Appropriate use restrictions affecting off-road travel, mineral leasing, mining, recreation, occupancy, and fuelwood sales would be employed where needed to accomplish conservation and recovery objectives.

Where monitoring studies show that habitats are being degraded because of discretionary land uses, BLM would collaborate with affected permittees, operators, or user groups, and interested agencies and other parties in designing and implementing changes in the impacting land use to restore the land and meet recovery objectives. Permanent elimination of one or more uses would occur where studies and related data support the conclusion that no other alternatives would resolve the conflict, where affected parties are fully involved throughout the process, and where the requirements of applicable federal regulations for public notification and due process are met.

BLM would collaborate with affected local, state, and federal agencies, water users, Indian tribes, and other interested entities in assessing instream flow requirements needed to sustain viable populations of federally-listed or sensitive fish species. Based on such studies, BLM would promote and support the joint development of strategies for maintaining such flows under Utah State law or other appropriate mechanisms including agreements with affected water users. The Water Resources section of this Proposed Plan contains additional information on affected stream segments and related issues.

Public lands supporting federally-listed or sensitive animal species would be retained in public ownership unless exchange or transfer would result in acquisition of better habitat for the same species or provide for suitable management by another agency or qualified organization. Habitats for such species could be acquired where logical to consolidate management areas and where BLM or qualified partners have the resources needed to effectively manage for the intended purpose.

Section 7 consultation with the FWS would be required for any action that might affect federally-listed species or associated critical habitats.

Desert Tortoise

On February 23, 1996, after extensive public review and publication of a final environmental impact statement (USDI/FWS, 1995), BLM, Washington County, the Utah Department of Natural Resources, the FWS, and the town of Ivins signed the Implementation Agreement for the Washington County, Utah, Habitat Conservation Plan (HCP). This HCP was prepared as part of the county's application for an incidental take permit under Section 10(a) of the Endangered Species Act and was designed to provide a comprehensive approach to preserving and enhancing Mojave desert tortoise habitat north of St. George City. The HCP established a 61,022-acre desert reserve that constitutes a Desert Wildlife Management Area for the Upper Virgin River Recovery Unit described in the 1994 Desert Tortoise (Mojave Population) Recovery Plan (see Map 2.9). BLM would continue to implement the terms of the HCP and associated Agreement and incorporates them by reference into this Proposed Plan.

Generally, the HCP provides the following actions to be taken with regard to lands within the reserve boundaries:

- BLM would work collaboratively with local, state, and federal HCP partners to accomplish the goals and the objectives of the HCP. Major goals include the preservation and protection of the desert tortoise and its habitat so as to achieve full recovery of the tortoise as well as other listed or sensitive species found within the recovery unit. Under the incidental take permit, Washington County and participating municipalities would be able to devote take areas outside the HCP Reserve to urban purposes including, among others, residential, commercial, industrial, and recreational uses.

- BLM would seek to acquire, through exchange, purchase, or donation, state, private, or municipal inholdings within the reserve to reduce fragmented ownership and provide for consistent management. Acquisitions would occur on a "willing buyer - willing seller" basis. Lands so acquired would be managed in accordance with prescriptions planned for the remainder of the area.

- BLM would seek to withdraw HCP lands from mining entry and would restrict motorized travel to designated roads and trails to reduce surface disturbance and related impacts to the resources being protected in the reserve. An off-road travel closure would be placed in the east half of Zone 3 coinciding with the primitive portion of the Washington County HCP Reserve (see Map 3.14 of the draft RMP) to preserve the natural values associated with that area. BLM would work with Washington County and its HCP partners to establish reasonable speed limits in the reserve needed to reduce the likelihood of accidental tortoise deaths from vehicle impacts. Where the HCP partners determine existing roads must be closed, BLM would work with the county to implement the closures under applicable state law and federal regulations.

- BLM would prepare an activity level plan in collaboration with HCP partners and affected user groups to define specific guidelines for human use within the reserve. Among other things, the plan would address how to manage hiking, rock climbing, horseback riding, mountain biking, and camping to avoid impacts to critical habitat.

- Competitive recreation events would not be allowed because such activities are inconsistent with maintenance or improvement of critical habitats and can be provided for elsewhere in Washington County or in the surrounding areas.

- New rights-of-way could be authorized in the reserve in accordance with protocols established in the HCP for such purposes (see HCP, Appendix A, Washington County, 1995). The protocols are intended to avoid the most sensitive areas in the reserve and to limit habitat disturbance. Among other things the protocols provide for: (a) use of existing corridors in and outside of the HCP Reserve, (b) preliminary project review by HCP biologists to minimize adverse impacts, (c) consultation with the FWS, (d) preconstruction clearance and construction oversight by qualified biologists, (e) avoidance of burrows, (f) fencing and reduction of hazards created by construction activity, and (g) removal of tortoises at risk by qualified personnel.

- Fences needed to control tortoise movements or to prevent vehicle or pedestrian traffic in protected areas would be installed, as needed, in accordance with HCP guidelines. In collaboration with user groups, access points would be provided to allow ingress and egress for authorized purposes and use of approved trails.

- Where agreement can be reached with permittees, grazing permits would be relinquished after compensation from Washington County and permanently retired on the Alger Hollow, Yellow

Knolls, Washington, and Red Cliffs allotments in the reserve. Other grazing permits in the reserve may be similarly retired within tortoise habitat where permittees choose to relinquish them. In accordance with current biological opinions of the FWS, spring grazing after March 31 would not be authorized on those portions of the Leeds, Sandstone Mountain, and Sand Hill allotments in Zone 4 of the reserve to remove potential conflicts during the tortoise active season. No grazing authorization would be granted on lands acquired for reserve management in areas intended for permanent closure.

- In collaboration with the Utah DWR and other appropriate law enforcement agencies, BLM would implement public education and enforcement actions needed to accomplish the objectives of the reserve. BLM would also work with its HCP partners in locating, designing, and operating a desert wildlife education center to foster increased awareness of the important desert ecosystems in the reserve and throughout Washington County.

- BLM would collaborate with the Utah DWR, the FWS, and other interested parties to monitor the status of desert tortoises and to conduct studies needed to accomplish HCP objectives. Such studies could lead to adjustments in reserve management so as to promote recovery of the tortoise or any other listed or sensitive species in the reserve.

- In accordance with the provisions of the HCP, BLM would work with its HCP partners to achieve congressional designation of the reserve as a National Conservation Area so as to ensure continued recognition and public support for the maintenance of critical reserve values.

To meet HCP objectives, lands within the reserve would also be designated a right-of-way avoidance area and would be closed to mineral materials and fuelwood sales. The reserve would be placed under Category 3 (NSO) stipulations for fluid mineral leasing. Such restrictions are necessary inasmuch as essential tortoise habitat requirements and conditions needed for recovery cannot be met in areas impacted by extensive surface disturbance or heavy human activity.

BLM would continue to work closely with the Utah DWR, the FWS, adjacent units of the BLM in Arizona and Nevada, and affected permittees to develop and implement coordinated plans for tortoise management on the Beaver Dam Slope. The Slope extends into three states and forms an essential part of the Northeastern Mojave Recovery Unit as described in the Desert Tortoise Recovery Plan. Through interstate collaboration with its many state and federal partners, BLM has proposed to manage the Slope as an ACEC and has proposed consistent land use prescriptions across state lines designed to protect and help recover tortoise populations in accordance with Recovery Plan objectives.

The Beaver Dam Slope ACEC would also be managed so as to protect and further the objectives of the Woodbury Desert Study Area, the Joshua Tree National Natural Landmark, and the maintenance of important desert ecosystems that include numerous other plants and animals listed under state and federal procedures. The ACEC boundaries have been drawn to coincide as much as possible with the boundaries of the same unit in Arizona and Nevada. The entire proposed ACEC links with Desert Wildlife Management Areas, refuges, and other ACECs proposed for the remainder of the Northeastern Mojave Recovery Unit to provide a contiguous recovery zone of more than 1,750 square miles.

The following use prescriptions would be applied to management of public lands within the Beaver Dam Slope ACEC. For additional details, see the discussion on the Beaver Dam Slope ACEC contained in the section of this Proposed Plan under Special Emphasis Areas.

- Motorized travel would be restricted to designated roads and trails in order to reduce road proliferation and associated impacts to the habitat, tortoises, and other protected species in the area. BLM would work through Washington County to determine reasonable speed limits and roads needing closure under Utah state

law to reduce accidental tortoise deaths from vehicle impacts. Fences would be installed where needed to implement the restrictions and closures. Disturbed surfaces in closed areas would be rehabilitated to achieve natural-like conditions, to the extent practical.

- Authorized hunting in season, nonconsumptive recreation, and other casual uses not found to adversely impact tortoise habitat would be allowed. Mountain bikes would be restricted to designated roads and trails. Parking and vehicle-based camping would be restricted to within 25 feet of designated roads.

- Noncommercial groups of over 75 persons camping in open areas would be required to obtain a letter of authorization from BLM that would establish requirements for public sanitation and garbage removal and other terms needed to protect the integrity of the habitat. Competitive events would not be authorized to prevent direct and indirect habitat degradation and tortoise mortality (USDI/FWS, 1994).

- BLM would retain lands in this area in public ownership and consider transfer only where such would help accomplish objectives for tortoise recovery. Intensive land uses such as agriculture, sanitary landfills, long-term occupancy, and motorized military maneuvers would not be approved. Non-federal lands within the area could be acquired through purchase, exchange, or donation to consolidate habitat in public ownership. Lands so acquired would be managed under prescriptions applicable to the adjacent public lands.

- Category 3 (NSO) stipulations would be applied to fluid mineral leasing to prevent long-term habitat destruction and direct tortoise mortality from surface disturbing exploration, development, and operations. The area would be closed to fuelwood and mineral materials sales. Vegetation sales would be approved only for salvage on approved project construction.

- The area would be designated as a right-of-way avoidance area for new rights-of-way except in designated utility and transportation corridors. Existing rights-of-way would be maintained in accordance with the respective right-of-way grant or other applicable authorization.

- Spring grazing by livestock would be eliminated on those portions of the Castle Cliffs, Beaver Dam Slope, and Scarecrow Peak allotments within the ACEC except for the two special management areas recommended by the Utah DWR and the easternmost portion of the Woodbury Desert Study Area, which place emphasis on nontortoise management (see Map 2.9). Winter grazing on these allotments would continue in accordance with current grazing prescriptions from November 1 to March 15. Otherwise, grazing would be managed in accordance with the Desert Tortoise Recovery Plan, BLM's Rangewide Desert Tortoise Plan, and other applicable studies.

In both the Beaver Dam Slope ACEC and the Washington County HCP reserve, BLM would suppress wildfires in accordance with the guidelines in Fighting Wildfire in Desert Tortoise Habitat: Considerations for Land Managers, (T. Duck et al, 1994 - Desert Tortoise Council; International Symposium of Wildland Fire, 1995). Generally, the guidelines call for applying the principle of "minimum tool." Under this concept, BLM would use the least disruptive approach to initial attack and fire suppression needed to extinguish the fire and meet other resource objectives for the affected area. Qualified resource advisors would be onsite during fire suppression to guide firefighter activities so as to minimize harm to tortoises and important habitats.

In collaboration with affected state and federal agencies, predator control in either area could be allowed using techniques designed to control target species only. This would reduce the loss of hatchlings and juvenile tortoises to predators such as coyotes and ravens.

Outside of the HCP Reserve and the Beaver Dam Slope ACEC, tortoise habitat now designated as critical would be protected by:

- limiting motorized travel to existing roads and trails;
- applying Category 2 stipulations to fluid mineral leasing to limit exploration and development to the tortoise inactive season from October 15 to March 15;
- closing the areas to fuelwood and mineral materials sales;
- requiring biological surveys before surface disturbing activity and avoidance of den sites and other areas essential to tortoise survival; and
- designating such habitats as right-of-way avoidance areas (outside of utility corridors).

As a result of communications from the FWS, BLM would expect that once the HCP Reserve and Beaver Dam Slope ACEC are in place, any designated critical habitats for the tortoise outside of those special management areas would be withdrawn. (Robert Williams, personal communication and letter of July 21, 1997). Management of tortoises and habitats in such withdrawn areas would continue as outlined immediately above.

Woundfin Minnow, Virgin River Chub, and Virgin Spinedace

Management of public land habitat for listed and sensitive fish species in the Virgin River and associated tributaries would be guided by the 1995 Virgin River Fishes Recovery Plan and the 1995 Virgin Spinedace Conservation Agreement and Strategy. Implementation of the plan and the strategy has been underway since their respective approvals and would continue in collaboration with the Utah DWR, the FWS, the Washington County Water Conservancy District, and other interested local, state, and federal entities. The overriding goal is to achieve recovery of the species to allow downlisting and eventual delisting of the two endangered fish and to eliminate the need for listing of the spinedace. Objectives include eliminating significant threats to the fish and their habitats and to stabilize and enhance specific reaches of occupied and historic habitat. BLM would provide appropriate support to active partners in the Virgin River Fishes Recovery Team in implementing the following measures called for in the plans:

- Monitor fish populations and habitat conditions
- Eradicate exotic fish species in selected reaches
- Reintroduce desired native fish species
- Restore degraded habitats
- Implement controls over conflicting land use
- Reestablish instream population maintenance flows through agreements and other appropriate mechanisms

BLM would continue to work with local, state, and federal partners in formulating and analyzing the proposed Virgin River Management Plan and the proposed Virgin River Basin Integrated Resource Management and Recovery Program. These plans would be designed to promote joint planning and collaboration among active stakeholders and management agencies in matters affecting the Virgin River in Utah, its major tributaries, special status fish species, and other resources dependent upon the river.

BLM would implement protective measures described under sections of this Proposed Plan on Water Resources, Riparian Resources, Recreation, Off-Highway Vehicle Management, Livestock Grazing Management, Lands, and Energy and Mineral Resources to protect and enhance viable fish habitats in the Virgin River, the Santa Clara River, LaVerkin Creek, Ash Creek, and the West Fork Beaver Dam Wash. The measures relate to improved water quality, floodplain protection, point and nonpoint source pollution abatement, riparian restoration, habitat consolidation, and management of potentially conflicting land uses including recreation, rights-of-way, off-road travel, grazing, and mineral development.

Additional river habitat protection is provided by prescriptions for the proposed Santa Clara -

Gunlock, Santa Clara - Land Hill, and Lower Virgin River ACECs described in the section of this Proposed Plan on Special Emphasis Areas.

BLM would seek to acquire nonpublic lands on the Virgin River between Quail Creek Reservoir and LaVerkin Creek in and adjacent to Zones 4 and 5 of the Washington County HCP through exchange, purchase, or donation. Acquisition of such property would meet goals and commitments associated with the HCP to consolidate habitats for endangered fishes and other listed species in public ownership and allow for permanent habitat preservation.

Where proposed new rights-of-way or other permits cannot avoid location within fish habitats, their approval would be subject to necessary mitigating measures and consultation with the FWS. Where new road crossings are proposed, bridge or culvert installation could be required, where determined necessary, to allow continued passage of the fish.

Peregrine Falcon, Bald Eagle, Golden Eagle, and Mexican Spotted Owl

BLM would continue to implement recovery plans for the federally-listed species and collaborate with the Utah DWR and interested conservation groups in conducting inventories, protecting nest sites and aeries, and preserving associated habitats.

A fluid mineral leasing Category 2 seasonal stipulation would be applied to a 0.5 mile area around known active nest sites closing the lands to exploration and drilling for the following species: golden eagle (February 1 to June 30); peregrine falcon (March 15 to June 30); and the Mexican spotted owl (February 1 to August 31). These seasonal restrictions would also be applied to all authorizations for fuelwood permits, mineral materials sales, construction activity, and competitive recreation permits issued for the lands involved. The bald eagle winters but does not nest in this area. Prescriptions proposed for the HCP Reserve, the Canaan Mountain ACEC, and the Deep Creek Special Recreation Management Area would serve to protect nest sites and associated habitats for several sites in the resource area.

Bald eagle protection would be afforded primarily through riparian habitat protection measures described in the section of this Proposed Plan on Riparian Resources. Proposals for new permitted actions that might impact wintering bald eagles roosting outside of riparian zones would be approved only after full mitigation is applied and consultation is completed with the FWS.

Southwestern Willow Flycatcher

As of the date of this publication, no critical habitat for the endangered Southwestern willow flycatcher has been designated in Utah, nor has a recovery plan been prepared by the FWS. BLM would collaborate with affected local, state, and federal partners in completing field inventories and other studies to establish habitat locations and requirements.

BLM would protect potential flycatcher habitat through implementation of land use prescriptions for riparian resources described earlier in this Proposed Plan. Among other things, the prescriptions would allow no surface occupancy for fluid mineral leasing, limit off-road travel, discourage right-of-way construction, and prohibit sales of fuelwood and mineral materials. The prescriptions also call for retention and acquisition of prospective habitat. Where known active nest sites are located on public lands, BLM would implement seasonal closures for the period of April 1 to August 30 within 0.5 mile of nests for discretionary permits authorizing construction or other disruptive activity.

In conjunction with affected partners and landowners, BLM would help identify desired plant communities needed to support viable flycatcher habitat. Where consistent with FWS consultations, BLM would work with its partners in reestablishing desirable plant species, including willow and cottonwood, for long-term habitat enhancement and removal of undesired species in selected areas.

Other Special Status Animal Species

Overnight camping would not be allowed within 1 mile of the Fort Pearce Historic Site to protect habitat important to the spotted bat. The 40 acres surrounding the site would be further protected by allowing no surface disturbance for

fluid mineral leasing activity and closing the lands to OHV use. Habitat outside of the area within the Warner Ridge/Fort Pearce ACEC would be further protected by restricting OHV use to designated roads and trails and restricting or closing mineral activity. Livestock grazing would be managed so as to expand and improve the Fort Pearce riparian area, which is essential to bat survival. Pesticide use would not be allowed within the riparian zone.

Biological surveys would be conducted to identify sensitive species occurrence, nesting sites (for the northern goshawk and ferruginous hawk), and special habitat requirements. Data gained from the surveys would be used by BLM, Utah DWR, and other affected partners to develop and implement recommendations for habitat management needed to maintain healthy populations of the species involved and reduce the need for additional listings.

Livestock Grazing Management

Because of their location and extent, public lands are key to the continuation of most livestock grazing operations in Washington County. The lands typically support fall, winter, and spring grazing when pastures in higher elevations on private or National Forest lands are unusable or inaccessible due to temperature and weather conditions. The Dixie Resource Area supports 110 grazing allotments on approximately 560,000 acres. Nearly all authorizations are for cattle. Nearly half the allotments run 10 head of livestock or less. Maintaining stable operations in the past 10 years has been especially challenging. Livestock operations have been heavily impacted by urban growth, increased recreation and OHV use, periodic drought, increased vandalism, fluctuating markets, increased price of feed, reduction of grazing privileges because of public land exchanges, and management constraints for protection of threatened or endangered species and other environmental values.

Grazing management decisions for most allotments in the resource area were made in the Hot Desert Environmental Impact Statement (1979) and the Kanab/Escalante Environmental Impact Statement (1980). Management objectives and allocations for the remaining five custodial allotments above Zion National Park were made in 1988. Progress in implementing the decisions was summarized in the 1988 Dixie Range Program Summary (USDI/BLM, 1988). In concert with these decisions, 77 allotment management plans (AMPs) have now been completed and implemented. No additional AMPs are currently scheduled. However, new AMPs could be developed and existing plans revised in accordance with the policies and prescriptions described in this section.

AMPs were prepared where needed to accomplish resource management objectives. Intensive AMPs which fully address resource conditions, goals and objectives, grazing systems, range developments, monitoring systems, and evaluation have been implemented on 41 allotments covering 68 percent of the resource area. Less intensive AMPs which address livestock management goals, season of use, numbers of livestock, kind of livestock, and, in some cases, pasture rotation or deferment have been implemented on 36 allotments covering 11 percent of the resource area. No plans have been developed for 33 allotments covering ten percent of the area. No grazing occurs on the remaining 11 percent of the resource area.

Grazing authorizations would continue in accordance with the Grazing Summary Table in Appendix 5.

BLM objectives for grazing management on public lands throughout Washington County would be to:

- promote healthy, sustainable rangeland ecosystems that produce a wide range of public values such as wildlife habitat, livestock forage, recreation opportunities, clean water, and safe and functional watersheds;

- restore and improve public rangelands to properly functioning condition, where needed;

- provide for the sustainability of the western livestock industry and communities

that are dependent upon productive, healthy rangelands; and

- ensure that public land users and stakeholders have a meaningful voice in establishing policy and managing public rangelands.

After extensive public review and participation from diverse fields of expertise and interest, the Secretary of the Interior approved Standards for Rangeland Health and Guidelines for Grazing Management for Public Lands in Utah on May 20, 1997 (see Appendix 3). To achieve the objectives stated above, BLM has integrated the standards into applicable portions of this Proposed Plan and would apply both the standards and guidelines to its grazing management program throughout the resource area. In concert with livestock operators, other affected agencies, and interested publics, BLM would monitor key indicators addressed by the standards and assess whether the standards are being met. Where it is determined that an allotment is not meeting a standard, BLM would work with affected partners to determine why the standard was not being achieved and prescribe actions that would ensure satisfactory progress. Existing grazing systems and practices would be modified where the assessment and monitoring strategy indicates livestock grazing is wholly or partly responsible.

In consultation with affected operators, allotment categories would be reviewed and revised, where needed, to respond to changing resource conditions.

Recognizing that extensive land exchanges and conveyances out of public ownership are highly disruptive to the stability of affected grazing operations, BLM would generally retain public lands in solidly blocked public lands areas west of St. George City, the Shivwits Indian Reservation, and the Gunlock road. Exceptions would be considered where needed to satisfy existing exchange agreements, to meet essential public or municipal purposes, or to accomplish overriding resource management objectives. Public land retention guidelines for special management areas throughout the remainder of the resource area are described in the sections of this plan that address each management area. Affected grazing operators would be given a minimum of 2 years notification prior to the cancellation of all or part of a grazing lease or permit due to the disposition of public lands.

Special emphasis would be placed on assessing potential conflicts between livestock grazing and deer winter range on 35,325 acres within the Pintura, Minera, Gunlock, Washington, Red Cliffs, and Yellow Knolls allotments. Grazing systems, season of use, numbers of livestock, and/or allotment categories could be adjusted if monitoring and assessments show that current grazing practices are impeding the achievement of goals for properly functioning habitats. Because grazing on all or portions of the Red Cliffs, Washington, and Yellow Knolls allotments is scheduled for retirement under prescriptions for the Washington County HCP, potential conflict throughout much of this area would be eliminated.

Within desert tortoise critical habitats, grazing permits would be permanently retired on the Alger Hollow, Red Cliffs, Yellow Knolls, and Washington allotments in accordance with HCP recommendations. In accordance with current biological opinions of the FWS, spring grazing after March 31 would not be authorized in those portions of Sandstone Mountain and Sand Hill allotments in Zone 4 of the HCP Reserve to reduce potential conflicts during the tortoise active season. Grazing permits in these allotments could also be retired where permittees choose to relinquish them. Spring grazing would also be eliminated on portions of the Beaver Dam Slope, Castle Cliffs, and Scarecrow Peak allotments within the Beaver Dam Slope ACEC to reduce potential conflicts outside of the three special management areas (see Map 2.9). Winter grazing would continue to be authorized in these allotments from November 1 to March 15. Otherwise, grazing would be managed in accordance with applicable portions of the Desert Tortoise Recovery Plan, BLM's Rangewide Desert Tortoise Plan, the Washington County HCP, and the Beaver Dam Slope coordinated ACEC.

Conversions of kinds of livestock from cattle to sheep would not be allowed where BLM in con-

sultation with the Utah DWR determined that such would jeopardize the health or viability of existing herds of desert bighorn sheep in the Beaver Dam Mountains.

To promote cost effective management, grazing transfers resulting in fragmentation of allotments or increased numbers of permittees with smaller grazing authorizations would not be approved unless necessary to meet overriding management objectives.

Where they are meeting approved goals and applicable standards and guidelines, existing vegetation treatments would be maintained in the Central, Dagget Flat, Desert Inn, Gooseberry, Jackson Wash, Little Creek, Pintura, Twin Peaks, Veyo, and Black Ridge allotments. BLM would seek to maintain forage production in these areas between 3 and 7 acres per animal unit month. Treatment areas would be placed in VRM Class III or IV. Where consistent with the objectives of this Proposed Plan, fire rehabilitation projects would be maintained to achieve desired plant communities for livestock and wildlife forage and watershed protection.

Rangeland projects could be developed where assessments show the need to improve livestock management by establishing proper livestock control or distribution. Projects could include installation of cattle guards, development or reconstruction of water sources, and construction of drift or pasture fences. New vegetation treatments developed in accordance with applicable standards and guidelines could be employed in suitable habitats where needed to increase forage for livestock, wildlife, and other resource purposes. Methods for completing land treatments are described and analyzed in the Final Environmental Impact Statement for Vegetation Treatment on BLM Lands in the 13 Western States (USDI/BLM, 1991).

Public lands within the following allotments or pastures are permanently closed to grazing for resource or administrative purposes. Administrative closures occur where poor land configuration, limited size, lack of access or water, or the cost of needed range developments make grazing authorizations impractical. Where such factors are determined to make grazing impractical on other pastures or splinter allotments, BLM would consider implementation of similar closures after appropriate analysis and public review.

- Rockville Allotment - administrative
- Highway Pasture/New Harmony Allotment - administrative
- Upper South Creek Allotment resource/administrative
- Allotments retired within the Washington County HCP Reserve - resource
- Fenced portion of the Woodbury Desert Study Area - resource

The following guidelines would be applied to grazing management in order to help achieve approved standards on public lands within Washington County:

1. Grazing management practices would be implemented that:

- maintain sufficient residual vegetation and litter on both upland and riparian sites to protect the soil from wind and water erosion and support ecological functions;
- promote attainment or maintenance of proper functioning condition riparian/wetland areas, appropriate stream channel morphology, desired soil permeability and infiltration, and appropriate soil conditions and kinds and amounts of plants and animals to support the hydrologic cycle, nutrient cycle, and energy flow;
- meet the physiological requirements of desired plants and facilitate reproduction and maintenance of desired plants to the extent natural conditions allow;
- maintain viable and diverse populations of plants and animals appropriate for the site;
- provide or improve, within the limits of site potentials, habitat for threatened or endangered species;

- avoid grazing management conflicts with other species that have the potential of becoming protected or special status species;

- encourage innovation, experimentation, and the ultimate development of alternatives to improve rangeland management practices; and

- give priority to rangeland improvement practices and land treatments that offer the best opportunity for achieving the standards.

2. Spring and seep developments would be designed and constructed to protect ecological processes and functions and improve livestock and wildlife distribution.

3. New rangeland projects for grazing would be constructed in a manner consistent with the standards. Considering economic circumstances and site limitations, existing rangeland projects and facilities that conflict with the achievement or maintenance of the standards would be relocated and/or modified.

4. Livestock salt blocks and other nutritional supplements would be located away from riparian/wetland areas or other permanently located or other natural water sources. BLM would encourage that the locations of these supplements be moved every year.

5. The use and perpetuation of native plant species would be emphasized. However, when restoring or rehabilitating disturbed or degraded rangelands, nonintrusive, non-native plant species are appropriate for use where native species (a) are not available, (b) are not economically feasible, (c) cannot achieve ecological objectives as well as non-native species, and/or (d) cannot compete with already established non-native species.

6. When rangeland manipulations are necessary, the best management practices, including biological processes, fire, and intensive grazing, would be utilized prior to the use of chemical or mechanical manipulations.

7. When establishing grazing practices and rangeland improvements, the quality of the outdoor recreation experience would be considered. Aesthetic and scenic values, water, campsites, and opportunities for solitude would be among those considerations.

8. Feeding of hay and other harvested forage (which does not refer to miscellaneous salt, protein, and other supplements) for the purpose of substituting for inadequate natural forage would not be conducted on public lands other than in (a) emergency situations where no other resource exists and animal survival is in jeopardy, or (b) situations where the Authorized Officer determines such a practice would assist in meeting a standard or attaining a management objective.

9. In order to eliminate, minimize, or limit the spread of noxious weeds, (a) only hay cubes, hay pellets, or certified weed-free hay would be fed on public lands, and (b) reasonable adjustments in grazing methods, methods of transport, and animal husbandry practices would be applied.

10. To avoid contamination of water sources and inadvertent damage to nontarget species, aerial application of pesticides would not be allowed within 100 feet of a riparian/wetland area unless the product is registered for such use by the Environmental Protection Agency.

11. On rangelands where a standard is not being met and conditions are moving toward meeting the standard, grazing may be allowed to continue. On lands where a standard is not being met, conditions are not improving toward meeting the standard or other management objectives, and livestock is deemed responsible, administrative action would be taken by the Authorized Officer pursuant to 43 CFR 4180.2(c).

12. Where it can be determined that more than one kind of grazing animal is responsible for failure to achieve a standard and adjustments in management are required, those adjustments would be made to each kind of animal, based on interagency cooperation as needed, in proportion to their degree of responsibility.

13. Rangelands that have been burned, reseeded, or otherwise treated to alter vegetative com-

position would be closed to livestock grazing as follows: (a) burned rangelands, whether by wildfire or prescribed burning, would be ungrazed for a minimum of one complete growing season following the burn, and (b) rangelands that have been reseeded or otherwise chemically or mechanically treated would be ungrazed for a minimum of two complete growing seasons following treatment.

14. Conversions in kind of livestock (such as from sheep to cattle) would be analyzed in light of rangeland health standards. Where such conversions are not adverse to achieving a standard or they are not in conflict with BLM land use plans, the conversion would be allowed.

Forestry Management

Public lands administered by BLM in Washington County do not support commercial quantities of forest resources. Nonetheless, the lands do provide harvestable woodland products for fuelwood, fence posts, seeds, pinon nuts, and Christmas trees. About 205,800 acres of pinyon-juniper woodlands occur on public lands in the county. BLM's objective for forestry management is to provide woodland products on a sustained yield basis to meet local needs where such use does not limit the accomplishment of goals for the management of other important resources. Where feasible, harvest of forest products would be encouraged in areas of proposed or existing vegetative treatments to lessen the need for additional treatment or land disturbance.

Noncommercial fuelwood harvest of up to 4,100 cords of dead and downed pinyon and juniper trees would be allowed on public lands except in closed areas depicted in Table 2-8. Harvest areas are shown on Map 2.10. Seasonal restrictions would be applied to deer winter range and elk calving areas. Specific harvest areas would be identified on permits issued for such purposes.

A maximum of 500 noncommercial Christmas tree permits per year would be allowed. Additional trees could be offered for sale in areas where thinning would meet vegetation management objectives. Christmas tree sales would not be permitted in areas closed to fuelwood sales as depicted in Table 2-8. Specific Christmas tree sales areas may be designated based on additional site specific analysis.

Harvesting of trees other than pinyon or juniper would not be allowed unless necessary for thinning, salvage, or meeting other approved management objectives.

Table 2-8 • Fuelwood Harvest Area Designations

	ACRES
Open to Fuelwood Harvest	**126,192**
Seasonal Restrictions on Fuelwood Harvest	**28,530**
Mule Deer Winter Range closed November 1 to April 15	
Elk Calving Areas closed May 1 to July 30	
Closed to Fuelwood Harvest	**51,086**
Washington County HCP Reserve	
Red Cliffs and Baker Dam Recreation Areas	
OHV Closed Areas (See Table 2-10)	
Proposed ACECs (except for Little Creek Mountain Proposed ACEC and lower portion of Upper Beaver Dam Wash Proposed ACEC	
Riparian Areas	
Smithsonian Butte National Back Country Byway (within 1/2 mile radius)	
River segments with a tentative classification of Wild, proposed as suitable for Congressional NWSRS designation	
Threatened and Endangered Plant and Animal Species Habitat	
Candidate Plant and Animal Species Habitat	
Beaver Dam Mountains Wilderness Area	

A maximum of 1,200 cords per year of green fuelwood would be available for noncommercial harvest in designated areas on 34,080 acres. Seasonal restrictions on cutting from November 1 to April 15 would be placed on 7,500 acres of crucial deer winter range. Harvest would be approved only where sale areas have been marked on the ground.

Tree thinning permits or contracts could be allowed to facilitate a prescribed burn on 500 acres of the Potters Peak wildlife vegetation treatment project. Sales of green fuelwood could be allowed within other vegetation treatment areas or designated pinyon/juniper areas to facilitate achievement of desired vegetation composition. All such sales would be subject to further site specific analysis and would be designed to meet objectives for wildlife and watershed management.

Post permits would be issued for up to 1,600 posts in three specific cutting areas on 4,070 acres depicted on Map 2.10.

On-site use of dead and down fuelwood for campfires would be allowed except where otherwise prohibited by planning decision or permit stipulations.

Seed harvests would be authorized under permit for selected grasses, forbs, and shrubs but not for cacti, yucca, or special status plant species listed under state or federal rules. Harvest would be allowed only by hand in areas outside of critical habitats, areas of critical environmental concern (ACECs), designated wilderness, wild and scenic rivers and study areas, recreation sites and campgrounds, areas undergoing vegetation rehabilitation, and highway rights-of-way. No more than 25 percent of the seed available in any one area could be harvested.

Recreation

Public lands in Washington County are seeing unprecedented growth in a wide array of recreation uses (Utah SCORP, 1992). Part of the growth is occurring because of increased demands from the rapidly growing population in the St. George area and part from increased visitation from areas outside of the county including Clark County, Nevada, Utah's Wasatch Front, and California. Year-round accessibility, spectacular scenery, and proximity to major recreation destinations such as Zion National Park, the Pine Valley Mountains, and Snow Canyon State Park draw many of the visitors. Changing recreation preferences, opportunities, and technologies for such activities as motorized recreation, rock climbing, mountain biking, and other intensive uses are also influencing the number and types of users. This trend poses a challenge to BLM's traditional recreation niche which mainly entails primitive and dispersed experiences in open landscapes that characterize most public lands in the west. Developed recreation sites on state or federal lands are frequently at or above capacity during peak seasons of the year. As a result, open public lands are increasingly used to accommodate recreationists turned away at developed facilities or who wish to enjoy a less crowded and more dispersed experience. Statewide user surveys by the Utah Department of Natural Resources also reveal that despite the increase in recreation users, widespread desire exists for more quiet and seclusion in outdoor settings (Utah SCORP, 1992).

With the sharp growth has come an increase in conflicts between recreationists and established user groups, adjacent landowners, and many fragile resources that occur within Washington County. BLM's objective for recreation management would be to provide an array of quality recreation experiences within the agency's capability and logical recreation niche to meet the reasonable needs and expectations of local residents and visitors from outside the area. Because the fiscal and staffing resources available to BLM are likely to remain inadequate to fully accomplish this objective, BLM would use innovative partnerships, pursue grant monies, and work with volunteers, organized user groups, and other recreation providers in developing and managing selected recreation opportunities on the public lands. In managing the overall recreation program, BLM would seek to:

- establish collaborative partnerships with state and local governments, Indian tribes, other federal agencies, the private sector, and interested organizations in developing recreational plans and opportunities,

maintaining facilities, and conducting public information and education programs;

- reduce potential conflicts between various recreation groups, raise public awareness of impacts of increased recreation use on established user groups and adjacent landowners, and promote outdoor ethics that instill respect for property and natural resources;

- eliminate unacceptable impacts to important and at risk resources on public lands including wildlife habitats, listed and sensitive species, riparian areas, watersheds, fragile soils, water quality, cultural resources, wilderness values, and the spectacular scenery throughout Washington County; and

- in accordance with federally-approved programs and guidelines, establish reasonable and appropriate fees that can be returned to the local area to maintain public facilities and provide essential recreation information to the using public.

Public lands in Washington County would generally remain open to most forms of outdoor recreation including, but not limited to, hiking, touring, camping, hunting, picnicking, sightseeing, rock hounding, mountain biking, equestrian use, swimming, fishing, rafting/kayaking, rock climbing, target shooting, and various forms of motorized recreation except as otherwise prescribed in the following sections. Prescriptions for off-road travel are described separately in the section on Off-Highway Vehicle Management. Activities on public lands within incorporated city limits such as shooting, camping, or commercial permits could be further constrained by applicable city ordinances designed to protect public health, safety, and welfare.

Extensive Recreation Management Areas

Extensive Recreation Management Areas are those public land areas where recreation management is only one of several management programs applied to the land and where recreation is typically extensive and unstructured in character. Such areas may contain occasional recreation sites such as the Baker Dam or Red Cliffs facilities. Emphasis would be placed on dispersed recreation, trail development, signing, maintenance of primitive and semiprimitive characteristics, management or abatement of natural and man-made hazards, and protection of resources and sites of recreational interest.

A total of 501,630 acres of public land in the county fall within Extensive Recreation Management Areas. This includes the designated Beaver Dam Mountains Wilderness Area which would no longer be classified as a Special Recreation Management Area because of provisions in the Paiute and Beaver Dam Mountains Wilderness Management Plan (1987).

BLM would work collaboratively with affected user groups and organizations, state and local officials, and other interested parties in identifying existing and potential trails and use areas to meet public needs for hiking, mountain biking, rock climbing, and equestrian use. Where appropriate, BLM would enter into cooperative agreements with applicable partners to plan for, implement, and maintain such areas. Site steward programs could also be employed to put volunteers on the ground to monitor use and resource conditions and provide assistance for sign installation and maintenance, visitor information, and detection of conflicts or violations. Where appropriate, BLM would work with partners to map and profile approved trails and develop guides to help users remain safe, well-prepared, and informed of special conditions needed to protect sensitive resources.

BLM would collaborate with the Utah Department of Transportation and other affected agencies in making public lands available for a bikeway within the right-of-way of portions of Utah Highway 18 between Central and St. George.

Mountain bike use on public lands would be subject to the open, limited, and closed designations described in Table 2-9 and shown on Map 2.11. Closures or limitations reflect the minimum constraints necessary to protect sensitive resources from impacts of sustained biking use over many years.

Table 2-9 • Mountain Bike Use Designations

	TOTAL ACRES
Open to Fuelwood Harvest	**126,192**
Open to Mountain Bike Use	**421,852**
Open for Use on Existing Roads and Trails	**3,163**
Riparian Areas	
Open for Use on Designated Roads and Trails	**112,286**
Upper Beaver Dam Wash ACEC (in part)	
Beaver Dam Slope ACEC	
Red Bluff ACEC	
Warner Ridge/Fort Pearce ACEC	
Lower Virgin River Proposed ACEC	
Santa Clara River-Gunlock ACEC	
Santa Clara River-Land Hill ACEC	
Washington County HCP Reserve (in part)	
Threatened and Endangered Plant Species Habitat	
Candidate Species Plant Habitat	
Portions of the riparian areas along the Virgin River near Virgin and Grafton	
Rockville Bench	
Red Cliffs and Baker Dam Recreation Areas	
Closed to Mountain Bike Use	**91,704**
ROS Primitive Areas (except the Volcano Knoll crossing)	
River segments with a tentative classification of Wild, proposed as suitable for Congressional NWSRS designation	
Ripple Arch	
Dinosaur Trackway	
Watchman Area	
Fort Pearce Historical Site	
Red Mountain ACEC	
Canaan Mountain ACEC	
Beaver Dam Mountains Wilderness Area	

Dispersed camping in undeveloped areas would be allowed in accordance with the public notice of December 14, 1992 (Federal Register, Vol. 57, No. 240, p. 59121), where the lands are not otherwise closed to such use. To prevent degradation of natural resources and the use of public lands for unauthorized occupancy, dispersed camping by any person or group of persons would be limited to 14 days within a 30-mile radius in a 28-day period.

Camping areas for long-term winter visitors would not be established in the resource area. Permanent funding for management of such areas is lacking and suitable lands free of impacts to sensitive resources and existing land uses are generally not available. Private facilities for such purposes exist throughout Washington County. BLM would, however, provide public outreach and education for such user groups through interpretive lectures, displays, media presentations, user guides, and other materials produced in collaboration with many private, local, and state representatives and organizations interested in public land resources and issues.

Facilities for camping, sanitation, and picnicking at the Baker Dam and Red Cliffs Recreation Areas would be maintained and upgraded as needed to achieve management objectives for safety, resource protection, and quality recreational experiences.

To protect public investments and facilities from incompatible disturbance, conveyance, or activities, the following prescriptions would be applied to developed recreation sites at Baker Dam and Red Cliffs:

- BLM would seek to withdraw the sites from mining location (290 and 1,085 acres respectively).
- The areas would be closed to mineral materials and fuelwood sales.
- Category 3 (NSO) stipulations would be applied to the areas for fluid mineral leasing.
- Motorized vehicle and mountain biking use would be allowed on designated roads and trails only.

BLM would work with its local and state partners in promoting public education on outdoor ethics including the Leave No Trace program to foster a heightened awareness of the need to protect public resources from indiscriminate use.

Groups of more than 75 persons would be required to obtain a letter of authorization prior to camping on undeveloped public lands except where more restrictive rules apply. Such groups would be required to provide their own portable sanitary facilities, properly dispose of garbage, and comply with other good sense rules for public safety and protecting the land.

To improve sanitation, reduce overcrowding, enhance public safety, restore degraded areas, and minimize impacts to intermingled private lands, camping in undeveloped areas would be prohibited up to 1 mile from the Baker Dam and Red Cliffs Recreation Sites. Where necessary, public land boundaries would be marked to assist visitors in identifying adjacent private property.

Camping would be prohibited along the Smithsonian Butte National Back Country Byway for a distance of 0.5 miles on either side of the road to preserve the scenic and back-country experience for visitors. For this same reason, the 0.5 mile corridor along the Byway would be designated a right-of-way avoidance area, placed in fluid mineral leasing Category 3 (NSO), closed to fuelwood sales, and designated a VRM Class II area.

In collaboration with the Utah DWR, BLM would restrict camping from October 15 to November 15 within 0.25 mile of all water catchments, wildlife guzzlers, and the 12 springs located west of the Santa Clara River as described under the section on Fish and Wildlife Habitat. This seasonal restriction is needed to protect wildlife access to these critical water sources during the fall big game hunting season.

BLM would work with state and local officials, affected permittees, and other interested parties in evaluating and implementing appropriate closures, seasonal use restrictions, rotation strategies, and other measures along key, undeveloped riparian areas currently experiencing heavy impacts from camping and recreation use. The areas include, but are not limited to, the Santa Clara River below Gunlock and at Land Hill and the Virgin River near Grafton. Such measures would be needed to allow for revegetation, reduce overcrowding, and eliminate growing sanitation and public safety problems.

Lands in a primitive recreation opportunity spectrum (ROS) class, including portions of the Beartrap Canyon, Taylor Creek Canyon, LaVerkin Creek Canyon, and Cottonwood Canyon areas, would be managed to preserve primitive recreation opportunities. For this reason, they would be placed in a fluid mineral leasing Category 3 (NSO), designated as rights-of-way avoidance areas, closed to off-road travel, and closed to mineral materials and fuelwood sales.

BLM would continue to work collaboratively with its many private, local, state, federal, and Indian partners in developing and implementing recreation opportunities along the Virgin and Santa Clara Rivers. Among other things, this

would include the creation of a 48-mile long, multiuser trail system and greenway along the river corridors between Zion National Park and Gunlock Reservoir. BLM would make selected lands available for trails, trailheads, interpretive sites, and other related facilities.

BLM would consider development of the following management activities and opportunities on public lands. Actual implementation would not take place unless site-specific planning is completed and necessary partners and resources become available. Strategies and funding for permanent maintenance of proposed facilities would need to be in place before BLM could act on development plans.

- BLM would work with HCP partners and interested user groups in identifying, designating, and maintaining hiking, biking, and equestrian trails, trailheads, and rock climbing areas in the HCP Reserve. Trail and area locations and use prescriptions would be designed to avoid negative impacts to the sensitive resources being managed in the reserve.

- Camping facilities, special use areas, or water-based recreation opportunities could be developed in cooperation with state and local governments on or adjacent to proposed or existing reservoirs where it is determined that such were consistent with reservoir purposes and objectives for land use in the surrounding area.

- Bloomington Cave would be monitored periodically and appropriate guidelines implemented to provide for visitor safety and protection of cave resources.

- BLM would work collaboratively with local, state, and federal partners including BLM units in adjacent areas to develop interpretive displays with improved access along major tourist routes to increase public awareness and provide an enhanced recreation experience relating to significant historical and natural features. Such would include a partnership with the Vermillion Cliffs Highway initiative for northwest Arizona and southwest Utah.

- In collaboration with local communities, historical associations, and interested government agencies, BLM would assist in marking and signing portions of the Spanish Trail that cross public lands in the resource area.

- In collaboration with local communities, organizations, and volunteer groups, BLM would enter into cooperative agreements to establish collection boxes outside of regular fee areas to receive voluntary donations from members of the using public at selected special use areas and interpretive sites to be applied to the cost of maintenance and providing public information.

- Where developed recreation facilities are maintained or proposed, BLM would consider the use of concessionaire management to provide improved visitor services while minimizing the need for appropriated funds.

Special Recreation Management Areas

Special Recreation Management Areas (SRMAs) are well-defined land units that support a combination of natural features that make them attractive and manageable for interrelated recreation opportunities on a sustained basis. Investment and levels of management are typically higher than what is required across most of the Extensive Recreation Management Areas in this resource area. Emphasis would be placed on maintaining specific features or recreation opportunities that make them unique or particularly desirable to recreationists and other members of the public.

Four new SRMAs are proposed under this plan including Sand Mountain, Red Mountain/Santa Clara, Deep Creek, and LaVerkin Creek/Black Ridge. Canaan Mountain would continue to be managed as an SRMA. The SRMAs cover 127,375 acres and are depicted on Map 2.12. BLM would prepare recreation management plans for each SRMA. The SRMAs are described below.

Lands classified as primitive under the recreation opportunity spectrum, including portions of the Canaan Mountain, Red Mountain, LaVerkin Creek/Black Ridge, and Deep Creek SRMAs, would be managed to preserve primitive recreation opportunities. For this reason, they would be placed in a fluid mineral leasing Category 3 (NSO), designated as rights-of-way avoidance areas, closed to off-road travel for motorized vehicles and mountain bikes, and closed to mineral materials and fuelwood sales. In such areas, mining plans of operation would be required for all mining activity beyond casual use.

1. Sand Mountain SRMA:
40,725 acres of public land

Main Attractions
Sand dune OHV riding area, Dinosaur Trackway paleontologic site, Fort Pearce historic site, historic trails, Warner Valley Road.

Main Recreation Activities
OHV riding and competitive events, horseback riding, scenic driving and viewing, visiting historic and paleontologic sites, natural history education, semiprimitive recreation, undeveloped camping, picnicking, guided tours, and recreation instruction.

Management Prescriptions
BLM proposes to implement the following prescriptions relating to recreation management within the area. Where further analysis, planning, or resources are required, actual development or implementation would not take place until such analysis is completed and resources become available.

- BLM would work with local and state agencies in developing recreation plans for lands surrounding the proposed Sand Hollow reservoir once it is constructed. Such plans could provide for staging areas, parking, information displays, and other visitor facilities needed to accommodate increased recreation and OHV use expected to occur throughout the immediate area.

- Where consistent with the goals and policies of both agencies, BLM would consider entering into a cooperative management agreement with the Utah Division of Parks and Recreation that would allow State Park officials to exercise day-to-day management of access and recreation on selected public lands surrounding the proposed reservoir and on Sand Mountain. Such would be designed to achieve consistent management, law enforcement, user fees, and visitor services. Leases or conveyances under the Recreation and Public Purposes Act could be considered where high amounts of capital investment are involved for campgrounds and related facilities.

- BLM would work with user groups and other interested parties to identify and, where appropriate, develop OHV trail systems that would connect with similar trail systems and suitable roads in Arizona. One or more loops would continue to be authorized for yearly competitive events. Where needed to minimize cumulative impacts to soils and other resources, competitive events would be rotated amongst established courses in collaboration with the BLM Arizona Strip Field Office.

- BLM would work with interested user groups to identify, develop, and maintain up to 50 miles of equestrian trails near Sand Mountain to meet growing demands for such use. Organized events would be managed under terms designed to avoid sensitive resources and conflicts with OHV use.

- Generally, lands within this SRMA not already identified in this Proposed Plan for disposal or included in current exchange agreements would be maintained in public ownership to provide long-term stability for user groups such as the OHV community who, as a result of urbanization and land use restrictions, have lost much of their traditional open use areas.

- The Fort Pearce and Honeymoon Trail historic sites would be maintained and

explained through appropriate interpretive displays for public enjoyment and education.

- The Dinosaur Trackway paleontological site, visitor parking area, and interpretive signs would be maintained to enhance site security and public education.

- Where previously constructed monuments are missing or in disrepair, BLM would work with local and state historical associations and other interested parties to remark selected portions of the Dominguez-Escalante historic trail.

- No camping would be authorized within 1 mile of Fort Pearce or the Dinosaur Trackway to protect the sites from excessive human encroachment and to protect sensitive riparian values and wildlife habitat along the Fort Pearce Wash. Both sites (40 acres each) would be closed to motorized travel to protect the historic structure and the dinosaur tracks.

- BLM would seek to obtain a 4,240-acre mineral withdrawal for the Dinosaur Trackway and the Warner Ridge/Fort Pearce ACEC to protect listed species habitat and important historical and paleontological sites from mining development. Until such time as a withdrawal is in place, mining plans of operation would be required to afford a minimum level of protection. These sites would also be closed to mineral materials sales and placed in a fluid mineral leasing Category 3 (NSO).

Recreation Opportunity Spectrum Setting
Semiprimitive motorized (39,940 acres), rural (785 acres)

2. Red Mountain/Santa Clara SRMA:
23,725 acres of public land

Main Attractions
Red Mountain, outstanding geological features and scenery, Santa Clara River, petroglyphs.

Main Recreation Activities
Primitive and semiprimitive motorized recreation, hiking, rock climbing, sightseeing, touring, stream-based recreation, outdoor photography, picnicking, undeveloped camping, horseback riding, small game hunting, and viewing petroglyphs.

Management Prescriptions
BLM proposes to implement the following prescriptions relating to recreation management within the area. Where further analysis, planning, or resources are required, actual development or implementation would not take place until such analysis is completed and resources become available.

- The Red Mountain trail head and hiking trail off of Utah Highway 18 north of Snow Canyon State Park would be improved and maintained in partnership with interested agencies or user groups.

- BLM would work with affected user groups, landowners, and local and state agencies to identify, develop, and maintain a 60-mile equestrian trail near Red Mountain. Organized events would be managed under terms designed to avoid impacts to sensitive resources in the vicinity of the trail.

- BLM would consider entering into cooperative management agreements with the Utah Division of Parks and Recreation that would allow Snow Canyon State Park officials to exercise day-to-day management of access and recreation on public lands immediately to the north and west of Snow Canyon State Park and in Paradise Canyon on the southeast to protect important resources and provide law enforcement and visitor services. The decisions of this Proposed Plan are intended to complement the goals, objectives, and decisions of the 1998 Snow Canyon State Park Resource Management Plan. Among other things, such agreements could provide for joint development of hiking, biking, and equestrian trails and use areas for rock climbing and concessionaire services. Moreover, coordinated management, signing, user fees, interpretive programs, and land use prescriptions could be developed and

employed to bring consistency for recreationists using both state and federal lands in this area.

- Management of recreation activities within those portions of the SRMA that overlap the Washington County HCP Reserve would conform to approved decisions of the HCP and any subsequent activity level plans for the protection of desert tortoises, their habitat, and other natural features.

- Commercial use on Red Mountain would be limited to groups of 12 or less persons per trip with no more than three commercial permittees using an area at one time to reduce user impacts on the natural values of the area. For the same reason, pack animals would be limited to 15 head per trip. Weed-free hay for pack animals would be required of the permittees to prevent the further spread of invasive weeds. Additional limits on the amount of use would be developed, as needed, to maintain important resource values within sensitive parts of the SRMA.

- BLM would work with local and state agencies, affected permittees, and other interested parties in designing and implementing management controls on visitor use within the 3-mile long riparian area on the Santa Clara River below the Gunlock Dam to allow for natural revegetation and reduce threats to effective sanitation and public safety. Restrictions could include closing one or more vehicle access points along the river, implementing seasonal or partial closures to camping, establishing day-use only areas, or allowing selected activities on a rotational basis.

Recreation Opportunity Spectrum Setting
Primitive (10,910 acres), semiprimitive motorized (11,200 acres), roaded natural (1,615 acres)

3. Deep Creek SRMA:
11,350 acres of public land

Main Attractions
Scenic vistas and landforms, Deep Creek, Crystal Creek, North Fork of Virgin River, Box Canyon, Volcano Knoll, Indian Trail, Kolob Creek, Giant Oak Tree.

Main Recreation Activities
Stream-based recreation, hunting, fishing, hiking, wildlife viewing, undeveloped camping, touring, sightseeing, primitive recreation, and cross-country skiing.

Management Prescriptions
BLM proposes to implement the following prescriptions relating to recreation management within the area. Where further analysis, planning, or resources are required, actual development or implementation would not take place until such analysis is completed and resources become available.

- BLM would seek to obtain public access to selected portions of the SRMA and would mark public land boundaries to reduce unintentional use of intermingled private lands.

- BLM would collaborate with Zion National Park managers to develop coordinated strategies for management of visitor activities. Emphasis would be placed on maintaining natural values and ensuring consistency with the objectives of the Park's General Management Plan and other policy documents.

- Public lands within 0.25 miles of Deep Creek, Crystal Creek, Oak Creek, Kolob Creek, and the North Fork of the Virgin River north of Zion National Park would be managed to preserve those outstandingly remarkable values associated with BLM's recommendations for wild and scenic river designations. Management prescriptions for such areas are described in the discussion of wild and scenic rivers in the section of this Proposed Plan on Special Emphasis Areas.

Recreation Opportunity Spectrum Setting
Primitive (5,760 acres), semiprimitive motorized (5,590)

4. LaVerkin Creek/Black Ridge SRMA:
20,180 acres of public land

Main Attractions
Scenic vistas and landforms, Red Butte, LaVerkin Creek Falls, LaVerkin Creek Trail, LaVerkin Creek Canyon, Black Ridge Overlook.

Main Recreation Activities
Stream-based recreation, hiking, sightseeing, picnicking, horseback riding, touring, geologic interpretation, and primitive recreation.

Management Prescriptions
BLM proposes to implement the following prescriptions related to recreation management. Where further analysis, planning, or resources are required, actual development or implementation would not take place until such analysis is completed and resources become available.

- BLM would work with interested volunteers and organizations to construct a 0.5 mile trail and overlook at the Black Ridge viewing area. Construction would disturb less than 1 acre and be completed so as to avoid conflict with the present communication site.

- With collaboration from local and state agencies and law enforcement officials, BLM could develop a primitive day-use recreation site on 20 acres near LaVerkin (Twin) Falls and institute controls to reduce or eliminate trashing, undesirable uses, and public safety problems currently being experienced at this area.

- In the primitive portion of the SRMA, commercial use would be limited to groups of 12 persons or less per trip with no more than three commercial permittees using the area at one time to reduce user impacts on the natural values of the area. Pack animals would be limited to 15 head per trip. Weed-free hay for pack animals would be required of the permittee to prevent the further spread of invasive weeds. Additional limits on the amount of use would be developed, as needed, to maintain important resource values within sensitive parts of the SRMA.

- Public lands within 0.25 miles of portions of LaVerkin Creek and Smith Creek would be managed to preserve those outstandingly remarkable values associated with BLM's recommendations for wild and scenic river designations. Management prescriptions for such areas are described in the discussion of wild and scenic rivers in the section of this Proposed Plan on Special Emphasis Areas.

Recreation Opportunity Spectrum Setting
Primitive (11,605 acres), semiprimitive motorized (8,575 acres)

5. Canaan Mountain SRMA:
31,395 acres of public land

Main Attractions
Canaan Mountain, Eagle Crags, hiking trails, outstanding scenery and landforms, unconfined primitive recreation, Water Canyon Arch, historic windlass and sawmill.

Main Recreation Activities
Hiking, backpacking, primitive recreation, horseback riding, sightseeing, outdoor photography, guided tours, and pack animal use.

Management Prescriptions
BLM proposes to implement the following prescriptions related to recreation management. Where further analysis, planning, or resources are required, actual development or implementation would not take place until such analysis is completed and resources become available.

- BLM would maintain the Eagle Crags, Short Creek, and Water Canyon trailhead parking areas. With help from volunteers and interested community groups and organizations, BLM would maintain the Eagle Crags, Water Canyon, Canaan Mountain, Squirrel Canyon, and Broad Hollow trails. The Eagle Crags and Water Canyon trails would be extended to the top of Canaan Mountain.

- Commercial use would be limited to groups of 12 persons or less per trip with no more than three commercial permittees using the area at one time to reduce user impacts on the natural values of the area. Pack animals would be limited to 15 head per trip. Weed-free feed for pack animals would be required of the permittee for overnight trips to prevent the further spread of invasive weeds. Additional limits on the amount of use would be developed, as needed, to maintain important resource values throughout the SRMA.

- The unit boundaries would be marked in the vicinity of Hildale to reduce unintentional use on adjacent private lands. BLM would install the minimum necessary directional and interpretive signs to provide essential visitor information.

Recreation Opportunity Spectrum Setting
Primitive (31,395 acres)

Off-Highway Vehicle Management

Public lands in Washington County provide outstanding opportunities for motorized recreation on several hundreds of miles of backcountry roads and trails. In addition to motorized recreation, the public lands are used for motorized access for a wide variety of purposes including research, resource management, mineral exploration and development, grazing management, utility construction and maintenance, and other authorized uses. OHV enthusiasts are increasingly drawn from many areas outside of the county because of extensive open space, year-round accessibility, and the spectacular scenery that characterizes much of the area. Local users are also increasing sharply in numbers and diversity of interests (USDI/BLM, 1988). User group surveys show a trend to visit less crowded areas to find solitude and enjoy natural settings. The same surveys note strong user demands for more open lands close to areas where they live, more trailhead parking, and more developed trails (Utah SCORP, 1992).

The public lands also support a modest level of yearly competitive and organized events that, up until recently, have involved relatively small numbers of participants. Based on trends occurring throughout the region, it is expected that demand for such events will also increase. BLM is seriously challenged as to how to meet these growing demands in light of the many acres of public lands within the county that support fragile or sensitive resources and at the same time meet the needs of numerous other user groups including established permittees and other recreationists competing for use of the same lands. Owners of adjacent or intermingled private lands have also expressed concern about off-road travel extending from public lands onto their properties. Resolving these issues will require careful coordination and attention to how OHVs would be managed on public lands in this resource area.

Within Utah, statewide OHV issues are addressed in a comprehensive fashion by the State Division of Parks and Recreation through the OHV Advisory Council. The Council has effectively addressed numerous OHV issues throughout the state including safety, education, program funding, community partnerships, and reducing conflicts with resources and other public land users. BLM proposes to use the studies, analysis, and recommendations of this Council in dealing with OHV issues in Washington County. Moreover, collaboration with user groups, clubs, and community organizations to accomplish user education, program evaluation, and facility planning, development, and maintenance would be essential in meeting objectives for the program and resource protection.

BLM's objectives for OHV management in this resource area would include:

- Provide meaningful opportunities for a diversity of motorized recreation experiences on public lands in Washington County while protecting sensitive resources from excessive disturbance, road proliferation, and human encroachment.

- Establish working partnerships with local and state agencies, user groups, commercial providers, and other interested parties that would facilitate effective OHV program development including the planning for and implementation of successful trail systems and use areas.

- Provide education on OHV safety, etiquette, and environmental awareness, in cooperation with local and state agencies, user groups, schools, and other organizations.

- Provide for adequate mapping, signage, and public information to facilitate user

awareness, safety, and compliance with land use prescriptions. Collaborate with applicable state agencies and organizations who share responsibility for the preparation of such materials to ensure timely and accurate presentation.

- Achieve consistency, to the extent practical, with adjacent land management agencies in making use designations, linking trails, and communicating with the public to provide a seamless transition for OHV users across agency jurisdictions.

With final approval of this Plan, all public lands in the resource area would be designated as Open, Limited (e.g., open to use on existing or designated roads/trails), or Closed to OHV use based on applicable provisions contained in Title 43 of the Code of Federal Regulations. In reaching decisions on how and where to apply these designations, BLM would give deference to the following factors:

- the need for recreationists, public land users, permittees, adjacent landowners, contractors, researchers, and state, local, and federal officials in the conduct of their business to access the public lands or adjacent properties for lawful purposes;

- decisions and recommendations of management plans for special use areas including, but not limited to, the Washington County HCP Reserve, areas of critical environmental concern, special recreation management areas, habitat management plans, river segments recommended for inclusion in the National Wild and Scenic Rivers System, and municipal and county land use plans and ordinances;

- the need to reduce or eliminate conflicts with sensitive components of the environment such as important riparian resources, wildlife habitats, listed and sensitive plant and animal species, historical and archeological sites, primitive recreation areas, highly erodible soils, water quality, wilderness values, community watersheds, and scenic vistas;

- the requirements of applicable state and federal laws and regulations pertaining to designated wilderness areas and other lands under special management or protection;

- consistency with designations on lands of similar character managed by the Dixie National Forest, BLM's Arizona Strip Field Office, and other adjacent federal agencies; and

- the need to protect developed facilities including campgrounds, recreation areas, and interpretive sites as well as the rights of state, private, and municipal owners of adjacent and intermingled lands.

Specific recommendations to minimize conflicts from OHV use on various resources are described in each corresponding section of this proposed plan. In large part, public lands in the resource area would remain open to OHV use on existing roads and trails. Several special management areas and watersheds would remain open on designated roads and trails only. Specified public lands west of Veyo, at Sand Mountain, and adjacent to state lands west of Bloomington would remain open without limitation. Existing closures on public lands at Ripple Arch, portions of Canaan Mountain, and within the Beaver Dam Mountains Wilderness Area would remain in place to protect special values. New closures would be implemented to protect special resources at the Dinosaur Trackway, the Fort Pearce Historic Site, the Watchman slope adjacent to Zion National Park in Springdale, the roadless watershed immediately north of the upper Beaver Dam Wash, the cliff face of Red Mountain, river segments tentatively classified as wild and proposed as suitable for congressional designation under the Wild and Scenic Rivers Act, and areas classified as primitive in the Cottonwood Canyon portion of the Washington County HCP Reserve and the Deep Creek, Red Mountain, Canaan Mountain, and LaVerkin/Black Ridge Special Recreation Management Areas (SRMAs). Proposed OHV

use designations are summarized in Table 2-10 and depicted on Map 2.13.

Off-highway vehicle use would be managed in accordance with the following guidelines and definitions:

- BLM would prepare an activity plan for areas open to designated roads and trails only that would identify roads and trails open to use. Road closures, if any, would be coordinated through applicable county or municipal officials with public notice in accordance with federal regulations and Utah state law, where such is required. Maps of such areas would be disseminated for public use and information. Except as otherwise allowed under the definitions below, off-highway travel in such areas must be approved by BLM's authorized officer in advance, including for holders of valid permits and licenses. Hunters may not use motorized vehicles off the designated roads to retrieve taken animals. Vehicle parking for authorized purposes must occur within 25 feet of the designated roads or trails.

Table 2-10 • Off-Highway Vehicle Use Designations

	TOTAL ACRES
Open to Off-Highway Vehicle Use	**89,235**
Sand Mountain Area	
West of Veyo	
West of state land near Bloomington	
Open for Use on Existing Roads and Trails	**335,780**
All areas not specifically noted	
Open for Use on Designated Roads and Trails	**112.286**
Upper Beaver Dam Wash ACEC (in part)	
Beaver Dam Slope ACEC	
Red Bluff ACEC	
Warner Ridge/Fort Pearce ACEC	
Lower Virgin River ACEC	
Santa Clara River-Gunlock ACEC	
Santa Clara River-Land Hill ACEC	
Washington County HCP Reserve (in part)	
Threatened and Endangered Plant Species Habitat	
Candidate Species Plant Habitat	
Portions of the riparian areas along the Virgin River near Virgin and Grafton	
Rockville Bench	
Red Cliffs and Baker Dam Recreation Areas	
Closed to OHV Use	**91,704**
ROS Primitive Areas (except the Volcano Knoll crossing, as permitted)	
River segments with a tentative classification of Wild, proposed as suitable for Congressional NWSRS designation	
Ripple Arch	
Dinosaur Trackway	
Watchman Area	
Fort Pearce Historical Site	
Red Mountain ACEC	
Canaan Mountain ACEC	
Beaver Dam Mountains Wilderness Area	

- BLM would not prepare an activity plan for areas open to existing roads and trails but would distribute maps for the using public. All authorized land users that hold a valid permit or license including, but not limited to, grazing permits, hunting licenses, wood permits, rights-of-way, mining claims, mineral leases, research agreements, etc., would be allowed to drive off-road only to the extent needed to fulfill the purposes of their permit or license. Motorized vehicles must park within 100 yards of an existing road or trail when required for camping in undeveloped areas.

- Off-road travel on public lands must be limited to the minimum necessary to accomplish lawful, intended purposes, to reduce unauthorized road proliferation and widespread cumulative impacts, and to prevent undue or unnecessary degradation to the area. Negligent or willful destruction or degradation of natural resources or facilities would trigger appropriate law enforcement action and penalties.

- Off-road travel restrictions currently in place as a result of Federal Register publication, Vol. 45, No. 188, page 63557, Sep. 25, 1980, would remain in effect until approved designations are fully implemented.

- Until activity plans and maps are prepared and made available to the public, lands classified as "Limited to Designated Roads and Trails" would be managed as "Limited to Existing Roads and Trails" so as to lessen confusion among the using public. Exceptions would occur only where further restrictions were applied by the publication referenced above.

- BLM would apply the following definitions to OHV management in the resource area:

  1) "Off-highway vehicle" - any motorized vehicle capable of or designed for travel over land or other natural terrain, excluding: (a) any military, fire, search and rescue, or law enforcement vehicle while being used for emergency purposes; (b) any vehicle whose use is expressly approved by the authorized officer; (c) vehicles in official use; and (d) any combat or combat support vehicle when used in times of national defense emergencies.

  2) "Official use" - use by any employee, agent, contractor, or designated government representative in the course of carrying out required duties.

  3) "Trail" - a two-track vehicle way such as a "jeep trail," a single track maintained specifically to allow passage by ATVs or motorcycles, and unvegetated dry wash bottoms.

  4) "Open area" - an area of public land where motorized travel is permitted both on and off roads subject to applicable operating regulations and vehicle standards.

  5) "Closed area" - an area of public land where motorized travel is prohibited, except as expressly provided by law, regulation, or the authorized officer for essential purposes.

  6) "Limited to existing roads and trails" - an area of public land open to motorized travel on all roads and trails unless such roads and trails are reclaimed or otherwise signed as closed. Some off-road travel would be permitted in accordance with the guidelines described above.

  7) "Limited to designated roads and trails" - an area of public land open to motorized travel only on roads or trails that have been identified as open on an official, approved map. Off-road travel is prohibited unless prior approval has been granted by the authorized officer in accordance with the guidelines described above.

  8) "Limited to seasonal use" - an area of public land where prescriptions for motorized travel are regulated by the time of year.

9) "Off-road" - a term used to define motorized travel that does not take place on existing roads or trails; such travel is often referred to as "cross-country" travel.

Through additional analysis and land use planning, BLM would collaborate with affected and interested partners in evaluating existing roads and trails for suitability for active OHV management and envisioning potential new trails that would help meet current and future demands. In conducting such evaluations, the following factors would be considered:

- trails suitable for different categories of OHVs including dirt bikes, ATVs, dune buggies, and 4-wheel drive touring vehicles, as well as opportunities for joint trail use;

- needs for parking, trailheads, informational and directional signs, mapping and profiling, and development of brochures or other materials for public dissemination;

- opportunities to tie into existing or planned trail networks on the Dixie National Forest and other areas to the north including the Paiute ATV Trail; similar opportunities to tie into existing and planned networks on the Arizona Strip and other adjacent BLM units;

- opportunities to obtain grants or other funding needed for planned developments through the Utah Division of Parks and Recreation and other sources;

- measures needed to avoid onsite and offsite impacts to current land uses and important natural resources; among others, issues include noise and air pollution, erodible soils, stream sedimentation, nonpoint source water pollution, listed and sensitive species habitats, historic and archeological sites, wildlife, special management areas, grazing operations, fence and gate security, needs of nonmotorized recreationists, and protection of property rights for adjacent landowners;

- needs for collaborative management agreements between interested communities, agencies, and BLM to authorize jointly developed projects on public lands; and

- recognition that all needs and expectations of the OHV community may not be satisfied due to limited resources and competing demands from other user groups on public lands in Washington County.

Public land roads or trails determined to cause substantial environmental harm or to constitute a nuisance or threat to public safety would be considered for relocation or closure and rehabilitation after appropriate coordination with Washington County or applicable municipal officials and the application of state and federal laws and regulations.

BLM would work with user groups, organizations, school officials, and local, state, and other federal agencies in promoting education and public information programs, including the Tread Lightly initiative, to increase user and potential user awareness of environmental issues, OHV safety, and trail etiquette.

Maps and, where needed, trail profiles would be prepared for public dissemination to advise users of where OHV activity is authorized, what land use prescriptions apply, and what levels of user expertise are recommended.

BLM would collaborate with state and local agencies and affected user groups in planning staging and parking areas adjacent to the proposed Sand Hollow Reservoir to service OHV users and other recreationists desiring access to the Sand Mountain area. Other than minimal signing needed for safety and essential directions, the area would be left open and unmarked to provide a semiprimitive and unstructured riding experience.

BLM would continue to work with OHV sponsors and organizations to authorize competitive events, commercial touring, and organized rides on a case-by-case basis subject to site-specific analysis. Limited administrative capabilities in BLM and the need to provide for critical resource protection and site rehabilitation would restrict the number of large competitive

events (up to 300 participants) authorized on public lands. Collaboration with adjacent BLM units on the Arizona Strip would be encouraged to allow joint management or sponsorship of such events, increase options for alternative route selection, and provide for yearly rotation of established routes for large events to promote rehabilitation and reduce long-term cumulative impacts. Limitations on the number of participants and spectators to all competitive events would be applied where warranted based on design of the competition and site capabilities.

Visual Resource Management

Washington County boasts of some of the most exceptional scenic assets in the western United States (Weir, Utah Handbook, 1992). It sits at the juncture of three physiographic provinces including the spectacular Colorado Plateau, the expansive Basin and Range, and the rich and diverse Mojave Desert. The transitions between the provinces provide a wealth of varying landforms, geology, colors, elevation changes, and vegetation types. Distinctive elements of the scenic landscape in the county include Zion National Park, the Vermillion Cliffs, the Pine Valley Mountains, Snow Canyon State Park, Red Mountain, the Virgin River Gorge, the Hurricane Cliffs, and the Joshua Tree Forest on the Beaver Dam Slope. In addition to its natural landscapes, the county also possesses urban, historic, agricultural, and rural-pastoral landscapes of importance. These scenic attractions contribute to the excellent quality of life enjoyed by residents in the local area and is a major draw to the millions of visitors who come to the county each year to enjoy touring and sightseeing activities. For this reason, the outstanding scenery is of major importance to the economy of the region. The open and diverse vistas and natural landscapes that characterize a great percentage of the public lands in the county contribute significantly to this setting.

BLM's objective would be to manage the public lands in such a way as to preserve those scenic vistas which are deemed to be most important (a) in their impact on the quality of life for residents and communities in the area, (b) in their contribution to the quality of recreational visitor experiences, and (c) in supporting the regional tourism industry and segments of the local economy dependent on public land resources. Moreover, BLM would seek to complement the rural, agricultural, historic, and urban landscapes on adjoining private, state, and tribal lands by maintaining the integrity of background vistas on the public lands.

In order to accomplish these objectives, BLM would apply Visual Resource Management (VRM) Class Objectives described in Appendix 6 to public lands in the county. The class objectives would guide decisionmakers in evaluating potential impacts from land use proposals on the public lands and in designing alternatives or measures that would eliminate or reduce undesirable impacts on the quality of the visual resource. VRM classes for public lands in the resource area are summarized in Table 2-11 and depicted on Map 2.14.

Table 2-11 • Visual Resource Management Classes

VRM Class I	40,877 Acres
VRM Class II	111,407 Acres
VRM Class III	417,925 Acres
VRM Class IV	58,546 Acres

The proposed classifications reflect the results of scenic quality inventories upgraded in those locations where BLM deemed it necessary to retain desirable landscape character and achieve the broad management objectives identified above. BLM managers could use discretion in applying the standards to various land use proposals and grant exceptions where warranted by the public interest or valid development rights, such as those conveyed under the mining and mineral leasing laws. Within excepted areas, BLM would apply appropriate mitigating measures to authorized actions to achieve the lowest feasible level of impact.

As Washington County continues to respond to forces of change, the classifications would be reviewed from time to time and modified as needed in response to factors such as new legislation, revisions to local land use plans, unexpected shifts in urbanization, visual objectives in local land use agreements, or determinations

that broad planning objectives were not being met. Such changes would be made through the planning process.

To protect scenic vistas essential to the integrity of the Zion corridor along State Scenic Highway 9, public lands within view of the highway from the top of the bench at LaVerkin to the south entrance of the Park would be classified VRM Class II. Exceptions to the standards would be granted to allow essential rights-of-way and public purpose authorizations needed to support the health, safety, and well-being of local communities in the corridor where the impacts of such uses can be mitigated to satisfactory levels. Exceptions could also be granted as necessary to fulfill the purposes of approved land use and management plans for Zion National Park, community-based partnership efforts, and other objectives of this Proposed Plan.

VRM Class IV objectives would be applied to established mineral materials sites.

Except in designated utility corridors, VRM Class I and II areas would be right-of-way avoidance areas to reduce the potential for scenic degradation.

VRM Class II designations would not prevent prescribed burns needed to accomplish other important objectives described in this Proposed Plan.

BLM would apply VRM Class III objectives to vegetation treatment areas, communication sites, and utility corridors regardless of the VRM class assigned to the affected lands.

Wilderness Management

Part of one congressionally designated wilderness area is located on public lands in Washington County. The Arizona Wilderness Act of 1984 (Public Law 98-406) established the Beaver Dam Mountains Wilderness Area, 2,690 acres that lie on the Utah side of the state line. The remaining 15,812 acres in Arizona are managed by BLM's Arizona Strip Field Office. The Beaver Dam Mountains Wilderness Area is managed in accordance with the Paiute and Beaver Dam Mountains Wilderness Management Plan (USDI/BLM, 1990).

As a result of wilderness inventories required by and conducted under the authority of Section 603 of the Federal Land Policy and Management Act (FLPMA), 11 wilderness study areas (WSAs) and one instant study area were identified within the resource area. Each of these areas was studied and analyzed for wilderness suitability in the 1990 Utah BLM Statewide Wilderness Final Environmental Impact Statement. BLM's recommendations were forwarded to the Secretary of the Interior and on to the President and the Congress in 1991. Until such time as the Congress acts to designate all or part of these areas as wilderness or releases them from further wilderness consideration, BLM is required by FLPMA to manage the areas so as not to impair their suitability for preservation as wilderness, subject to valid existing rights and provisions affecting grandfathered mining, grazing, and mineral leasing operations. BLM policy for how such lands are to be managed is described in its Interim Management Policy and Guidelines for Lands Under Wilderness Review, BLM Handbook H-8550-1. Public lands within WSAs are also closed to fluid mineral leasing by the 1987 Federal Onshore Oil and Gas Leasing Reform Act. However, this Proposed Plan addresses how lands in wilderness study areas would be managed if released from such review. By so doing, BLM will have land use prescriptions in place for any lands released without the need for costly and extensive plan amendments. Any lands subsequently designated as wilderness by Congress would be managed in accordance with provisions of the Wilderness Act of 1964 and the terms of the implementing legislation.

The Beaver Dam Wilderness Area, the Joshua Tree Instant Study Area, and the 11 WSAs in the resource area are described in Table 2-12 and shown on Map 2.15.

Cultural and Paleontological Resources

Public lands in Washington County sustain widespread, abundant, and varied prehistoric archeological resources in addition to numerous historic trails and sites. Collectively known as "cultural resources," these sites are important to

Table 2-12 • Wilderness Study Areas and Designated Wilderness in Washington County, Utah

WILDERNESS STUDY AREAS	WSA ACREAGE	BLM PROPOSED ACREAGE
Cougar Canyon	15,968	6,408
Red Mountain	18,290	12,842
Cottonwood Canyon	11,330	9,853
La Verkin Creek Canyon	567	567
Deep Creek	3,320	3,320
Canaan Mountain	42,858 [1]	32,440 [2]
Red Butte	804	804
The Watchman	600	600
Taylor Creek	35	35
Goose Creek	89	89
Bear Trap	40	40
Subtotal	**93,901**	**66,998**
Joshua Tree Instant Study Area	1,015	1,015
Beaver Dam Mountains Wilderness Area (Utah Portion)	2,690	2,690
Grand Total	**97,606**	**70,703**

[1] Canaan Mountain WSA acreage total 47,170 acres (42,858 acres in Washington County, 4,312 acres in Kane County)

[2] Canaan Mountain BLM Proposed WSA total 33,800 acres (Approx. 32,440 acres in Washington County, 1,360 acres in Kane County)

members of the scientific community as well as academic institutions, private organizations, Indian tribes, and interested individuals throughout the region. The sites contain a wealth of information about historic and prehistoric cultures and events, provide enjoyment to visitors and cultural enthusiasts who wish to learn about and protect the sites, and have intrinsic value to Indian tribes who have religious, cultural, and historic ties to the resources themselves. It is estimated that over 10,000 Anasazi and prehistoric Paiute sites may occur on public lands in Washington County alone (USDI/BLM, 1988). Several paleontological sites are also known to exist on the public lands. Based on communications with local universities, geologic strata in the resource area are suspected to contain other paleontological resources.

Although such resources are protected by a variety of state and federal laws, the condition of these public assets throughout the resource area is only fair due to extensive looting and vandalism. A 1987 report by the Government Accounting Office indicated that two thirds of all Anasazi structural sites have been disturbed throughout the region (US/GAO, 1987). Local observers report that all known large sites on

public lands in this area have been vandalized and most have been severely damaged. Numerous rock art sites in the resource area remain in good condition, but increasing reports are being received on growing vandalism and attempts at removal. Measures need to be taken to prevent additional losses.

In managing cultural and paleontological resources on public lands, BLM would seek to (a) employ reasonable measures and land use controls needed to reduce impacts from urbanization and human encroachment, (b) apply the principles of conservation management to selected areas to maintain such resources in their present condition for future study and enjoyment, (c) reduce looting and vandalism through increased public education, surveillance, and enforcement, (d) provide for legitimate field research by credible scientists and institutions, (e) ensure compliance with applicable state and federal laws for consultation, assessment, and mitigation including consultation with interested or affected Indian tribes, and (f) provide for stabilization, maintenance, and interpretation of selected sites for public enjoyment and education.

BLM would collaborate with local communities, organizations, local and state agencies, Indian tribes, and other interested parties in developing and implementing plans for the restoration, stabilization, protection, and/or interpretation of appropriate historical, archeological, or paleontological sites and resources in the resource area. Specific recommendations for the Dinosaur Trackway, Honeymoon Trail, Dominguez-Escalante Trail, and Fort Pearce historic site are included in the section on Recreation under prescriptions for the Sand Mountain Special Recreation Management Area. Protection for the Red Cliffs Archeological Interpretive site is provided for in the prescriptions for the Red Cliffs Recreation site described in the same general section.

Prescriptions for all or portions of four proposed Areas of Critical Environmental Concern would be applied to protect, conserve, or interpret important cultural and paleontological resources. The areas include Santa Clara River/Gunlock, Santa Clara River/Land Hill, Lower Virgin River, and Little Creek Mountain. The prescriptions are described in detail under the section on Special Emphasis Areas. Among other things, the prescriptions would limit off-road travel, require site avoidance for fluid mineral leasing, and close the affected areas to fuelwood and mineral materials sales. Concessionaire management of cultural or paleontological resources would be considered inconsistent with the objectives of this Plan and would not be authorized.

BLM would continue to maintain inventories of known sites and evaluate their potential for protection, conservation, research, or mitigation and data recovery when threatened by land use proposals. Under applicable law and regulation, BLM would authorize field research by qualified colleges, universities, and professionals for legitimate purposes. When archeological resources are involved, BLM would ensure compliance with all requirements for Native American consultation and other provisions of law and executive orders including the Native American Graves Repatriation and Protection Act.

BLM would establish a site steward program using trained volunteers to monitor conditions at approved historic, archeological, and paleontological sites. The site stewards would report violations to appropriate law enforcement officials and, where appropriate, provide on-site information about site values and needed protection to visitors and interested members of the public. Additional surveillance would be provided by BLM rangers and through cooperative programs with local law enforcement offices, the Civil Air Patrol, or other qualified partners.

BLM would consider implementation of conservation management on public lands in the Little Creek Mountain Anasazi area, the Cedar Pockets/Bulldog Pass Archaic area, and high density riverine sites to maintain their present condition and reduce potential conflicts. Conservation management entails leaving cultural resources in place without excavation, recovery, or disturbance so that they may be studied on site by future generations of scientists.

Hazardous Waste Management

The management of hazardous material and waste is controlled by a variety of state and federal laws and regulations which apply to public lands, among others. Public lands in the resource area are crossed by six transportation routes on which hazardous material or waste is transported. These routes include Interstate Highway 15, State Routes 9, 17, 18, and 59, and Old U.S. Highway 91. One site listed under the Comprehensive Environmental Response, Compensation, and Liability Act on a former mining and milling operation in the Leeds/Silver Reef area has been cleaned up in cooperation with the Environmental Protection Agency (EPA). Surface contamination from unexploded military ordnance at the foot of Hurricane Mesa has been cleaned up in cooperation with the National Guard, but subsurface contamination on the site has yet to be fully assessed. To eliminate potential long-term public liability, BLM policy does not authorize public lands to be used for hazardous waste disposal unless such lands are first transferred out of public ownership. No hazardous waste disposal site needs have been identified on public lands in Washington County.

BLM's objective would be to comply with all applicable state and federal laws and regulations pertaining to the use and storage of hazardous materials and to keep public lands free from unauthorized hazardous material generation, storage, or transport.

Emphasis would be placed on taking appropriate legal and enforcement action necessary to terminate illegal dumping and remove any hazardous wastes deposited on the public lands.

BLM would ensure that all use authorizations it grants to public land users involving the generation, storage, or transport of hazardous materials are subject to required coordination and/or permitting from applicable local and state agencies and otherwise conform to applicable state and federal laws and regulations.

BLM would collaborate with EPA, the Utah Department of Environmental Quality, and other affected local, state, and federal agencies in assessing sites suspected of containing hazardous wastes or spills and developing strategies for remediation. BLM would continue to seek military assistance in assessing subsurface ordnance contamination adjacent to Hurricane Mesa and collaborate in preparing and implementing a decontamination plan, if warranted. In accordance with BLM policy, sanitary landfills would not be permitted under conventional leasing or Recreation and Public Purpose Act authorities where lingering public liability exists.

Fire Managment

Wildland fires are part of the natural forces affecting public lands in Washington County. Between 1985 and 1996, 160 reported fires burned about 31,200 acres on public lands in the resource area. Previous fire policies resulted in full or conditional (least cost) suppression in all instances. Land management agencies, however, are learning that proper fire management is a key tool that can be used to help restore natural systems to their properly functioning conditions by restoring fire to its legitimate role in the ecosystem (USDI/USDA, 1996). Fire suppression in the resource area would be directed by objectives and prescriptions identified in the proposed Dixie Fire Management Plan scheduled for completion in 1998. The highest priorities of fire suppression would be to protect life, firefighter safety, property, and critical resource values. The BLM would coordinate with stakeholders at local and regional levels as well as adjacent land management agencies in formulating and implementing the final Fire Management Plan.

The Fire Management Plan would identify (a) where wildland fire would be suppressed immediately such as near private lands or to avoid threats to life and property, (b) where wildland fire would be suppressed to avoid unacceptable impacts to natural resources such as in key riparian areas or endangered species habitats, (c) where fire is desired to achieve resource objectives but there are constraints to managing the fire such as excessive fuel build-up due to lack of fire in the past, and (d) where fire is desired to achieve resource objectives or restore

the land to a desired condition and there are no constraints to such management.

The Fire Management Plan would use major vegetative communities to define where the suppression strategies described above would be employed on public lands throughout the county. For each area so identified, the plan would describe (a) existing vegetative and resource conditions, (b) desired future conditions, (c) the role fire would play in achieving such conditions, and (d) areas where specific suppression tactics need careful evaluation due to cost, safety, resource issues, or other concerns. The Fire Management Plan would also determine what fire management and suppression resources are needed to meet the goals and objectives identified in the plan.

Until the Dixie Fire Management Plan is approved, BLM would follow protocols established in the BLM Cedar City District's Fire Management Plan and other applicable plans.

The Interagency Annual Operating Plan, which coordinates fire actions between BLM, Washington County, the State of Utah, the Bureau of Indian Affairs (Southern Paiute Field Station), Dixie National Forest, and Zion National Park would continue to provide guidance for fire operations between the agencies. This plan would be updated yearly and would operate on the "closest available forces" concept. It would also establish protocols for notification and initial attack.

The following prescriptions would be applied to fire suppression and prescribed fire activity on public lands:

- Onsite BLM resource advisors would be assigned to extended attack fires where needed to integrate resource concerns into the development of tactical plans and to evaluate potential for post-fire rehabilitation. Special attention would be given to riparian areas, federally listed plant and animal species habitat, and crucial mule deer winter range. Advisors would be assigned to all fires threatening desert tortoise habitat, wilderness areas, or wilderness study areas.
- Wildfires in designated wilderness areas would be managed in accordance with applicable wilderness management plans.
- Wildfires in wilderness study areas would be managed in accordance with guidelines in BLM's Interim Management Policy (BLM handbook H-8550-1).
- Surface-disturbing suppression activities would avoid known cultural sites to the extent avoidance is feasible.
- Although exempt from OHV use designations by regulation, fire suppression activities would be directed so as to give appropriate deference to resources and conditions intended to be protected by such designations.
- BLM would manage fire suppression activities in desert tortoise habitat in accordance with applicable biological opinions of the FWS, provisions in the desert tortoise recovery plan, and guidelines in Fighting Wildfire in Desert Tortoise Habitat: Considerations for Land Managers, (T. Duck et al, 1995 Desert Tortoise Council Symposium - International Symposium of Wildland Fire).
- BLM would conduct rehabilitation of lands affected by wildfire in accordance with provisions of the approved Dixie Normal Fire Rehabilitation Plan (1997). Any rehabilitation would require site-specific analysis including full cultural resource inventories on lands to be disturbed and appropriate consultation. In all cases, BLM would apply standards and guidelines approved for various resources included in Utah BLM's Standards for Rangeland Health and Guidelines for Grazing Management contained in Appendix 3. Deference would be given to the use of least disruptive practices in areas being managed primarily for their natural values including primitive recreation areas, designated wilderness areas, riparian zones, areas of critical environmental concern, and rivers recommended as suitable for inclusion in the National Wild and Scenic Rivers System.
- In accordance with the proposed Dixie Fire Management Plan, BLM would conduct prescribed burns and manage prescribed natural fires to achieve vegetation

management objectives, improve wildlife habitat, reduce hazardous fuels, and achieve long-term objectives for soil stabilization and water quality. Prescribed fire would be conducted on 500 acres of wildlife habitat at Potters Peak. Prescribed fire would be considered for use on up to 10 vegetation treatment areas listed in the section of this Proposed Plan on Livestock Grazing when necessary to maintain desired vegetation communities in those areas. Fire rehabilitation areas could also be maintained through prescribed fire to achieve these same objectives.

- In conducting prescribed burns, BLM would design and time the projects so as to maximize smoke dispersal and protect the high quality airshed within Zion National Park and other Class I areas in the region. For effective smoke management, ignition would be approved only when the burning index is 500 or greater.

- Consultation with permittees, local and state agencies, adjacent land managers, and nearby private landowners would be required for all prescribed burns during the planning phase to ensure such burns minimize disruption to existing land uses and that affected publics are notified.

- BLM would collaborate with local, state, and federal agencies in promoting public education and awareness on fire prevention, protection of rural properties, and the proper role of fire in natural systems.

Special Emphasis Areas

Wild and Scenic Rivers

The Wild and Scenic Rivers Act (October 2, 1968, Public Law 90-542) requires BLM to consider wild and scenic river values in its land use planning process. To that end, BLM inventoried 61 water courses or river segments on public lands throughout the resource area to determine which segments were free flowing and had river-related resource values of sufficient significance to warrant eligibility for further study under the Act. In conducting the inventory, BLM took into account the views of numerous citizens, organizations, and local, state, and federal agencies. Using the process described in Appendix 6 of the Draft RMP, BLM has determined that portions of nine rivers studied are eligible for congressional designation. These determinations are summarized in Appendix 7 and depicted on Map 2.16.

On April 17, 1997, the Assistant Secretary for Lands and Minerals Management transmitted to the U.S. Senate and House of Representatives a legislative package which, among other things, recommended that Congress authorize a study of a 234-mile segment of the Virgin River and its tributaries in Utah, Arizona, and Nevada. If approved by Congress, the study would evaluate the river for possible designation as part of the National Wild and Scenic Rivers System and would be led by an interdisciplinary team from the BLM, the National Park Service, the Forest Service, and other affected parties. Conducted under Section 5(a) of the Wild and Scenic Rivers Act, the study would evaluate the river in its entirety using common criteria developed jointly by the principal federal agencies involved. It would also avoid piecemealing the evaluation over numerous years as the respective agencies completed land use plans according to different planning schedules. By so doing, Department of the Interior officials believe that all issues associated with the river would be clearly and consistently addressed before making recommendations for designation or nondesignation under the Act (letter from Assistant Secretary Armstrong, June 1997). Actual designation would occur only if legislation were enacted through the Congress and signed into law by the President.

On November 6, 1997, BLM's Utah State Director signed a Memorandum of Understanding (MOU) concerning wild and scenic river studies in Utah. Cosigned by the Governor of Utah, the Regional Forester of the Forest Service, the Regional Director of the National Park Service, and affected local agencies, the MOU establishes a cooperative relationship among the agencies for conducting wild and scenic river studies for Utah rivers. Under the MOU, the parties would strive to reach consensus regarding recommendations to Congress for inclusion of rivers in the National

Wild and Scenic Rivers System. Besides applying consistent criteria across agency jurisdictions, the joint review would avoid piecemealing of river segments in logical watershed units in the state. Actual designation of river segments would only occur through congressional action or as a result of Secretarial decision at the request of the Governor in accordance with provisions of the Wild and Scenic Rivers Act (the Act). Although the MOU was signed too late to be fully implemented for the Dixie Proposed RMP/Final EIS, BLM would seek to work with the agencies involved to coordinate its decisionmaking on wild and scenic river issues and to achieve consistency wherever possible.

To facilitate such consistency and coordination, BLM has entered into a separate MOU with the National Park Service, dated February 1998, for the study of river segments on four isolated tracts of public land adjacent to the north boundary of Zion National Park. These include small portions of Willis Creek, Goose Creek, Beartrap Canyon, and Shunes Creek. In conducting its river inventories, BLM judged these segments not eligible for further study based on the absence of outstandingly remarkable values on the BLM-administered portions of the segments. Because of the configuration of the parcels relative to the park, it is recognized that evaluation of the entire river segment across federal lands may have led to a different conclusion as to eligibility for any of the tracts involved. Zion National Park is currently preparing a General Management Plan and is conducting its own review of river segments within the park for possible inclusion into the National Wild and Scenic Rivers System. BLM's MOU with Zion National Park provides that the four segments previously evaluated by BLM would be included in the National Park Service river study. BLM and the National Park Service would strive to reach a joint conclusion as to eligibility, tentative classification, and suitability for the entire segments involved. Such decisions would either affirm or supersede BLM's original conclusions as to those portions on public lands. Two additional public land parcels at the east end of the middle fork of Taylor Creek and on the north rim of the Kolob Creek narrows could also be affected by the Park Service study should the creeks be recommended as suitable for designation. Until such time as the park's General Management Plan is completed, BLM's original conclusions as to eligibility would stand.

At such time as the supervisor of the Dixie National Forest conducts wild and scenic river studies in a revision of the Dixie National Forest Land and Resource Management Plan, BLM would consider entering into a similar agreement with the Forest Service for streams crossing agency jurisdictions within Washington County. The agreement could call for evaluation of selected stream segments in their entirety where both agencies agree that such would provide a logical and consistent conclusion as to eligibility and suitability. Unless and until an agreement is put into place and a joint planning decision approved, BLM's conclusions regarding eligibility for public land river segments addressed in this Proposed Plan would stand.

After careful review of numerous public comments received after publication of the Draft RMP/EIS and coordination with interested local, state, and federal agencies, BLM has concluded it would recommend as suitable for Congressional designation parts or all of 5 of the 11 river segments found eligible on public lands. These include Deep Creek/Crystal Creek, North Fork of the Virgin River above Zion National Park, Oak Creek/Kolob Creek, that portion of LaVerkin Creek/Smith Creek from above Zion National Park to the north boundary of the private parcel in Section 18, T. 40 S., R. 12 W., and that portion of Segment B of the Virgin River contained wholly within the Beaver Dam Mountains Wilderness Area. Recommended segments are shown on Map 2.16. All of the above river segments would carry a tentative classification of wild and would cover approximately 25.7 miles. Factors considered in reaching this conclusion are described in Appendix 8.

Congressional designation of any or all of these segments would serve to meet the objective of the Wild and Scenic Rivers Act which is to preserve in free-flowing condition selected rivers in the nation which possess outstandingly remarkable values and to protect those rivers and their immediate environments for the benefit of present and future generations. Moreover, such designation would bring national recognition to

designated river segments in Washington County and elevate river management goals warranting long-term commitments from affected agencies. BLM's recommendations would also conform to proposed objectives and recommendations on the same river segments across federal agency boundaries, thereby promoting consistent land use regulation and shared management opportunities.

Upon approval of the Record of Decision for this Proposed Plan, protective management would be implemented under the authority of Section 202 of the Federal Land Policy and Management Act (FLPMA) on those segments recommended as suitable to ensure that eligibility and tentative classification would not be adversely affected. Protective management objectives for public lands recommended as suitable would include (see BLM Manual 8351.32C, 1992):

- maintaining free-flowing character by excluding new impoundments, diversions, channelization, or rip-rapping on public land segments;

- preserving or enhancing outstandingly remarkable values; and

- allowing no developments on public lands within the river corridors that would alter the tentative classifications.

For that segment of the Virgin River Gorge within the Beaver Dam Mountains Wilderness Area, protective management would be provided by prescriptions already in place for the wilderness area. For all other segments tentatively classified as wild, the following prescriptions would apply to lands within the affected corridors:

- VRM Class II
- Right-of-way avoidance area
- Mining plan of operation required
- Fluid mineral leasing Category 3 (NSO - no waivers)
- Closed to mineral materials sales
- Closed to fuelwood sales
- Closed to OHV and mountain bike use

Limited exceptions to OHV travel restrictions could be made for authorized uses only in accordance with federal regulations at 43 CFR 8340.0-5 (1997) and as described in the section of this Proposed Plan on Off-Highway Vehicle Management.

Protective management would remain in place until (a) Congress or the Secretary of the Interior designate the segments and apply new provisions, (b) Congress or the Secretary release the segments from protection or further consideration, or (c) new studies are completed under Sections 5(a), 5(d), or 2(a)(ii) of the Act that change or eliminate the need for protective management on the segments involved. If released from protective management, the lands would be managed under the same prescriptions applied to the surrounding public lands.

As a result of its recommendations for suitability contained in this Proposed Plan, BLM would take or approve no action that would abrogate the intent or terms of the Zion National Park Water Rights Settlement Agreement of December 4, 1996. BLM would promote the inclusion of such provisions in any legislative or administrative action taken to designate affected river segments on public lands under the Wild and Scenic Rivers Act. In deference to the agreement, BLM would allow for the development contemplated in each water basin upstream or up gradient from Zion National Park subject to applicable federal laws and regulations while managing for the values which led to recommendations for suitability or subsequent legislative or administrative action. BLM also concludes that the water rights quantification established for Zion National Park in the agreement is sufficient to satisfy flow requirements needed to maintain those values on public lands above the park in Washington County. The conclusion is based on the fact that consumptive uses and resource requirements in the Park, including those for visitor enjoyment, clearly exceed those on the adjacent public lands to the north.

If any or all of the recommended rivers are designated, BLM would work closely with affected local, state, and federal agencies, and Indian tribes in preparing study reports and detailed management plans pertaining to the manage-

ment of protected river segments. BLM's goal would be to achieve consistency with other land use plans and community-based efforts to promote sound land use and resource protection within river corridors in and adjacent to Washington County. Should the State of Utah, in cooperation with local governments, pursue Secretarial designation of river segments in Washington County under Section 2(a)(ii) of the Act, BLM would give its full support to such designation where federal policies and planning objectives would be complemented. If necessary, this land use plan could be amended to accommodate such action and cooperative agreements entered into for the planning, administration, and management of public lands which are within the boundaries of river areas so designated.

BLM's intent would be to defer submission of suitability reports to Congress until after studies are completed on adjacent Forest Service and Park Service lands so that joint recommendations could be written and submitted that reflect an interagency, basinwide approach on the Virgin River System in Utah. Preparation and submission of the reports would follow provisions of the statewide interagency MOU of November 6, 1997, including coordination with state and local agencies.

Should designation occur on any river segment as a result of Secretarial or Congressional action, existing rights, privileges, and contracts would be protected. Under Section 12 of the Act, termination of such rights, privileges, and contracts could happen only with the consent of the affected non-federal party. Section 13 of the Act provides authority for the creation of a federal reserved water right at the time the designation is made only in amounts necessary to accomplish the purposes of the Act. Such provisions would be established in the Secretary's Order or the legislation which puts the designation into place. BLM's intent would be to leave existing water rights undisturbed and to recognize the lawful rights of private, municipal, and state entities to manage water resources under state law to meet the needs of the community. Federal law, including Section 13 of the Act and the McCarren Amendment (43 U.S.C. 666), recognizes state jurisdiction over water allocation in designated streams. Thus, it would be BLM's position that existing water rights and existing developments on such streams would not be affected by designation or the creation of the federal reserved water right. BLM would seek to work with upstream water users and applicable agencies to ensure that water flows were maintained at a level sufficient to sustain the values for which affected river segments were designated.

Should public land segments of rivers be designated through Congressional or Secretarial action, BLM would be required to prepare detailed management plans within 3 years of the designation. By law, the plans would be designed to protect and enhance those values for which the rivers were designated without limiting other uses that do not substantially interfere with public use and enjoyment of those values. Local and state agencies would be encouraged to participate in the formulation of such plans, and where mutual interests would be served, to enter into cooperative agreements for the joint administration of affected river segments. Land use prescriptions developed in the management plans would include all applicable provisions of the Wild and Scenic Rivers Act and the legislation or Secretarial Order that placed the river segments into the National Wild and Scenic Rivers System. Guidelines contained in Appendix 9 would be used in establishing management prescriptions. Where designated river segments are included within areas designated as wilderness, provisions of the Wilderness Act of 1964 would be applied.

BLM recognizes that water resources on most segments of the Virgin River system are already fully allocated. Where stream segments are designated on public lands being managed under this Proposed Plan, BLM would continue to work with affected local, state, federal, and tribal partners to identify instream flows necessary to meet critical resource needs including values related to the designation. BLM would then seek to jointly promote innovative strategies, community-based planning, and voluntary agreements with water users, under state law, to address those needs.

Proposed Areas of Critical Environmental Concern

Where BLM determines that certain public land areas require special management to prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems, it may, with appropriate public participation, designate such lands as Areas of critical environmental concern (ACECs). Ten ACECs would be established by approval of this Plan and are shown on Map 2.17. The proposed City Creek ACEC, described in the 1995 draft Dixie Resource Management Plan to protect watershed values and special status species, is contained wholly within the Washington County HCP Reserve and would be fully protected under the provisions of the HCP. It is not carried forward in this Proposed Plan as an ACEC to avoid duplication in planning and management oversight. Lands within the HCP Reserve are proposed for eventual designation as a National Conservation Area. Management prescriptions for each proposed ACEC are listed below:

Red Bluff Proposed ACEC (6,168 acres)

This area contains the endangered dwarf bearclaw poppy and highly erodible saline soils at risk from extensive off-road travel, road proliferation, human encroachment from adjacent urban areas, and continued pressure for land transfers to accommodate various forms of development. The following prescriptions would be applied to protect these vulnerable resources:

- Category 3 (NSO) stipulations would be applied to fluid mineral leasing to avoid soil loss and irreparable impacts to poppy habitat from exploration, drilling, and lease maintenance operations.

- The area would be closed to fuelwood and mineral materials sales and designated a right-of-way avoidance area. Should the Southern Transportation Corridor result in a spur from the area of the proposed Atkinville intersection to Old U.S. Highway 91 between Santa Clara and Ivins, BLM would work with project sponsors to define an environmentally preferred route. Any such development would be subject to further environmental study, consultation with the FWS, and a plan conformance determination.

- BLM would recommend the area be withdrawn from mineral entry. Pending Secretarial approval of the withdrawal, mining plans of operation would be required for all mining exploration and activities other than casual use.

- Motorized travel would be limited to designated roads and trails. Fencing, signing, and barricades would be employed to prevent unauthorized vehicle access and impacts to the resources being protected. Existing fences would be maintained.

- Applicable Standards for Rangeland Health, including monitoring and assessment programs, would be employed to determine if objectives developed in the recovery plan for protection and enhancement of the species were being met. If monitoring reveals the objectives and standards are not being met, BLM would work with user groups and interested parties to develop strategies and make adjustments in permitted land uses to the extent such were determined to be contributing factors.

- BLM would continue to fund, conduct, or authorize field studies to monitor bearclaw poppy populations, trends, and habitat impacts. Public education programs would be supported in conjunction with the Washington County Habitat Conservation Plan to build increased understanding of the unique character, importance, and requirements of the plant.

- Mountain bike use would be limited to a designated trail. BLM would work with user groups, affected agencies, and interested parties to design a trail and redirect

current use to avoid damage to bear-claw poppy populations. Trail approval and reconstruction would be subject to consultation with the FWS.

- Because protection of the cryptogamic material occurring on the soil surface is needed to reduce unacceptable soil loss, BLM would manage authorized uses in the area so as to require the best management practices including the use of special equipment or construction of temporary or permanent protective features.

- Special recreation permits could be issued where site specific analysis determined that the authorized activity would not adversely affect the values for which the ACEC was designated.

- Public lands in the ACEC would be retained in public ownership. Non-federal lands within the ACEC could be obtained through purchase, exchange, or donation where such would help to achieve management objectives for the area. Lands so acquired would be managed under the same prescriptions as would be applied to the remainder of the ACEC.

Warner Ridge/Fort Pearce Proposed ACEC (4,281 acres)

This area contains the endangered dwarf bear-claw poppy, the threatened siler pincushion cactus, important riparian values along the Fort Pearce Wash, historic sites, and highly erodible soils, all of which are at risk from off-road travel, road proliferation, urban growth, and human encroachment. The area also contains essential habitat for waterfowl, the gila monster, spotted bat, raptors, and other nongame species which have suffered from habitat loss caused by urbanization and development in the St. George area. The following prescriptions would be applied to protect and improve these values:

- Category 3 (NSO) stipulations would be applied to fluid mineral leasing to avoid soil loss and irreparable impacts to poppy habitat from exploration, drilling, and lease maintenance operations.

- The area would be closed to fuelwood and mineral materials sales and designated a right-of-way avoidance area. BLM would work with sponsors of the Southern Transportation Corridor to define an environmentally preferred route through the area that would minimize impacts to the resources being protected.

- BLM would recommend the area be withdrawn from mineral entry. Pending Secretarial approval of the withdrawal, mining plans of operation would be required for all mining exploration and development activities other than casual use.

- Motorized travel would be limited to designated roads and trails. Fencing, barricading, and signing would be employed as necessary to eliminate unauthorized vehicle access and impacts to protected resources.

- Mountain bike use would be limited to designated roads and trails.

- Public lands in the ACEC would be retained in public ownership. Non-federal lands within the ACEC could be obtained through purchase, exchange, or donation where such would help to achieve management objectives for the area. Lands so acquired would be managed under the same prescriptions as would be applied to the remainder of the ACEC.

- Special recreation permits could be issued where site specific analysis determined that the authorized activity would not adversely affect the values for which the ACEC was designated.

- Additional prescriptions described in the discussion of the Sand Mountain Special Recreation Management Area in the Recreation section of this Plan would be applied to achieve objectives for the area.

Santa Clara/Gunlock Proposed ACEC (1,998 acres)

This area contains numerous important resource values that need special protection as a result of extensive recreation use, off-road travel, transient camping, and other forms of human encroachment (Utah Department of Natural Resources, 1995). Values include numerous Virgin Anasazi riverine sites, Southern Paiute sites, and rock art sites, many of which have been looted or vandalized. The Santa Clara River supports essential riparian resources, habitat for the Virgin spinedace minnow and migratory and nongame birds, and potential habitat for the listed Southwestern willow flycatcher. Management objectives include protection of cultural resources, improvement and protection of riparian systems and floodplains, and restoration of habitats for listed and sensitive species. The following prescriptions would be applied to offer protection to the resources so identified:
o Selected archeological sites could be managed for public values and interpreted for educational use. Other sites would continue to be managed for information potential unless specific plan prescriptions establish other objectives in accordance with cultural resource policies. Surveillance and other law enforcement measures would be increased to deter vandalism. Site steward programs would be employed to bring trained volunteers to monitor the sites and report violations or resource degradation. Cooperative agreements with local Indian tribes, government agencies, or qualified organizations could be used for interpreting, protecting, or otherwise managing archeological resources in their natural context where consistent with ACEC prescriptions.

- BLM would collaborate with the Utah Department of Natural Resources, the Washington County Water Conservancy District, the FWS, and other interested parties in implementing the terms of the Virgin Spinedace Conservation Agreement and Strategy (April 11, 1995) as it affects the segment of the Santa Clara River in this ACEC. Among other things, this would include the reestablishment and protection of year-round flows in the Santa Clara River below Gunlock Dam, implementation of habitat improvements, eradication of nonindigenous fish, and monitoring and evaluation.

- All applicable management prescriptions listed under the section in this Plan on Riparian Resources would be implemented in full to restore and protect the riparian values and associated habitats within this ACEC.

- Lands outside of riparian zones would be placed under Category 2 special stipulations for fluid mineral leasing requiring submission and approval of a plan of development that protects surface and groundwater quality.

- The area would be closed to fuelwood and mineral materials sales and designated a right-of-way avoidance area.

- Motorized travel would be limited to designated roads and trails to help protect and restore riparian values and sensitive fish habitat.

- Mountain bike use would be limited to existing roads and trails.

- Mining plans of operation would be required for all mining exploration and activity other than casual use.

- Public lands in the ACEC would be retained in public ownership. Any nonfederal lands acquired by BLM within this area would be managed in accordance with ACEC prescriptions applied to the surrounding public lands.

- This proposed ACEC includes lands within the Red Mountain Special Recreation Management Area. Where land use prescriptions for the two areas conflict on any given parcel, prescriptions for the ACEC would apply.

- Special recreation permits could be issued when site-specific analysis determines activities thus authorized would not adversely affect the values for which the ACEC was designated.

- BLM would work with water users and affected local agencies to ensure that new or adjusted irrigation diversion points would be designed and located to minimize conflicts with mutual objectives for managing the area.

Santa Clara River/Land Hill Proposed ACEC (1,645 acres)

This area contains numerous important resource values that need special protection as a result of increasing recreation use, vandalism, pressure for land transfers, urban development, and other forms of human encroachment. Values include numerous Virgin Anasazi riverine sites and extensive prehistoric rock art, many of the former having been vandalized. This segment of the Santa Clara River supports essential riparian resources, habitat for the Virgin spinedace and migratory and nongame birds, and potential habitat for the listed Southwestern willow flycatcher. Management objectives would include protection of cultural resources through appropriate interpretation, conservation, cooperative management, and research use; enhancement of habitats for the Virgin spinedace and other listed or sensitive species; and maintenance of properly functioning riparian values. The following prescriptions would be applied to protect the resources identified:

- Selected archeological sites would be managed for public values and interpreted for educational use. Other sites would continue to be managed for information potential unless specific plan prescriptions establish other objectives in accordance with cultural resource policies. Surveillance and other law enforcement measures would be increased to deter vandalism. Site steward programs would be employed to bring trained volunteers to monitor the sites and report violations or resource degradation. Cooperative agreements with local Indian tribes, government agencies, and qualified organizations would be used for interpreting, protecting, or otherwise managing archeological resources and visitor uses in accordance with plans being developed for the proposed Santa Clara River Reserve.

- BLM would collaborate with the Utah Department of Natural Resources, the Washington County Water Conservancy District, the FWS, and other interested parties in implementing the terms of the Virgin Spinedace Conservation Agreement and Strategy (April 11, 1995) as it affects the segment of the Santa Clara River in this ACEC. Among other things, this would include the reestablishment and protection of year-round flows in the Santa Clara River below Gunlock Dam, implementation of habitat improvements, eradication of nonindigenous fish, and monitoring and evaluation.

- All applicable management prescriptions listed under the section in this Plan on Riparian Resources would be implemented in full to restore and protect the riparian values and associated habitats within this ACEC.

- The area would be closed to fuelwood and mineral materials sales and designated a right-of-way avoidance area.

- Motorized travel would be limited to designated roads and trails to prevent damage to cultural resource sites and sensitive riparian resources. Mountain bike use would be limited to existing roads and trails including single tracks.

- Mining plans of operation would be required for all mining exploration and activity other than casual use. Category 3 (NSO) stipulations would be applied to fluid mineral leasing to protect the fragile resources in this area.

- Public lands in the ACEC would be retained in public ownership unless transfer would further management objectives for the area. Any non-federal lands acquired by BLM within the ACEC would be managed in accordance with ACEC prescriptions applied to the surrounding public lands.

- Special recreation permits could be issued when site-specific analysis determines

activities thus authorized would not adversely affect the values for which the ACEC was designated.

- BLM would work with water users and affected local agencies to ensure that new or adjusted irrigation diversion points would be designed and located to minimize conflicts with mutual objectives for managing the area.

- The area would have a VRM Class II designation.

Lower Virgin River Proposed ACEC (1,822 acres)

This proposed ACEC would be managed to improve and maintain riparian resources, habitat for the endangered woundfin minnow and Virgin River chub, and habitat for migratory and nongame birds, and also to protect cultural resources including numerous Virgin Anasazi sites, Southern Paiute sites, and rock art panels. These resources are at risk from increasing vandalism, off-road travel, recreation, pressure for land transfers and urban development, and other forms of human encroachment.

- Cultural resources would be managed and protected through appropriate interpretation, conservation, cooperative management, and research. Surveillance and other law enforcement measures would be increased to deter vandalism. Site steward programs would be employed to bring trained volunteers to monitor the sites and report violations or resource degradation. Cooperative agreements with local Indian tribes, government agencies, and qualified organizations could be used for interpreting, protecting, or otherwise managing archeological resources and visitor uses.

- BLM would collaborate with the Washington County Water Conservancy District, the Utah Department of Natural Resources, the FWS, participating municipalities, and other interested parties in formulating and analyzing the proposed Virgin River Management Plan and the proposed Virgin River Basin Integrated Resource Management and Recovery Program as they affect the segment of the Virgin River in this ACEC. Among other things, BLM would support and pursue the reestablishment and protection of year-round flows, implementation of habitat improvements, eradication of non-indigenous fish, protection of floodplains, measures to improve water quality, and monitoring and evaluation.

- All applicable management prescriptions listed under the section in this Plan on Riparian Resources would be implemented to restore and protect the riparian values and associated habitats within this ACEC.

- Applicable Standards for Rangeland Health, including monitoring and assessment programs, would be employed to determine if management objectives for this ACEC and objectives of the Virgin River Fishes Recovery Plan were being met. If monitoring reveals the objectives and standards are not being met, adjustments in permitted land uses would be made to the extent such are determined to be contributing factors. If authorized grazing practices are determined to impede attainment of the standards, BLM would work with permittees and other interested parties to develop strategies and adjust grazing use accordingly. Changes could include, but would not be limited to, adjusting the season of use to minimize direct competition, allotment recategorization, and combining allotments or installing range developments to reduce grazing pressure in key areas.

- The ACEC would be closed to fuelwood and mineral materials sales and designated a right-of-way avoidance area.

- Motorized travel would be limited to designated roads and trails to minimize disturbance to riparian resources and listed species habitats.

- Mining plans of operation would be required for all mining exploration and

activity other than casual use. Category 3 (NSO) stipulations would be applied to fluid mineral leasing to prevent impacts to the sensitive riparian, wildlife, and cultural resources.

- Public lands in the ACEC would be retained in public ownership.

- Visitor use would be managed as necessary to achieve objectives for riparian restoration and protection of archeological resources. Special recreation permits could be issued when site-specific analysis determines activities thus authorized would not adversely affect the values for which the ACEC was designated.

- BLM would work with water users and affected local agencies to ensure that new or adjusted irrigation diversion points would be designed and located to minimize conflicts with mutual objectives for managing the area.

Little Creek Mountain Proposed ACEC (19,302 acres)

This ACEC contains extensive archeology consisting primarily of Anasazi structural sites with examples of rock art and shelter sites. Many of the sites have been abused, while many others have been inventoried or studied by local researchers and universities. Up to 100 sites per section have been recorded on the mesa (USDI/BLM, 1988). Management of this area would emphasize protection and interpretation of archeological resources. Selected sites could be designated for educational use and research. Other sites could be identified for conservation to preserve the resources for the enjoyment of future generations and to conform to the cultural and religious desires of present-day Indian tribes. Objectives and prescriptions identified in the section of this Plan under Cultural and Paleontological Resources would be employed as appropriate to the management of cultural resources in the ACEC. Protection would also be afforded through the following management prescriptions:

- Surveillance and other law enforcement measures would be used to deter vandalism. Site steward programs would be employed to bring trained volunteers to monitor the sites and report violations or resource degradation.

- Public lands within the ACEC boundary would be retained in public ownership. Non-federal lands in the proposed ACEC could be acquired through purchase, exchange, or donation to further the accomplishment of resource objectives and to increase manageability of the area. Any lands acquired by BLM within the ACEC would be managed in accordance with applicable ACEC prescriptions.

- Full, onsite cultural resource inventories would be required prior to surface disturbing activity and avoidance or mitigation of sites so recorded after consultation with the Utah Historic Preservation Officer.

- Mining plans of operation would be required for all mining exploration and development activities other than casual use to allow analysis of potential impacts and development of mitigation.

- Motorized travel would be limited to existing roads and trails to lessen impacts to the extensive cultural resources throughout the area. BLM would work with Washington County officials to identify jeep trails needing closure for safety and resource protection and follow the requirements of Utah State law and federal regulation in implementing the closures.

- Except for existing and planned operations at the Cinder Knoll, the area would be closed to mineral materials sales.

- Except for approved communication sites and associated access, public lands would be designated a right-of-way avoidance area.

- Crucial deer winter range within the area would be further protected by Category 2 fluid mineral leasing stipulations closing the lands to exploration and development from November 1 to April 15.

- Special recreation permits could be issued where site-specific analysis determined that the authorized activity would not adversely affect the values for which the ACEC was designated.

Canaan Mountain Proposed ACEC (31,355 acres)

Canaan Mountain and the associated Vermillion Cliffs contain some of the most rugged topography and spectacular scenic values in Washington County outside of Zion National Park. The peaks and cliffs form the south gateway to the park and serve as a destination point for an increasing number of outdoor recreationists. Numerous archeological sites are also found along the base of many of the cliffs. Historic structures are found in the higher elevations. This proposed ACEC would be managed to protect these exceptional scenic values, cultural resources, and primitive recreation opportunities. Management prescriptions for the area are defined in this Proposed Plan under the section on the Canaan Mountain Special Recreation Management Area which coincides geographically with the proposed ACEC. The following additional prescriptions would also be applied:

- Public lands in the proposed ACEC would be retained in public ownership unless transfer would further management objectives for the area or accomplish overriding public purposes. Non-federal lands within the ACEC could be obtained through purchase, exchange, or donation where such would help to achieve management objectives for the area. Lands so acquired would be managed under the same prescriptions as would be applied to the remainder of the ACEC.

- Public lands in the area would be designated a right-of-way avoidance area to protect scenic values and avoid impacts to the natural setting. They would also be assigned a VRM Class I designation.

- The area would be closed to fuelwood and mineral materials sales. Category 3 (NSO) stipulations would be applied to fluid mineral leasing to protect scenic and natural values and to preserve the primitive character of the landscape.

- All lands within the proposed ACEC have been classified as primitive and would be closed to mountain bike use and motorized travel to preserve natural values and opportunities for primitive recreation.

- Mining plans of operation would be required for all mining exploration and activity other than casual use.

- Special recreation permits could be issued where site-specific analysis determined that the authorized activity would not adversely affect the values for which the ACEC was designated.

Red Mountain Proposed ACEC (4,854 acres)

Red Mountain serves as a spectacular backdrop to the communities of Ivins and Santa Clara and has significance to members of local Indian tribes. The escarpment overshadows the west boundary of the Tuacahn Center and portions of Snow Canyon State Park and, as such, adds to the natural beauty of both developments. The intent of this proposed ACEC would be to preserve the scenic cliff face from visible disturbance. Where the proposed ACEC overlaps with the Red Mountain Special Recreation Management Area, recreation prescriptions would be subordinate to ACEC objectives and prescriptions. ACEC prescriptions would be as follows:

- The area would be placed in a fluid mineral leasing Category 3 (NSO) to prevent scarring or disturbance from vehicle access, exploration, or drilling operations.

- Public lands in the area would be closed to off-road travel to preserve the natural appearance of the cliff face.

- Public lands in the area would be closed to fuelwood and mineral materials sales and designated a right-of-way avoidance area.

- Mining plans of operation would be required for all mining exploration and activity other than casual use.

- BLM would place the lands in VRM Class I.

- Special recreation permits could be issued where site-specific analysis shows that the authorized activity would not adversely affect the values for which the ACEC was designated. BLM would monitor commercial activity in the area and impose additional limits on the amount of such use as would be necessary to preserve such values.

- Public lands in the proposed ACEC would be retained in public ownership. Nonfederal lands within the ACEC could be obtained through purchase, exchange, or donation where such would help to achieve management objectives for the area. Lands so acquired would be managed under the same prescriptions as would be applied to the remainder of the ACEC.

Beaver Dam Slope Proposed ACEC (48,519 acres)

This proposed ACEC contains critical habitat for the threatened desert tortoise, the proper management of which is considered to be essential for the continued survival of the population in this part of the Northeastern Mojave Recovery Unit (USDI/FWS, 1994). It also contains habitat for a diversity of desert plant and animal species, many of which are listed by state or federal agencies as special status species. Included in the area are the Joshua Tree National Natural Landmark and the Woodbury Desert Study Area. The study area has been the focus of desert wildlife and ecosystem research since the 1930s. Values within the ACEC are at risk from increasing levels of human encroachment, off-road travel, and various forms of outdoor recreation. Although some recent inventories suggest currently stable populations, researchers have noted declines in desert tortoise densities since the 1970s (USDI/FWS, 1994) and cite disease, predation, grazing conflicts, and increased human activity as probable contributing factors. Actions need to be taken to prevent additional habitat loss or disturbance. Further research also needs to be completed to more clearly define the source and extent of impacts so that land and resource managers may make informed decisions on future management of the area.

The proposed boundaries and management prescriptions for the ACEC have been developed in consultation with state and federal agencies in Utah, Arizona, and Nevada to achieve a coordinated approach to managing critical habitats for the desert tortoise and achieving recovery objectives throughout the Northeastern Mojave Unit. BLM would continue to work with local, state, and federal partners, affected user groups, and other interested parties to further define specific objectives and implement planned actions to achieve the goals of the Desert Tortoise Recovery Plan, the Beaver Dam Slope Habitat Management Plan, and other applicable planning efforts. Moreover, BLM would seek to maintain the values associated with the Joshua Tree National Natural Landmark and the Woodbury Desert Study Area and support additional research related to the management of desert ecosystems in the area.

Detailed prescriptions for desert tortoise management in the ACEC are described in the discussion on desert tortoises under Special Status Species in the section of this Plan on Fish and Wildlife Habitat Management. Such prescriptions would also serve to meet objectives for nontortoise issues identified on the Slope including maintaining the overall health of the desert ecosystem, improving habitats for other special status plants and animals, and preserving the natural values and research capabilities of the Natural Landmark and the Woodbury Desert Study Area. The ACEC includes two special management areas and a portion of the Woodbury Desert Study Area where management would focus on nontortoise related issues. In accordance with the outcome of consultation with the Utah DWR and the FWS, all management prescriptions for the ACEC would be applied in these areas except for spring grazing restrictions described in the detailed prescriptions referenced earlier.

BLM would continue to authorize and support research needed to determine habitat requirements, causes of increased mortality, and other essential factors related to the management of the desert tortoise and its eventual recovery. BLM would also collaborate with the Utah

DWR, the FWS, university researchers, and other interested parties in developing and implementing monitoring studies that would evaluate population trends, tortoise health, vegetation condition and trend, and other factors needed to assess the effectiveness of management actions. Where it is determined that recovery objectives are not being met, BLM would work with its interested partners to determine the cause of such failure and to adjust its management prescriptions accordingly.

BLM would also work with state and local agencies, school districts, and interested citizen groups to develop educational programs to increase public awareness of habitat requirements, desert ecosystems, reasons for protective management, and other factors related to species recovery.

Upper Beaver Dam Wash Proposed ACEC (33,063 acres)

The West Fork of the Beaver Dam Wash maintains good water quality throughout its upper reaches where it flows through granitic bedrock. The stream supports both warm and cold water fisheries, maintains a quality riparian system, and constitutes potential habitat for the Virgin spinedace and the endangered Southwestern willow flycatcher. Beside providing water for agricultural use near the community of Motoqua, it feeds groundwater aquifers being considered for potential well-field development to provide culinary water for St. George and neighboring communities. High potential for precious metals within the watershed spawns continued interest in exploration and further mineral development. The proposed ACEC would be managed to preserve watershed integrity and water quality and to maintain or improve riparian resources and potential habitats for the Virgin spinedace and Southwestern willow flycatcher. The following prescriptions would be applied:

- BLM would collaborate with the Utah DWR, the Nevada Division of Wildlife, the Washington County Water Conservancy District, the FWS, and other interested parties in implementing the Virgin Spinedace Conservation Agreement and Strategy (April 11, 1995) as it affects the segment of the Upper Beaver Dam Wash in this ACEC. Among other things, this would entail habitat enhancement, reintroduction of spinedace to the stream, eradication of nonindigenous fish along appropriate stretches, and monitoring and evaluation.

- Applicable Standards for Rangeland Health, including monitoring and assessment programs, would be employed to determine if objectives developed for protection and enhancement of the watershed and special status species were being met. If monitoring reveals the objectives and standards are not being met, BLM would work with user groups and interested parties to develop strategies and make adjustments in land uses to the extent such are determined to be contributing factors.

- The area would be closed to mineral materials sales and designated a right-of-way avoidance area.

- The area would remain open to fuelwood disposal in designated areas with stipulations to protect watershed and riparian values.

- Mining plans of operation would be required for all mining exploration and activities other than casual use. The area would be closed to off-highway travel on 8,325 acres and limited to designated roads and trails on 22,035 acres to protect watershed, riparian, and natural values and potential Southwestern willow flycatcher habitat.

- Lands closed to off-road travel would be placed under Category 3 (NSO) stipulations for fluid mineral leasing to maintain the primitive character of the lands and to protect the upper watershed from impacts of exploration and development. Riparian zones would also be placed under Category 3 (NSO) stipulations. All other lands in the ACEC would be placed under Category 2 special stipulations for fluid mineral leasing requiring submission and approval of a plan of development to protect surface and groundwater quality.

- All applicable management prescriptions listed under the section in this plan on Riparian Resources would be implemented to restore and protect the riparian values and associated habitats within this ACEC.

- Public lands in the ACEC would be retained. Non-federal lands could be obtained through purchase, exchange, or donation to help to achieve management objectives for the area. Lands so acquired would be managed in accordance with the same prescriptions as would be applied to the remainder of the ACEC.

- Special recreation permits could be issued when site-specific analysis determines activities thus authorized would not adversely affect the values for which the ACEC was designated.

- BLM would work with water users and affected local agencies to ensure that new or adjusted irrigation diversion points would be designed and located to minimize conflicts with mutual objectives for managing the area.

Native American Coordination

Public lands in Washington County and the surrounding region were used extensively in prehistoric times by Southern Paiute Indians and contain cultural and archeological features that are of great value to current members of the Paiute Tribe (USDI/BLM, 1988). Public lands surround the Shivwits (Paiute) Indian Reservation and provide access to numerous use areas and sites of religious and ceremonial importance, not only to the Shivwits Band but to other Native American groups associated with the Paiute culture. BLM 's objective for Native American coordination would be to ensure compliance with the numerous laws, executive orders, and directives applicable to consultation and self-determination and to provide continued access to public lands for religious and ceremonial purposes.

BLM would enter into cooperative agreements with the Shivwits Band, the Paiute Tribe of Utah, and/or the Bureau of Indian Affairs to foster improved coordination and, where appropriate, to accomplish programs of mutual interest concerning the use and management of lands containing sacred sites or resources important to members of the tribe. Public lands containing known sacred sites and important use areas would generally be retained in public ownership unless, as a result of consultation with affected tribes, BLM determines that a change of ownership is in the public interest and accomplishes other objectives that outweigh those served by retention. Where sacred sites are made known to BLM, their locations would be kept confidential to the extent possible under law to avoid desecration or unnecessary encroachment.

Native Americans would be allowed access to public lands for religious or ceremonial purposes unless the access desired is expressly prohibited by law. This right of access would include the right to collect vegetative and mineral resources (that which can be gathered or carried by hand) needed to accomplish the intended purposes. Motorized access for such purposes into public land areas administratively closed to vehicle use would only be allowed with prior written approval from BLM's authorized officer in accordance with federal regulations at 43 CFR 8340.0-5(h). Such approval would be contingent upon the absence of reasonable alternatives and the ability to avoid impacts to resources being protected.

BLM would continue to work with the Bureau of Indian Affairs, the Shivwits Band, and the Paiute Tribe in providing rights-of-way, land use authorizations, or agreements on public lands needed to accomplish objectives for economic development and self-determination or to otherwise ensure the health, safety, and well-being of members of the tribe. Such authorizations would be subject to appropriate environmental analysis and public notification.

BLM would continue to provide assistance to the Bureau of Indian Affairs and the Shivwits Band of Paiutes regarding mineral development, production verification, and other applicable resource management issues to the extent BLM has the capability to do so. Among other things, BLM would continue to support achieve-

ment of the goals of the Paiute Indian Tribe's Strategic Economic Development Plan to the extent such are consistent with federal laws, regulations, and the decisions of this Proposed Plan.

Where public lands and resources are involved, BLM would ensure compliance with the Native American Graves Protection and Repatriation Act and other statutes and associated regulations concerning consultation on and disposition of Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony.

Zion National Park Coordination

Zion National Park is one of the most important economic and ecologic assets in Washington County and possesses scenic, geologic, natural, recreational, and historic characteristics of national significance. It is a major destination point with annual visitation exceeding 2.5 million people (Don Falvey, personal communication, 1997). Visitors reflect local, regional, national, and international origins.

Zion National Park is, to a large degree, surrounded by public lands with some intermingled state and privately owned properties. These public lands provide approaches to the park and help set the tone, aesthetically and otherwise, for the park visitor experience. Because many of the surrounding lands have been subject to changing use patterns, new development, and increased visitation, adjacent park features and resources have been placed at greater risk from encroachment, litter, unauthorized use, and impairment of important viewsheds. These risks, in addition to increased visitor use of remote trailheads and park access points, have made it necessary for park officials to increase management presence at or near park boundaries for visitor contact, enforcement, and fee collection. Additional collaboration is needed between park officials and adjacent land managers to protect the integrity of important park resources and to lessen future impacts to the quality of the visitor experience.

To cope with serious overcrowding during peak visitation periods and reduce associated impacts to park resources, the National Park Service prepared a Development Concept Plan in 1994 which includes a transportation component that establishes an innovative partnership with adjacent communities, businesses, and landowners to remove a significant amount of vehicles and traffic from key areas of the park. Among other things, the plan entails the development of a shuttle system with visitor parking and shuttle stops placed outside of park boundaries at locations where visitors naturally congregate for other purposes and which complement existing and planned businesses providing visitor services and support. One visitor contact point is planned on public lands west of the community of Rockville for the purpose of orienting new visitors to the shuttle system and its operation.

It is BLM's objective to manage public lands in the immediate vicinity of Zion National park so as to complement park resources and programs in collaboration with affected communities, agencies, landowners, and citizen groups. The following prescriptions would be applied:

- The corridor along State Scenic Highway 9 approaching Zion National Park from the west would be preserved by retaining public lands in view of the highway in public ownership from the top of LaVerkin Hill to the south entrance of the park. Outside of 240 acres identified for transfer in or near the Town of Virgin, land transfers could be approved only to meet essential public and municipal purposes that would not seriously degrade the scenic values of the corridor. Public lands within the corridor would be classified VRM Class II. Rights-of-way for essential access, utilities, and municipal projects would be considered to be within the scope of visual management objectives where measures could be applied such as screening, design modifications, and surface rehabilitation to reduce visual impacts to an acceptable level.

- BLM would work with park managers to evaluate potential sites on public lands for a visitor contact station and ranger residence near the park boundary at North Creek to facilitate visitor information and management. After appropriate environ-

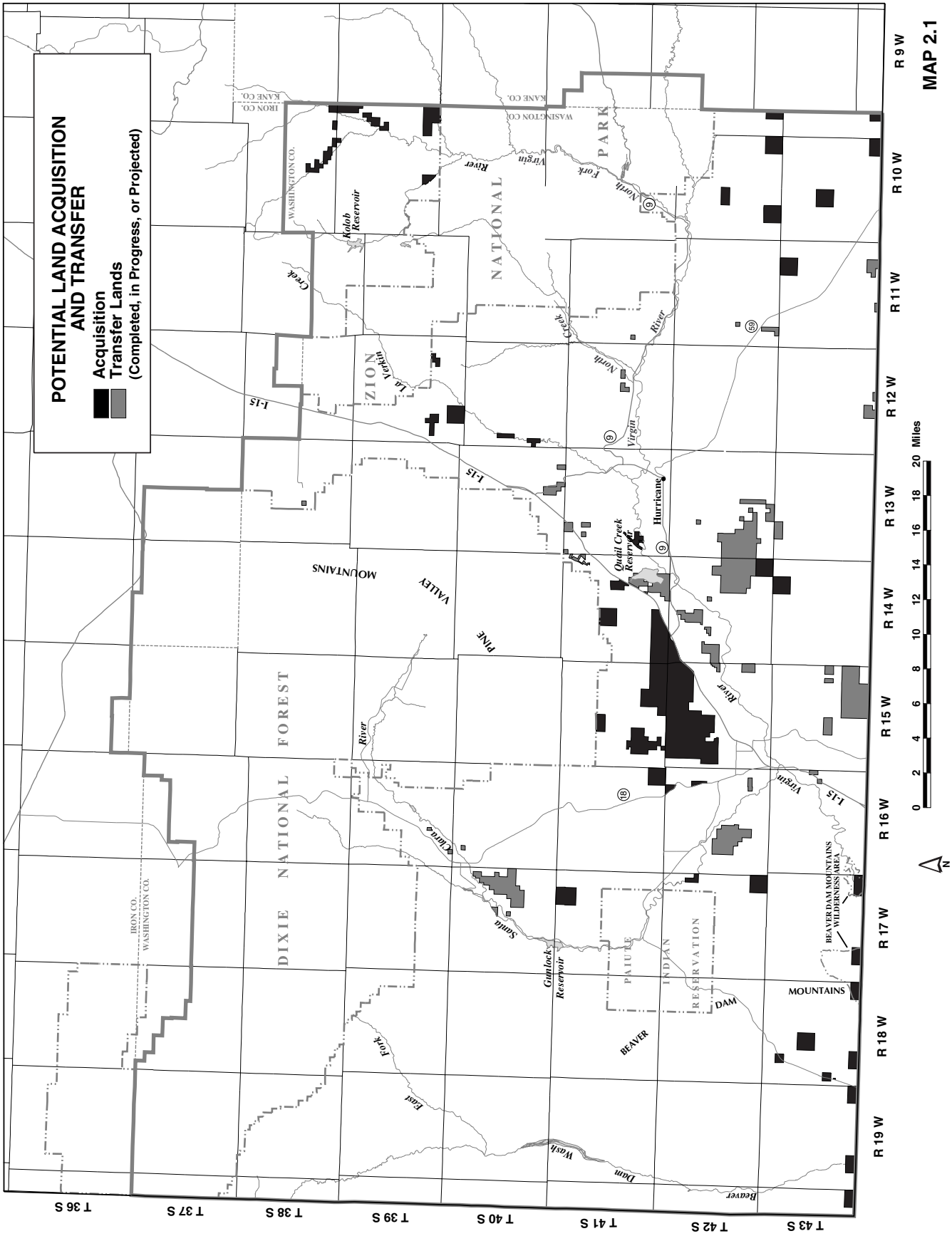
mental analysis and a plan conformance determination, public lands could be transferred to Park Service management for such purposes through cooperative agreement, withdrawal, or right-of-way.

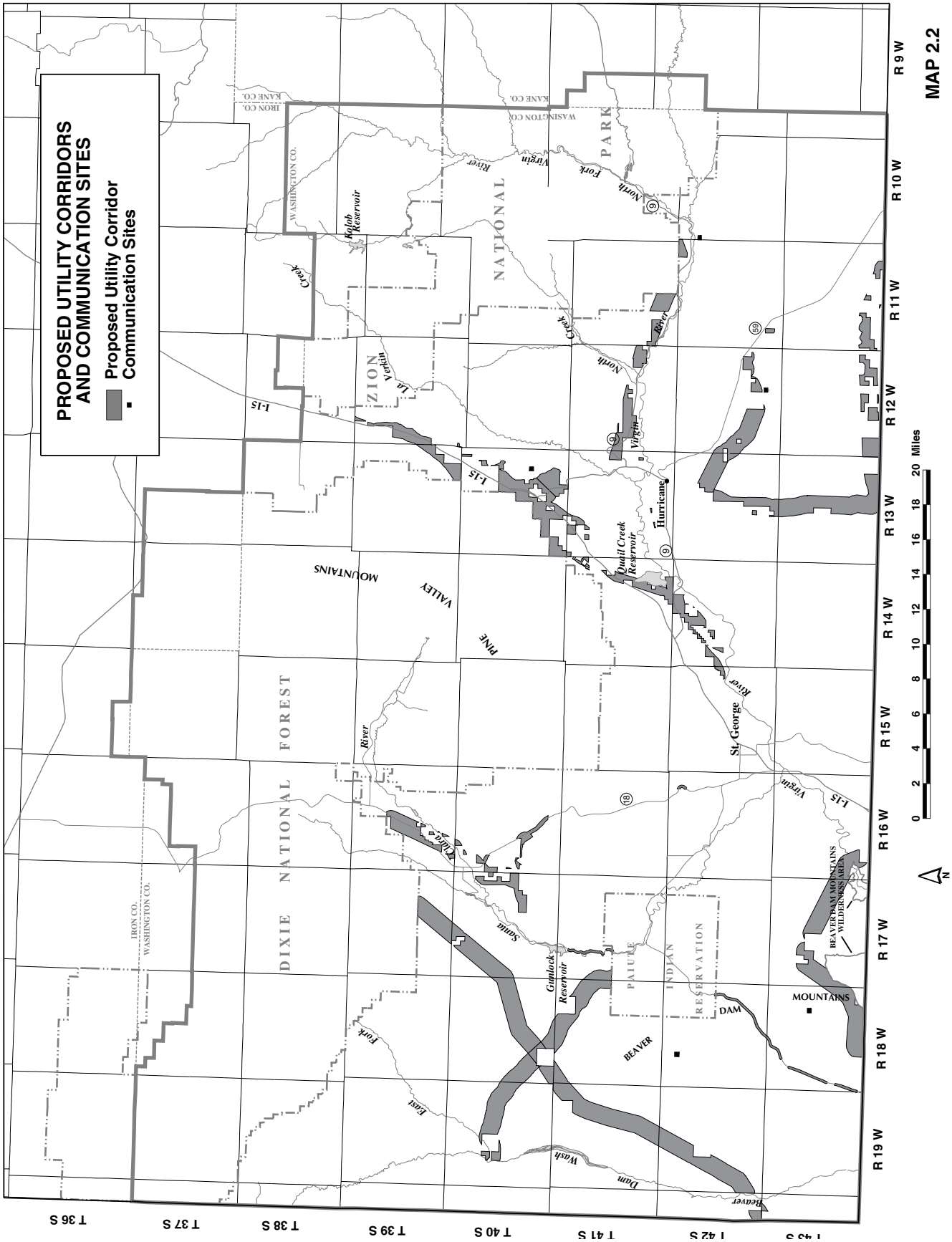
- Small, isolated parcels of public land contiguous to the park boundary and which are found to be difficult and uneconomic for BLM to manage could be placed under joint management through cooperative management agreement or other appropriate mechanism. In such cases, both agencies would jointly determine that the action would be in the public interest and needed to increase on-the-ground presence for visitor management or resource protection. Lands subject to active grazing or mineral use would generally not be considered for such agreements.

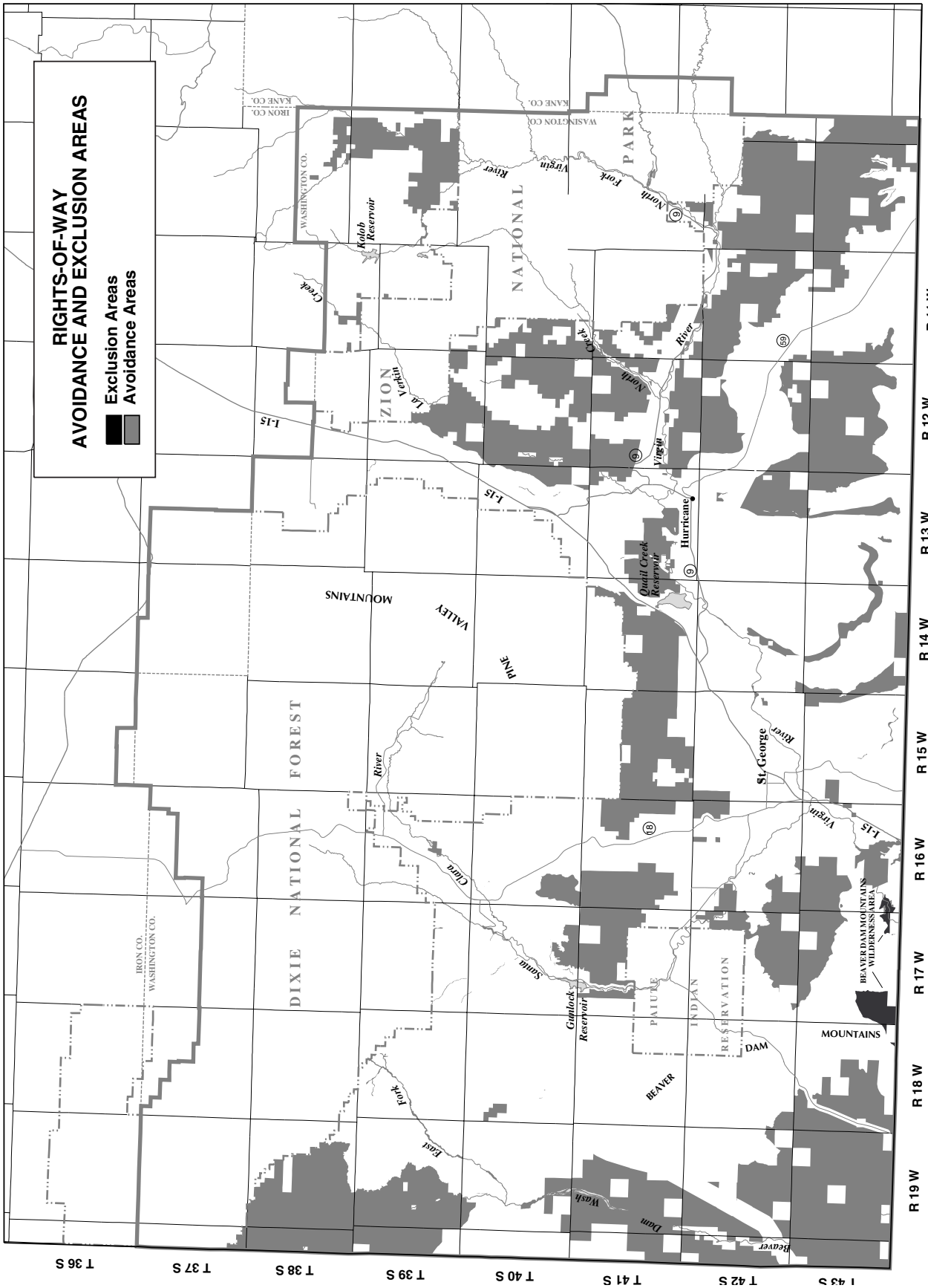
- BLM would work with the National Park Service, the Utah Department of Transportation (UDOT), community leaders, nonprofit organizations, and citizen groups in furthering the goals of the park transportation plan. Among other things, BLM would work with member communities and organizations in the Grafton Heritage Partnership in formulating plans for up to 80 acres of public land immediately north of Grafton for a visitor contact station to provide essential information on the shuttle system and to provide visitor access to the Grafton restoration project and riparian improvement proposal. After appropriate environmental analysis and a plan conformance determination, such lands could be made available through cooperative management agreement, withdrawal, or other applicable mechanism. BLM would work with community partners and the Utah DOT to evaluate relocation or relinquishment of the existing material site right-of-way.

- BLM would work with park managers and other affected local, state, or federal agencies to jointly conduct studies, make land use recommendations, and develop programs needed to achieve objectives called for in this Proposed Plan, the Development Concept Plan, and the Zion National Park Visitor Management and Resource Protection Plan scheduled for completion in 1999.

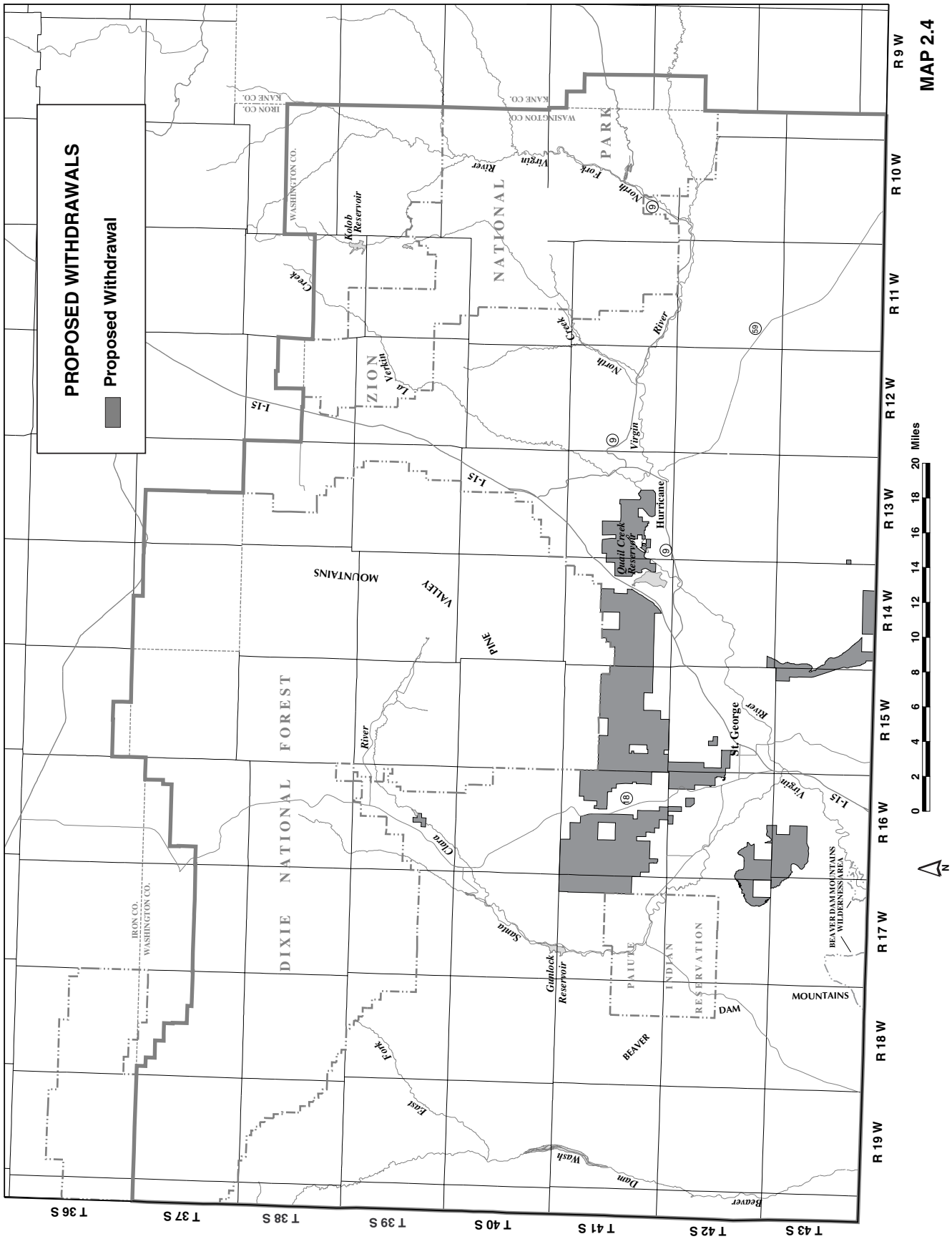
- As part of the congressionally mandated Sand Hollow exchange, BLM acquired title in behalf of the United States to private lands known as the Smith Ranch south of the Kolob section of the park. Congressional intent in having BLM acquire this property was to provide park managers with lands that could be used to consummate an exchange that would result in the acquisition of key, privately-owned inholdings on the west side of the park. BLM would continue to support park officials in achieving this important objective.

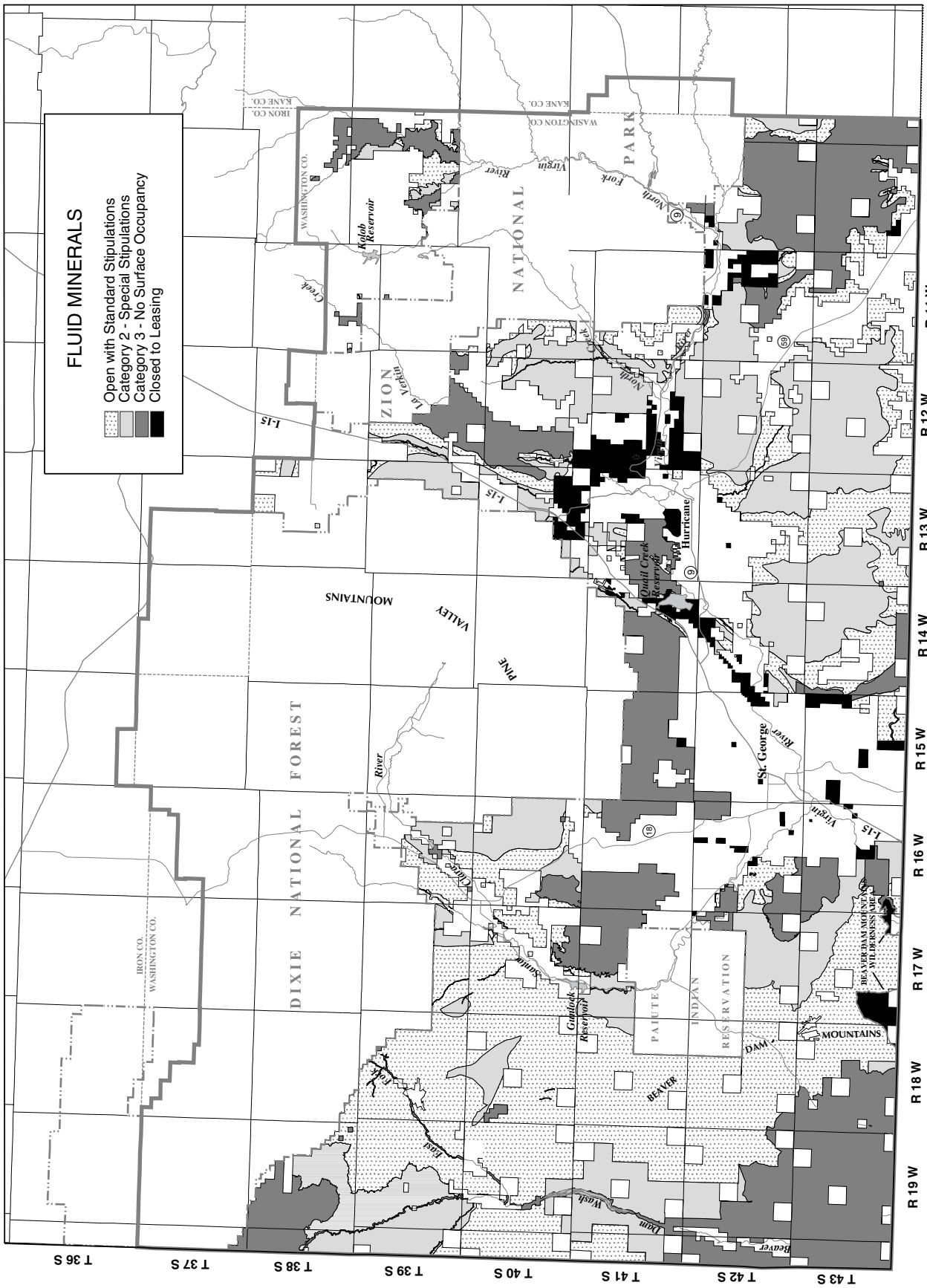

POTENTIAL LAND ACQUISITION AND TRANSFER
Acquisition
Transfer Lands
(Completed, in Progress, or Projected)
MAP 2.1
ZION NATIONAL PARK
DIXIE NATIONAL FOREST
PINE VALLEY MOUNTAINS
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
Hurricane
Quail Creek Reservoir
Gunlock Reservoir
Kolob Reservoir
I-15
WASHINGTON CO.
IRON CO.
KANE CO.
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N


PROPOSED UTILITY CORRIDORS AND COMMUNICATION SITES
Proposed Utility Corridor
Communication Sites
MAP 2.2
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N
ZION NATIONAL PARK
DIXIE NATIONAL FOREST
PINE VALLEY MOUNTAINS
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
Hurricane
St. George
Quail Creek Reservoir
Gunlock Reservoir
Kolob Reservoir
Virgin River
North Fork Virgin River
Santa Clara River
Beaver Dam Wash
East Fork
North Creek
Verkin Creek
Kolob Creek
I-15
WASHINGTON CO.
IRON CO.
KANE CO.
BEAVER
MOUNTAINS
DAM

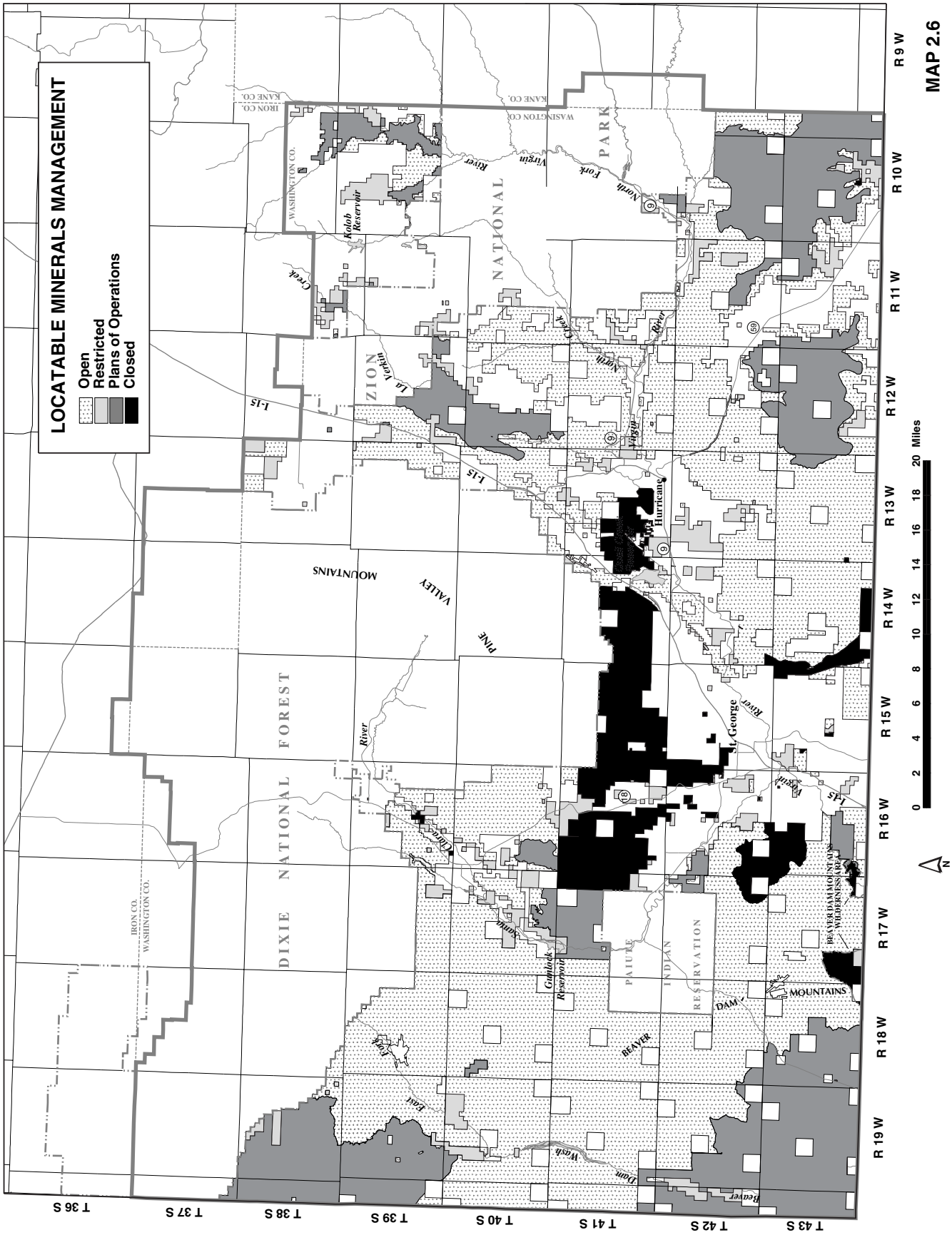

RIGHTS-OF-WAY
AVOIDANCE AND EXCLUSION AREAS
Exclusion Areas
Avoidance Areas
ZION
NATIONAL
PARK
DIXIE
NATIONAL
FOREST
PINE
VALLEY
MOUNTAINS
PAIUTE
INDIAN
RESERVATION
BEAVER
DAM
MOUNTAINS
BEAVER DAM MOUNTAINS
WILDERNESS AREA
Hurricane
St. George
Quail Creek
Reservoir
Kolob
Reservoir
Gunlock
Reservoir
North
Fork
Virgin
River
Virgin
La
Verkin
Creek
North
Creek
Santa
Clara
River
East
Fork
Wash
Dam
Beaver
I-15
I-15
I-15
WASHINGTON CO.
IRON CO.
KANE CO.
WASHINGTON CO.
KANE CO.
IRON CO.
WASHINGTON CO.
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

MAP 2.3

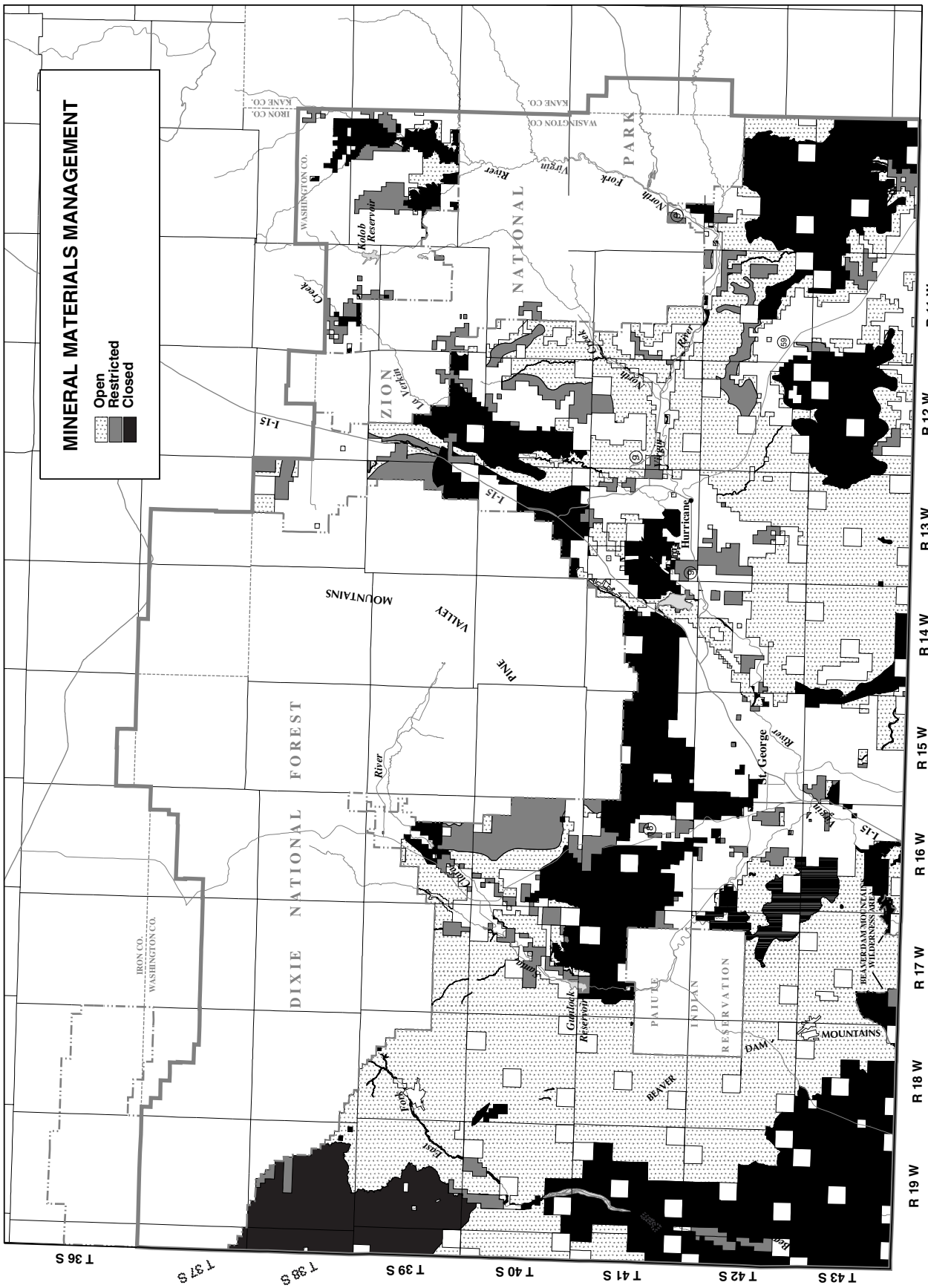

PROPOSED WITHDRAWALS
Proposed Withdrawal
MAP 2.4
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N
NATIONAL PARK
ZION
DIXIE NATIONAL FOREST
PINE VALLEY MOUNTAINS
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
BEAVER DAM MOUNTAINS
Hurricane
St. George
Quail Creek Reservoir
Gunlock Reservoir
Kolob Reservoir
North Fork Virgin River
Virgin River
North Creek
La Verkin Creek
Santa Clara River
East Fork Beaver Dam Wash
I-15
WASHINGTON CO.
IRON CO.
KANE CO.


FLUID MINERALS
Open with Standard Stipulations
Category 2 - Special Stipulations
Category 3 - No Surface Occupancy
Closed to Leasing
DIXIE NATIONAL FOREST
ZION NATIONAL PARK
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
Hurricane
St. George
Quail Creek Reservoir
Kolob Reservoir
Gunlock Reservoir
IRON CO.
WASHINGTON CO.
KANE CO.
I-15
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

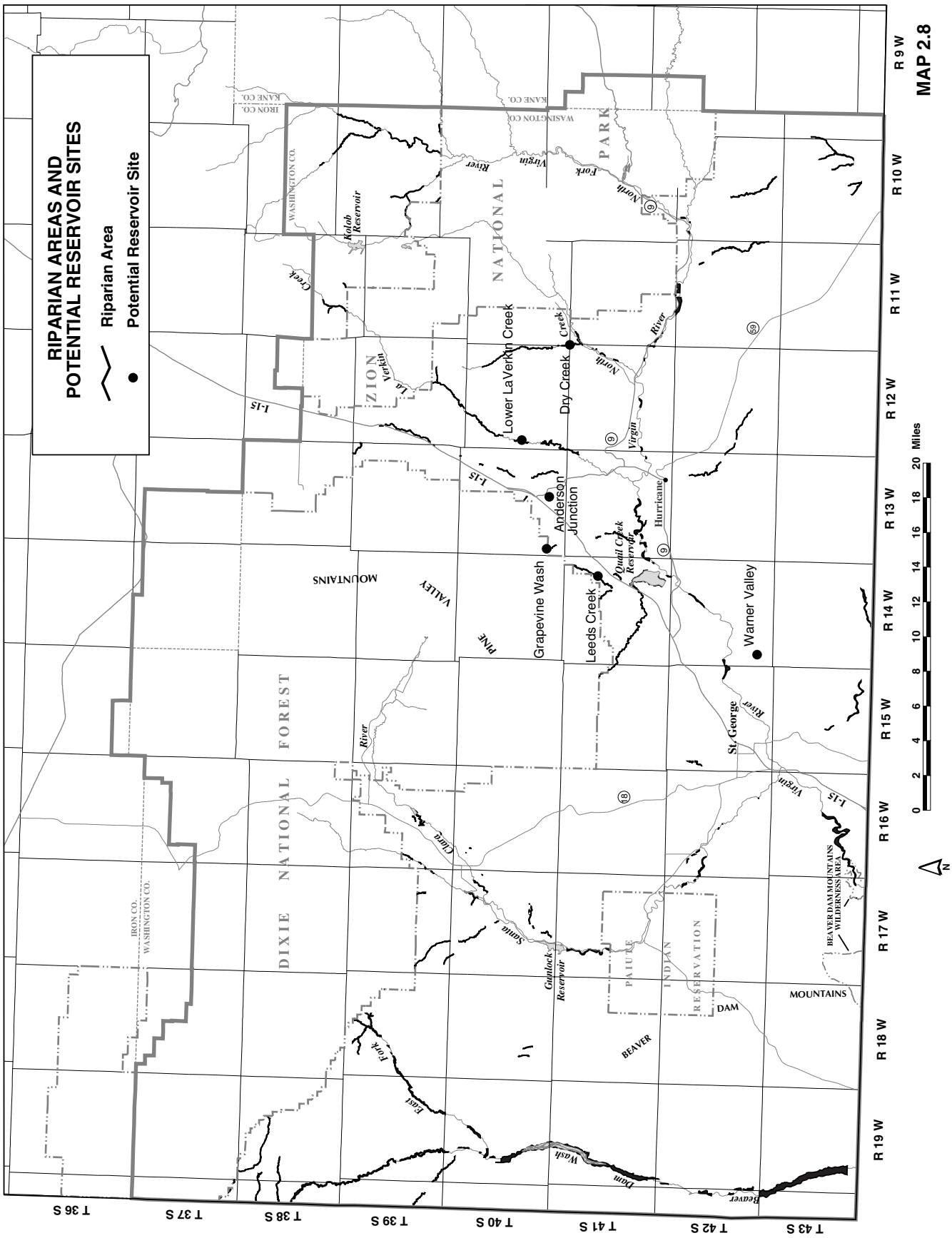
MAP 2.5

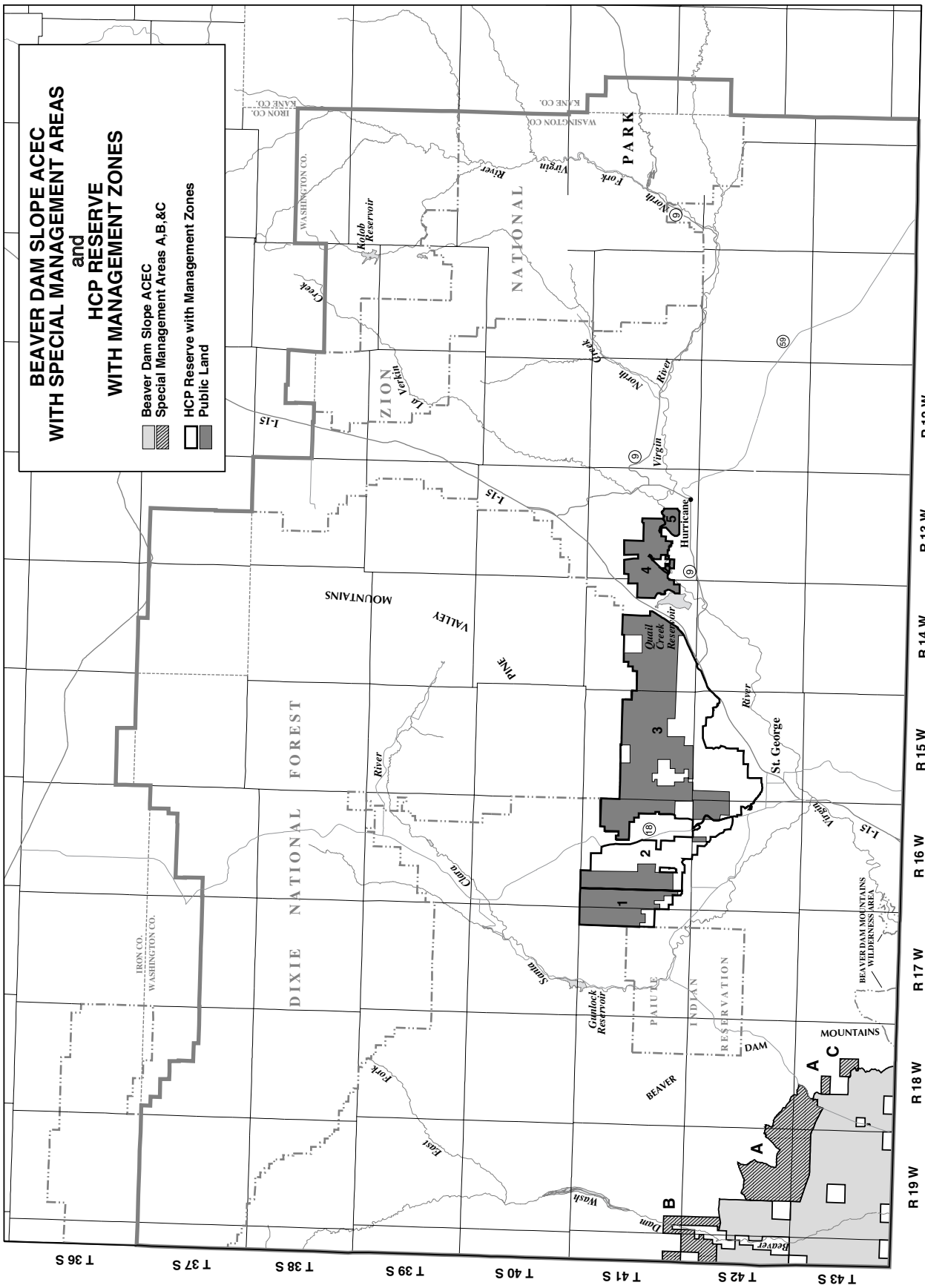

LOCATABLE MINERALS MANAGEMENT
Open
Restricted
Plans of Operations
Closed
ZION
NATIONAL
PARK
DIXIE
NATIONAL
FOREST
PINE
VALLEY
MOUNTAINS
Hurricane
St. George
Kolob Reservoir
Gunlock Reservoir
PAIUTE
INDIAN
RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
WASHINGTON CO.
IRON CO.
KANE CO.
I-15
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

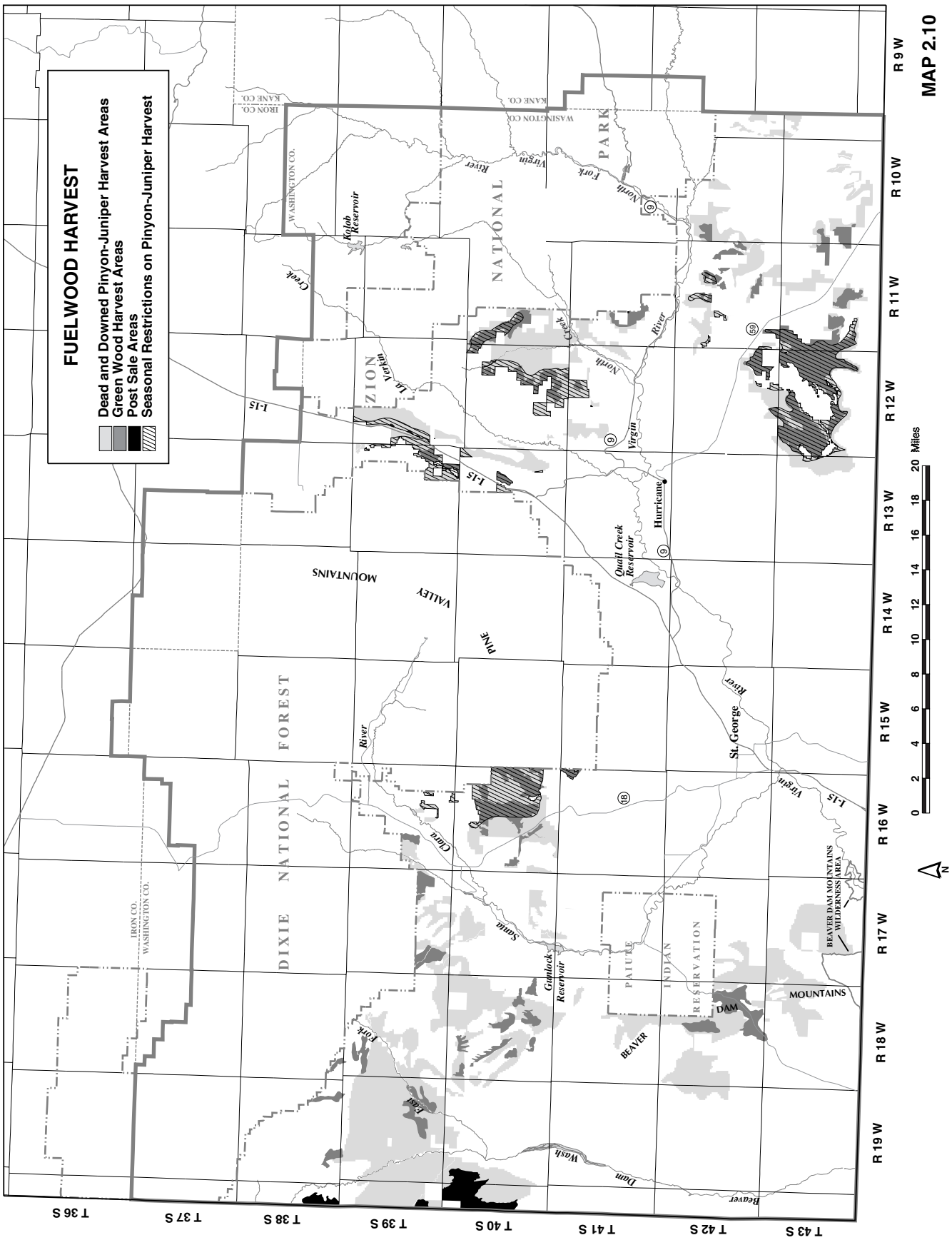
MAP 2.6


MINERAL MATERIALS MANAGEMENT
Open
Restricted
Closed
ZION NATIONAL PARK
DIXIE NATIONAL FOREST
PAIUTE INDIAN RESERVATION
PINE VALLEY MOUNTAINS
BEAVER DAM MOUNTAINS
BEAVER DAM WILDERNESS AREA
Hurricane
St. George
Kolob Reservoir
Gunlock Reservoir
WASHINGTON CO.
IRON CO.
KANE CO.
I-15
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

MAP 2.7


RIPARIAN AREAS AND POTENTIAL RESERVOIR SITES
Riparian Area
Potential Reservoir Site
MAP 2.8
ZION
NATIONAL
PARK
DIXIE
NATIONAL
FOREST
PINE
VALLEY
MOUNTAINS
Lower LaVerkin Creek
Dry Creek
Anderson Junction
Grapevine Wash
Leeds Creek
Quail Creek Reservoir
Hurricane
Warner Valley
St. George
Kolob Reservoir
Gunlock Reservoir
PAIUTE
INDIAN
RESERVATION
DAM
BEAVER
MOUNTAINS
BEAVER DAM MOUNTAINS WILDERNESS AREA
WASHINGTON CO.
IRON CO.
KANE CO.
I-15
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N


BEAVER DAM SLOPE ACEC
WITH SPECIAL MANAGEMENT AREAS
and
HCP RESERVE
WITH MANAGEMENT ZONES
Beaver Dam Slope ACEC
Special Management Areas A,B,&C
HCP Reserve with Management Zones
Public Land
MAP 2.9
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N
ZION NATIONAL PARK
DIXIE NATIONAL FOREST
PINE VALLEY MOUNTAINS
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
BEAVER DAM MOUNTAINS
Hurricane
St. George
Quail Creek Reservoir
Gunlock Reservoir
Kolob Reservoir
Virgin River
North Fork Virgin River
La Verkin Creek
Ivins Creek
Santa Clara River
Fort Pearce Wash
Beaver Dam Wash
I-15
SR 9
SR 59
SR 18
WASHINGTON CO.
IRON CO.
KANE CO.
A
B
C
1
2
3
4
5


FUELWOOD HARVEST
Dead and Downed Pinyon-Juniper Harvest Areas
Green Wood Harvest Areas
Post Sale Areas
Seasonal Restrictions on Pinyon-Juniper Harvest
ZION NATIONAL PARK
DIXIE NATIONAL FOREST
PINE VALLEY MOUNTAINS
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
BEAVER DAM MOUNTAINS
Hurricane
St. George
Kolob Reservoir
Quail Creek Reservoir
Gunlock Reservoir
Virgin River
North Fork Virgin River
Santa Clara River
Beaver Dam Wash
WASHINGTON CO.
IRON CO.
KANE CO.
I-15
R 9 W
R 10 W
R 11 W
R 12 W
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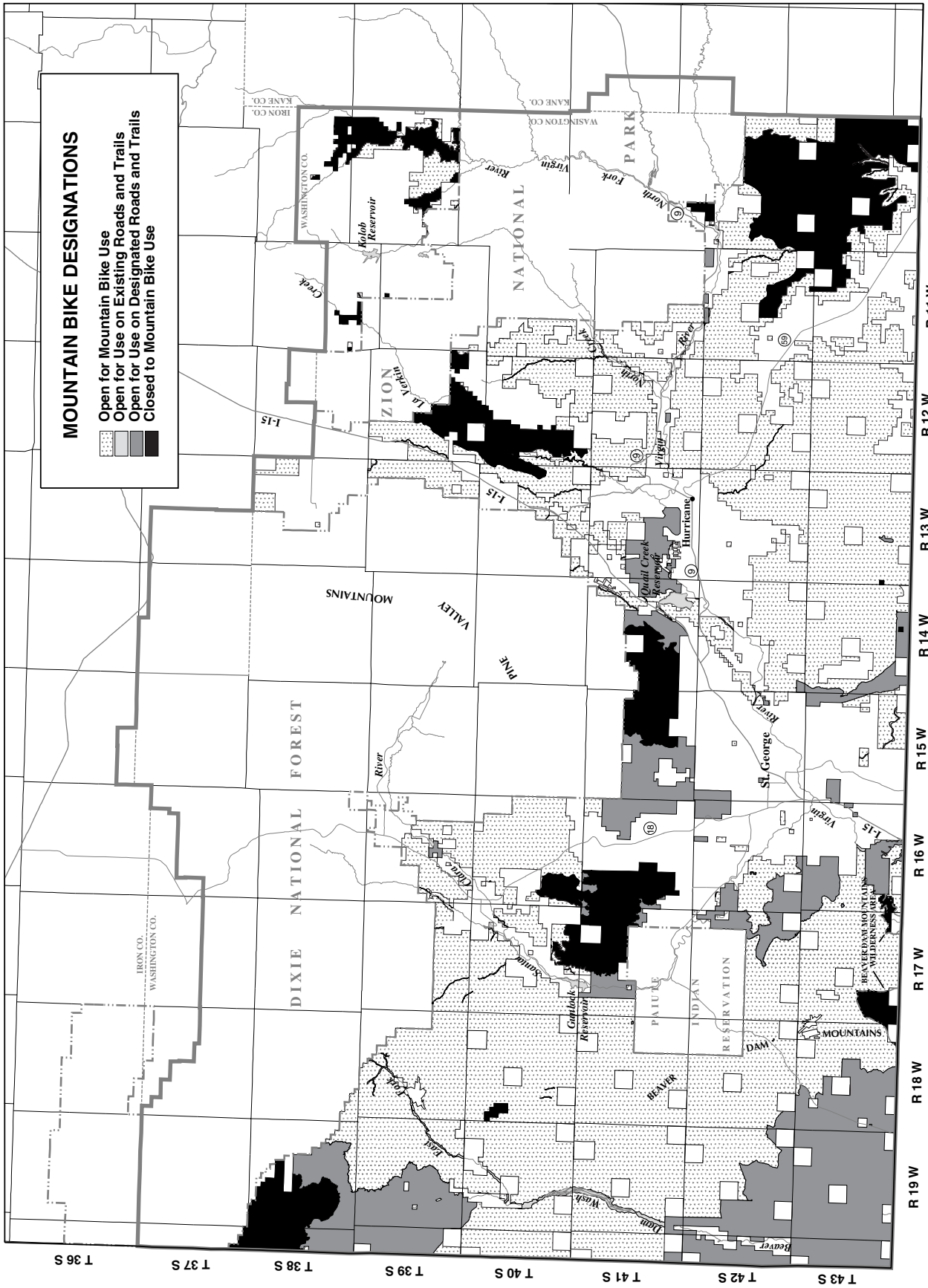
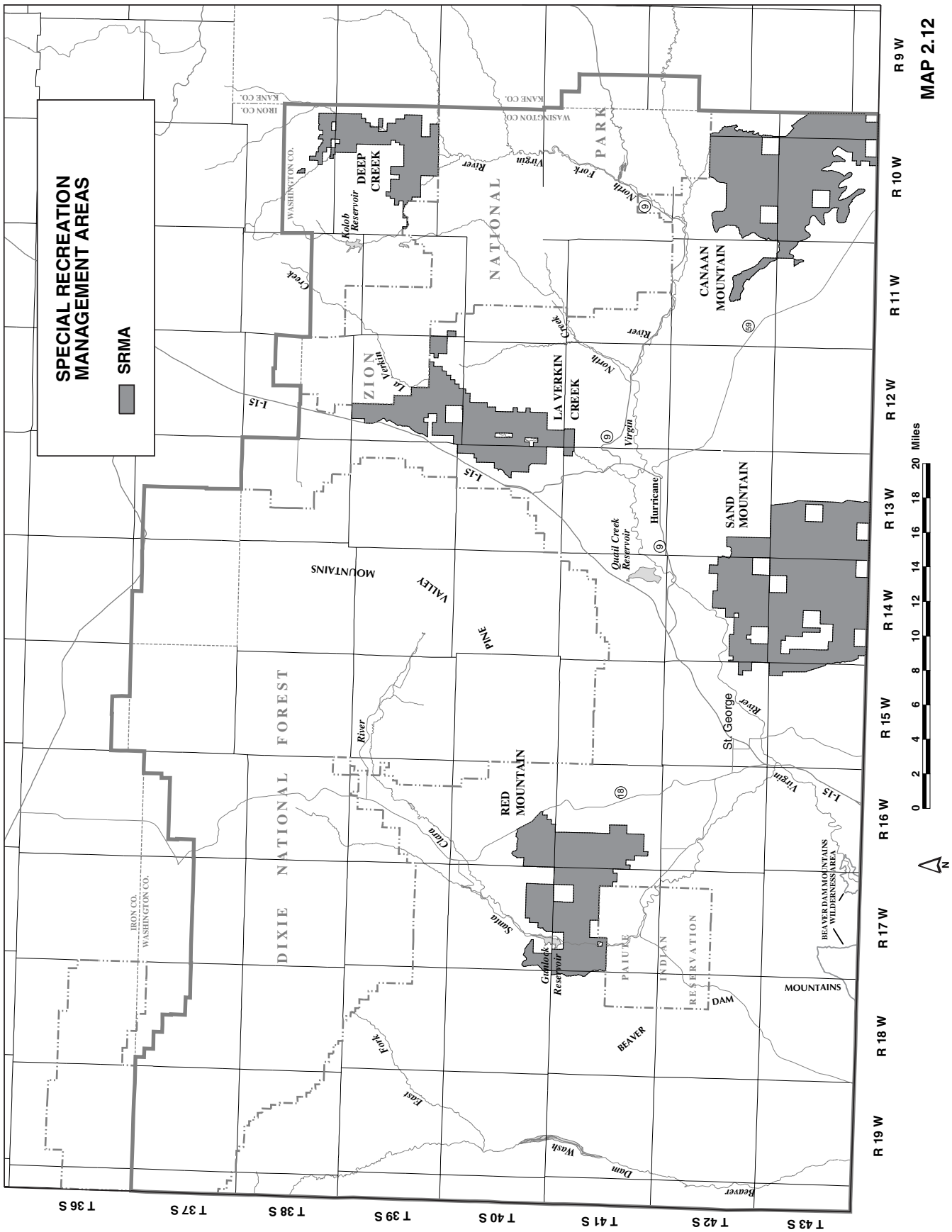
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

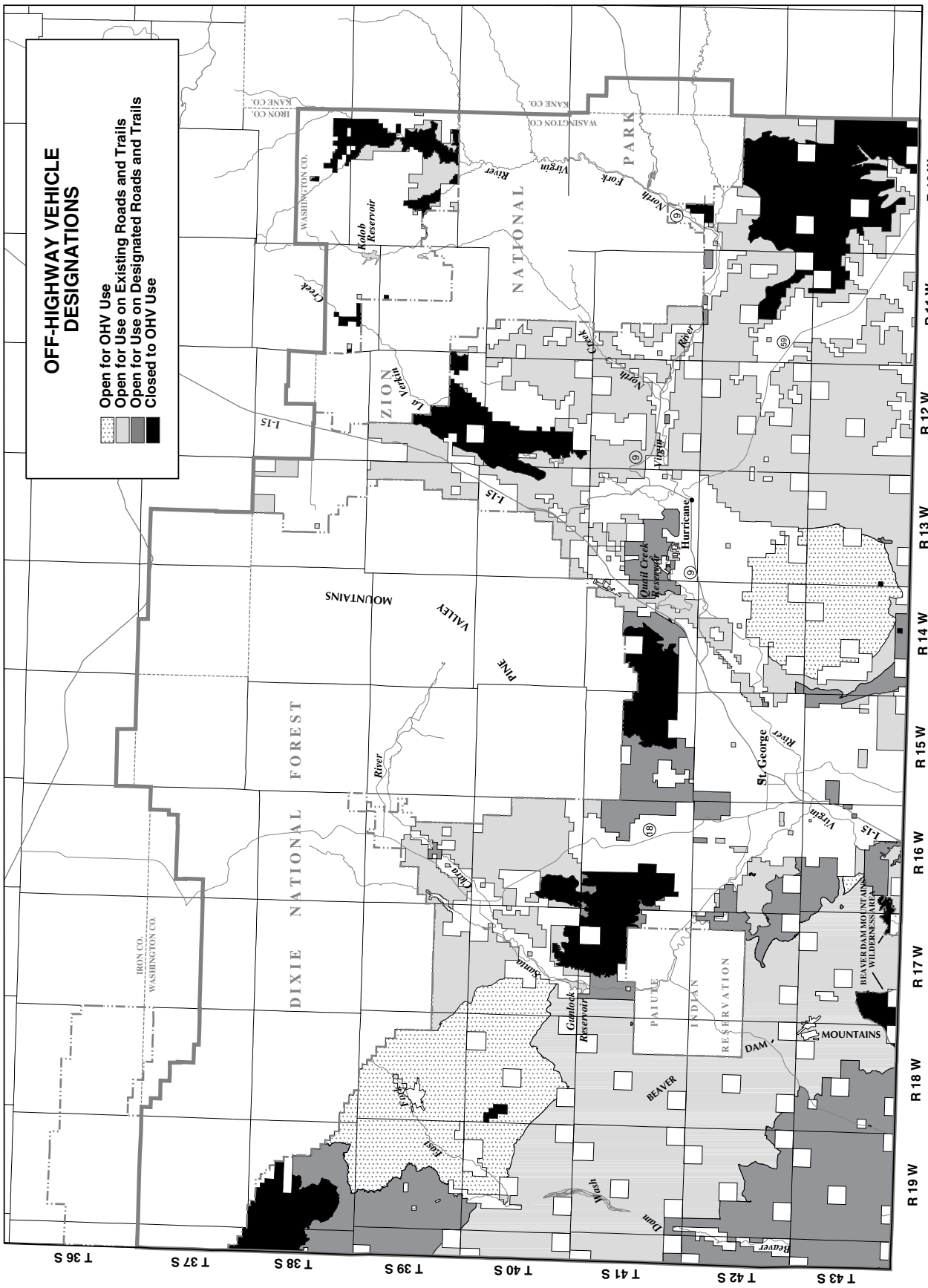
MAP 2.10

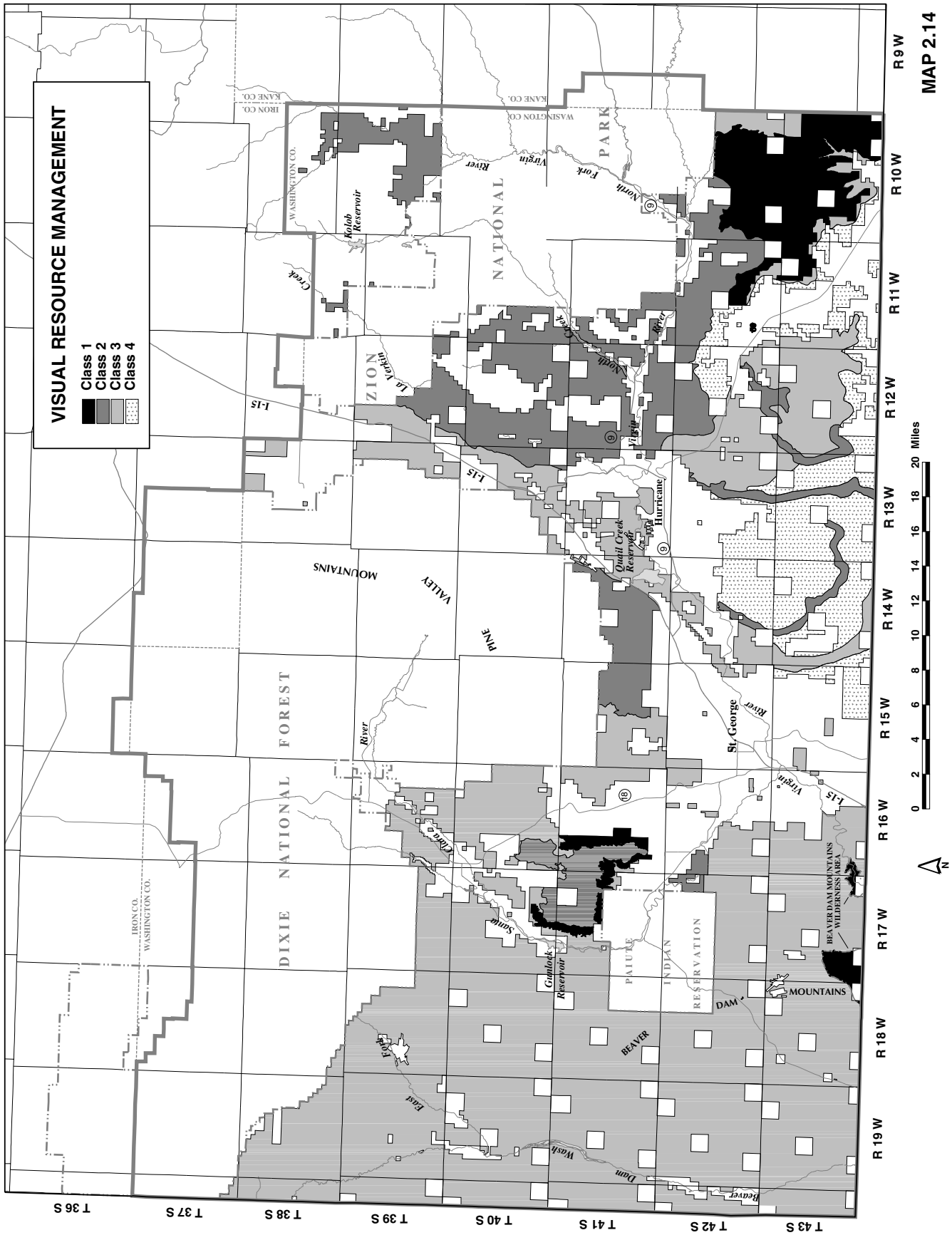

MOUNTAIN BIKE DESIGNATIONS
Open for Mountain Bike Use
Open for Use on Existing Roads and Trails
Open for Use on Designated Roads and Trails
Closed to Mountain Bike Use
ZION
NATIONAL
PARK
DIXIE
NATIONAL
FOREST
PAIUTE
INDIAN
RESERVATION
BEAVER DAM MOUNTAIN WILDERNESS AREA
WASHINGTON CO.
IRON CO.
KANE CO.
Kolob Reservoir
Quail Creek Reservoir
Gunlock Reservoir
Hurricane
St. George
I-15
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

MAP 2.11

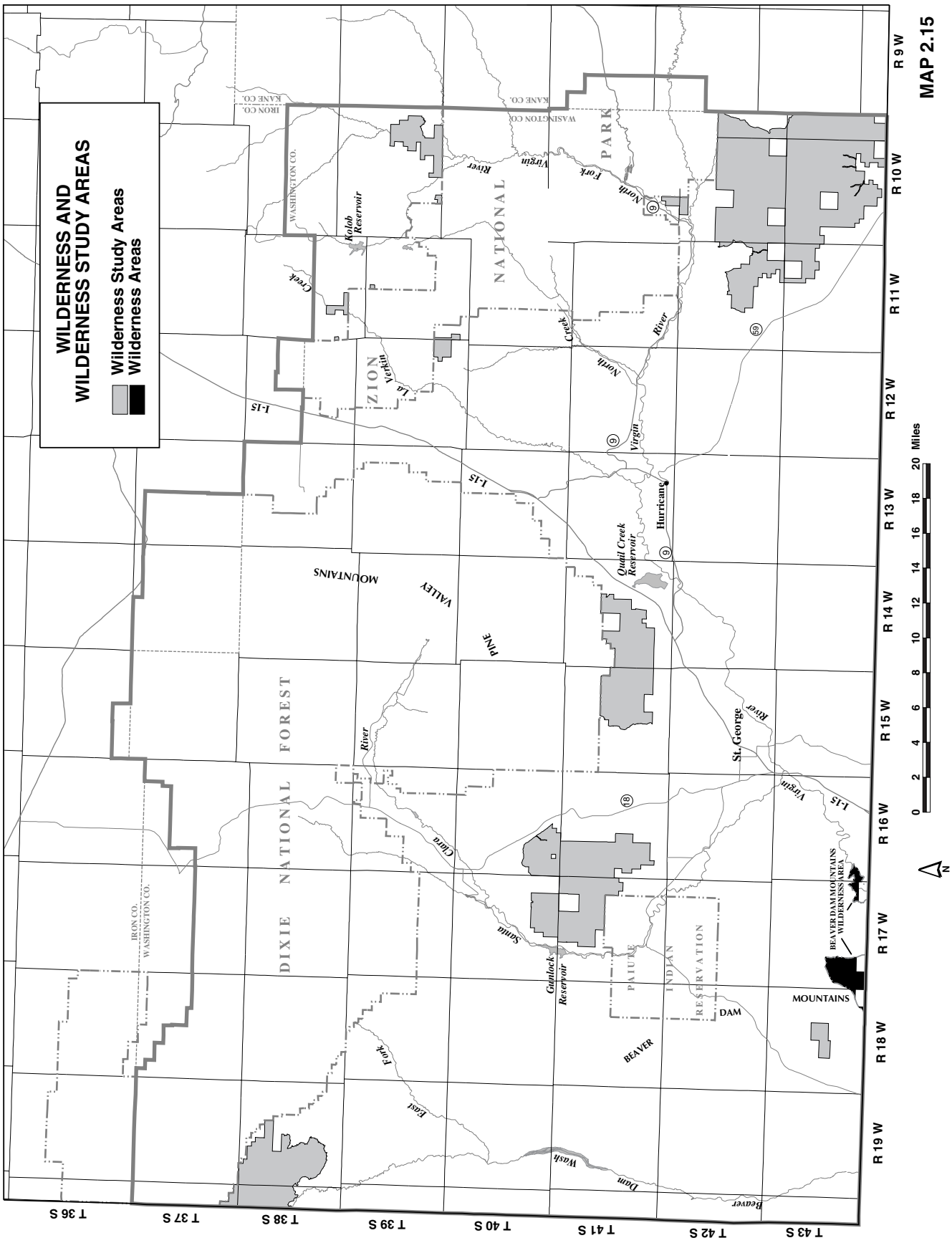

SPECIAL RECREATION MANAGEMENT AREAS
SRMA
DEEP CREEK
LA VERKIN CREEK
CANAAN MOUNTAIN
SAND MOUNTAIN
RED MOUNTAIN
ZION NATIONAL PARK
DIXIE NATIONAL FOREST
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
Kolob Reservoir
Quail Creek Reservoir
Gunlock Reservoir
Hurricane
St. George
I-15
WASHINGTON CO.
IRON CO.
KANE CO.
PINE VALLEY MOUNTAINS
BEAVER DAM MOUNTAINS
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

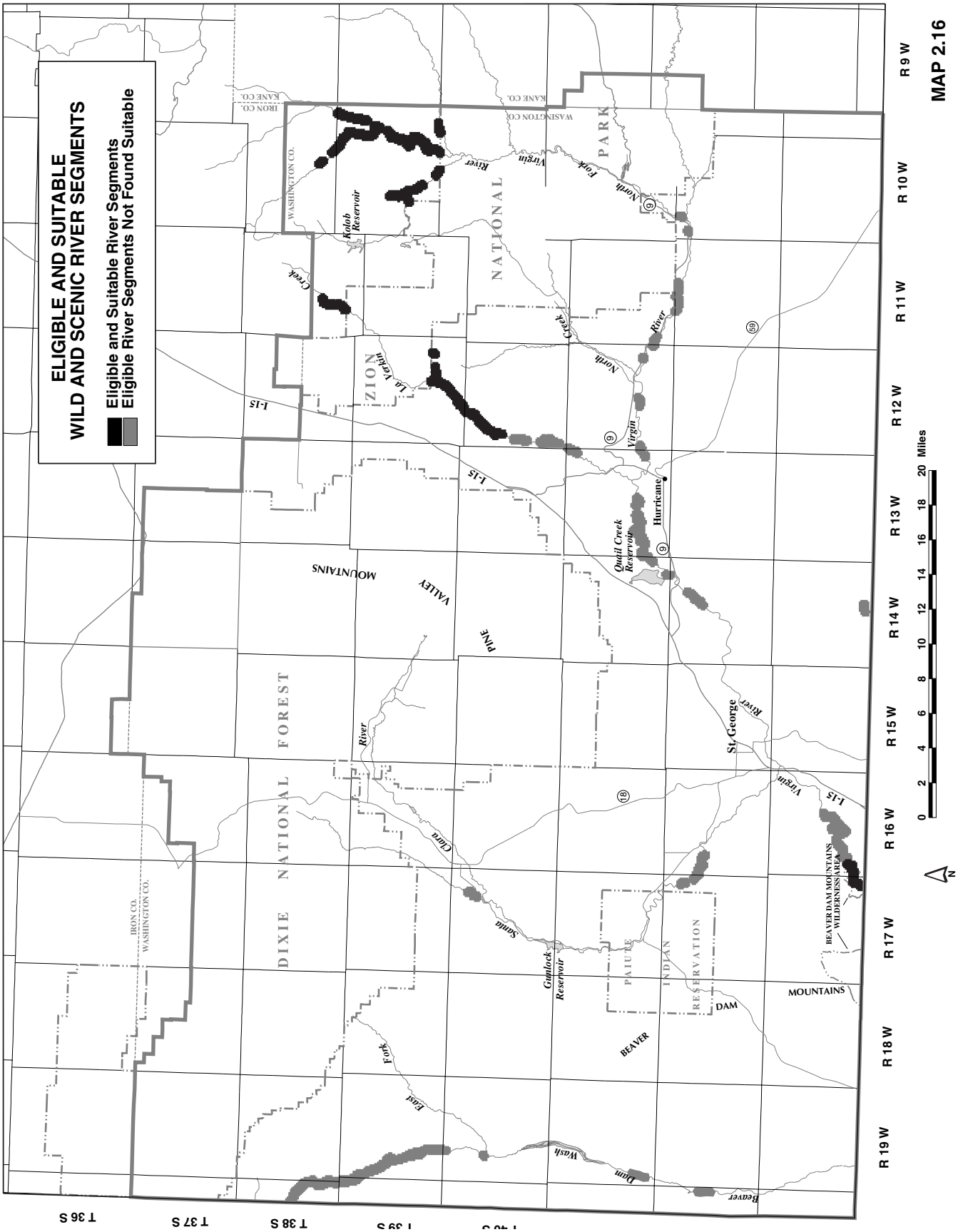
MAP 2.12


OFF-HIGHWAY VEHICLE DESIGNATIONS
Open for OHV Use
Open for Use on Existing Roads and Trails
Open for Use on Designated Roads and Trails
Closed to OHV Use
MAP 2.13
ZION NATIONAL PARK
DIXIE NATIONAL FOREST
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
PINE VALLEY MOUNTAINS
Hurricane
St. George
Quail Creek Reservoir
Kolob Reservoir
Gunlock Reservoir
Virgin River
North Fork Virgin River
La Verkin Creek
Santa Clara River
Beaver Dam Wash
Fort Pearce Wash
I-15
WASHINGTON CO.
IRON CO.
KANE CO.
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

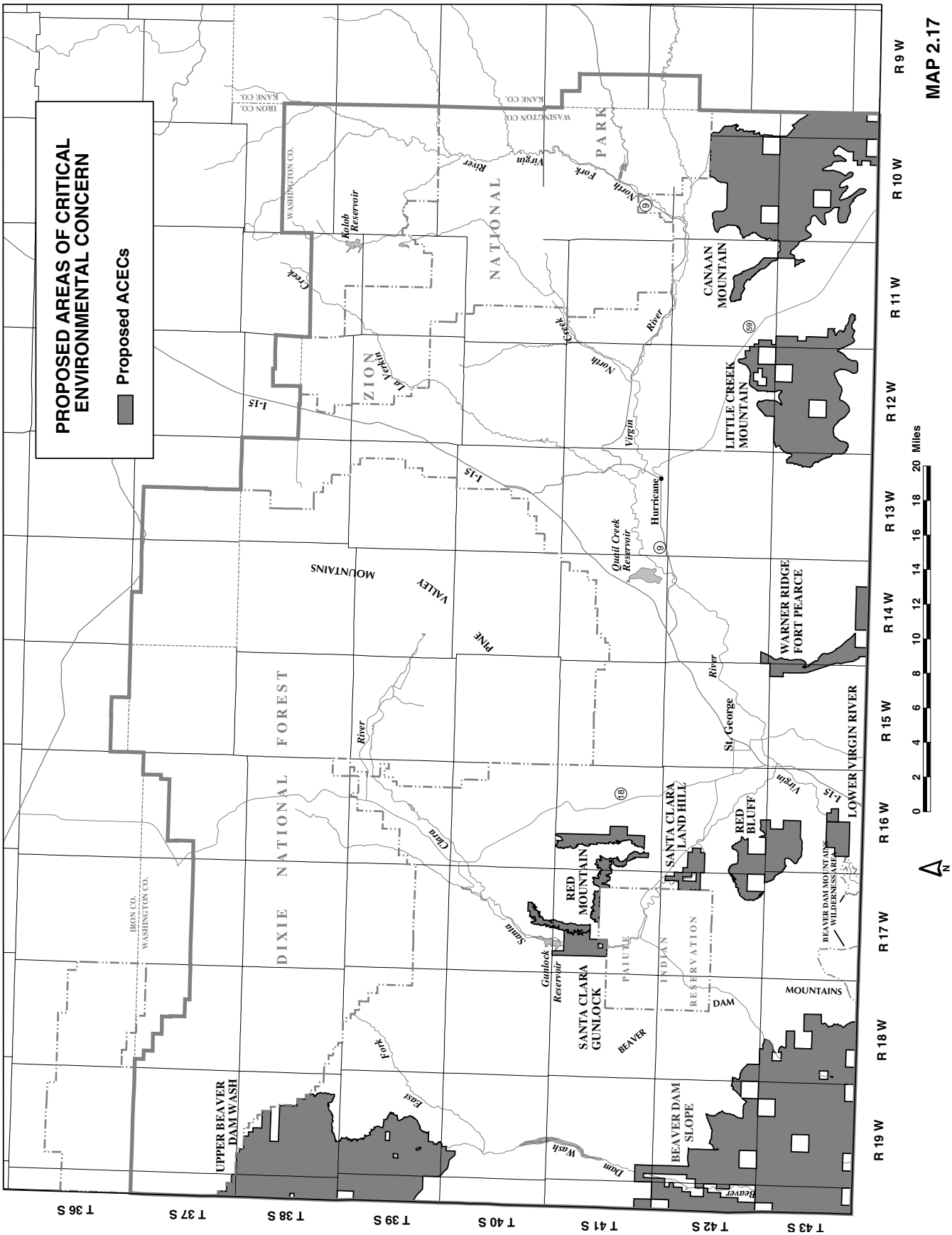

VISUAL RESOURCE MANAGEMENT
Class 1
Class 2
Class 3
Class 4
ZION
NATIONAL
PARK
DIXIE
NATIONAL
FOREST
PINE
VALLEY
MOUNTAINS
PAIUTE
INDIAN
RESERVATION
BEAVER
DAM
MOUNTAINS
BEAVER DAM MOUNTAINS
WILDERNESS AREA
Gunlock
Reservoir
Quail Creek
Reservoir
Kolob
Reservoir
St. George
Hurricane
La Verkin
Virgin
North
Fork
Virgin
River
Santa
Clara
River
East
Fork
Wash
Dam
Beaver
Creek
I-15
WASHINGTON CO.
IRON CO.
KANE CO.
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

MAP 2.14


WILDERNESS AND
WILDERNESS STUDY AREAS
Wilderness Study Areas
Wilderness Areas
MAP 2.15
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N
ZION NATIONAL PARK
DIXIE NATIONAL FOREST
PINE VALLEY MOUNTAINS
PAIUTE INDIAN RESERVATION
BEAVER DAM MOUNTAINS WILDERNESS AREA
Hurricane
St. George
Quail Creek Reservoir
Gunlock Reservoir
Kolob Reservoir
North Fork Virgin River
Virgin River
North Creek
Ivins
Santa Clara River
Beaver Dam Wash
East Fork
I-15
WASHINGTON CO.
IRON CO.
KANE CO.


ELIGIBLE AND SUITABLE
WILD AND SCENIC RIVER SEGMENTS
Eligible and Suitable River Segments
Eligible River Segments Not Found Suitable
IRON CO.
KANE CO.
WASHINGTON CO.
Kolob Reservoir
Creek
ZION
La Verkin
NATIONAL
PARK
North Fork
Virgin River
Creek
North
Virgin
River
I-15
Hurricane
Quail Creek Reservoir
MOUNTAINS
VALLEY
PINE
DIXIE NATIONAL FOREST
River
St. George
Virgin
Clear
Santa
Gunlock Reservoir
PAIUTE
INDIAN
RESERVATION
BEAVER
DAM
MOUNTAINS
BEAVER DAM MOUNTAINS WILDERNESS AREA
East Fork
Wash
Dam
Beaver
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
T 37 S
T 38 S
T 39 S
T 40 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N

MAP 2.16


PROPOSED AREAS OF CRITICAL ENVIRONMENTAL CONCERN
Proposed ACECs
MAP 2.17
CANAAN MOUNTAIN
LITTLE CREEK MOUNTAIN
WARNER RIDGE FORT PEARCE
LOWER VIRGIN RIVER
SANTA CLARA LAND HILL
RED BLUFF
RED MOUNTAIN
SANTA CLARA GUNLOCK
BEAVER DAM SLOPE
UPPER BEAVER DAM WASH
BEAVER DAM MOUNTAINS WILDERNESS AREA
ZIONNATIONAL PARK
DIXIE NATIONAL FOREST
PAIUTE INDIAN RESERVATION
PINE VALLEY MOUNTAINS
Hurricane
Quail Creek Reservoir
Kolob Reservoir
Gunlock Reservoir
BEAVER DAM MOUNTAINS
WASHINGTON CO.
IRON CO.
KANE CO.
I-15
R 9 W
R 10 W
R 11 W
R 12 W
R 13 W
R 14 W
R 15 W
R 16 W
R 17 W
R 18 W
R 19 W
T 36 S
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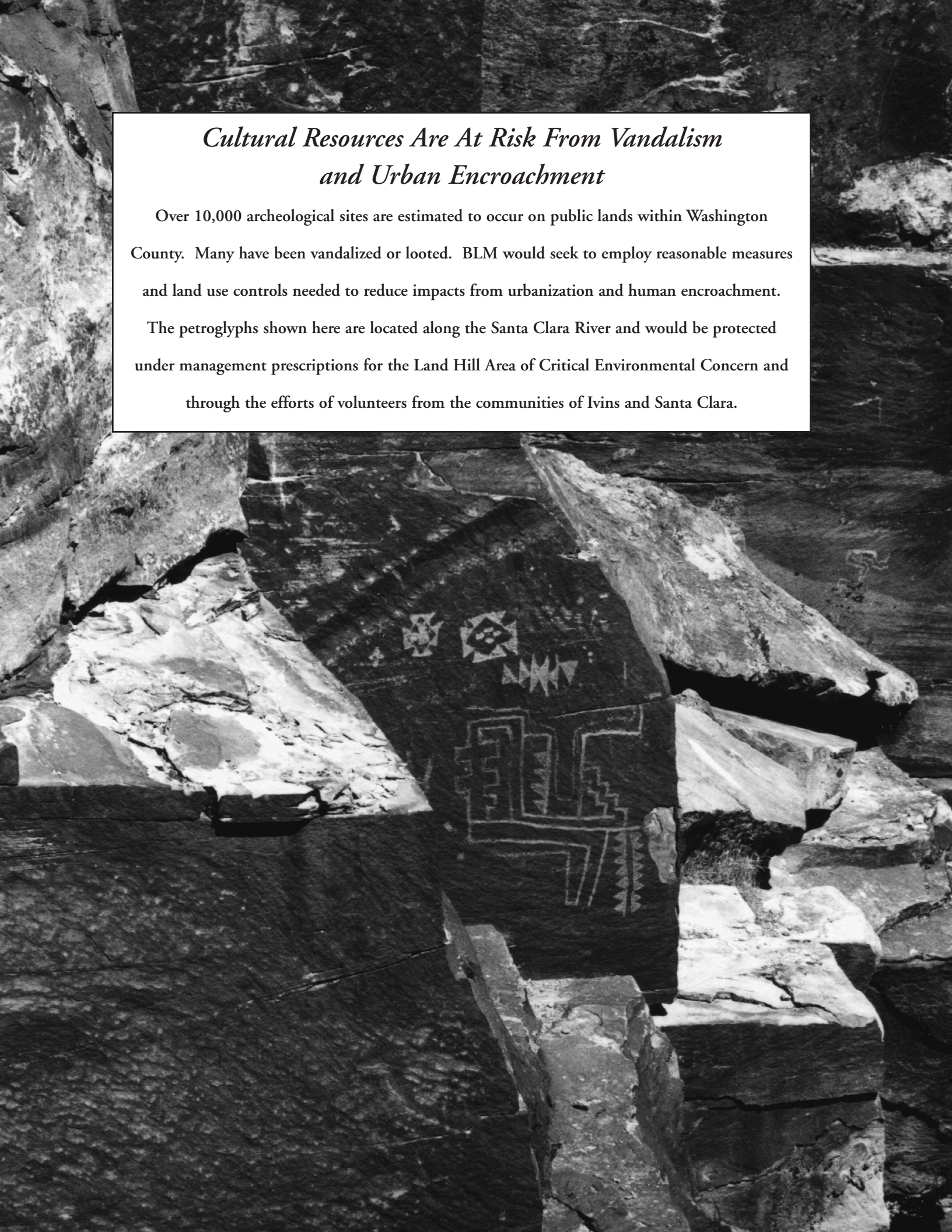
T 38 S
T 39 S
T 40 S
T 41 S
T 42 S
T 43 S
0 2 4 6 8 10 12 14 16 18 20 Miles
N



Cultural Resources Are At Risk From Vandalism and Urban Encroachment

Over 10,000 archeological sites are estimated to occur on public lands within Washington County. Many have been vandalized or looted. BLM would seek to employ reasonable measures and land use controls needed to reduce impacts from urbanization and human encroachment. The petroglyphs shown here are located along the Santa Clara River and would be protected under management prescriptions for the Land Hill Area of Critical Environmental Concern and through the efforts of volunteers from the communities of Ivins and Santa Clara.

CHAPTER 3
Environmental Consequences

Introduction

This chapter analyzes the environmental impacts of the Proposed Plan management decisions presented in Chapter 2. Since the majority of the decisions provide overall management emphasis and do not invariably propose specific on-the-ground projects or actions, the environmental consequences of the alternatives are often expressed in comparative, general terms. In most cases, subsequent analysis would be required to implement resource management decisions. More detailed or site-specific studies and appropriate environmental documents would be prepared in compliance with the National Environmental Policy Act (NEPA) and its implementing regulations as the need arises.

Impacts described include analysis of the direct, indirect, and cumulative impacts of the proposed actions. Where applicable, the short-term or long-term nature of the impact is described.

Short-term impacts occur after the project is in place and may continue for a period of up to 5 years. Long-term impacts can occur up to 15 years, or longer, after the project is in place. Immediate impacts are those occurring during the construction or start-up phase of a project. Impacts described in this chapter are usually direct and long-term, unless otherwise indicated.

Only those planned actions related to issues that result in significant impacts or changes are analyzed in detail. The Scoping of Issues for Environmental Analysis section provides a brief overview and discussion of: 1) impacts that will be analyzed in detail, as well as 2) a brief analysis of those particular programs or resources that were determined, through interdisciplinary evaluation, to have minimal, insignificant impacts as a result of the planned actions.

A Reasonably Foreseeable Action (RFA) is a potential future action where specific allocations cannot be determined during development of the planned actions. RFAs are developed through interdisciplinary team input using past and present information to make an informed estimate of the potential action and its future impacts. In developing the RFAs, the Bureau of Land Management (BLM) considered current resource conditions and trends, the restrictions or opportunities provided by the planned actions, and known or potential projects and proposals for use of the public lands in the Dixie Resource Area. The RFAs are not actual allocations but a best guess or a guideline for what those allocations may be in the future. RFAs are also used to help predict cumulative impacts.

Cumulative impacts occur when there are multiple influences on the same values. The incremental impacts of the management objectives in each of the alternatives presented, when combined with past, present, and future actions, have been considered in the preparation of this Dixie Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (Proposed Plan). As stated in 40 CFR 1508.7: "...'cumulative impact' is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non- federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time...." For purposes of this rule, impacts and effects are synonymous. The primary geographic area that could be cumulatively affected by a combination of decisions and actions by BLM in the resource area and other agencies or persons is primarily within the boundaries of Washington County, Utah.

It is the policy of the BLM to identify any unavoidable and residual adverse effects created by the planned actions of the Proposed Plan.

Irreversible and irretrievable commitments of resources are described at the end of this analysis. Irreversible commitments of resources are the result of actions in which changes to resources are considered permanent. Irretrievable commitments of resources result from actions in which resources are considered permanently lost.

Mitigating measures designed to avoid or reduce the environmental impacts were incorporated into the Proposed Plan.

Analysis Assumptions and Guidelines

Assumptions set forth the parameters necessary to guide the impact analysis. The assumptions should not be interpreted as constraining or redefining the management actions.

The general analysis assumptions for this Proposed Plan are as follows:

1. BLM funding and implementation of numerous actions identified within the Proposed Plan would continue to be a challenge and cooperative agreements and management with partnerships would be pursued wherever possible.

2. All decisions, projects, activities, and mitigation for the Proposed Plan would be in accordance with Standard Procedures Applied to Surface Disturbing Activities (Appendix 1), and other applicable laws, regulations, rules, and policies.

3. Any projects authorized by BLM would be required to obtain the necessary permits and authorizations from other federal, state, and local agencies.

4. Additional NEPA analysis would be required for the majority of decisions in the Proposed Plan to determine the impacts from site-specific actions (activity plans) and to identify additional mitigating measures.

5. The designation of all or part of the Wilderness Study Areas (WSAs) have been analyzed in the Utah BLM Statewide Wilderness Final Environmental Impact Statement (FEIS), 1990. This Proposed Plan does not evaluate the impacts of wilderness management. This Proposed Plan is based on the assumption that WSAs would be released from wilderness review by Congress and would be managed according to the planned actions for the other resource programs.

6. Implementation of the Proposed Plan would be subject to all valid existing rights.

7. Lands identified for transfer would go into state or private ownership. Generally, lands would be used for residential, commercial, industrial, or public purposes. Lands used for public purposes under the Recreation and Public Purposes Act are generally transferred to local governmental entities.

8. Demand for recreational activities, vegetative resources, and wildlife (nonconsumptive and consumptive) use, as well as water needs would increase.

9. No exploration or development of coal or geothermal leases would occur during the planning horizon.

10. The average acre per Animal Unit Month (AUM) in the resource area is 20 acres/AUM.

11. Future rangeland improvement projects or other development could disturb the following acreage (Table 3-1):

TABLE 3-1 • Disturbance Assumptions

MANAGEMENT ACTIVITY	DISTURBED ACRES
Rangeland Improvement (livestock fence)	0.5 acre/mile
Corridors (utility construction activities)	1.5 acres/mile
Recreation Facilities (kiosk or sign)	0.25 acre/each
Infrastructure (road - 30' width)	3.6 acres/mile
Infrastructure (road - 60' width)	7.2 acres/mile
Infrastructure (road crossing riparian zone)	0.25 acre/crossing
Infrastructure (trail)	0.75 acre/mile

Scoping of Issues

In compliance with the Council for Environmental Quality (CEQ) regulations for implementation of NEPA, this section identifies important issues that are the focus of this analysis and eliminates other less important issues from detailed study with a brief discussion of why they are not analyzed in detail. The issues discussed below were identified through the scoping process. A BLM interdisciplinary team process was used to identify the major issues for analysis and eliminate the less important issues from further consideration.

Issues Analyzed in Detail

The following issues are analyzed in detail because of the potential for significant impact, degree of public controversy, or because they potentially impact resources specifically protected by law.

Impacts of Potential Land Use Authorizations (including Acquisition, Transfers, Easement Acquisition, Rights-of-Way, and Withdrawal) on Community Development and Sensitive Resources
- Impacts of Land Transfers and Acquisition on Community Expansion and Use
- Impacts from Corridor Designation and Rights-of-Way Avoidance and Exclusion Areas on Public Utilities

Impacts on Locatable Mineral Exploration and Production in High Mineral Potential Areas

Impacts on Water Resources
- Impacts of Critical Soils and Watershed Areas
- Impacts on Surface Water Quality
- Recognition of Proposed Reservoir Sites in Relation to Key Resources and Other Proposed Decisions

Impacts on Riparian Resources

Impacts on Vegetation Resources
- Impacts on Special Status Plant Species

Impacts on Wildlife
- General Impacts on Wildlife Species
- Impacts on Special Status Animal Species

Impacts on Livestock Grazing
- Impacts on Ranching Operations from Land Transfers
- Impacts to Grazing Operations from the Beaver Dam Slope ACEC Designation and Washington County HCP Reserve
- Utah's Standards for Rangeland Health and Guidelines for Grazing Management

Impacts on Recreation
- Impacts on Extensive Recreation Areas
- Impacts on Special Recreation Management Areas

Impacts on Off-Highway Vehicles
Impacts on Visual Resources

Impacts on Wilderness Values

Impacts on Special Emphasis Areas
- Impacts on Wild and Scenic River Values
- Impacts on Values in Areas of Critical Environmental Concern (ACEC)

Impacts on Socioeconomic Factors
- Impacts on Washington County from Proposed Plan Decisions
- Impacts on Other Surface Management Agencies

Issues Considered But Not Analyzed in Detail

The following issues or potential issues are not analyzed in detail in this Proposed Plan for the reasons discussed below.

Impacts on Air Quality or Airshed Classification

There is a potential for actions approved in conformance with the allocations and decisions in this Proposed Plan to temporarily degrade air quality periodically in southwestern Utah and near Zion National Park.

There are no major point sources of pollution expected on public lands in the resource area. A natural gas-fired electrical generation station is proposed near the community of Hildale. However, this facility would be on private land

and the potential air quality impacts are beyond the scope of this Proposed Plan.

Anticipated soil disturbance and occasional prescribed or wildfires are potential sources of fugitive dust and other air pollutants. Additionally, livestock and wildlife would contribute to fugitive dust and to methane emissions. However, the disturbed areas, fires, and movement of animals would be in scattered locations and at different times. Reclamation of disturbed areas would be required, if possible. There would be temporary increases in fugitive dust and other emissions, but the increases would not be large enough to affect air quality in Washington County for more than short periods of time. Impacting actions authorized on public lands would require appropriate permits issued by the Utah Division of Air Quality and the Environmental Protection Agency (EPA). Therefore, impacts on air quality are not addressed in detail. There is no potential for changes in airshed classification based on BLM's proposed decisions.

Impacts on Access and Transportation rom Revised Statute (R.S.) 2477

Revised Statute (R.S.) 2477 is a section of the Mining Act of 1866 that grants the right-of-way for construction of highways over public lands not reserved for public uses. The extent and nature of the rights-of-way granted by R.S. 2477 and the access routes that qualify as highways for the grant are in dispute. Some members of the public, including local governments in Utah, view R.S. 2477 rights-of-way as important components of state and local infrastructure, and as essential to the economic growth and social well-being of western communities. Others are concerned that recognition of extensive R.S. 2477 rights-of-way would interfere with BLM's ability to protect and manage wilderness and other resources on the public lands.

Washington County notified the Secretary of the Interior and BLM on January 4, 1994, that pursuant to the Quiet Title Act, 28 U.S.C. section 2409a(m) (1988), that the County intended to file to quiet title to alleged rights-of-way for about 800 segments of access routes in Washington County with the rights-of-way allegedly acquired under R.S. 2477.

No formal process for either asserting or recognizing R.S. 2477 rights-of-way currently is provided in law, regulations, or Department of the Interior policy. Courts must ultimately determine the validity of R.S. 2477 assertions. Therefore, the potential impacts of recognizing or rejecting R.S. 2477 assertions are beyond the scope of this Proposed Plan and are not addressed.

This Proposed Plan recognizes that the majority of roads within the resource area are used by the public and are essential to legitimate private and government business as well as for public enjoyment. These roads would remain as such. Transportation impacts to the public from decisions within this Proposed Plan would be minimal, if any. Areas that are closed to motorized travel in the Proposed Plan are in primitive areas that do not contain access roads, or if there are roads, they are very old, unmaintained trails and inaccessible by most vehicles. No roads would be closed on public land without proper due process through the state and county procedures.

On a case-by-case basis, upon application from the county, BLM would grant Title V rights-of-way in perpetuity on existing, uncontested roads asserted by the county under R.S. 2477. Rights-of-way width and standards would be commensurate with the class and purpose of each road. Site specific NEPA documentation would be required for each application and would include cultural, and threatened and endangered (T&E) clearances for the full right-of-way width.

Impacts on Oil and Gas Production

There has been a pronounced lack of oil and gas exploration and production history in the resource area. Given this situation, detailed analysis on the oil and gas categorizations is not warranted. Specific areas closed to leasing include lands within incorporated city limits, designated wilderness, and wilderness study areas. Categories shown in the Proposed Plan for leasing within Wilderness Study Areas reflect

what stipulations BLM would employ should the study areas be released from further consideration for wilderness designation. There are 26,826 total acres closed by law to fluid mineral exploration and development in the resource area. Areas under a No Surface Occupancy stipulation include lands withdrawn, two recreation sites, Recreation and Public Purpose Act (R&PP) lands, critical desert tortoise habitat, Primitive Recreational Opportunity Spectrum (ROS) classes, some ACECs, and river segments proposed as suitable for addition to the national Wild and Scenic Rivers System. Public lands under a No Surface Occupancy stipulation comprise 176,896 acres in Washington County.

High potential for oil and gas only occur on 6,801 acres near the town of Virgin. In this high-potential area, approximately 1,021 acres are within incorporated city limits and are therefore closed to leasing, roughly 5,391 acres fall within a special stipulation leasing category (Category 2), 56 acres are under a No Surface Occupancy leasing category (Category 3), and 333 acres remain open to leasing (Category 4) under the standard stipulations.

Moderate potential for fluid mineral production occurs on 71,105 acres of which approximately 8,109 acres occur within city limits and are closed to leasing. Two ACECs, or parts thereof (Warner Ridge/Fort Pearce and Lower Virgin River), and a portion of the Washington County Habitat Conservation Plan (HCP) Reserve, are within a moderate potential for fluid mineral occurrence and would require a No Surface Occupancy stipulation on 9,126 acres on the Proposed Plan to protect sensitive resources. In addition, 33,199 acres of moderate potential lands would require special leasing stipulations for the protection of important resources. Of the total acres of moderate potential, 20,671 acres would be left open to leasing under standard stipulations.

The rest of the 551,099 acres remaining in the resource area have low potential for fluid mineral development and would fall under various fluid mineral classifications dependant upon the occurrence of sensitive resources. There have been no producing oil and gas fields in the resource area since 1976 and only one exploration well per year is projected. No production is anticipated; therefore, impacts on oil and gas production are not analyzed in detail.

Impacts on Geothermal Development

There are no known geothermal interests or leases in the resource area; therefore, impacts on geothermal exploration and development are not addressed. No leasing or exploration is anticipated in the future.

Impacts on Locatable Minerals

The majority of public lands in Washington County would remain available to mining location under the General Mining Act of 1872 and 43 CFR regulations. Approximately 405,486 acres would remain open subject to the undue and unnecessary degradation standard. Any mining operation disturbing greater than 5 acres on these lands would require a plan of operation and site specific environmental analysis. In certain situations, such as closed OHV areas, ACECs, and river segments proposed as suitable for addition to the National Wild and Scenic Rivers System, a plan of operation would be required regardless of its size. Approximately 168,496 acres fall under this requirement.

A total of 56,149 acres are proposed for withdrawal and would not be open for mineral location. The withdrawal areas include the HCP Reserve, Dinosaur Trackway, Red Cliffs and Baker Dam Recreation Sites, Warner Ridge/Fort Pearce ACEC (including the 40-acre Fort Pearce Historic Site), and the Red Bluff ACEC. All of the withdrawal areas are in a low potential for locatable minerals except for the 6,168 acres comprising the Red Bluff ACEC which has a moderate potential for locatable minerals.

Minerals such as iron, manganese, tungsten, gypsum, and sulfur are present in the resource area, but because of better sources elsewhere, the finds have not been mined and the potential for development is considered low. For these reasons, impacts on locatable mineral exploration and production in the resource area are not addressed in detail. However, the headwaters of the East Fork of the Beaver Dam Wash is

a target area for exploration of gold, silver, and copper. The Beaver Dam Mountains west of St. George have been mined for gallium and germanium. The Silver Reef area has potential for silver production. Impacts on locatable mineral production in these areas are addressed. As applicable, all surface disturbing activities would be subject to the standards listed in Appendix 1.

Impacts on Production and Use of Saleable Mineral Materials

Salable mineral materials in the resource area include sand, gravel, cinders, and building stone. The demand for sand and gravel has been high. The BLM has issued over 450 permits in 1 year for extraction of these materials.

Due to the high demand, there are numerous established pits and sources of mineral materials on the public lands in the resource area that would be available for use and production. Additionally, there are large quantities of these materials available for use on state and private land scattered through the county. For these reasons, the potential impacts on production and use of saleable mineral materials are not further analyzed in this Proposed Plan.

Impacts on Coal Production

There are about 9,000 acres (surface and subsurface mineral estate) included in the Kolob Known Recoverable Coal Resource Area (KRCRA) in Townships 38 and 39 South, Range 10 West, above Zion National Park. The average thickness of the coal is estimated to be 5.5 feet with approximately 90 million tons of coal resource. Even though the resource is located in the resource area, the potential for development and use of coal is low because access is restricted, there are hundreds of feet of overburden, and there are interspersed private and state lands in the KRCRA. There are no leases or records of economic interest in developing this resource. For these reasons, the Proposed Plan does not address the suitability of the KRCRA for leasing, and impacts on coal production are not analyzed.

Impacts on Soils

The soils of the resource area are shallow and include large areas of badlands, rock lands, dunes, and gypsum lands. Therefore, there is a potential for loss of soil structure and productivity, with resultant impacts on vegetation and water quality from surface disturbance. Impacts on soils are closely linked to impacts on vegetation and water quality. These impacts are addressed in the vegetation and water sections, but are not analyzed independently.

Impacts of Reservoir Construction

The State of Utah and the Washington County Water Conservancy District (WCWCD) have identified several potential sites for water storage reservoirs. At this time, one application from the WCWCD for construction of a reservoir on the West Fork Beaver Dam Wash is on file at the BLM office. Development of this dam site would not be in conformance with this Proposed Plan due to the nature of conflicts with riparian systems, restoration of the Virgin spinedace populations, and protection of potential habitat for the Southwestern willow flycatcher. This Proposed Plan recognizes unique values for identified reservoir sites for the purpose of water storage. However, at this point in time, specific details regarding potential reservoir development are unavailable and cannot be reasonably projected until such time that a detailed proposal would be submitted. Development of up to two identified sites listed in Chapter 2 would require a site-specific NEPA document based on a detailed and complete application and description of the project by the proponent. Associated impacts of potential future reservoir development on public lands would require commensurate analysis, appropriate Section 7 consultation, and would be considered if found complementary to and not in conflict with other objectives and decisions of the Proposed Plan.

The following issues related to reservoir development are beyond the scope of analysis for the Proposed Plan (40 CFR 1502.22):

1. Reallocation of water from agricultural to municipal use and resulting impacts on economic conditions, because water could be reallocated with or without reservoir construction.

2. Impacts on threatened, endangered, and sensitive fish species because the mode of

operation is not known and could benefit or harm fish. Additionally, Section 7 consultation with the U.S. Fish and Wildlife Service (FWS) would be required.

3. Impacts on riparian systems and floodplain systems.

4. Impacts on recreation use and enjoyment.

5. Impacts related to site feasibility and engineering design.

6. Economic and demographic impacts.

This Proposed Plan provides only a qualitative analysis of potential impacts of reservoir development on key resources on the public lands in the resource area. Generic impacts of reservoir development as they pertain to the six identified sites are depicted within program- specific impact analysis.

Impacts on Wildlife Forage Allocation

The forage allocation for wildlife is addressed in the BLM Final Hot Desert Grazing Management EIS in Appendix VII, X, and XII. The impact analysis found in the Hot Desert FEIS is incorporated by reference and no further analysis is included; however, management actions described throughout the Proposed Plan would ensure benefits to wildlife forage and integrity of wildlife habitat.

Impacts of Livestock Grazing

The impacts of livestock grazing on soils, water, vegetation, recreation, and other resources are of national and local concern and have been previously analyzed in the BLM Final Hot Desert Grazing Management EIS and the Kanab/Escalante Final EIS. BLM is managing the applicable allotments according to a modified version of the No Action Alternative described and analyzed in Chapter 8 of the Hot Desert Grazing Management EIS.

On May 20, 1997, the Secretary of the Interior approved the *Standards for Rangeland Health and Guidelines for Grazing Management* on public land in Utah. These standards and guidelines require significant compliance with environmental health. All grazing activities on public lands require close monitoring to determine if the environmental standards are being met. Wherever monitoring shows that a particular standard is not being met, BLM would prescribe actions to ensure progress in meeting that standard. Field assessments and continued monitoring would determine the extent of future grazing changes and additional NEPA compliance necessary for implementation of the actions.

Impacts on Production and Harvest of Forest Products

The decisions and allocations proposed in this Proposed Plan would affect the availability and use of pinyon-juniper woodland products in the resource area. There is no commercial timber activity on public lands in Washington County. A sustainable level of forest products harvest has been established as 4,100 cords of dead fuelwood, 1,200 cords of green fuelwood, 1,600 posts, and 500 Christmas trees per year. Because there would be sufficient area to provide the sustainable level of production under the Proposed Plan, impacts on production of forest products are not further analyzed in this Proposed Plan. Approximately 51,530 acres of pinyon-juniper woodland would be closed to harvest of this resource in order to protect sensitive resources. Map 2.10 depicts the pinyon-juniper areas that would be open for fuelwood harvest. Overall, 75 percent of the pinyon/juniper forested public land in the resource area would be available for fuelwood cutting either year-round or on a seasonal basis. Difficulty in collecting wood and posts in the northwestern portion of the resource area would result from the OHV limitation to designated roads and trails on 13,543 acres.

Impacts on Resources and Economics from Wilderness Designation

Lands that qualified for WSA status according to criteria contained in the Wilderness Act of 1964 and the Federal Land Policy and Management Act (FLPMA) of 1976 were identified by BLM in a statewide wilderness inventory that was initiated in 1978 and completed in 1985 with the resolution of appeals to BLM's inventory decisions. The impacts of wilderness designation for WSAs

on BLM lands in Utah were addressed in the BLM Utah Statewide Wilderness FEIS published in 1990. BLM's recommendations to the Secretary of the Interior, the President, and Congress on the suitability of WSAs for wilderness designation were published in the BLM Utah Statewide Wilderness Study Report published in October 1991.

Of the 11 study areas in the resource area that include 93,901 acres, 66,998 acres were recommended as suitable for designation as wilderness. However, until Congress either designates WSAs as wilderness or releases them for uses other than wilderness, BLM must manage them according to the Interim Management Policy (IMP) and Guidelines for Lands Under Wilderness Review that imposes special management and restricting activities to those that do not impair wilderness values. Management under the IMP will continue until Congress makes a wilderness decision, regardless of this Proposed Plan. A 1987 law imposes fluid mineral leasing closures in WSAs. Congressional designation of WSAs in the resource areas as wilderness would amend this Proposed Plan.

The impacts of wilderness designation for the WSAs in the resource area are analyzed in Volumes I, IIA, and IIB of the Utah Statewide Wilderness FEIS. Potential adverse impacts include inconvenience for livestock permittees because of restrictions on access and future rangeland improvements, conflicts with community expansion for the city of Ivins, and conflicts with municipal water development. None of the impacts were projected to significantly affect local economic conditions. For purposes of this Proposed Plan, the impacts of wilderness designation are incorporated by reference to the Utah Statewide Wilderness FEIS and are not further addressed.

Impacts of Cultural and Paleontological Resource Management

Public lands contain abundant archeological and historical resources and are considered extremely valuable to the scientific community, Indian tribes, and interested individuals. These resources are primarily associated with riverine systems. There are four ACECs within the resource area that have been found to contain significant cultural resources. The ACEC designation has been brought forth wholly, or in part, due to cultural resource relevance and importance criteria. Specific prescriptions for each ACEC, listed under the Special Emphasis Areas section in the Proposed Plan, portray actions that would protect the resources for future study and interest. In other areas of known cultural densities or paleontological sites such as the Red Cliffs Interpretive Site and the Dinosaur Trackway, other protective measures are described throughout resource sections within the Proposed Plan. In all areas of the resource area, cultural clearances and other mitigation required by law would protect and inventory these resources. In addition, BLM would ensure compliance with all requirements for Native American consultation whenever these resources may be affected. In general, the principles of conservation management would be used in selected areas to maintain present conditions for future study. Public education, surveillance, and enforcement would be designed to increase public awareness and reduce vandalism. Further, BLM would promote legitimate research through cooperation with credible institutions. Providing for maintenance, stabilization, and interpretation of selected cultural sites would increase public enjoyment and awareness of the value of these sites. Coordinated efforts with communities, organizations, Indian Tribes, and site stewardship programs would protect these sites and decrease vandalism. Under this Proposed Plan, concessionaire management of these resources would not be allowed. Because of the above management practices, further detailed analysis is not required.

Impacts on Hazardous Waste Generation and Management

BLM policy does not authorize public lands to be used for hazardous materials waste disposal in order to eliminate potential long-term public liability. Transportation of hazardous materials through the resource area on six major transportation routes is permitted under numerous federal and state laws and regulations. BLM does not have the authority to restrict the transportation of hazardous materials on or within public transportation corridors or routes, as the authority rests with the Department of

Transportation and the Environmental Protection Agency. Certain types of operations on public lands, such as mining, may utilize, transport, or generate hazardous materials. Prior to this occurring, specific NEPA documentation is required to assess impacts and determine the need for state or federal permits that regulate such materials. Current activities involving the use of hazardous materials on public lands include a cyanide heap leach mine that is in reclamation under an existing permit and a small bromide recovery process. No other hazardous waste site needs have been identified on public lands within the resource area. Future projects would be required to undergo site-specific analysis and assessment for other permitting needs; therefore, detailed analysis of hazardous materials is not warranted.

Impacts on Fire Management

A Fire Management Plan will be completed in a future activity level plan which would incorporate the goals and objectives and/or management prescriptions required in this Proposed Plan. Among other things, BLM would seek to: 1) reintroduce fire back into the ecosystems to enhance land health, 2) identify suppression, limited suppression, or "let burn" zones to maintain public safety, structures, and watershed values, 3) limit fire in order to protect the most critical resources and to avoid unacceptable impacts, 4) use fire to reduce excessive fuel loads to prevent catastrophic fire occurrence, and 5) consider costs associated with fire suppression. Until such time that the activity level plan is completed, BLM would continue to follow the existing Cedar City District Fire Management Plan that provides for continued protection of resources in accordance with existing programs and policies. Therefore, detailed analysis would not be completed at this time.

Impacts of Animal Damage and Pest Control Programs

The impacts of BLM's authorization of predator and other pest control on public lands are a national and local issue. BLM presently prepares Environmental Assessments (EAs) in response to proposals for control. These EAs are generally tiered to an EIS prepared by the agencies authorized to carry out the control actions. These programs are necessary and would be consistent with this Proposed Plan because they are required by law and protect other high value resources. However, the level and nature of the control programs vary to meet the potential needs and purposes of the programs. Conformance of these activities with the Proposed Plan would be determined by BLM through consideration of their effect on other resource values and management objectives established in this Proposed Plan. Accordingly, predator control, grasshopper control, and related activities would continue to be analyzed in future NEPA documents, but are not addressed or analyzed further in this Proposed Plan.

Proposed Plan Impact Analysis

Reasonable Foreseeable Actions

It is anticipated that up to 18,000 acres of land could be transferred out of public ownership, and up to 18,000 acres of private and state lands could be acquired through the land exchange and the Land and Water Conservation Fund purchase process.

Of the 12 identified utility corridors in the Proposed Plan, it is projected that up to two major rights-of-way could be constructed in each corridor. This would involve 24 rights-of-way throughout the life of the plan at an estimated surface disturbance of up to 1.5 acres per mile. A total of 60,963 acres within the resource area are within proposed utility corridors.

There could be up to 24 additional rights-of-way per year issued throughout the resource area for small distribution and telephone lines, communication facilities, and access routes. It is estimated that approximately 1.5 acres per mile would be disturbed and that there could be up to 36 acres per year disturbed from such right-of-way grants. Over the life of the plan, close to 720 acres could be disturbed from rights-of-way construction and operation outside of designated corridors.

Projected activities related to locatable mineral exploration and development would disturb up

to 800 acres of the resource area over the next 20 years. Exploratory activities are projected to disturb a total of 200 acres (approximately 10 acres/year). This disturbance would most likely occur on high and moderate mineral potential areas in and around the Beaver Dam Mountains, East and West Forks of the Beaver Dam Wash, and the Silver Reef area. Mining development is projected to disturb up to 600 acres (approximately 30 acres per year) in the same areas where exploration is likely. The existing and potential new mine locations would employ a total of up to 100 employees over the planning horizon.

Of the six reservoir sites identified, it is anticipated that two sites would be constructed. It is estimated that there could be up to 750 acres disturbed from construction of the two sites.

In accordance with the desert tortoise recovery plan and the Washington County HCP Reserve, BLM would allow for construction of 23 miles of various types of fence on public lands (disturbing 11.5 acres) to protect desert tortoise in habitat north of St. George and near Hurricane.

Of the 27,000 acres of vegetative treatment areas on the Resource area, approximately 400 acres per year would be maintained by various methods of manipulation.
It is projected that up to 110 miles or 80 acres of new trails and tracks would occur from off-highway vehicles and mountain bikes in and around urban areas and in riparian areas throughout the planning horizon.

Impacts on Potential Land Use Authorizations

Land Acquisition

It is estimated that BLM would acquire up to 18,000 acres of private and/or state lands over the life of the plan, primarily through land exchanges. Acquisition of lands within the Washington County HCP Reserve, with limited opportunity for development because of requirements for protection of desert tortoise habitat, is the primary focus of the resource area's exchange program. Acquisition would provide private landowners and the State the opportunity to develop exchanged lands outside of the Reserve while increasing the amount of publicly owned desert tortoise habitat in accordance with the HCP. Land acquisition within the HCP Reserve would also occur through the direct purchase of land through the federal Land and Water Conservation Fund. In addition, lands could also be donated to the BLM for preservation of the desert tortoise. It is anticipated that acquired public land acreage would be approximately the same as that transferred out of federal ownership in the future through the above-mentioned processes.

Any public land acquisitions outside of the HCP would be sought specifically to provide for public access to key use areas, consolidate public land ownership patterns, provide for essential public recreation opportunities, or protect important resources such as floodplains, riparian areas, wildlife habitat, cultural sites, or wilderness values. However, the majority of future land ownership changes would facilitate the Washington County HCP and assist statewide exchange agreements with Utah State Institutional Trust Lands Administration (SITLA) to remove trust inholdings from federally reserved areas.

Land Transfer

The Proposed Plan would also allow for land transfers of up to 18,000 acres to accommodate the public purpose and development plans of local communities and to help meet desert tortoise habitat acquisition objectives. Private and state lands within the Washington County HCP Reserve would be exchanged with willing land owners for public lands outside the HCP area, thereby increasing private and State lands available for development. The majority of public lands that have been identified for disposal are close to expanding communities or transportation corridors. Lands that have been identified for transfer must undergo subsequent analysis to ensure conformity with the land transfer criteria set forth in the Proposed Plan. Lands outside of Washington County, but within the state of Utah, are also being sought for exchange in order to facilitate the transfer of private and state lands within the HCP Reserve. Public lands transferred into private ownership outside of Washington County could result in lower feder-

al PILT payments in the ensuing county of transfer; however, it would also increase the private land base and respective property taxes to that county. It is impossible to determine where these land exchanges could take place within the state in the future.

Most public lands within view of State Scenic Highway 9 would be retained in public ownership to protect the scenic values of the "Zion Corridor" between LaVerkin and Springdale. Exceptions could be allowed if needed to serve essential municipal interests if such would not substantially detract from the scenic quality of the corridor. Three small tracts of land (240 acres total) within or near the town of Virgin that have been identified for disposal are not visible from Highway 9.

Transfer of land from public ownership could adversely affect adjacent landowners who bought land specifically for its proximity and/or abutment to undeveloped public lands. Such transfers could result in development adjacent to these properties. Any such development would be subject to county or municipal zoning regulations.

Transfer of floodplain lands out of public ownership would generally not be approved. If transferred, development of floodplains for community uses would be difficult because deed restrictions on future uses would be imposed to protect the floodplains and to avoid improper placement of structures as required by Executive Order and Federal Regulations.

Under BLM's state riparian policy, riparian habitat within public lands in the resource area would not be transferred unless equal to or better habitat could be acquired. Limitations also exist under Executive Order and Federal Regulations to protect this sensitive habitat type.

The requirement to provide 2 years notice to livestock grazing permittees prior to land transfer could delay development of lands within grazing allotments for that amount of time or until a negotiated agreement is reached between the permittee and the land exchange applicant.

Easement Acquisition

Of the 13 easements identified in the Proposed Plan, it is anticipated that only the most critical easements listed would be pursued. The impacts of obtaining these easements would result in permanent reliable access for the public for recreation purposes, wildlife and range management, historic values, mineral development, and would enhance accessibility for important resource uses and protection.

Rights-of-Way

Rights-of-way avoidance areas encompass 308,889 acres throughout the resource area. In avoidance areas, future rights-of-way would be granted only when no feasible alternative route or designated rights-of-way are available. Designating these areas as avoidance areas helps to protect resources (such as sensitive species habitat, known cultural resource areas, hazardous soil areas, watershed protection areas, riparian areas, river segments recommended as suitable for inclusion into the National Wild and Scenic Rivers System, sensitive visual/scenic areas, and areas containing primitive recreation values) from surface disturbing activities. Avoidance areas would require rights-of-way applicants to explore different alternatives to a proposal and possibly move routes to circumvent sensitive areas. This would not preclude construction of utilities, but could result in increased cost and inconvenience for utility companies and could delay construction because BLM's approval process would require additional time. Nevertheless, utility companies would be able to plan routes that would bypass conflict with rights-of-way avoidance areas; however, economic impacts to the applicant could result. It is important to note that all decisions made in the area above Zion National Park are subject to the Zion Water Rights Settlement Agreement. However, no actions in this Agreement are known to impact public lands above the Park at this time.

The only right-of-way exclusion area in the resource area is within the Beaver Dam Mountains Wilderness Area, overlaying 2,690 acres of public land. Future rights-of-way would be granted in this exclusion area only when mandated by law.

BLM would designate two existing interstate utility corridors that would follow the route of the IPP powerline and the Navajo-McCullough

powerline for future use by utility companies. The Navajo-McCullough corridor would stay to the north of the existing utility line to protect the scenic sensitivity of the Beaver Dam Mountains Wilderness Area. An additional 10 utility corridors would be designated for meeting local utility distribution needs within Washington County, as well as to provide routes for interstate and multistate proposals. Designation of the corridors would reduce costs incurred by the utility industry to analyze various route alternatives because available routes would be identified and BLM processing of proposals would be accelerated.

A total of 15,873 acres of public land exists within the 25 miles of the mile-wide interstate corridor where rights-of-way could be granted for the IPP corridor. In addition, the Navajo-McCullough corridor contains 7,524 acres of public land within a 12-mile area where additional rights-of-way could be granted. Designation of these two interstate corridors would fulfill FLPMA Section 503 requirements and guidelines and meet the BLM objective of managing scenic resources by collectively routing interstate utilities with accompanying structures and surface disturbance into designated corridors.

It is projected that 24 utility projects could be constructed within the corridors to meet inter/intrastate and local community utility requirements. The corridors and the possible conflicts with right-of-way construction, are listed in Table 3.2.

TABLE 3-2 • Corridors and Identified Conflicts

CORRIDOR	ACRES	CONFLICTS
Navajo-McCullough Power Project	1,204 acres	desert tortoise critical habitat
	901 acres	Beaver Dam Slope ACEC
	271 acres	Lower Virgin River ACEC (cultural resources, Virgin River Spinedace, southwest willow flycatcher habitat)
	10 acres	soils with a high erosion hazard
	33 acres	riparian habitat
	various	visual impacts from Beaver Dam Mountains Wilderness Area (not within)
	4,203 acres	high potential for locatable minerals
	3,322 acres	moderate potential for locatable minerals
Intermountain Power Project (IPP)	4,750 acres	desert tortoise critical habitat
	2,432 acres	Beaver Dam Slope ACEC
	388 acres	soils with a high erosion hazard
	various	intermittent streams; Cole Spring, Jackson Spring, Manganese Springs, Grapevine Spring Wash, Jackson Wash, and Tobin Wash
	71 acres	riparian habitat
	123 acres	high potential for mineral materials
	13,343 acres	high potential for locatable minerals
Garkane and UP&L line from Hildale to Hurricane	204 acres	Little Creek Mountain ACEC
	759 acres	soils with a high erosion hazard
	78 acres	riparian habitat
	225 acres	Frog Hollow watershed
	80 acres	crucial mule deer winter range

TABLE 3-2 *(continued)* • Corridors and Identified Conflicts

CORRIDOR	ACRES	CONFLICTS
UP&L substation at Dammeron Valley to Sand Cove Reservoir power plant to Veyo and Central	14 acres 419 acres 354 acres Various 30 acres	riparian habitat Navajo Aquifer high recharge zone municipal watershed visual impacts from Red Mountain ACEC and primitive values (not within) high potential for mineral materials
UP&L substation at Harrisburg Junction to Hurricane following the route of SR-9	None	None
La Verkin to Anderson Junction following the route of SR 17	316 acres 27 acres 958 acres 678 acres 752 acres	soils with a high erosion hazard riparian habitat Navajo Aquifer high recharge zone crucial mule deer winter range moderate potential for fluid minerals
From Gunlock Reservoir south along highway to Shivwits Reservation and route of Old Highway 91 across Beaver Dam Slope from Shivwits Reservation to Arizona border (would be the width of the currently fenced rights-of-way, approximately 1/8 mile)	288 acres 329 acres 196 acres 40 acres 755 acres	desert tortoise critical habitat Beaver Dam Slope ACEC Santa Clara River/Gunlock ACEC riparian habitat high potential for locatable minerals.
SR-18 highway right-of-way from St. George to Veyo	20 acres 49 acres	desert tortoise critical habitat high value Navajo Aquifer recharge area
Motoqua east along county road to the Shivwits Indian Reservation	967 acres 72 acres 426 acres 5,909 acres 46 acres	soils with a high erosion hazard riparian habitat high potential for mineral materials high potential for locatable minerals moderate potential for locatable minerals
Section of I-15 from below Harrisburg Junction to Ash Creek Reservoir	2,973 acres 133 acres 4,556 acres 4,580 acres 7,123 acres 300 acres 496 acres	soils with a high erosion hazard riparian habitat Navajo Aquifer high recharge zone crucial deer winter range moderate potential for fluid minerals high mineral materials potential high potential for locatable minerals
Springdale to LaVerkin following the route of the existing UP&L line	1,968 acres 10 acres 220 acres 560 acres 323 acres	soils with a high erosion hazard riparian habitat crucial mule deer winter range high potential for mineral materials high potential for fluid minerals
Hurricane south to the Arizona border and east to Hildale along the border	672 acres 65 acres 3,519 acres 82 acres	soils with a high erosion hazard Frog Hollow critical watershed moderate potential for fluid minerals high potential for mineral materials

Even though corridors would be designated, use of the corridors would be complicated by potential conflicts with other resources and values within the corridor. These conflicts could result in construction delays and additional costs for mitigation of potential impacts on such values as T&E species habitats, riparian vegetation, mineral production potential, soils with high soil erosion hazard, and critical watersheds, among others.

Overall, it is projected that identification of corridors and the spacing of rights-of-way exclusion and avoidance areas would allow for construction of powerlines, pipelines, and other utilities through the resource area to local communities and market areas in Nevada and California.

One potential "Southern Corridor Transportation Route" from SR-59 near Hildale to I-15 south of St. George would also be considered within the scope of this Proposed Plan. A spur road from the base of the Hurricane Cliffs to the town of Hurricane is proposed as a connection to this route. This transportation route could accommodate large vehicle/truck traffic and could eliminate public safety hazards for the city of Hurricane and other affected communities. Construction of the Southern Corridor Transportation Route would require extensive engineering and construction to descend the Hurricane Cliffs. It is possible that considerable mitigation would be required in order to protect cultural resources, riparian resources, and sensitive plant and animal species. Other conflicts could occur due to overlapping areas of high mineral materials potential, high erosion hazard soils, critical watersheds, fluid mineral potential areas, and grazing issues.

The Proposed Plan would allow construction of a new communication site at Scrub Peak. Cellular phone microwave structures or other equipment could be installed to support expansion of the communication needs in Washington County. It is projected that this one additional site, along with the four existing communication sites, would meet the need for additional communication facilities. In order to minimize surface and visual impacts, site sharing of existing facilities would be encouraged at all communication sites to lessen the need for additional sites and disturbance. The communication site at Black Ridge would continue to remain in its primitive condition, and access roads and new powerlines would not be allowed in order to avoid scarring and to maintain natural values on the ridge. Communication site users and applicants would bear an additional expense to access the upper site on foot or by helicopter and would have to work together to share the existing power line at the site.

Under the Proposed Plan, six potential reservoir sites on public lands identified by the State of Utah and the WCWCD would be recognized by BLM. Prior to making any future decisions that would preempt these sites from potential reservoir development, BLM would ensure that the sites undergo a level of review for their unique values associated with the potential for water storage. Development of any of the sites for reservoir purposes would require complete environmental and engineering analysis and public participation prior to consideration for approval.

Withdrawal

The seven areas proposed for withdrawal from mining location and disposition under the land laws would protect significant cultural, historic, recreation, and sensitive species habitat from surface disturbing activities. Lands within the Red Cliffs Recreation Area are considered high potential lands for locatable mineral development, and lands within the Red Bluff ACEC are assessed as having moderate potential for locatable mineral development. Withdrawal of these lands would preclude locatable mineral development of these lands; however, based on the past, current, and projected mining activities in the resource area, it is not anticipated that withdrawal of these small areas would have any measurable impact on the mining industry. All other lands identified for withdrawal are inventoried as lands containing low potential for locatable mineral development, and a reasonably foreseeable scenario does not anticipate any locatable mineral development in these areas.

Impacts on Locatable Mineral Exploration and Prodution

Under this Proposed Plan, 56,149 acres of public lands would be proposed for withdrawal

from the general mining laws. Areas that are currently withdrawn include 4,450 acres. Areas identified for withdrawal within the high to moderate potential for mineral development comprise 6,183 acres within the resource area. This acreage is minimal relative to the public land acres in Washington County and would have little effect on the economic potential for mineral exploration and development as a whole.

By regulation, claimants would be required to file a plan of operation for all mining proposals in areas that are closed to off-highway vehicle use, river segments proposed as suitable for National Wild and Scenic Rivers System designation, or within ACECs. These areas comprise 168,496 acres within the resource area. Restrictions and mitigation requirements for exploration and mining could potentially increase operational costs which would decrease mineral production from economically marginal operations.

In all other areas (except for those withdrawn), a plan of operation is only required for operations disturbing 5 acres or more. An environmental analysis on the plan of operation is required and could lead to stipulations to mitigate potential environmental impacts of mineral exploration and development on public lands throughout the resource area.

Stipulations would be placed on mining activities to protect desert tortoise habitat on the Beaver Dam Slope (33,063 acres). Mining or exploration beyond casual use in critical habitat would be subject to consultation with the FWS and conditions to protect the tortoise and its habitat. This area has moderate to high potential for mineral occurrence and development. The stipulations would increase costs and further impede economically marginal operations.

Restrictions and special conditions on access and development would be imposed by law or regulation on mining activities on 41,169 acres (7 percent of the resource area) where there is non-federal surface ownership and federal minerals. These conditions and restrictions also would discourage mining and exploration for marginally profitable deposits. These areas of restriction are scattered throughout the resource area; however, most are in areas with low potential for mineral occurrence.

Approximately 2,470 acres of public lands identified for transfer are located in areas with high (157 acres) or moderate (2,313 acres) potential for locatable mineral development. Although transfer would not eliminate the potential for mining, private surface use could make mine development impractical unless purchased by the mineral developer.

Designation of utility and transportation corridors would have little effect on the potential for production of locatable minerals until rights-of-way are granted. Five proposed utility corridors would transect high and moderate potential areas for locatable mineral exploration and development in the west portion of the resource area and at Silver Reef. Approximately 27,820 acres within the IPP, Navajo-McCullough, Motoqua to Shivwits, Shivwits to Arizona Border, and I-15 corridors could be utilized for utility rights-of-way. The issuance of rights-of-way would encumber these lands and decrease the economic feasibility for mining. The corridors overlay around 11 percent of the moderate and high potential areas in the resource area.

Under the Proposed Plan, the West Fork of the Beaver Dam Wash would be managed as an antidegradation segment to preserve the water quality of this stream. Extensive mitigation requirements would be placed on proposed heap leach mining operations within this area to prevent potential degradation of the stream water quality. In effect, maintaining this segment as an antidegradation segment could restrict the type of locatable mineral activity allowed in this locality.

The Silver Reef area, north of St. George, has a high potential for mineral occurrence. Such occurrences are generally small, localized ore bodies, and the viability of these operations depend on market economics. The area is becoming highly urbanized and includes many instances of other sensitive resources such as cultural, recreational, and scenic values. Based on the nature of this area, mitigation for mining operations could be extensive and would continue to create conflicts with private land owners and other users. In addition, this is the only

section in the resource area with a high locatable mineral potential that also falls within a Class II visual resource management objective area. This area encompasses approximately 789 acres. Mitigation to protect scenic values and resolve concerns of adjacent landowners could decrease the economic feasibility of mineral production.

None of the planned actions or anticipated activities within the Proposed Plan would affect existing mining operations in the resource area or the projected expansion of the existing mines.

Impacts on Water Resources

Soils and Watershed

The watershed soils of the resource area are shallow and include large areas of badlands, rock lands, dunes, and gypsiferous soils. Management is further complicated by the highly fragmented nature of land ownership patterns. Given the nature of use and development in the county, there is a potential for loss of soils structure and productivity, with resultant impacts on vegetation and water quality from surface disturbance. Impacts on soils are closely linked to impacts on vegetation and water quality.

Through partnership efforts, BLM would: 1) protect community watersheds and sources of culinary water, 2) reduce erosion, stream sedimentation, and salinization, 3) improve water quality in streams and rivers, 4) promote water conservation, 5) assure compliance with applicable pollution controls, 6) provide for human enjoyment while supporting environmental resources, and 7) meet essential community needs by working with local governments to recognize environmentally suitable sites for water storage and associated facilities. These efforts would be implemented through land use restrictions on critical areas having fragile soils, high erosion rates, known sedimentation, and/or salinity problems. Table 3-3 specifically outlines these areas of emphasis and their prescriptions.

Within the 100-year floodplain along rivers and major streams, BLM would retain important watershed functioning lands that would comply with EO 11990 and EO 11988, which require avoidance of development within the floodplains as well as protection of the associated wetland resources. Floodplain management would consist of preservation and restoration of natural and beneficial values along floodplains and discourage structural development. Actions would not be approved within floodplains unless unacceptable impacts could be eliminated. BLM would seek to acquire lands in the resource area and would promote conservation agreements and cooperative management strategies where possible to protect floodplain resources and functions. Overall, management within Washington County would generally result in the maintenance, preservation, and enhancement of floodplains and the natural beneficial values served by floodplains. Ultimately, this could result in reduction of impacts from potential flooding, better water quality, reduction of sedimentation and salinization of water, enhanced riparian areas, and could increase groundwater infiltrations. Best management practices would be used to further the goals and objectives of floodplain management. This Proposed Plan does not identify any specific actions that would adversely impact the floodplains within the resource area. In fact, many actions have been designed so as to improve, enhance, and maintain floodplain values.

Water Resources

Population growth in Washington County continues to result in demands on surface and groundwater. These demands are met through development of springs, wells, reservoirs, water transportation systems for culinary purposes, as well as for recreational, agricultural, and wildlife uses. Protection of culinary water sources is a priority on public lands in accordance with state law. BLM would manage these areas and the Navajo Aquifer high recharge area as municipal watersheds by ensuring management actions do not jeopardize water quality, closing areas to mineral materials sales, requiring mitigation for fluid mineral development, not allowing hazardous materials or landfill sites in these areas, and limiting OHV use except for a high recharge area west of Veyo. Impacts from leaving the Veyo area open for OHV use are not anticipated due to the isolation of the area, the vegetation constraints, and the natural

TABLE 3-3 • Land Use Restrictions on Critical Soil/Watershed Areas

AREA OF EMPHASIS	RESOURCE PROTECTION	ACTIONS
ACECs - Red Bluff, Upper Beaver Dam Wash, Warner Ridge/Fort Pearce	Protect critical watersheds, saline soils, and/or water quality	Fluid Minerals: NSO or special stipulations NSO or special stipulations Some mineral withdrawals ROW avoidance areas Closures to fuelwood harvest, vegetation, and mineral materials sales
City Creek Watershed	Protected through Red Cliffs Desert Preserve HCP	Retire grazing permits Fluid Minerals: NSO OHV: limited or closed Mineral withdrawal Closures to fuelwood harvest, vegetation, and mineral materials sales
Critically Eroding Soils in the West Santa Clara	Protect Critically Eroding Soils	Nonstructural projects such as: vegetation manipulation, enhancing and maintaining riparian systems, adjusting grazing management and human use patterns.
Curly Hollow and Frog Hollow Watersheds, Riparian Areas, and specified areas of Critically Eroding Soils	Protection of the Watershed	OHV restrictions in specified areas ROW avoidance area Fluid minerals: riparian areas are under NSO stipulation, other areas require special stipulations Required reclamations to stabilize soils, encourage reestablishment of vegetation, and cryptogamic soils.

geological restrictions that are not conducive to off-road travel.

BLM would meet the goals of the Colorado River Basin Salinity Control Act by implementing the actions in this Proposed Plan and requiring the use of best management practices, implementing the Standards for Rangeland Health, and ensuring the use of Standards Applied to Surface Disturbing Activities, as described in Appendix 1, to prevent and reduce the movement of salts into the Colorado River Basin.

Rights-of-way constructed within any corridor could potentially impact live streams. If a proposed right-of-way involves a pipeline, construction could involve disturbance and movements of sediments resulting in a short-term increase in total dissolved solids (TDS) that would likely exceed state water quality standards for short periods (36 hours). Under Utah water quality regulations, TDS standards could be adjusted upward if the beneficial uses of the steam segment receiving the materials would not be adversely affected. Best management practices and mitigation of water quality impacts would ensure that domestic water quality would not be measurably reduced.

Permanent water bodies (reservoirs or perennial streams) would be protected by prohibiting surface disturbance within 100 yards of the high water line through the application of 43 CFR 3101.1-2 (200-meter rule) for fluid mineral leasing.

BLM would collaborate with affected interests to determine which segments of rivers warrant minimum instream flow to maintain important water-related resource values. Table 2-7 depicts those segments that could be the subject of such studies. Should instream flow strategies be reached, water related values could be protected from future impacts.

Through state designation of 7 miles of the West Fork Beaver Dam Wash as an antidegradation segment, water-related resource values would be protected through best management practices, requiring plans of operation for locatable mineral development, placing limitations on OHV use, closing the area to mineral materials sales and fuelwood harvest, and by applying an ACEC designation. The North Fork of the Virgin River would also continue to be protected through the existing antidegradation classification.

Where possible, BLM would seek to acquire water rights in coordination with the State of Utah to support public land management purposes, including livestock, wildlife, and recreation uses. This would continue to provide for multiple uses and protection of water-related needs within the resource area.

Issuance of up to 25 rights-of-way per year, disturbing approximately 36 acres per year, could impact portions of the Virgin River, Beaver Dam Wash, Santa Clara River, Ash Creek, Quail Creek, and North Creek. TDS and sediment loads would temporarily increase but would not be expected to violate state water quality standards other than short-term degradation for any of the rivers.

Land uses on up to 18,000 acres that could be transferred out of federal ownership could change from livestock grazing and dispersed recreation to other uses including industrial, commercial, and residential purposes. Degradation would be expected to occur from nonpoint source pollution resulting from growth and development-related activities. During construction, there would be increased urban runoff and sediment production. In the long term, streets, parking lots, buildings, and landscaping would restore cover but would probably increase urban runoff. During rainfall events, water pollution in overland flow and streams near communities would change from high levels of suspended sediments to chemicals from automobiles, fertilizers, pesticides, fuel storage sites, and sewer systems. Overall, water quality would likely deteriorate in the Virgin River, Santa Clara River, and in Short, LaVerkin, and Leeds Creeks, and Fort Pearce Wash from land transfers and subsequent construction. Control of nonpoint source pollution would be difficult.

Acquisition of public access to Deep Creek would increase visitor use. The additional use could cause an increase in human waste and discarded materials entering the streams. Deep Creek is classified as a 1C river by the State of Utah, which means that its water quality should be such that the water is suitable for domestic purposes with prior treatment. Deep Creek has a higher water quality standard and is more at risk from increased visitor use. However, Deep Creek drains into the North Fork of the Virgin River above the "Narrows", a water hike in Zion National Park that receives thousands of visitors each year. Any added pollution that Deep Creek might contribute to the Virgin River could not be detected below the "Narrows."

Of the six potential reservoir sites recognized through this Proposed Plan, it is anticipated that two of the sites could be developed as such over the life of this Plan. Of the six sites, four are located on-stream (Dry Creek, Lower LaVerkin Creek, Grapevine Wash, and Leeds Creek), while two are off-stream sites and would require stream flows to be piped to the proposed locations (Anderson Junction and Warner Valley). Any impoundment would modify the natural flows of the source rivers and receiving tributaries. Usually, this means a reduction in the winter/spring flows and an increase in the summer flows. These changes may be separated by several miles as there is often a considerable distance between where the water is diverted and where the water is reintroduced to the hydrologic system. There is also a net loss of water due to evaporation increases and consumptive water uses. Water quality could improve below the dams because of reduced silt load if the reservoirs were constructed on-stream.

Although the six potential reservoir sites proposed by the State of Utah or the WCWCD are recognized within this Proposed Plan, numerous potential conflicts still exist with many of the sites should construction be proposed. Table 3-4 provides a preliminary screening of issues or conflicts with established resources and with other decisions in the Proposed Plan that would be analyzed in detail should a right-of-way application or land exchange proposal for these sites be forthcoming.

Conversion of 1,220 acres from a pinion, juniper, and sagebrush vegetative type to a grass type would increase runoff before vegetation regrowth occurs. Treatment would take place during late fall and winter to allow for optimum spring growth. Generally, after 1 year, vegetation would improve the overall watershed conditions. Long-term sediment yield would be reduced because increased vegetation cover would protect soils and reduce runoff.

Recreation and/or site development could disturb up to 30 acres near LaVerkin Creek, North Creek, and the Virgin River. The disturbance would be away from the water, although during construction a temporary increase in sediment loads is anticipated. These activities are expect-

TABLE 3-4 • Possible Issues/Conflicts with Potential Reservoir Sites

POTENTIAL RESERVOIR SITE	POSSIBLE ISSUES/CONFLICTS	
Dry Creek (on-stream site)	- Riparian resources - Right-of-way avoidance area - VRM Class II area - Grazing - Dry Creek and Mtn. Dell	- High erosion hazard soils - Fuelwood harvest area - Cultural resources - Allotments
Lower LaVerkin Creek (on-stream site)	- Riparian resources - Right-of-way avoidance area - VRM Class II area - LaVerkin Creek/Black Ridge SRMA - Cultural resources - Grazing - LaVerkin Creek Allotment	- Potential geologic problems with gypsiferous soils - LaVerkin Creek water falls/associated recreation area
Anderson Junction (off-stream site)	- Navajo Aquifer high value recharge zone - High erosion hazard soils - Cultural resources	
Grapevine Wash (on-stream site) WCWCD officials have reported that this site has been found t have limited reservoir potential and is no longer under active consideration (Morgan Jensen, personal communication, 1977)	- Riparian resources - Navajo Aquifer high value recharge zone - Mule deer crucial winter range - Riparian resources - Right-of-way avoidance area - Cultural resources	- High erosion hazard soils/gypsiferous soils - Right-of-way corridor - Cultural resources - Leeds Creek (on-stream site) - High erosion hazard soils/gypsiferous soils
Warner Valley (off-stream site)	- High erosion hazard soils/gypsiferous soils - Grazing - Fort Pearce and Warner Valley	- Sand Mountain SRMA - Cultural resources - Allotments

ed to be within Utah's water quality standards. As recreation use continues to expand, adverse water quality impacts would occur. Although OHV use in riparian/wetland areas would be either limited and closed, enforcement would continue to be difficult. In addition, dispersed camping near creeks, streams, and rivers throughout the resource area would degrade water quality from garbage and human waste left behind. Seasonal camping limitations (October 15 - November 15) of 0.25 miles away from springs, seeps, catchments, and guzzlers on the western part of the resource area during hunting season would provide temporary protection from recreation/hunting-related degradation.

Livestock would continue to use riparian areas for forage, resting, and drinking, except in those areas that are protected through fencing. Concentrated livestock use would result in bank erosion, increased siltation, and load streams with animal waste products. There are 6,771 acres of riparian vegetation included within grazing allotments in the resource area. Reductions in water quality from continued grazing of livestock are not expected to be significant. Monitored streams presently do not exceed State Water Quality Standards for total suspended particulate or colliform bacteria that are indicators of fecal pollution (Utah Division of Water Quality, 1994). However, the Santa Clara River has been identified by Utah DWQ as not fully supporting beneficial uses for fish, wildlife, and municipal use due to high levels of TDS and low levels of dissolved oxygen. It is likely that BLM-authorized grazing contributes only a small portion to this problem because the river flows mostly through private land where intensive livestock grazing and agricultural practices occur. Livestock use, unless modified, would continue to graze in the riparian vegetation for up to 7 months each year along the Santa Clara River, adding to the reduction in water quality.

Impacts to water quality from mineral exploration and development on 800 acres would affect water quality because of stream and wash crossings by exploration and haul roads. Sediments would be increased and organic debris added to the streams that are crossed. Increases would be temporary for exploration but long term if stream crossings were needed for mineral production purposes. Mine sites would be monitored and regulated by Utah DWQ as point sources of pollution. Utah DWQ would assure that water quality would be protected before issuing discharge permits to mining operations.

There are no anticipated activities that would threaten groundwater quality in the 22,650 acre Navajo Sandstone Aquifer high recharge area.

Impacts on Riparian Resources

Overall, the condition and functions of the riparian areas within the resource area are expected to improve through the decisions implemented in this Proposed Plan. Approximately 56 percent of the riparian habitat in the resource area would be maintained in properly functioning condition, while 34 percent is expected to be enhanced toward functioning condition through actions described in this Proposed Plan. The remaining 10 percent of riparian areas are in need of studies to determine condition and actions needed to improve those conditions if necessary. Any activity within riparian areas would be subject to standard or special stipulations in leases or permits, including the stipulations in Appendix 1.

Riparian areas would only be disposed of if equal or better riparian habitat could be acquired by BLM through land exchanges. Goals of exchanges would be to improve and enhance existing riparian areas. Existing Utah BLM Riparian policies would be continued, generally discouraging major new surface disturbing activity within 100 yards of riparian areas.

In general, land acquisition of specified tracts of land would result in increased acreage of riparian habitat on BLM-administered lands. Protection provided on the additional acres could increase plant vigor and species diversity, depending on the current condition of the riparian areas. BLM recognizes that resources located in riparian areas greatly depend on the existence of natural flows. BLM's objective for riparian habitats would be to improve these areas to a properly functioning condition.

Collaboration with affected interests for projects within and near riparian habitats would be key

to the conservation/preservation of these systems. Partnership efforts would also help in the development of strategies to ensure progress in meeting management goals and objectives of these sensitive resources.

Rights-of-way avoidance and exclusion areas identified in this Proposed Plan would protect the majority of 6,771 acres of riparian habitat. This would provide for protection of riparian habitat from potential disturbance due to right-of-way activities. However, this does not preclude surface disturbing activities in riparian areas, specifically when there are no other feasible alternative routes. Any disturbance would be considered short term, consisting mainly of limited removal of riparian vegetation and increases in sediment erosion transport. All disturbance would require intensive reclamation through mitigation stipulations applied to the right-of-way permit or through terms and conditions of the permits.

Locatable mineral exploration could disturb up to 2 acres of riparian vegetation along the West/East Fork of the Beaver Dam Wash and at Silver Reef as a result of potential stream crossings over the life of the Plan. This would be much less than 1 percent of the 6,771 acres of riparian vegetation in the resource area; however, appropriate mitigation measures would help lessen the impact to specific areas on a case-by-case basis. Disturbance at road crossings in riparian areas could result in long term loss of less than 1 acre of riparian vegetation.

Two potential reservoir sites could occur in the following areas: Leeds Creek, Grapevine Wash, Warner Valley, Anderson Junction, Dry Creek, and at lower La Verkin Creek. It is projected that development of the reservoirs could disturb or inundate between 250 to 500 acres in and around the construction sites. Of the six sites identified, four could be developed on-stream (Leeds Creek, Grapevine Wash, Dry Creek, and La Verkin Creek). If an on-stream reservoir is developed, an undetermined amount of riparian vegetation could be destroyed and permanently lost. Off-stream construction of a reservoir would limit disturbance of riparian zones to the diversion sites and would remove minimal riparian vegetation.

Generally, grazing would continue in riparian areas where such riparian areas are considered to be in properly functioning condition and can be maintained in that condition. In those areas where the riparian vegetation is at risk or non-functional, grazing management would be improved through proper livestock control or distribution. Implementation of Standards for Rangeland Health and Guidelines for Grazing Management would identify and provide criteria that requires protection in riparian areas. BLM would continue to conduct assessments and monitoring to determine where problems exist, to determine the cause of the problems, and to take necessary action to remedy the specific situations. Where grazing patterns or increased recreational use are believed to be adversely impacting goals for riparian management, impacts on key riparian species would be monitored on the Santa Clara River below Gunlock reservoir, Santa Clara River Land Hill Segment, and Fort Pearce Wash near the ruins. More segments could be added to this list as resource conditions warrant and priorities allow. If declining trends are identified, BLM would work with livestock operators and other affected interests to establish the causes and recommend corrective actions. These actions could include fencing, barriers, selected closures, vegetation manipulation, and seasonal use restrictions, as well as adjustments in grazing management. Up to 5 acres of riparian vegetation could be disturbed due to fencing and barrier construction. However, because the new facilities would provide more control of livestock movement and distribution of grazing, plant vigor and species diversity would improve riparian vegetation over the long term.

All riparian areas would be protected from additional resource degradation through limited and closed OHV designations. Actual protection afforded would be directly related to the levels of compliance and enforcement received.

Impacts on Vegetation Resources

Vegetation Composition

Through the implementation of Utah's Standards for Rangeland Health, management of vegetation resources would be to ensure that the

amount, type, and distribution of vegetation on public lands reflects desired plant communities. These are communities that produce the kind, proportion, and amount of vegetation necessary to meet or exceed management objectives for a given ecological site. Positive impacts would occur through development and maintenance of communities that would sustain a desired level of vegetation productivity for wildlife, livestock, and nonconsumptive purposes, while maintaining properly functioning ecological conditions. Implementation of management practices as identified and analyzed in the forthcoming Dixie Fire Management Plan, existing allotment management plans, habitat management plans, other activity plans, and wildlife, watershed, livestock, and riparian resources would improve vegetative productivity.

Specifically, the mountain shrub and sagebrush type could be manipulated to maximize habitat diversity by reducing the amount of shrub and sagebrush and increasing grasses and forbs in selected areas. In the pinion-juniper woodland type, habitat diversity would be maximized by reducing the number of trees and increasing desirable shrubs, grasses, and forbs. In riparian areas within the mountain shrub type, habitat diversity would be maximized by maintaining woody species composition while providing for streambank protection through adequate forb and grass cover.

Wherever possible, perpetuation of native plant species would be emphasized. Positive impacts could result through restoration and rehabilitation of disturbed or degraded rangelands with native plant species. However, the seed source may often not be available, or economically feasible, or may not achieve ecological objectives for specific areas. Also, native species may not be able to compete with already established non-native species. Seed mixes used for rehabilitation would contribute to maintaining a diversity of plant species suitable for soils, climate, and landform. Seed mixes would also benefit a range of purposes including, but not limited to, wildlife, watershed, soil retention, livestock, visual resources, and fire ecology.

Temporary livestock grazing closures on burns, reseeded areas, or other treated areas would allow for vegetation reestablishment in these disturbed areas.

In cooperation with Washington County and through cooperative agreements, BLM would continue to provide for the control of undesirable weed species on public land. Integrated weed management proposals could eliminate noxious weed spread prior to their establishment and would attempt to control already established weed populations.

Elimination of desert vegetation sales throughout the resource area would protect highly sought after desert plants, particularly in areas adjacent to growing communities where desert landscaping is becoming ever more popular.

Special Status Plant Species

Listed Species:

Actions identified in the Proposed Plan to protect and enhance, and eventually recover listed species include:

- Retention of habitat in public ownership
- Protection from off-road travel by limiting motorized vehicle use to designated roads and trails
- Acquisition of lands for special status species
- Designation of such habitats as rights-of-way avoidance areas (outside of designated utility corridor routes and the proposed Southern Transportation Corridor route)
- Selected fencing of such habitats
- Public education of habitat areas
- Signing
- Law enforcement measures
- Designation as Areas of Critical Environmental Concern (ACECs) with specific management objectives
- Withdrawal of the Red Bluff ACEC and Warner Ridge/Fort Pearce ACEC from locatable mineral entry
- Closure of listed species habitats to mineral materials sales
- Placing restrictions on fluid mineral leasing by applying a No Surface Occupancy stipulation within the ACECs, and a Special Stipulation (Category 2) in habitat outside of the ACECs. Habitat within city limits is closed by regulation and includes those important areas near and around Webb Hill
- Closure to fuelwood sales
- Closure to vegetation sales

In combination, the listed actions would eliminate direct and indirect impacts or reduce impacts to acceptable levels that would not jeopardize the species. Fencing specific areas to control livestock movement or to eliminate human use would prevent the destruction or removal of special status plants.

Locatable mineral exploration and development could potentially affect the listed plant species habitat outside of the two ACECs proposed for withdrawal. However, the listed species habitat is in a low potential locatable mineral area. Prior to authorization for any mineral-related operation in the listed plant habitat, a Section 7 consultation with the FWS would be required.

An existing bicycle trail within the Red Bluff ACEC would be designated. Maintenance and/or reconstruction of this trail would be subject to Section 7 consultation prior to designation. Partnership efforts would be used to assist BLM in the management and appropriate use of this trail and to enforce proper trail use to protect sensitive species habitat within this area.

A proposed transportation route could traverse through the southern portion of the Warner Ridge/Fort Pearce ACEC, which contains the endangered dwarf bear-claw poppy and the threatened Sileri pincushion cactus. BLM would work with proponents to identify an environmentally preferred route and a Section 7 consultation with the FWS would be required. Mitigation could include land exchanges for equal or better habitat, and/or avoidance of this habitat type and known populations of the plants.

Candidate Species and other Sensitive Plant Species:

The two milk vetches that are on the Federal Candidate Species List occur in tiny isolated populations in the southern part of the resource area. Management of these populations can be difficult.

To reduce conflicts and additional disturbance, habitat areas would be designated right-of-way avoidance areas, and be closed to fuelwood and mineral materials sales. Plants would also be protected by restricting mountain bike use and off-highway vehicle travel to designated roads and trails. Habitat areas in the ACECs would be protected by a No Surface Occupancy category for fluid minerals. Any proposed operations in habitat areas outside of the ACECs would be subject to the standard leasing stipulations identified in Appendix 1. Known candidate species habitat occurs in areas within low potential for fluid mineral development. Chemical herbicides and pesticides would not be allowed on or near these known habitat areas to protect the species and their natural pollinators from impacts of these chemicals. Where necessary, isolated populations of Hermit's Milkvetch under 10 acres in size would be fenced to prevent inadvertent destruction of plants. Development and implementation of a conservation plan incorporating these measures should ensure the protection and enhancement of the two candidate species and eliminate the need for formal listing under the Endangered Species Act. Future conservation agreements for these two candidate plant species would identify threats and provide management options to eliminated such threats.

Other state-listed sensitive plant species (listed in Appendix 4) exist in the resource area; however, little information is available concerning their habitat requirements and baseline species conditions. Joint efforts and cooperative studies will help form strategies for habitat protection to eliminate the need for future protective actions.

Impacts on Fish and Wildlife Habitat Management

General Wildlife

Many proposals throughout the Proposed Plan have been designed specifically to benefit wildlife and wildlife habitat. Such measures could include: 1) acquisition of important habitat, 2) preservation of key habitats, corridors, migration routes, and nesting and spawning areas, 3) consolidation of public lands to improve habitat management, 4) protection of mule deer crucial winter ranges and elk calving areas, 5) maintenance and/or development of additional water sources, 6) continued implementation of existing Habitat Management Plans and completion of the West Zion Habitat Management Plan, and 7) utilization of fire

management and forestry management to improve wildlife habitat in selected areas. This Plan also considers the use of off-highway vehicle restrictions, Category 2 and 3 mineral leasing restrictions, pesticide restrictions, mineral materials sale closures, camping restrictions near water sources, riparian enhancements, and other restrictive measures to protect and enhance wildlife habitats. Analysis of these decisions is discussed under specific program headings.

Limiting adverse impacts to big game crucial habitat from urbanization and encroachment would preserve the integrity of that habitat for migration routes and corridors and access to key forage sites. This would be implemented through consolidation of blocks of public lands as well as limiting potentially impacting uses that could occur on these lands. Crucial deer winter range and elk calving areas would be protected from potential effects of fluid mineral leasing through seasonal restrictions allowed under a Category 2 stipulation. The same seasonal restrictions would be applied to mineral materials sales, forest product sales, and rights-of-way construction. Prescribed burns in selected areas would be used to improve vegetation composition for the benefit of wildlife habitat and big game. Commercial sales and/or prescribed burning of pinion-juniper would be used to improve mule deer habitat in the Potters Peak area.

Seasonal camping restrictions on the western portion of the resource area in and around water sources during the fall hunting season would prevent harassment and ensure access for water needs to big game. Water developments for wildlife needs would be considered as deemed necessary in ongoing and subsequent activity level plans in coordination with the Utah DWR and other interested parties to ensure maintenance of populations and reliable water sources.

Desert bighorn sheep populations would be maintained through collaborative management with the Utah DWR, maintenance of water catchments, and preventing domestic sheep interactions by not permitting changes in class of livestock from cattle to sheep in habitat areas. These actions would preserve the integrity and health of the existing populations.

Viable fisheries habitat throughout the resource area would be protected by off-highway vehicle restrictions, a No Surface Occupancy stipulation for fluid mineral leasing, pesticide restrictions, and closure to mineral materials sales. Enhancement would occur through riparian improvements, stream bank stabilization, gabion construction in suitable areas, water quality improvements, and selected acquisitions in conjunction with riparian management objectives.

Special Status Animal Species

Continued management of public lands in accordance with the goals and objectives of recovery plans, conservation agreements, activity level planning, and the HCP implementation agreement are designed to ensure that management would assist in the rehabilitation of declining populations and prevent the need for future additional listings.

Desert Tortoise

Washington County, in the southwestern portion of Utah, is one of the nation's fastest growing counties and home of the highest density of Mojave desert tortoises in the United States. Actions taken in this Proposed Plan would provide a comprehensive approach to preserving and protecting this species, while at the same time allowing for minimal surface disturbing activities in those portions of habitat that are less essential to the species.

Management Common to All Critical Tortoise Populations and Habitat on the Beaver Dam Slope and within the Washington County HCP Area

Through the establishment of extensive rights-of-way avoidance areas, desert tortoise critical habitat would be protected from surface disturbing activities associated with rights-of-way development. This would include approximately 82,500 acres which encompasses all critical desert tortoise habitat outside of the proposed and existing utility corridors. Avoidance designations would provide for the long-term preservation of these habitats. Where other alternative routes are not feasible, future rights-of-way that are allowed within the critical habitat would have continued protection of the Endangered

Species Act through mitigation stipulated by a Section 7 consultation with the FWS.

All desert tortoise critical habitat would be closed to saleable mineral development (i.e., sand and gravel sales, decorative rock, etc.); therefore, no impacts to tortoise would occur from saleable minerals.

All critical desert tortoise habitat would be closed to fuelwood and vegetative sales to protect tortoise and habitat from plant removal and vehicle damage.

Fire suppression guidelines and techniques in desert tortoise critical habitat would use the least disruptive approach to initial attack and fire suppression needed to extinguish the fire and meet other resource objectives for the affected area. Qualified resource advisors would be onsite during fire suppression to guide firefighter activities and minimize harm to tortoise and important habitats.

Proposed predator control in tortoise habitat would reduce the loss of hatchlings and juvenile tortoise to predators such as coyotes and ravens.

For any activity that may affect the habitat or animal, a Section 7 consultation would provide mitigation and protection.

The Beaver Dam Slope Tortoise Population

BLM is proposing consistent land use prescriptions across state lines designed to protect and help recover declining tortoise populations in accordance with the desert tortoise recovery plans for the Northeastern Mojave Recovery Unit. In Utah, the Beaver Dam Slope ACEC has been proposed for this purpose. In addition, the ACEC would also be managed to protect and further the objectives of the Woodbury Desert Study Area, the Joshua Tree National Natural Landmark, and the maintenance of important desert ecosystems that include numerous other plants and animals listed under state and federal procedures. Although critical habitat for the desert tortoise has been identified outside of the ACEC boundary, BLM has been coordinating with the FWS and the Utah DWR to preserve quality habitat areas and implement land use prescriptions designed to promote tortoise viability and recovery. Such action would allow for the modification of the critical habitat boundary to coincide with the proposed Beaver Dam Slope ACEC boundary.

In this specific habitat area, it is anticipated that approximately 2,439 acres could be acquired for consolidation and protection of critical desert tortoise habitat within the ACEC and long-term population viability.

There are approximately 6,242 acres of critical habitat within two established utility corridors and one proposed utility corridor. The reasonable foreseeable action scenario would be to construct approximately two major rights-of-way within each corridor that could disturb up to approximately 1.5 acres per mile within the Beaver Dam Slope ACEC and other desert tortoise critical habitat. The 1-mile-wide existing IPP corridor contains 4,750 acres of tortoise habitat and traverses approximately 7 miles of the critical habitat. The existing Navajo-McCullough corridor is also 1-mile wide and contains approximately 1,204 acres in a 2-mile stretch through desert tortoise critical habitat. The route of Old Highway 91 across the Beaver Dam Slope from the Shivwits Reservation to the Arizona border contains a proposed corridor that would be limited to the existing right-of-way fence on each side of the roadway and contains approximately 288 acres of critical desert tortoise habitat within about 3.5 miles. Disturbance from future rights-of-way is estimated to disturb approximately 37.5 acres within the three corridors. Prior to additional right-of-way authorizations within the existing corridors, Section 7 consultation with the FWS would be required.

Through a reasonable foreseeable action scenario, it was estimated that up to 800 acres could be disturbed within the high potential locatable mineral area throughout the western portion of the resource area. Map 3.5 in the Draft RMP portrays this extensive area. Desert tortoise critical habitat overlays less than one third of this high potential area. Therefore, a reasonably foreseeable action for lands containing critical habitat could result in additional surface disturbances from potential exploration and/or mining on up to 266 acres on the Beaver Dam Slope. The surface disturbing activities

noted above would result in general wildlife habitat degradation; however, the primary components of good desert tortoise habitat should be maintained from mitigation required through Section 7 consultation with the FWS.

All 63,579 acres of the critical habitat on the Beaver Dam Slope is in a high mineral potential area. In the proposed Beaver Dam Slope ACEC, the whole 48,519 acres would require plans of operation on all proposed mining operations. Such plans would allow the preparation of environmental studies and application of reasonable measures to reduce or eliminate impacts. The other 15,060 acres of critical habitat not included in the proposed ACEC designation would be open for locatable mineral development and plans of operation would be required for all mining related activities causing greater than 5 acres of disturbance. In accordance with the FWS and the Utah DWR, the 15,060 acres of tortoise habitat outside of the ACEC was determined to be marginal habitat for tortoises. The critical habitat designation in this area would be dropped once the ACEC boundary is in place and the proper federal procedures are followed and completed for changing the critical habitat boundary. Under either scenario, impacts to the desert tortoise and its habitat would be mitigated through Section 7 consultation.

Within the 48,519 acres in the ACEC, fluid mineral leasing would be allowed under Category 3 stipulations, constituting No Surface Occupancy. Thus, no direct impact to tortoises are anticipated. On 15,060 acres of critical habitat located outside of the ACEC, fluid mineral leasing would be allowed under a Category 2 stipulation that would limit exploration and development to the tortoise inactive season from October 15 through March 15 of each year. Standard operating procedures, as well as existing state and federal regulations, would ensure avoidance of individual animals in accordance with Section 7 consultation. Because this area is considered low potential for fluid minerals, impacts to desert tortoise would be considered negligible.

Grazing has been an historical use of the Beaver Dam Slope area since the European settlement of southern Utah. Under the Proposed Plan, the majority of critical habitat within the Beaver Dam Slope ACEC area would have spring grazing deferred. In accordance with an earlier biological opinion by the FWS, removal and deferment of spring grazing in portions of three allotments, which include Castle Cliffs, Beaver Dam Slope, and Scarecrow Peak would increase the amount of available vegetation used by desert tortoises for food and cover and is considered necessary to reduce potential conflicts during the tortoise active season. Deferment of spring grazing would also reduce the trampling of shallow dens and pallets. Livestock use within this restricted portion of the ACEC would be in accordance with the Allotment Management Plans (AMPs) which would allow grazing each year, but only during the tortoise inactive period generally determined to be from November 1 to March 15. There would be no authorized livestock use from March 16 to October 31 each year.

There are also approximately 13,803 acres within the ACEC comprising three special management areas recommended by the Utah DWR and BLM, which place emphasis on nontortoise issues and would not require any livestock restrictions. Although portions of the special management areas contain critical desert tortoise habitat, coordinated efforts with federal and state governments have determined that only grazing on portions of the three mentioned allotments need to be deferred. Livestock use within these nonrestricted areas would be in accordance with the four applicable AMPs for Scarecrow Peak, Beaver Dam Wash, Castle Cliffs, and Jackson Wash allotments. The season of use for the first three listed allotments is from November 1 to May 31, and for the Jackson Wash allotment it is from November 16 to May 20. In general, the AMPs prescribe rotational grazing between pastures which would provide periodic rest to areas outside the grazing restriction zone. The nonrestricted areas within the ACEC, which contain low densities of tortoise, represent only a small portion of larger pastures and, as such, would be managed the same as the other lands within those pastures.

Just north of the Beaver Dam Slope ACEC, approximately 15,060 acres of critical habitat would remain open for spring grazing use for those portions of the Scarecrow Peak and Jackson Wash Allotments in accordance with

the AMPs for the allotments. Studies have determined that this area contains very low densities of tortoises. Cattle use in this area is from November 16 to May 20 and rotational grazing occurs between pastures. Allowing spring grazing within critical habitat area would continue interspecies competition for food during the tortoise active season. The potential for trampling would also increase as grazing occurs during the active season. Actual impacts are expected to be low because of the low densities and lower quality of habitat.

The Beaver Dam Slope ACEC is an area of low intensity recreational use consisting mostly of vehicle travel on existing roads in order to see specific points of interest including the Woodbury Desert Study area and the Joshua Tree National Natural Landmark. Within the Beaver Dam Wash itself, increased road use occurs due to the presence of private properties throughout the wash. Through this planning process, OHV use would be limited to designated roads and trails within the ACEC. The rest of the slope area would be limited to existing roads and trails. (See Map 2.13) Limiting OHV use in this manner would eliminate vegetative crushing by cross- country travel, thereby protecting forage and cover. Surface dens and pallets would be protected from damage and the tortoises would be protected from being ran over and accidentally killed. Some mortality could still occur on roads. However, this designation would also reduce road proliferation in the area. Speed limits and road closures would also be determined to help minimize accidental tortoise death from vehicle impacts. Within the ACEC, the "limited to designated roads and trails designation" would require further activity level planning to determine those roads most suitable for continued OHV use within this habitat. Until such time that the activity level plan is completed, existing roads would remain open to use. OHV planning for this area is a high priority and would be done expeditiously. Fences would be constructed as necessary to implement the restrictions and closures.

Additionally, mountain bikes would be allowed to use existing roads and trails, and camping would be restricted to within 25 feet of designated roads to reduce recreation/tortoise conflicts.

No competitive recreational events would be allowed; thus, no impact to tortoise would occur from these types of events.

BLM would continue to authorize and support research needed to determine habitat requirements, causes of increased mortality, and other essential factors related to the management of the desert tortoise and its eventual recovery. BLM would also collaborate with the FWS, Utah DWR, university researchers, and other interested parties in developing and implementing monitoring studies that would evaluate population trends, tortoise health, vegetation condition and trends, and other factors needed to assess the effectiveness of management actions. Where it is determined that recovery objectives are not being met, BLM would work with its interested partners to determine the cause of such failure and to adjust its management prescriptions accordingly.

In addition, BLM would also implement public education and enforcement actions needed to accomplish the objective of tortoise recovery. Public education would increase the awareness of important desert ecosystems in Washington County.

The restrictive measures provided for in the Proposed Plan are in near complete accordance with the Desert Tortoise Recovery Plan and could significantly reduce desert tortoise mortality resulting from human-induced sources and serve to maintain habitat and ecological integrity. It would also maintain long-term viability and promote future recovery of the species.

The Washington County HCP Tortoise Population

BLM has and will continue to work collaboratively with HCP partners to accomplish the goals and objectives of the HCP which were designed to provide a comprehensive approach to preserve and enhance Mojave desert tortoise habitat north of St. George City. HCP partners include Washington County, the Utah Department of Natural Resources, the FWS, the town of Ivins (representing numerous municipalities), and the BLM. These coordinating entities have signed an implementation agreement to continue to implement the terms of the HCP.

All parties would be involved in monitoring the status of tortoise and conducting studies needed to accomplish HCP objectives. Such studies could lead to adjustments in reserve management to promote recovery of tortoise in the reserve. BLM will work with its partners to pursue a congressional designation of National Conservation Area to ensure continued recognition and support of critical reserve values.

Restrictive prescriptions within the HCP Reserve are in accordance with the Desert Tortoise Recovery Plan and the HCP protocol. These actions have been extensively coordinated with federal, state, and local agencies.

Although this is a right-of-way avoidance area, the HCP could still authorized new rights-of-way in accordance with protocols established in the HCP for such purposes. The protocols are intended to avoid the most sensitive areas in the reserve and to limit habitat disturbance. In addition, BLM would recognize a utility corridor within the existing, fenced right-of-way on State Highway 18. Only a few acres of public lands currently lie within this corridor in the HCP Reserve.

Through land acquisitions, publicly-owned tortoise habitat could be increased by up to 18,000 acres. The majority of these acquisitions are anticipated to occur within the HCP Reserve area north of St. George, Utah. These acquisitions would protect some of the highest quality habitat in Washington County. Acquisition would provide for the consolidation of habitat, which would help to ensure a viable long-term population of desert tortoises. All of these acquisitions would increase special status animal species land base and would facilitate consistent management and protection of these species. Lands acquired by BLM within the HCP would be managed in accordance with prescriptions planned for the remainder of the area.

All of the public land and split-estate land in the HCP Reserve is proposed for a locatable mineral withdrawal constituting approximately 45,270 acres. The proposed withdrawal of this critical habitat from locatable mineral exploration or development would provide long-term protection from mining-related surface disturbing activities. Lands that are later acquired within the Reserve would also be withdrawn from locatable mineral entry.

Fluid mineral leasing would be allowed within the HCP Reserve under a Category 3 stipulation (No Surface Occupancy), which would preclude all direct or indirect impacts from exploration or development of these resources. Those portions of the HCP Reserve that fall within incorporated city boundaries (1,088 acres) are closed to fluid mineral leasing by law.

Under this Proposed Plan, livestock grazing would be eliminated in four allotments within critical desert tortoise habitat in the HCP Reserve. All of the critical habitat, except for Zone 4, would be improved through the complete removal of livestock grazing in the four allotments. The allotments in which grazing would be eliminated include the Alger Hollow, Red Cliffs, Yellow Knolls, and Washington allotments. Removal of grazing would eliminate interspecies forage competition and increase the amount of available annual and perennial vegetation used by desert tortoises for food and cover, and would eliminate trampling of shallow dens and pallets.

Public lands within Zone 4, as well as lands outside of the critical habitat within the HCP Reserve, would continue to allow grazing. Spring grazing in Zone 4 has been voluntarily deferred by the permittees to conform to FWS recommendations in biological opinions; however, the HCP protocol does not require this. Grazing permits in Zone 4 could be retired as a result of negotiated agreements with the permit holders to further protect tortoise habitat.

Lands acquired through exchange or purchase within the HCP Reserve would not be opened to grazing; therefore, no impact to tortoises would be expected in these areas.

Due to the location of the HCP Reserve close to the urban centers of Washington county, extensive recreation use continues to expand within the HCP Reserve and surrounding areas. Known recreation uses within the Reserve include rock climbing, mountain biking, horse-

back riding, hiking, camping, and off-highway vehicle use. An activity level plan to determine specific trails and use areas for these activities is currently under way. Off-highway vehicle use within the HCP Reserve would be limited to designated roads and trails. The activity level plan would also determine roads that would remain open for vehicle use as well as roads that would continue to be needed only for authorized uses. Such planning would be geared towards reducing resource conflicts and eliminating competitive events that could adversely impact desert tortoise. The impact of designation would be the same as that described for the Beaver Dam Slope.

That portion of the HCP Reserve that has primitive recreation values would be closed to all off-road vehicle travel to preserve the natural values associated with the area; thus, no impacts to tortoise would occur from off-highway vehicle use in that area (see Map 2.13).

In those areas where vehicle use would be limited to designated roads and trails, speed limits would be established to reduce the likelihood of accidental mortality from vehicle impacts.

Fences would be constructed as necessary to control tortoise movements and to prevent vehicle or pedestrian traffic within areas of the HCP Reserve. These fences would be built along major traffic routes or areas with the potential to cause habitat disturbance. Fencing of Reserve boundaries would help keep both domestic predators (pets) and diseased desert tortoises that may be released by the public near urban areas from entering the Reserve.

Although BLM was directed to plan for Wilderness Study Areas (WSAs) as if Congress released them from wilderness consideration in this planning effort, there is one WSA completely incorporated within the HCP boundary, and one WSA partially within the HCP boundary. Until such time as Congress acts, management of the Cottonwood Canyon WSA and the Red Mountain WSA will continue to be guided through the Interim Management Policy and Guidelines for Lands Under Wilderness Review (BLM Manual Handbook H 8550-1). Stringent management practices within WSAs would protect tortoise habitat from surface disturbing activities.

The specific measures addressed above and as provided for in the Washington County Desert Tortoise Take Permit EIS could significantly reduce desert tortoise mortality resulting from human-induced sources and serve to maintain habitat and ecological integrity. It would also maintain long-term viability and promote future recovery of the species.

Other Habitat Areas

A few small, isolated areas represent fragmented habitat and would be managed in accordance with proposed land use prescriptions in the Proposed Plan as follows:

- One Category III habitat comprising approximately 83 acres northwest of Gunlock Reservoir would be open to most land uses including rights-of-way, locatable mineral exploration and development, fluid mineral development, mineral materials extraction, and would be open to OHV use. All of these land uses have the potential to cause direct impacts to tortoise and habitat. Prior to approving site-specific activities, clearances for tortoises would be required. Section 7 consultation would occur prior to any surface disturbing activity if BLM determines that a proposal may effect any listed species.

- A Category I habitat area lies mostly within the Red Cliffs Recreation area. The only uses allowed within this area are for recreational purposes, which include hiking and camping. All OHV use is limited to designated roads and trails. This is a heavy use area and tortoise harassment or collection could occur.

- Those areas outside of the HCP Reserve and the ACEC within critical desert tortoise habitat are designated Category II for fluid mineral leasing, limiting exploration and development to the tortoise inactive season from October 15 through March 15.

- All critical tortoise habitat would be closed to fuelwood and mineral materials sales and designated right-of-way avoidance areas outside of utility corridors.

Overall, the standard stipulations applied to surface disturbing activities provided for in Appendix 1, as well as the requirements of Section 7 consultation within known tortoise areas outside of the HCP Reserve and Beaver Dam Slope ACEC would minimize impacts to desert tortoise and its habitat.

Woundfin Minnow, Virgin River Chub, and Virgin Spinedace

Continued implementation of the 1995 Virgin River Fishes Recovery Plan and the 1995 Virgin Spinedace Conservation Agreement and Strategy provide the goals necessary to ensure that subject species would continue to be maintained at viable population levels and would also pursue down listing and recovery of these species. Actions include eliminating potential adverse threats to the fish and their habitat through decisions made under the Riparian, Water, Recreation, OHV, Grazing, Lands, Energy and Minerals, and Wildlife sections. Some of these measures would include the improvement of water quality, floodplain protection, point and nonpoint source pollution control, land acquisition, rights-of-way avoidance areas, riparian restoration, habitat enhancement, and elimination of species considered a threat. In addition, BLM would continue its policy of ensuring Section 7 consultation of any activity considered to be a "may affect" on any of these species.

Approximately 4 river miles of Virgin River fish habitat would be withdrawn within Washington County HCP Reserve from locatable mineral entry and 53 river miles would require a plan of operation for all surface disturbing activities within the four affected ACECs. All other mining activities disturbing over 5 acres would require a plan of operation outside of these areas. In effect, all mining activities, including notice level operations, would be required to prevent undue and unnecessary degradation of resources. This would include substantial compliance with all state and federal environmental laws and regulations. Regardless of the size of the mineral operation, if a "may affect" situation is determined by BLM's authorized officer, the FWS must be consulted.

The vast majority of all Virgin River fish habitat would fall under a No Surface Occupancy fluid mineral leasing category through a stipulation to protect riparian resources. In addition, 43 CFR 3101.1-2 provides for movement of leasing operations up to 200 meters which would be applied to reservoirs and perennial streams where necessary to prevent surface disturbance, pollution, and sedimentation from any actions within these riverine areas.

No mineral materials developments would be allowed within any riparian areas, thus protecting Virgin River fishes and their habitats from those types of surface disturbing activities.

Construction of recreational barriers along the Santa Clara River would enhance 88 acres (2.7 miles) of Virgin spinedace habitat. These recreational barriers would close some roads and parking areas on a yearly rotational basis. Fewer visitors and limiting OHV use would protect riparian vegetation and stream banks from degradation. Long-term protection of Virgin spinedace habitat is anticipated from this action.

OHV use would be either closed or restricted within all riparian habitat containing woundfin, Virgin River chub, and Virgin spinedace. Threatened and endangered and sensitive fish species habitat would be protected from loss of riparian vegetation and excessive stream siltation through this closure or limitation. In addition, OHV use would be eliminated in the actual stream channel which could favorably affect reproduction of these fish.

Up to two potential reservoir sites provided for on public lands could require a Section 7 consultation for woundfin minnow and Virgin River chub to determine if these reservoir sites could be constructed without jeopardizing the continued existence of these species.

Special status animal species and their habitat would be protected from surface disturbances through designation of ACECs and implementation of land use planning prescriptions. Designation of the Lower Virgin River ACEC (1,822 acres) would provide protection for the

woundfin, Virgin River chub, Virgin spinedace, desert sucker, and flannel-mouth sucker habitat. Designation of Santa Clara River ACECs for Land Hill and below Gunlock (3,643 acres) and the Upper Beaver Dam Wash ACEC (33,063 acres) would provide protection for Virgin spinedace habitat.

Even given the above management actions, continued recreation activities, grazing practices, and OHV use would continue to degrade minimal areas of habitat on a short-term basis along riverine systems.

Peregrine, Bald Eagle, Golden Eagle, and Mexican Spotted Owl

There are approximately 6,951 acres of mapped habitat on public land in Washington County for the peregrine falcon, bald eagle, golden eagle, and the Mexican spotted owl. BLM would continue to implement existing recovery plans, conduct inventories, protect nesting sites and aeries, and preserve associated habitats through the following actions:

- Nesting sites and activities would be protected by requiring a fluid mineral leasing Category II seasonal stipulation applied to 0.5 mile around active nest sites from February 1 through June 30 for the golden eagle, March 15 through June 30 for the peregrine falcon, and February 1 through August 31 for the Mexican spotted owl. These seasonal restrictions would also be applied to all authorizations including fuelwood permits, construction activities, and competitive recreational permits. Rights-of-way avoidance areas would cover approximately 5,673 acres of these habitat types and 460 acres in the exclusion area, thus providing for the long-term preservation of the species.

- Approximately 1,615 acres of mapped habitat for these raptor species would be proposed for withdrawal from all mineral activity, thereby eliminating potential conflicts with locatable mineral exploration or development. Locatable mineral plans of operation would be required for all surface disturbing activities on 3,101 acres of raptor habitat that fall within ACECs or closed OHV areas. Under a plan of operation, impacts to these species would be mitigated through Section 7 consultation with the FWS; however, unavoidable adverse impacts may still occur to these species due to the nature of hard- rock mining operations. Acreage that is not protected by withdrawal or a plan of operation (2,236 acres) would have continued protection under the Endangered Species Act. All of this habitat is within low potential locatable mineral areas.

- Mineral materials operations would not be allowed within any of these habitat types, thereby protecting these species from surface disturbing activities related to mineral materials authorizations.

- Protective prescriptions proposed for the HCP Reserve, Canaan Mountain ACEC, and the Deep Creek SRMA would also provide protection for nesting sites and associated habitat. Additional protection is provided to these species through restrictions in riparian habitat areas. Proposals for new actions outside of riparian areas that could impact bald eagles would only be approved after mitigation is applied and Section 7 consultation is completed with the FWS.

- New feeding areas could be created for peregrine falcons and bald eagles by potential construction of up to two new reservoirs on public lands within the resource area. These potential reservoir sites could provide a new prey base for peregrine falcon and wintering prey habitat for bald eagles.

- Raptor habitat for the peregrine falcon, bald eagle, golden eagle, and Mexican spotted owl would be protected through OHV closures on 3,138 acres, OHV limitations to designated roads and trails on 1,737 acres, and OHV limitations to existing roads and trails on 2,077 acres. During nesting periods, disturbance and stress associated with human activities in the vicinity of a raptor nest could cause direct and indirect impacts, including nest abandonment or loss of young. Sensitivity varies by type of disturbance and species. Any direct or indirect impact

from OHV use that causes disturbance to nests and results in the disruption of the nesting cycle or mortality of the young is illegal under federal law. Therefore, it is important that closures and limitations to OHV use for the protection of these species be implemented.

- Surface disturbing activities that could impact special status species or their habitat would be prohibited on river segments with a tentative classification of wild and proposed as suitable for congressional National Wild and Scenic Rivers System designation. Protective management would remain in effect during the interim period until Congress dismisses or designates these segments as either wild, scenic, or recreational river segments. Suitability recommendations for Deep Creek, Kolob Creek, and East Fork Virgin River segments would provide protection for peregrine falcon, Mexican spotted owl, and goshawk habitat. In addition, raptor habitat along LaVerkin Creek and the Virgin River near the Beaver Dam Mountains Wilderness Area would also have continued protection.

Southwestern Willow Flycatcher

Currently no designated critical habitat exists in Utah for the Southwestern willow flycatcher and no recovery plan is in place for this species. BLM would continue to work with partners to increase its knowledge base of this species. In general, enhanced protection would occur based on restrictive riparian management described throughout the Proposed Plan including: 1) Category III (NSO) for fluid minerals, 2) OHV closures and limitations, 3) rights-of-way avoidance area designation, 4) prohibition of fuelwood and mineral materials sales, 5) retention or acquisition of potential habitat, and 6) and applying seasonal restrictions from April 1 to August 31 on all other activities. Future studies could result in actions to promote the reestablishment of desirable plant communities (willow and cottonwood) as a benefit to the species. OHV closures or restrictions in riparian areas would also protect 1,964 acres of potential Southwestern willow flycatcher habitat. Both the improvement of riparian vegetation and the absence or restrictions of OHV disturbances would be beneficial for these species.

Other Sensitive Species

State-listed species are numerous and are listed in Appendix 4. Little information is available concerning their habitat requirements and baseline population conditions. Cooperative studies would help form strategies for habitat protection to eliminate the need for potential listing. A few listed strategies for specific species include:

- Management of livestock to promote expansion of riparian vegetation in the Fort Pearce Wash would improve approximately 40 acres of spotted bat habitat by expanding their foraging area. In addition, this spotted bat habitat would also be protected from excessive recreation use by prohibiting overnight camping in the riparian area at historical Fort Pearce. Habitat outside the 40-acre area within the Warner Ridge/Fort Pearce ACEC would limit OHV use to designated roads and trails. Mineral activity would also be restricted or closed. No pesticides would be allowed within the riparian zone.

- Future habitat requirements would be determined for the northern goshawk and the ferruginous hawk, and management prescriptions would be identified to ensure population levels are maintained or enhanced.

- All native species that are water/riparian dependent would be protected or would benefit through measures brought forth under the Riparian and Water Resources sections of the Proposed Plan. Special status species occurring within the HCP Reserve would also be fully protected or would benefit through management decisions being implemented in this area. ACECs, SRMAs, and other areas containing special land use prescriptions within the resource area would serve to benefit many species indigenous to the area.

Impacts on Livestock Grazing

Specific actions in this Proposed Plan that would impact livestock grazing include land dis-

posal and retention policies, retirement of grazing permits on HCP Reserve allotments, deferment of spring grazing on portions of three allotments, and the possible construction of two reservoir sites on public land. In addition, implementation of the Secretary of the Interior's approved Utah Standards for Rangeland Health and Guidelines for Grazing Management would result in assessments to determine if the standards are being met. Where progress is not being achieved and grazing is determined to be a contributing factor, existing grazing systems and practices would be modified so as to bring about positive change. Modifications could include changes to grazing systems, changes in grazing seasons of use, allotment categorization revisions, fencing, new water developments for improved distribution and utilization, adjustments in livestock numbers, and vegetation treatments or manipulations. These changes would be made after monitoring studies determine that a change is warranted and affected interests are fully involved with the process. This would require case-by-case NEPA analysis, generally at the activity plan or allotment management plan level.

The transfer of up to 18,000 acres of public land would result in the actual loss of permitted AUMs, thereby potentially impacting livestock operations in the resource area. The disposal parcels are interspersed throughout the resource area and overlay portions of 24 allotments and could impact many permittees that are associated with the permits. This number varies because some permittees hold permits to more than one allotment, and some allotments have up to seven permittees. Disposing of the identified lands could decrease available livestock forage by approximately 900 AUMs (3 percent of the total AUMs permitted in the resource area); however, not all of the affiliated allotment permits/permittees would be impacted by this loss. Some of the land disposals would only impact very small portions of some allotments, and the operation may not be affected at all if AUM reduction is not significant. Until a specific exchange has been proposed, the number of AUMs that could be lost or the impact to specific permittees cannot be identified. It is not expected that large, economically viable ranching operations would be significantly impacted by the land exchanges, particularly in the western part of the resource area or in special management areas where land retention policies are applied. Smaller operations near the urban interface could be impacted the most, inasmuch as key waters, access routes, and small public land pastures could be lost in a single exchange. BLM would work with permittees and exchange proponents to resolve such conflicts, to the extent possible, during the exchange negotiations.

The desert tortoise HCP called for the elimination of grazing privileges in portions of the Reserve where operators were willing to relinquish their permits. This would impact four allotments (Alger Hollow, Washington, Yellow Knolls, and Red Cliffs) and eliminate 1,333 AUMs from public land grazing. Washington County would compensate the permittees, and BLM would permanently retire those permits for the protection of desert tortoise habitat. Voluntary relinquishments of other grazing permits within the HCP Reserve could further decrease AUM availability for public grazing purposes. Private and state lands that would be acquired within the HCP Reserve would be closed to grazing and no permits would be issued in this area. Grazing permits still exist within Zone 4 of the HCP Reserve and encompass 137 AUMs. Grazing remains an allowable activity within this zone of the HCP Reserve as long as current permits are held in force.

Under the Proposed Plan, the majority of desert tortoise critical habitat within the Beaver Dam Slope ACEC area would have spring grazing deferred. In accordance with an earlier biological opinion by the FWS, removal and deferment of spring grazing in portions of three allotments, which include Castle Cliffs, Beaver Dam Slope, and Scarecrow Peak, would benefit desert tortoises by eliminating competition for spring forage. Livestock use within the restricted grazing portion of the ACEC would allow grazing each year, but only during the tortoise inactive period generally determined to be from November 1 to March 15. There would be no authorized livestock use from March 16 to October 31 each year. This would have impacts on the 13 permittees associated with the three allotments. The same number of AUMs would continue to

be permitted; however, impacts to the permittees are dependent on the flexibility of their operations. Although the restrictions could impose financial impacts and some inconveniences, discussions with the affected operators indicate that they would have adequate lands outside the ACEC to maintain their operations through the spring season.

There are also approximately 13,803 acres within the ACEC comprising three special management areas recommended by the Utah DWR and BLM which place emphasis on nontortoise issues and would not require any livestock restrictions (see Map 2.9). Although portions of the special management areas contain critical desert tortoise habitat, coordinated efforts with federal and state governments have determined that spring grazing does require deferment in these special management areas. Livestock use within the nonrestricted areas would be in accordance with the three applicable allotment management plans (AMPs) for Scarecrow Peak, Beaver Dam Wash, and Castle Cliffs allotments. The season of use for the three listed allotments is from November 1 to May 31. In general, the AMPs prescribe rotational grazing between pastures which would provide periodic rest to areas outside the grazing restriction zone. The nonrestricted areas within the ACEC, which contain low densities or no tortoises, represent only a small portion of larger pastures and as such would be managed the same as the other lands within those pastures.

Immediately to the north of the Beaver Dam Slope ACEC, approximately 15,060 acres of critical habitat would remain open for spring grazing use for those portions of the Scarecrow Peak and Jackson Wash Allotments in accordance with the AMPs for the allotments. Studies have determined that this area contains very low densities of tortoises. Cattle use in this area is from November 16 to May 20 and rotational grazing occurs between pastures. Allowing spring grazing within this area would continue interspecies competition for food during the tortoise active season. The potential for trampling would also increase as grazing occurs during the active season. Actual impacts are expected to be low because of the low densities and lower quality of habitat. As a result of communications from the FWS, BLM would expect that once the HCP Reserve and Beaver Dam Slope ACEC are in place, any designated critical habitat for the tortoise outside of those special management areas would be withdrawn. (Robert Williams, personal communication and letter of July 21, 1997).

Construction activities associated with any two of the six potential reservoirs sites could disturb, through inundation and associated construction activities and/or recreational development, up to an estimated 500 acres at Warner Valley (the largest proposed dam site). A second smaller reservoir site could disturb up to another 250 acres. The reservoirs could be located on any of the following allotments: Mountain Dell/Dry Creek, Warner Valley/Fort Pearce, and LaVerkin Creek. This could reduce livestock forage by up to 50 AUMs or more depending on the vegetation condition of the sites. Placement of a reservoir on these allotments could further influence impacts to the permittees. In addition, potential increased visitor use associated with the reservoirs could disturb livestock and cause a greater chance of public and livestock interactions or conflicts.

Grazing allotments and permittees would continue to incur growing impacts from extensive recreational activities throughout the resource area. Off-highway vehicle use is of primary concern to permittees. These vehicles allow for access to areas that are often remote and could generate problems with grazing management when gates are not closed after use, essential forage is crushed, riparian systems are impaired, as well as other concerns. Often, heightened recreation use can increase the chances for vandalism to range projects and disturbance to livestock. In addition, dispersed camping along sought after riparian/riverine systems, along with OHV use, can cause riparian damage that is often blamed solely on livestock grazing. The Proposed Plan has limited or closed OHV use in riparian areas to help rectify this problem.

Overall, changes to livestock operations as a result of land adjustments, special habitat areas, and implementation of management constraints could adversely affect grazing operations within the resource area. Up to 900 AUMs could be lost as a result of land exchanges outside of the HCP Reserve, and up to 1,333 AUMs would be eliminated within the HCP Reserve. Additional

impacts could occur as a result of permittee adaption to the changes on the Beaver Dam Slope. Projected monitoring and protection of sensitive resources could change allotment protocols and further reduce AUMs. Such changes could result in the added cost of livestock administration for both the permittee and the BLM. Additional AUMs could be lost if small portions of allotments become unmanageable after land exchanges are completed or if up to two reservoirs are constructed on the potential sites.

Impacts on Recreation

This Proposed Plan would allow BLM to partially accommodate the trend of increased visitation and recreational use of public land. However, recreational use would be restricted, where necessary, to protect other resources. Developed recreation sites on state and federal lands are frequently at or above peak capacity during the year. As a result, public lands are increasingly used to accommodate recreationists turned away at the limited number of developed facilities, or who wish to enjoy an unregulated, dispersed experience. As growth increases, user/resource conflicts would continue to escalate. In the future, collaborative partnerships would guide the development of recreation plans, recreation opportunities, maintenance of facilities, as well as development of new facilities. Partnerships could assist BLM in reducing potential conflicts between various recreational groups, other established uses, and private land owners. Public education efforts would help reduce unacceptable impacts to important at risk resources, including wildlife habitat, riparian areas, fragile soils, water quality, cultural resources, wilderness values, and threatened and endangered species. Prospective fee collection for the enjoyment of public lands could be used to help maintain public facilities.

Generally, most lands within the resource areas would remain open to most forms of outdoor recreation. Limitations placed on off-highway vehicle use are discussed later in the section, Impacts on Off-Highway Vehicle Management.

Lands within the resource area would generally remain open to mountain bike use. There are 91,704 acres that would be closed to use to protect sensitive resources. Two of these areas, the Fort Pearce Wash Historical Site and the Dinosaur Trackway are areas that currently receive some mountain bike use, although they are not popular areas for riding. The Red Bluff Proposed ACEC is a popular riding area outside of St. George. This area would allow riding on one designated bike trail, thus limiting the current riding capacity in that area. Sensitive areas surrounding St. George and outlying communities would be restricted or closed to mountain bike riding, and riders would have to relocate to other nonrestrictive areas. All areas that have been specifically identified as limited to designated roads and trails for OHV use would also apply to mountain bikes. This would encompass 112,286 acres. BLM would work with user groups and interested agencies to sanction, improve, or relocate existing trails, and to develop new trails to meet user needs and provide safe and environmentally sound riding opportunities. Up to 60 miles of such trails could be developed over the life of this Plan on public lands in Washington County.

Extensive Recreation Management Areas (ERMAs)

As part of this Proposed Plan, BLM recognizes that approximately 501,630 acres of public land would be categorized as ERMAs. Recreational opportunities here would typically be extensive, unstructured, and unregulated in character.

Recreation use in the ERMAs would be enhanced through the maintenance of established campgrounds, development and designation of hiking, biking, and equestrian trails, and trailheads, rock climbing areas, and interpretive facilities with improved access. In addition, potential reservoir development could enhance associated water-based recreation. Construction of new trails or maintenance of existing trails would expand hiking and horseback riding opportunities as well as increase visitor use in the areas being considered for new development. For example, collaborative partnerships would assist in the creation of the 48-mile-long multiuse trail system and greenway along river corridors between Zion National Park to Gunlock Reservoir, and would enhance visitors' recreational experiences and opportunities within Washington County.

Closing the public lands to camping within up to 1 mile of Red Cliffs and Baker Dams

Recreation Areas would restrict group and family camping on approximately 420 acres of public lands. Campers would either have to camp in established campgrounds or would have to travel to dispersed areas outside of the radius. Overall, this restriction would enhance the recreational experience for fee-paying campers as there would be a decrease in noise and activities at night, as well as less degradation of resources adjacent to campground facilities. This action could also help alleviate trespass problems stemming from public camping on private land around the Baker Dam recreation site. In the dispersed areas, this action would enhance the visitor's visual experience, reduce crowding and litter, and prevent sanitation problems from high levels of human waste.

Although Red Cliffs and Baker Dam Campgrounds would not be closed to OHV use, OHVs would be limited to designated roads and trails. Noise pollution and dust created by OHVs within these established sites would be reduced.

Potential future land acquisitions on numerous identified parcels could increase land base in riparian/riverine areas along the following rivers, washes or creeks: Virgin, Santa Clara, Beaver Dam, Kolob, Crystal, Deep, North Fork, and La Verkin. The parcels would include up to 4,000 acres of land that are, in part, associated with riparian values. Many of these tracts of land would consolidate and increase the BLM land base in primitive recreational opportunity spectrum (ROS) areas. The addition of these lands would increase and open up opportunities for primitive and water-based recreational experiences on public lands.

BLM would seek to acquire easements, identified in the Lands section of the Plan, that could substantially improve public access for recreational purposes as well as increase visitation in areas that are not presently accessible to the public. Some of the identified easements would increase visitor use to the Virgin River for scenic and recreational experiences, as well as create access to areas currently closed by surrounding private lands for hiking, camping, hunting, sightseeing, and other recreational uses.

Locatable mineral exploration and development would not significantly impact the recreation program because the areas with high potential for production of minerals are not within major destination or camping sites and there would only be a small amount of disturbance over the life of the Plan. The proposed withdrawal of 1,178 acres at Red Cliffs Recreation Area and 270 acres at Baker Dam Recreation Area would maintain and protect these areas and their surrounding values from potential surface and subsurface disturbance related to mining.

The potential construction and operation of two new reservoirs could cause a shift from riverine-based recreational activities to reservoir-based recreation activities in the areas chosen for the reservoir sites. Overall, there would be an increase in water-based and affiliated recreation. Increase in visitation would depend on management criteria set by the state or county for the reservoirs. Further recreation impacts from reservoir development are unknown at this time, and would require additional site-specific analysis when applications for development are submitted to BLM. New reservoirs could create a moderate increase in user days if the reservoir sites are developed for recreation use.

The restriction on camping from October 15 to November 15 within 0.25 miles of 12 springs, all water catchments, and all Utah DWR guzzlers west of the Santa Clara River would restrict hunters and their hunting parties from camping on these highly used areas. Many of these campsites have been used year after year by the same hunting parties who would be displaced to other areas away from wildlife water sources.

Livestock grazing would continue to create conflicts with some recreationists by diminishing the recreational experiences in certain locations, primarily riparian areas. BLM would strive to take necessary actions to reduce conflicts between grazing and other resource uses and values where the need exists.

Development and implementation of an activity level management plan for Bloomington Cave would serve to control the unchecked recreational impacts of this unique resource and protect the cave from further degradation. Potential restrictions would be placed on public use of the cave to ensure the long-term preservation of the cave and its resources.

Organized groups of more than 75 people using public land in the ERMAs for camping and other purposes would be required to obtain a letter of authorization from the resource area and provide their own sanitary facilities. This stipulation would reduce litter and sanitation problems, and provide user information for the BLM recreation program. It would also provide BLM an opportunity to reduce overcrowding and prevent group conflicts in popular, unregulated areas.

A 0.5 mile buffer zone along the Smithsonian Butte Back Country Byway would protect sightseeing opportunities for visitors; however, it would also restrict camping in an area that is largely used as an overflow for Zion National Park visitors. Camping restrictions would reduce litter and prevent sanitation problems along the Byway.

The construction of a Zion National Park entrance station and possible ranger residence near North Creek would facilitate management of Zion National Park by enhancement of visitor contact, easier availability of park permits, and dissemination of information by the National Park Service and BLM. Through this information system, present conflicts with private land owners in the Kolob area could be decreased. A new entrance station would increase fee collection revenues for the Park.

Special Recreation Management Areas (SRMAs)

As part of the Proposed Plan, BLM recognized that approximately 127,375 acres, containing five areas, would be managed as SRMAs. Recreation opportunities in these areas would be managed more intensively to protect the natural values and unique resources associated with these areas. (See Map 2.12)

1. Sand Mountain SRMA:

The main attractions to this SRMA would be the proposed Sand Hollow Reservoir (now on adjacent private lands), the Dinosaur Trackway, Fort Pearce historic ruins, and off-highway vehicle riding on the red sand dunes. Management of this area could be guided through partnership efforts and cooperative management with the Utah State Parks and Recreation, the WCWCD, and private landowners. New OHV staging areas, parking areas, information displays, and visitor facilities could accommodate and enhance the increased recreational and OHV use in this area.

Competitive OHV events in this SRMA would continue to be authorized on a yearly basis. In order to minimize cumulative impacts to watershed values, these events could be rotated among other established courses in this area. This could include connective trails with Arizona, and could provide for recognized OHV loop systems between both states. Competitive events would be limited by the number of personnel and other help available to monitor and administer such events.

Also within the SRMA, collaborative management would be used to identify, develop, and maintain up to 50 miles of equestrian trails near Sand Mountain. Organized events on these trails would be managed to avoid conflicts with sensitive resources and off-highway vehicle use. Trails of this nature would help satisfy the growing demand for equestrian facilities in the resource area.

Closing the public lands to camping within a 1-mile radius of the Dinosaur Trackway and Fort Pearce would force people to travel to dispersed areas outside of the radius. This would reduce camper density in those areas, thus enhancing the visitor's visual experience, reducing litter, and preventing sanitation problems. Both of these 40-acre sites would also be closed to off-highway vehicle use.

In addition, proposed withdrawals from locatable mineral development within the Warner Ridge/Fort Pearce ACEC and Dinosaur Trackway would protect these areas from any mining development in the future, thereby protecting the integrity of the overall recreational experience in these popular areas.

Some identified land disposals would conflict with popular off-highway vehicle recreation uses in this SRMA. Disposal of the 3,000 acre Sand Hollow Reservoir site and numerous other parcels consisting of an additional 2,500 acres in the northern part of this SRMA would conflict with current intensive off-highway vehicle use in

this area, and would conflict with some of the goals and objectives of this SRMA. The majority of these parcels, when disposed of, would go into private ownership and could be closed to public use. This could cause an increase in private land conflicts and create user displacement and dissatisfaction.

As a result of land exchanges in the SRMA, a yearly special recreation permit for a motorcycle trials event would be inundated with water and no longer permitted in this area. BLM has worked with the event organizer to look for other suitable sites for this event.

2. Red Mountain/Santa Clara SRMA:

The main attractions in this area include Red Mountain, outstanding geological and scenic features, the Santa Clara River, and cultural resources. Partnership efforts to improve and maintain the trailhead and hiking trail for Red Mountain would accommodate the growing user demand in this area. A 60-mile equestrian trail managed to avoid impacts to sensitive resources would also accommodate increased used demand in this area.

In a cooperative effort with the Snow Canyon State Park, BLM could expand recreation opportunities of public lands adjacent to the state lands. The agreement could allow for new trails for hiking, biking, and equestrian use, establish rock climbing areas and concessionaire services, and would allow for consistent management across jurisdictional boundaries.

Commercial groups would be limited to 12 persons per trip in this SRMA with no more than three commercial permittees using an area at one time. This constraint would reduce the potential for large commercial operations, but would increase the quality of recreational opportunities for the general public by reducing overcrowding and congestion. In addition, organized groups of more than 75 persons would be required to obtain a letter of authorization from the BLM as well as to provide their own sanitary facilities. This stipulation would reduce litter and prevent sanitation problems.

The placement of riparian barriers along the Santa Clara River would reduce the number of campers allowed in this favored area. The area below Gunlock Reservoir along the Santa Clara River has been a popular camping and fishing area for many years. Reducing the number of sites for camping through barrier placement would create negative public attitudes for the short term; however, it would enhance the recreational experiences of the areas in the long term through the reduction of sanitation problems, increased public safety, and better riparian management. Riparian vegetation would be allowed reprieve from heavy traffic and should reestablish itself, allowing for an improved riparian camping experience when opened for camping on a rotating basis. Since camping would be allowed in some areas along this stretch on a rotational basis, some visitors would have to find other places to camp when the designated camping area is full. Logically, they could go to developed campgrounds at Gunlock Reservoir, Baker Dam Reservoir, or to dispersed areas outside of the restricted riparian zone.

3. Deep Creek SRMA:

The main attractions in this area are scenic vistas, landforms, and deep canyons associated with Zion National Park and its vicinity.

BLM could acquire an easement that would substantially improve public access for recreational purposes as well as increase visitation in the Deep Creek area that is not presently accessible to the public. The Deep Creek easement would provide access to 12,000 acres of public lands that have been essentially closed by surrounding private lands. The public would be able to use this area for hiking, camping, hunting, sightseeing, and entrance to the Virgin River Narrows in Zion National Park.

Coordinated efforts with Zion National Park would help BLM manage visitor activities with an emphasis placed on maintaining natural values and ensuring consistency with the Park's General Management Plan. Continued involvement with the Park's planning process could involve further Wild and Scenic River suitability determinations on segments of public land and rivers contiguous to the Park boundary. (See Special Emphasis Areas: Wild and Scenic Rivers section.)

4. LaVerkin Creek/Black Ridge SRMA:

The main attractions in this area are scenic vistas and landforms, and LaVerkin Creek waterfalls, river, and canyon. Construction of a trail and overlook at Black Ridge would enhance visitor experience and create an opportunity to disperse visitor information. BLM could seek a collaborate partnership to develop a primitive day-use area on 20 acres near LaVerkin Falls to reduce trash, undesirable uses, and public safety problems, thereby enhancing public enjoyment at this area.

Commercial recreation use in this SRMA would become more restrictive by applying limitations to commercial groups. Twelve persons per trip with no more than three commercial permittees using an area at one time would be allowed within this area. This constraint would reduce the potential for large commercial operations, but would increase the quality of recreational opportunities for the general public by reducing overcrowding and congestion.

5. Canaan Mountain SRMA:

The main attractions in this area are Canaan Mountain and associated landforms as well as outstanding scenery. Trailheads and trails throughout this popular area would be maintained for the enjoyment of primitive back country users.

Commercial recreation use within this SRMA would become more restrictive. Commercial groups would be limited to 12 persons per trip with no more than three commercial permittees using an area at one time. This constraint would reduce the potential for large commercial operations, but would increase the quality of recreational opportunities for the general public by reducing overcrowding and congestion and reducing human impacts on the primitive values of the area.

The entire SRMA would be closed to mountain biking and OHV use, mineral materials sales, fuelwood sales, and would require no surface occupancy for fluid mineral leasing. These prescriptions would preserve the primitive character and natural values and enhance and maintain the primitive recreational opportunities and experiences in this area.

Impacts on Off-highway Vehicle Mangagement

In addition to the limited off-highway vehicle (OHV) analysis contained under the Recreation section, the following impacts could also occur.

Given the extensive growth in Washington County, OHV issues remain challenging. Based on the need to protect sensitive resources, as well as to provide for continued used of public lands by OHVs, the Proposed Plan establishes use areas and consistent guidelines for OHVs. BLM recognizes that OHV use on public lands in Washington County benefits local economies, In general, public lands in the resource areas would remain open for use on existing roads and trails. Several special management areas and watersheds would remain open for use on designated roads and trails only. Some public lands west of Veyo, at Sand Mountain, and adjacent to state lands west of Bloomington would remain open without limitation. Specific areas detailed on Map 2.13, would be closed to all OHV travel to protect sensitive resources within the resource area.

Given limited staff and budget, BLM's ability to provide for this increasingly popular activity could remain limited without the use of collaborative management and partnerships. The presence of unique, rare, and sensitive resources in the county would serve to continue to limit BLM'S ability to allow unrestricted, unregulated OHV use. There would be a decrease in conflicts on private lands from OHV use in communities because users would be confined to existing roads and trails. Competitive races requiring Special Use Permits could become more restricted as a result of OHV use designations.

As communities in Washington County continue to grow and expand, OHV use is anticipated to follow suit. The majority of OHV users ride on existing roads and trails within the resource area except in those places where the soils, vegetation, and geology of the area makes it easy to "play" without impediments. Such places generally have low-growing vegetation, gentle to angled slopes, gypsiferous/hazardous soils, are close to populated areas, and are easily accessible.

OHV use in the open area west of Veyo (58,335 acres) is not anticipated to generate new

impacts to the landscape due to its isolated location, limitations created by the vegetation types, and geologic outlay of the land. Thorny blackbrush, cactus, pinyon-juniper forests, and sagebrush/upland shrubs dominate this area. Most off-highway vehicle use would continue to remain on existing roads and trails in order to avoid these vegetation deterrents. In addition, steep slopes and rocky terrain would also confine most motorized vehicles to existing roads and trails in the area. Ripple Arch and its associated geologic features are situated in the middle of this open area. The red sandstone arch area is protected by a "closed" designation so that visible scarring and impacts to this important scenic/recreational resource are not created. Signing would be placed around the perimeter of this area to let OHV users know that this is a closed area.

The OHV open area west of Bloomington (430 acres) would continue to show existing and new scarring on the land. Currently, OHV use in this area is heavy due to the proximity of populated neighborhoods, hilly terrain, and limited, low-growing vegetation. All make this an ideal play area for local residents. However, some residents are offended by the proximity of these activities to residential areas and their direct impacts which cause excessive noise, dust problems, and visual scarring. This area is bordered on the north by the main road into the area and the fenced-off Red Bluff ACEC, to the east by state lands currently receiving heavy OHV use, to the south by a steep cliff bordering the Virgin River and part of the Lower Virgin River ACEC, and to the east by public lands identified as being limited to existing roads and trails. Monitoring of this area is critical in order to ensure that OHVs remain within the area designated as open, or on existing roads and trails. Past problems with fence cutting into the Red Bluff ACEC has created OHV impacts to the dwarf bear-claw poppy and its habitat through crushing of plants and compaction of soils.

The open area at Sand Hollow/Sand Mountain (34,475 acres) would continue to attract OHV users as a play area due to the massive red sand dunes that define this locality. Proposed construction of the Sand Hollow Reservoir and associated campground and parking facilities would complement this OHV open area. OHV riding on the sand dunes is a favorite activity and leaves little residual impact on the landscape. Windstorms usually cover any trails left by OHV users, and the sand is easy to ride on due to the lack of vegetation, rocks, and other obstacles. The majority of land below Sand Mountain would also be left open for OHV use. Hilly terrain and low-growing vegetation make this a suitable place for OHV riding. Hillside scarring and a proliferation of trails would amplify and be visible from dirt roads that pass through the area and are used by ranchers, sightseeing visitors, and local community travel. Located within the area designated as open is the Dinosaur Trackway 40-acre OHV closed area. This area remains closed to OHV use to protect the paleontological resources associated with the dinosaur tracks. Careful monitoring of this area is required to ensure that OHV use is not impacting this resource. Signing would be placed around this parcel to ensure that the public is aware of the closed designation. If monitoring shows that signing is not enough to protect the resource, fencing the area may be an option.

BLM would work with user groups and interested agencies to identify, designate, and manage loop trails for user enjoyment. Most of these would utilize existing roads and trails and tie into existing systems on the Dixie National Forest and the Arizona Strip. In collaboration with users and interested organizations, up to 50 miles of new trails could be developed for different categories of vehicles to meet user demands in environmentally preferred areas.

Protection of primitive recreation areas, which are those areas generally lacking existing roads and trails, would require closure to use by OHVs to maintain the integrity of those areas. Closures encompass 91,704 acres of the resource area, or 15 percent of the public land base. Most areas are remote and isolated from urban centers with the exception of Red Mountain and Canaan Mountain. These two closed areas, located near St. George and Hildale, continue to have problems with off-highway vehicle trespass, and would require elevated protection measures to stop the trespass problems. Given the limited BLM staff and

budget, partnership efforts with local communities or private groups would be necessary to help solve these challenges.

Overall, it is expected that the current and future needs for OHV use in the resource area would only be partially met with these designations. Other agencies and recreation providers would need to fill in gaps such as competitive track areas close to the urban centers. The majority of OHV users, however, would continue to use and enjoy public land access throughout most of Washington County.

Impacts on Scenic Quality

BLM's objectives for visual resource management (VRM) would be to maintain and preserve the most important public land scenic vistas within the resource area. This would be accomplished by assigning visual management classes based on the quality of the visual resources. These areas are summarized as follows: a) VRM Class I objectives would be applied within the Beaver Dam Mountains Wilderness Area, the Red Mountain ACEC, and the Canaan Mountain ACEC. The Class I objectives have been applied in these areas because they are considered to be some of the highest quality scenic areas within the county and no changes to the scenic quality of the areas should be allowed; b) VRM Class II objectives are given to other high quality areas where visual intrusions should be subordinate to the landscape. Some of these areas include the public lands above Zion National Park, lands on top of Red Mountain, the cliff faces of Sand Mountain, Little Creek Mountain, Hurricane Cliffs, lands within a Recreation Opportunity Spectrum primitive setting, and public lands generally within the viewshed of state scenic Highway 9 into Zion National Park, as well as the public lands north of Highway 9; c) VRM Class III objectives would apply to the west side of the resource area, most proposed and designated corridors, vegetation treatment areas, communication sites, and other areas shown on Map 2.14; and d) Class IV objectives would apply primarily to the southernmost areas contiguous with the Arizona border on the eastern portion of the resource area, around the Sand Mountain OHV area, and in the Apple Valley area.

There are six planned or anticipated actions that have the potential to impact scenic quality in the resource area. These actions include land disposal, corridor and right-of-way placement, locatable mineral exploration or development, reservoir development, vegetation treatments, and OHV use.

Up to 18,000 acres are proposed for disposal. A majority of the disposal land is around developed communities near St. George, Hurricane, and other developing communities within the resource area. It is anticipated that the majority of development would occur in compliance with the existing city and county planning and zoning ordinances; thus, the developments expected would be in keeping with the existing character of community zoning and expansion. In other words, future development on a disposal adjacent to a residential area would result in development comparable with the residential nature of the area. Likewise, industrial development would occur in or near areas of similar-type developments. This does not infer that the development would not be intrusive within the landscape, only that it wold be in keeping with the existing visual intrusions already occurring in the area. Significant growth is still expected to occur throughout the county well into the future, and such growth would continue to cause visual intrusions in the existing natural landscape, changing line, form, texture, and color.

Numerous isolated parcels are proposed for disposal and if developed, could contrast with the landscape and would most likely be noticeable especially along I-15 where millions of visitors travel through the area each year. Existing alterations in the scenic quality exist along this route, primarily in the form of dispersed residences or farm/ranch-related buildings. This Proposed Plan recognizes the extreme importance of the scenic values along I-15 and Highway 9 and the viewsheds from these routes. In particular, Highway 9 has been established as a State Scenic Highway from LaVerkin into Zion National Park, and this corridor is considered integral to the scenic vista of this Park. Generally, all lands within this area would be retained in public ownership to protect the visual integrity of this area. Exceptions could be

made where it is determined that a transfer of a specific tract would be in the public interest and serve essential municipal purposes. This area has been established as a VRM Class II objective zone, where development should not substantially detract from the scenic quality of the area. The proposed land transfer of 240 acres near the town of Virgin is screened from Highway 9 and development of these parcels should not detract from the viewshed as a whole. Although a utility corridor is being designated along this route, new rights-of-way within this corridor would require careful mitigation to ensure the scenic integrity of the area. The rights-of-way would be required to reduce or eliminate undesirable impacts to the quality of the visual resource.

Scenic quality could be partially disrupted by the development of rights-of-way within the resource area. The 311,579 acres of rights-of-way avoidance and exclusion areas within the resource area include all VRM Class I and Class II areas. In the avoidance areas, rights-of-way would only be allowed when no other alternative for placement of that action is practical. Any new transmission lines would cause man-made contrast and be out of character in or near visually sensitive areas such as major travel routes, primary highway crossings, high-quality scenic areas, communities, or in areas with recreational values. Where proposed transmission lines would parallel existing lines, additional contrast would generally not add appreciably to the present contrast, but would make disturbance more obvious. There would also be localized increases in contrast from small scale utilities. Three proposed utility corridors partially overlap high scenic quality areas and could pose significant contrast to the existing surroundings. These corridors are along I-15 extending into the Black Ridge area, the corridor north of Highway 9 into Springdale, and the proposed corridor from Hurricane south to the Arizona border. This route would follow an existing county road along the base of the Hurricane Cliffs and utility lines should be placed on the west side of the road to eliminate contrast with the cliffs. New development in these corridors would require effective mitigation.

High locatable mineral potential areas fall within VRM Class III areas where activities may attract attention but should not dominate the view of the casual observer, and changes should repeat the basic elements found in the predominant natural features of the landscape. Mining development could exceed that visual objective for this VRM Class.

Vegetation treatment areas in the resource area have already been disturbed in the past. Maintaining these areas could introduce more distinct contrast with the surrounding area in the short term; however, many of them are not visible from viewshed areas such as major travel routes, primary highway crossings, high-quality scenic areas, communities, or in areas with high recreational values. New vegetation treatments could be considered in order to implement Utah's Standards for Rangeland Health. The visual contrast of these projects would be analyzed on a case-by-case basis to determine if such contrasts would meet the VRM class objectives.

The potential reservoir sites identified in the Proposed Plan would change the line, form, color, and texture of these areas no matter where they are placed within the resource area. All of the proposed sites would exceed the VRM Class objectives for the areas that they fall within. A potential reservoir site at Dry Creek would contrast strongly with the high-scenic quality in the surrounding area; however, this potential reservoir is in an area that is not visually sensitive. However, both the lower LaVerkin Creek site and the Dry Creek site would be within a VRM Class II area and exceed the management objective for visual resources in this area. The other four potential reservoir sites are in moderate scenic quality areas where some contrast would be evident. Of these moderate scenic quality sites, Anderson Junction Reservoir, if developed, would be the most visibly sensitive along I-15. The Anderson Junction site, Grapevine Wash site, Leeds Creek site, and Warner Valley site would all fall under Class III management objectives, where changes to the viewshed should not dominate the view of the casual observer. Despite changes in contrast and other features, many people would find properly designed reservoirs to be visually appealing.

Although a majority of the OHV closed areas overlap high-scenic quality zones, some high-

scenic quality areas still remain open to limited OHV use. Proliferation of additional intrusions are not anticipated within these areas. Areas also remain open to limited use in areas near communities where scenic quality has already been altered. The open area adjacent to high-density residential areas would continue to create visual impacts potentially troubling to many of those residents. Any new trails or heavy use of these vehicles would contrast, create a noticeable intrusion, and detract from the quality of scenery in certain areas; however, most of the heavy use is in low scenic quality and low sensitivity areas. Scarring would remain evident and create visual intrusions.

Impacts on Wilderness Values

The Proposed Plan addresses how the 11 Wilderness Study Areas (WSAs) in the resource area would be managed if released from review by Congress. It is important to note that until such time as Congress acts to designate all or part of the 11 identified WSAs or releases them from further wilderness consideration, BLM is required by FLPMA to manage the areas so as not to impair their suitability for preservation as wilderness, subject to valid existing rights and provisions affecting grandfathered mining, grazing, and mineral leasing operations. BLM policy for how such lands are to be managed is described in its Interim Management Policy and Guidelines for Lands Under Wilderness Review, BLM Handbook H 8550-1.

Under the Proposed Plan, the resource area could acquire up to 7,000 acres in the vicinity of the Cottonwood Canyon, Canaan Mountain, Cougar Canyon, Joshua Tree, Red Mountain, Red Butte, and Deep Creek. These acquisitions could complement values of solitude and naturalness by establishing control of potentially incompatible activities. Acquisition of state lands within the Beaver Dam Mountains Wilderness Area would also complement the wilderness values of the area.

A proposed utility corridor along the north side of the Red Mountain could add new utility rights-of-way to the existing power line already in place. As this visual intrusion is already deterring from the natural quality of the area, new rights-of-way would only add to the existing visual distractions. However, this corridor is outside of the primitive recreation opportunity spectrum (ROS) area. Construction and maintenance of the facilities would cause short-term impacts from noise and dust.

The Cougar Canyon and Joshua Tree areas are located within a high-potential mineral area. Mineral exploration and development on up to 800 acres in the resource area would affect solitude, naturalness, and roadless areas if it occurred near or within these areas. Planned actions and management prescriptions for the Upper Beaver Dam Wash and Beaver Dam Slope proposed ACECs would help protect these values through the requirement of a plan of operation for all surface disturbances.

The designation of desert tortoise critical habitat within and adjacent to the Cottonwood Canyon, Red Mountain, and Joshua Tree areas would enhance the values of naturalness and solitude because of the limitations the designation would place on development activities and recreation use. Limitation of party size to 12 people would serve to retain the solitude quality within these areas. In addition, the Cottonwood Canyon area, as well as a portion of Red Mountain, are within the Washington County HCP Reserve. Management of these areas for the protection of desert tortoise and other species would also help preserve the solitude and naturalness values of these areas.

Areas that have solitude and naturalness values primarily overlay areas that have a primitive ROS value. All of the areas identified with a primitive ROS value would be closed or inaccessible for OHV activities. These areas are also rights-of-way avoidance areas and would be protected from the impacts of rights-of-way development unless there are no other alternatives for placement of such utility needs.

Impacts on Special Emphasis Areas

Under the Proposed Plan, all or portions of five of the nine rivers found eligible would be recommended as suitable for inclusion into the National Wild and Scenic Rivers System, and all of the proposed ACECs would be designated except for the City Creek ACEC, which has been incorporated into the Washington County HCP Reserve.

Wild and Scenic Rivers

In the resource area, nine rivers were considered to be eligible for inclusion into the National Wild and Scenic Rivers System. Within the nine rivers considered eligible, five river segments or portions thereof, would be found suitable for congressional designation, and eight segments or portions thereof, would be found nonsuitable under the Proposed Plan.

Suitable Segments: The values that make these stream segments eligible for congressional designation into the National Wild and Scenic Rivers System would be protected by management prescriptions in this Proposed Plan that would limit potential surface disturbance for the 0.5-mile-wide corridor. The eligibility and suitability of the segments for potential congressional designation would be maintained. BLM does not anticipate any changes to the free-flowing values of these rivers to the degree that it would affect eligibility/suitability. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Deep Creek/Crystal Creek, North Fork Virgin River, and Kolob Creek/Oak Creek

Scenic and recreational opportunities have been identified as outstandingly remarkable river-related values on all portions of these three rivers. In addition, the fishery and hydrologic features of Deep Creek/Crystal Creek, and the wildlife values of Kolob Creek/Oak Creek have been identified as outstandingly remarkable. The management prescriptions that would protect these values and maintain the tentative wild classification of these rivers are as follows: land retention, rights-of-way avoidance areas, fluid mineral leasing Category 3 (no surface occupancy), plans of operation required for locatable minerals, closed to mineral materials development, closed to fuelwood harvest, closed to OHVs and mountain bike use, and management under VRM Class II objectives. Although locatable mineral development would not be prohibited, disturbance to river-related values is unlikely due to the low mineral potential of the areas and the fact that impact screening and mitigation would be required through a plan of operation.

The water rights agreement for Zion National Park would allow for some development that could result in loss of flows within river segments above Zion National Park. Potential flow reductions were estimated to be less than 10 percent. BLM anticipates that future water development allowed by the agreement would be located on private land above the suitable river segments. However, should developments be proposed on BLM-managed lands and no acceptable alternatives exist, such development would be mitigated to be as consistent as possible with management objectives of the tentative wild classification for these segments. The agreement requires that a specific amount of water must continue to flow through Zion National Park to meet Park requirements and the needs of important resources. As a result, BLM finds that the flows would be sufficient to maintain the river values on BLM segments above the Park. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

La Verkin Creek/Smith Creek

Outstandingly remarkable values on these river segments include scenic, recreational, riparian, and hydrologic features. The management prescriptions that would protect these values and maintain the tentative wild classification of this river include: land retention and potential acquisition, rights-of-way avoidance area, fluid mineral leasing category 3 (no surface occupancy), plans of operation required for locatable minerals, closed to mineral materials development, closed to fuelwood harvest, closed to OHVs and mountain bike use, and management under VRM Class II objectives. Although locatable mineral development would not be prohibited, disturbance to river-related values is unlikely due to the low mineral potential of the area and the fact that impact screening and mitigation would be required through a plan of operation.

La Verkin Creek originates on private lands above Zion National Park, flows through Zion National Park, and then enters public land. There is a small reservoir used for irrigation purposes on private land near the source of LaVerkin Creek above the Park. The Park is

presently studying their segment of this river for inclusion into the National Wild and Scenic Rivers System. Currently, BLM is not aware of planned water developments on the private land above the Park, on La Verkin Creek, or on Smith Creek that could potentially interfere with river-related flow values downstream. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Virgin River, Segment B, within the Beaver Dam Mountains Wilderness Area

This portion of the Virgin River, Segment B, that lies within the Beaver Dam Mountains Wilderness Area contains outstandingly remarkable values related to fishery and wildlife resources, and scenic and recreational opportunities. Protective management is already in place because this portion of the segment is within the designated Beaver Dam Mountains Wilderness Area. Management prescriptions that would protect river values are as follows: land retention and potential acquisition, rights-of-way exclusion area, closed to fluid mineral leasing, withdrawn from locatable mineral exploration and development, closed to mineral materials development, closed to fuelwood harvest, closed to OHVs and mountain bike use, and management under VRM Class I objectives.

Although water development proposals for use of Virgin River water upstream of this segment are still possible, flows necessary to protect threatened and endangered animal and fish species are likely to be maintained through application of Endangered Species Act requirements. BLM believes that the water flows necessary to maintain these species would also protect the other river-related values. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Non-Suitable Segments: The values that make these stream segments eligible for congressional designation into the National Wild and Scenic Rivers System would generally be protected by management prescriptions in this Proposed Plan that would limit potential surface disturbance within the river/riparian corridors for the purpose of protecting important resources.

In the Proposed Plan, the minimum decisions to protect all riparian areas within the resource area include the following prescriptions:

- Maintain or restore riparian areas to proper functioning condition
- Protect through Standard Stipulations (Appendix 1) or Special Stipulations in leases or permits
- As per Utah BLM riparian policy, no major new surface disturbing activity within 100 yards of riparian areas (with some exceptions)
- No aerial application of pesticides within 100 feet of riparian areas
- Livestock salt blocks located away from riparian areas
- Riparian areas generally retained in public ownership
- OHV use limited to existing roads and trails
- Rights-of-way avoidance areas
- Closed to fuelwood sales
- Closed to mineral materials sales
- No surface occupancy for fluids minerals

Moody Wash

The outstandingly remarkable value for which this segment is eligible is for the Virgin spinedace fishery. In addition to the protective riparian measures listed above, the 1995 Virgin Spinedace Conservation Agreement and Strategy would be implemented to eliminate the need for listing of this species. Therefore, BLM anticipates that the fishery values in this stretch of river would continue to be maintained or improved. Historically, flows in this stretch of river have been sufficient enough to foster the regionally significant populations of spinedace, and it is not anticipated that these flows would diminish. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Fort Pearce Wash

The outstandingly remarkable values for which this segment is eligible are wildlife and historical resources. This area is within the Warner Ridge/Fort Pearce Wash ACEC and the values would be protected and maintained by the man-

agement prescriptions outlined for this ACEC and the protective riparian measures listed previously. The ACEC prescriptions require either a withdrawal of this ACEC from mineral entry, or a mining plan of operation for all actions other than casual use. Motorized travel and mountain bike use would not be allowed within the 40-acre historical/riparian site and would be limited to designated roads and trails outside of the 40-acre parcel. All lands would continue to be retained in public ownership. In addition, camping would not be allowed within a 1-mile zone of the historical site.

A major transportation route from Hildale to I-15 has been proposed and would transect the southern portion of this ACEC. Although no specific route has been identified for the Southern Corridor Transportation Route, an environmentally preferred route would be defined to minimize effects on wildlife and historical and other values of the ACEC. A potential also exists for a flood control structure to be built along the Fort Pearce Wash at some point in the future. Although no proposal or location has been completed for such a project, free-flowing values of this intermittent stretch of river could be affected by its construction. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Beaver Dam Wash, Segment A

The outstandingly remarkable values for which this segment is eligible is for the recreation, historic, and riparian importance of this area on a regional basis. This area is within the Upper Beaver Dam Wash ACEC and the values would be protected and maintained by the management prescriptions outlined for this ACEC and the protective riparian measures listed previously. The ACEC prescriptions require mining plans of operation for all locatable mineral actions other than casual use. As this river segment is within an area with high mineral potential and disturbance is likely, all surface disturbing activities would require mitigation to preserve watershed integrity and water quality and to maintain or improve potential habitat for threatened and endangered animal species and the Virgin spinedace. The 1995 Virgin Spinedace Conservation Agreement and Strategy would be implemented to eliminate the need for listing of this species. Motorized travel and mountain bike use would be limited to designated roads and trails, and lands would continue to be retained in public ownership. In addition, 7 miles of the West Fork of the Beaver Dam Wash would be evaluated for designation as an anti-degradation segment. Therefore, BLM expects that the values in this stretch of river would continue to be maintained.

A proposed reservoir development at the upper reach of this stretch of river is not consistent with this Plan and would not be allowed. However, a potential culinary water well field could be placed within the river corridor, which could affect the river flows and change the wild character of this eligible river. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Beaver Dam Wash, Segment C

Hydrologic, riparian, recreational, wildlife, and fishery values are outstandingly remarkable and make this segment eligible. This area is within the Beaver Dam Slope ACEC, which was established for protection of the desert tortoises and other sensitive species. The outstandingly remarkable values would be protected from surface disturbance by the management prescriptions outlined for this ACEC and the protective riparian measures listed previously. The ACEC prescriptions require mining plans of operation for all locatable mineral actions other than casual use. As this river segment is within an area with high mineral potential and disturbance is likely, all surface disturbing activities would require mitigation to maintain or improve habitat for threatened and endangered animal species and the Virgin spinedace. The 1995 Virgin Spinedace Conservation Agreement and Strategy would be implemented to eliminate the need for listing of this species. Motorized travel and mountain bike use would be limited to designated roads and trails, and lands would continue to be retained in public ownership. Therefore, BLM expects that the values in this stretch of river would continue to be maintained. Because river flows in this segment are supported by artesian springs within this segment, any upstream development should have

little effect on the continuation of these flows. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Virgin River, Segment A

The outstandingly remarkable values for which this segment was found eligible are scenic, recreational, wildlife, fisheries, and cultural. These values would generally be protected by the riparian management measures listed previously. In addition, various stretches of the river would be managed with additional protection such as OHV use being limited to designated roads and trails, withdrawal of lands from mineral entry, closure to fluid mineral leasing on the portions of the river corridor that lie within incorporated city boundaries, and management under VRM Class II objectives. Acquisition of other lands within the corridor would allow BLM to expand protective management along contiguous river sections. The 1995 Virgin Spinedace Conservation Agreement and Strategy would be implemented to eliminate the need for listing of this species. In addition, the Virgin River Fishes Recovery Plan for the two listed fish species would be implemented to protect population numbers.

Proposals for upstream developments are described in the WCWCD's Virgin River Management Plan. These proposals include extraction of water from the river and could potentially affect river flows and some outstandingly remarkable values. Enough flow must be left in the river to promote the recovery of the listed fish species. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights. Several proposed projects could require BLM rights-of-way and impacts to critical resources would be analyzed under the NEPA process.

Virgin River, Segment B, Upstream of the Beaver Dam Mountains Wilderness Area

The outstandingly remarkable values for which this segment was found eligible are scenic, recreational, wildlife, fisheries, and cultural. These values would generally be protected by the riparian management measures listed previously. This area lies within the Lower Virgin River ACEC, which would provide the following additional protective measures: lands retained in public ownership, OHV use limited to designated roads and trails, mining plans of operation required for mineral entry, and management under VRM Class II objectives. In addition, this stretch of river would be managed according to the 1994 Virgin River Fishes Recovery Plan for the two listed fish species.

As identified in the WCWCD's Water Conservation Plan for Washington County, treated sewer effluent that is currently discharged into the Virgin River below St. George could be diverted for recycling and other uses. This proposal could affect the quantity of flow through the Virgin River Gorge. However, enough flow must be left in the river to promote the recovery of the listed fish species in accordance with the recovery plan. This proposal could require a right-of-way across public lands; in such a case, impacts to critical resources would be analyzed under the NEPA process. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Santa Clara River, Segment B

The unique cultural resource is the outstandingly remarkable value for which this segment was found eligible. This value would generally be protected by the riparian management measures listed previously. This area also lies within the Santa Clara River/Land Hill ACEC which would provide the following additional protective measures: lands retained in public ownership, OHV use limited to designated roads and trails, mining plans of operation required for mineral entry, and management under VRM Class II objectives. In addition, this stretch of river would be managed according to the 1995 Virgin Spinedace Conservation Agreement and Strategy in order to eliminate the need for listing of this species. One of the strategies in this Agreement is to provide year-round flows in the Santa Clara River below Gunlock reservoir, upstream of this segment. The minimal flows would be maintained at 3 cubic feet per second (cfs).

The WCWCD's Virgin River Management Plan identifies a proposal to pipe the Santa Clara

River from Gunlock Reservoir to Ivins Reservoir and leave the 3 cfs in the drainage for year-long Spinedace habitat needs. The resulting reduction in current flow should not affect the cultural value of this eligible segment. This proposal would likely require a right-of-way across public lands; therefore, impacts to critical resources would be analyzed under the NEPA process. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

La Verkin Creek, Below the Northernmost Parcel of Private Land

Scenic, recreational, riparian, and hydrologic values were found to be outstandingly remarkable to make this segment eligible. These values would be protected from surface disturbing activities by several management prescriptions within the Proposed Plan. In addition to the protective riparian measures listed previously, the 1995 Virgin Spinedace Conservation Agreement and Strategy would be implemented to eliminate the need for listing of this species in the lower reaches of this river. In addition, the lower reaches of this river corridor lie within an incorporated city boundary, thereby closing that portion to fluid mineral leasing. The entire river corridor would be managed in accordance with VRM Class II objectives.

The Proposed Plan recognizes a portion of the segment as a potential site for reservoir development identified by state and local water authorities. Should a reservoir be constructed at this site, outstandingly remarkable values and the free-flowing character of this river would likely by affected. This proposal would require a right-of-way across public lands; therefore, impacts to critical resources would be analyzed under the NEPA process. Except where rights-of-way across public lands are required, BLM generally has no influence over the development of upstream water rights.

Areas of Critical Environmental Concern

Specific actions to protect the values of ACECs are described under the Special Emphasis Areas of the Proposed Plan. This planning process has identified certain public land areas that require enhanced management attention in order to prevent irreparable damage to important historic, cultural, scenic, threatened and endangered species, watersheds, riparian systems, and other critical resources. Generally, all lands within the ACECs would be retained in public ownership in order to preserve the integrity of the resource values. Exceptions could occur where the possibility exists for the patenting of mining claims, particularly within the high-value mineral area of the Upper Beaver Dam Wash ACEC.

Beaver Dam Slope ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect desert tortoise, desert ecosystems, and the scientific research necessary to study such systems, as well as a National Natural Landmark have been proposed. Potential acquisition of up to 2,439 acres of state/private land within this ACEC would help preserve the uniform management integrity of this critically sensitive area. In addition, protection strategies for the desert tortoise, which includes deferment of spring grazing on three allotments, as well as other requirements discussed under the Wildlife section of the Proposed Plan, would be implemented. Also included in that section is an array of other management prescriptions to protect and enhance desert tortoise habitat and to also serve to meet objectives for nontortoise issues identified on the Slope including maintaining the overall health of the desert ecosystems, improving habitats for other special status animal species and their habitats, and preserving the natural values and research capabilities for the Joshua Tree National Natural Landmark and the Woodbury Desert Study Area. Portions of three utility corridors transect this ACEC and could have some minimal negative impacts; however, mitigation requirements under Section 7 consultation with the FWS would need to be applied to any future right-of-way authorizations within these corridors. If such rights-of-way could not meet the nonjeopardy criteria or the approval of the authorized officer, other alternatives could be initiated.

Upper Beaver Dam Wash ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect the watershed and riparian values of this area (especially for the Southwestern willow flycatcher and

Virgin spinedace habitats) have been proposed. Among other things, these resources would be protected through OHV restrictions and closures, rights-of-way avoidance area designation, closure to mineral materials sales, allowing potential habitat enhancements including reintroduction of spinedace, and/or eradication of nonindigenous fish. In addition, mining plans of operation would be required and fluid mineral development would be restricted by category II and III stipulations. Special recreation permits could be issued in this area only if found not to adversely affect the values for which the ACEC was designated. Although the area would require a plan of operation for all mining activities, significant impacts could occur in this area of high locatable mineral potential. Impacts to water quality, riparian values, special status species habitat, as well as scenic values and recreational activities could occur.

Red Mountain ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect the high scenic values of this important picturesque backdrop of local communities have been proposed. Protection strategies for the scenic values include closing the area to OHV use to prevent scarring, allowing fluid mineral development under a No Surface Occupancy category, closing the ACEC to fuelwood and mineral materials sales, designating the area a right-of-way avoidance area (automatically requiring a plan of operation for any locatable mineral exploration or development), placing the lands under a VRM Class I management objective, and carefully monitoring, and limiting if necessary, special recreation permits within the ACEC. A utility corridor is proposed on the extreme northern boundary of this ACEC and could have some minimal potential to interfere with the viewshed from this ACEC; however, the corridor is within a canyon that is screened by heavily wooded cover and is not visually intrusive. A large utility line is already in place within this corridor.

Santa Clara River/Gunlock ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect the cultural resources, riparian systems, wildlife habitat, and special status species have been proposed. Protection strategies include OHV and mountain bike limitations to designated roads and trails, fencing, barricading, and signing the area to eliminate unauthorized access and protect and enhance riparian zones, management of selected archeological sties for public values and interpretation for educational use, and protection of archeological sites through surveillance and other law enforcement measures to deter vandalism. The ACEC would also be closed to mineral materials sales, fuelwood sales, and would be an established right-of-way avoidance area as well as a fluid mineral No Surface Occupancy area. Plans of operation for locatable minerals would be required for all activities; however, this area is within a low mineral potential area and mining operations are not anticipated. A small utility corridor would be designated along the highway right-of-way between Gunlock Reservoir and the Shivwits Indian Reservation and should have minimal, if any, impact to the resources being protected. Special recreation permits would only be authorized within the ACEC if determined not to have adverse affects on the values for which the ACEC was designated.

Santa Clara River/Land Hill ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect the cultural resources, Virgin spinedace, riparian systems, and the southwest willow flycatcher habitat have been proposed. Potential acquisition of up to 162 acres of private land within this ACEC would help preserve the uniform management and integrity of this critically sensitive area. Protection strategies include limiting OHV and mountain bike use to designated roads and trails, closing the area to fuelwood and mineral materials sales, and designating the ACEC a right-of-way avoidance area. In addition, the ACEC would also be a fluid mineral No Surface Occupancy area. Plans of operation for locatable minerals would be required for all activities even though this area is within a moderate mineral potential area. Locatable mineral mining could adversely affect the values for which the ACEC was designated. Special recreation permits would only be authorized within the ACEC if determined not to have adverse affects on the values for which the ACEC was designated.

Lower Virgin River ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect the cultural

resources, endangered fish species, riparian systems, and wildlife habitat (specifically for the Southwestern willow flycatcher) have been proposed. This area falls completely under public land ownership and would be retained as such to manage and protect the values within it. Protection strategies include working with partners to reestablish and protect year-round flows within the Virgin River, habitat improvements, eradication of nonindigenous fish species, protection of floodplains, and water quality improvement. This area would be closed to fuelwood and mineral materials sales and designated a right-of-way avoidance area except for the existing Navajo-McCullough utility corridor. This mile-wide utility corridor would bisect the southern portion of the ACEC and could have some minimal negative impacts from future development; however, mitigation requirements under Section 7 consultation with the FWS would need to be applied to any future right-of-way authorizations within this corridor. If such rights-of-way could not meet the nonjeopardy criteria or the approval of the authorized officer, other alternatives could be initiated. OHV and mountain bike use would be restricted to designated roads and trails, and plans of operation would be required for locatable mineral activity. This area is within a moderate mineral potential area and locatable mineral mining could adversely affect the values for which the ACEC was designated.

Red Bluff ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect dwarf bear-claw poppy habitat and saline soils that contribute to the Colorado River salinity problems have been proposed. Potential acquisition of 640 acres of state land within this ACEC would help preserve the uniform management and integrity of this critically sensitive area. Protection strategies include withdrawing the lands from locatable mineral entry, limiting OHV use to designated roads and trails, allowing for one designated mountain bike trail within the habitat to provide for community needs, closing the area to fuelwood and mineral materials sales, and designating the ACEC a right-of-way avoidance area. In addition, the ACEC would also be a fluid mineral No Surface Occupancy area. Specific strategies for protection of the species include working with user groups to design trails and redirect current use to avoid poppy damage. Signing, fencing, and barricading would also be employed to prevent unauthorized vehicle access. Cryptogamic soils would be protected through specific actions in this ACEC to protect saline soils and critically eroding soils through the use of best management practices and monitoring special recreation permits to ensure no adverse effect to the values being protected.

Warner Ridge/Fort Pearce ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect endangered plant species, saline soils that contribute to the Colorado River salinity problems, riparian systems, state-listed animal species such as the spotted bat and Gila monster, waterfowl, raptors, and nongame species, and the Fort Pearce Historic Site have been proposed. Protection strategies include withdrawing the lands from locatable mineral entry, limiting OHV use and mountain bikes to designated roads and trails, closing the area to fuelwood and mineral materials sales, and designating the ACEC a right-of-way avoidance area. Although a right-of-way avoidance area, future plans for a "Southern Transportation Corridor" route could create significant impacts if not engineered to avoid or mitigate the values identified for this ACEC. In addition, Section 7 consultation with the FWS for the endangered species would be required. If the proposed corridor route could not meet the nonjeopardy criteria or receive approval from the authorized officer, other alternatives may be initiated. In addition, the ACEC would also be a fluid mineral No Surface Occupancy area. Specific strategies for protection of the species includes signing, fencing, and barricading to prevent unauthorized vehicle access. Cryptogamic soils would be protected through specific actions in this ACEC to protect saline soils and critically eroding soils through the use of best management practices and monitoring special recreation permits to ensure no adverse effect to the values being protected.

Little Creek Mountain ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect the cultural resources have been proposed. Protection strategies include limiting use to existing roads

and trails with selected closures on specific roads (as of yet unidentified) for safety and resource protection purposes, closing the area to mineral materials sales except for the existing operation at Cinder Knoll, and designating the ACEC a right-of-way avoidance area except for the approved communication sites already in place. A proposed utility corridor overlays a portion of the northern boundary of the ACEC along Highway 89. Any rights-of-way authorized within this utility corridor should not degrade the cultural values within this sensitive area. In addition, the ACEC would fall under a Category II mineral leasing stipulation to protect critical deer winter range from November 1 to April 15. Plans of operation for locatable minerals would be required for all activities within this low mineral potential area. Special recreation permits would only be authorized within the ACEC if determined not to have adverse effects on the values for which the ACEC was designated. Heightened surveillance, law enforcement, and site steward programs would be used to deter vandalism within this ACEC.

Canaan Mountain ACEC: In order to preserve the relevance and importance values for this ACEC, prescriptions to protect the high scenic values of this important Zion National Park backdrop and cultural resources have been proposed. Potential acquisition of up to 3,234 acres of state land in the middle of this ACEC would serve to facilitate management of this area by consolidating the lands under public ownership to allow for the uniform management and integrity of the area. In addition, protection strategies for the scenic values include closing the area to OHV use and mountain bike use to prevent scarring and resource degradation, only allowing fluid mineral development under a No Surface Occupancy category, closing the ACEC to fuelwood and mineral materials sales, designating the area a right-of-way avoidance area, automatically requiring a plan of operation for any locatable mineral exploration or development, placing the lands under a VRM Class I management objective and carefully monitoring, and limiting if necessary, special recreation permits within the ACEC. Although closed to OHV use, the eastern portion of this ACEC continues to have considerable illegal OHV activity. Currently, it is not anticipated that this activity would decrease due to the limited law enforcement capabilities in the resource area.

Overall, ACEC values for all 10 ACECs would be managed for their long-term conservation and preservation. Direct impacts could occur, however, from certain allowable activities such as locatable mineral development, corridor development, OHV activities, and some recreational activities.

Impacts on Socioeconomic Factors

By the year 2020, population in Utah is projected to exceed 3.1 million and population in Washington County is expected to grow from 79,831 to 177,570 (Utah GOPB, 1997). Local planners expect that the St. George urban area will soon surpass population thresholds for metropolitan statistical and planning purposes. BLM acknowledges that with this growth, business ventures, social interaction, and visitation from northern Utah and out-of-state will increase as community infrastructure expands and people are drawn to the natural attractions and other amenities of Washington County. Thus, some social and economic effects would extend out of area as a result of decisions made on public lands in this county. Regions most likely to feel such effects would include Utah's Wasatch Front, southern Nevada, and portions of southern California. Insufficient data is available to make accurate and comprehensive projections on the nature, magnitude, and geographic extent of such impacts. In contrast to well-recognized local effects, however, BLM believes that out-of-area impacts would be relatively minor and will not address them further in this Proposed Plan.

Public lands administered by the BLM in Washington County are integral to the social and economic well-being of citizens throughout the county and the surrounding region, including portions of the five-county area and northwest Arizona. Public lands comprise nearly 40 percent of the lands in Washington County and, by virtue of their location and extent, play a significant role in the cultural and economic affairs of people who work, reside, and recreate here. Local residents, municipalities, and numerous agencies rely heavily on these public lands for

access, water development, mineral materials, utility rights-of-way, livestock grazing, recreation, and various public purposes. The extent to which the public lands remain available for such uses directly impacts the ability of affected communities to meet basic needs, maintain healthy, diverse economies, and have confidence that the future will continue to bring opportunities to achieve important community objectives. Moreover, the extent to which the public lands in the county continue to provide natural amenities including extensive open space, exceptional scenery, and a great diversity of wildlife, impacts directly on the quality of life and the ability to sustain economic growth and stability in the recreation and tourism industries.

With these factors in mind, specific actions called for in this Proposed Plan would result in the following consequences to social and economic conditions:

Lands

Transfer of up to 18,000 acres out of federal ownership near the urban interface in Washington County through sale, exchange, or other conveyance authority would meet needs for community expansion including commercial, residential, and industrial purposes. These would include satisfaction of state quantity grant obligations and inholding exchanges with the Utah School and Institutional Trust Lands Administration (SITLA) that would promote increased revenues to the trust fund for the benefit of state schools and institutions. Leases and conveyances under the Recreation and Public Purposes Act would continue to provide important opportunities to state, local, and qualified nonprofit organizations to acquire discounted properties to facilitate much needed public purposes including schools, parks, recreation sites, and other municipal facilities. Existing leases on nine properties would continue to support such causes at reduced cost.

Acquisition of up to 18,000 acres of non-federal lands within the Washington County HCP Reserve would allow Washington County to receive full benefit of its incidental take permit and obtain release of up to 12,264 acres within approved take areas for various forms of commercial, residential, or industrial development. Such acquisitions would also release up to $200 million of state, municipal, and private lands from development constraints in the Reserve by providing owners cash or lands of equal value outside of the Reserve, thus allowing them to pursue full use of their property.

Designation of 12 utility corridors would facilitate planning and construction of up to 24 new linear utilities including pipelines, optic fiber and telephone lines, and transmission and distribution lines, while reducing the costs for environmental study and mitigation. Continued use of the corridors would help meet significant, long-term community needs for energy, water, and communications. Approval of up to 24 rights-of-way per year throughout the county would meet individual and community needs for small distribution lines, communication facilities, access routes, water developments, and other municipal purposes. Such authorizations would sustain essential community infrastructure and projected growth in local areas. Together, these actions would promote a modest increase in jobs and wages associated with project construction and new business opportunities made possible by the projects.

Energy and Mineral Resources

The majority of public lands in Washington County would remain open to fluid mineral leasing, except in Wilderness Study Areas and where leasing has been foreclosed by large increases in municipal incorporation. Nevertheless, low potential for oil and gas throughout most of the resource area, fluctuating markets, and environmental constraints would likely mean little, if any, change in economic contributions from this sector.

In like fashion, unpredictable market conditions, high production costs, urbanization, and environmental constraints would limit the likelihood of significant locatable mineral production outside of an estimated 600 acres of development that could occur over the life of this Plan in the high potential areas of the Beaver Dam Mountains, the upper tributaries of the Beaver Dam Wash, or at Silver Reef. Under the most favorable circumstances, such development could create up to 100 new jobs in the mining industry which would help diversify local

economies and reverse recent downward trends in mining employment in the county. An additional 100 jobs could be created as a result of indirect and induced economic effects in the trade, services, construction, manufacturing, transportation, and financial sectors. Using average 1990 wages throughout the Colorado Plateau as reported by Hecox and Ack (1996) and prorating industry distribution, a maximum potential increase in yearly total wages could occur of approximately $4,530,000 during the economic life of the mines.

BLM would provide mineral materials including sand, gravel, cinders, and decorative stone through the continued operation of about 10 community materials pits. Based on recent 3-year averages (1994-1997), these would lead to the yearly issuance of 10 free use permits to local and state agencies for construction and road maintenance, and 235 permits to private individuals and commercial entities for construction, landscaping, and retail sales. Total estimated quantities of materials provided on a yearly basis would amount to 187,350 cubic yards of sand, gravel, and cinders, and 990 tons of decorative stone. Equivalent retail outlet value of the materials sold and permitted annually would amount to $1,467,000. Annual revenues generated for the U.S. Treasury from the permit sales would amount to $91,600.

Transportation

BLM's participation in planning for a new transportation corridor between St. George and Hildale with a bypass spur to west Hurricane could help remedy current and projected safety and traffic issues by rerouting heavy trucks and increased through traffic out of residential and commercial districts. It would also facilitate access to a proposed new airport site southwest of St. George considered by community leaders to be essential for future economic health in the urbanizing portions of the county (Utah DOT, 1996).

Continued use and maintenance of the extensive road network throughout Washington County under right-of-way or maintenance agreement would provide essential public and government agency access to livestock operations, mining properties, utility and communication facilities, range and wildlife developments, recreation sites, research areas, monitoring stations, and intermingled non-federal property. Such use would promote the orderly conduct of private and agency business, allow for inspection and maintenance of facilities, and provide for transportation essential to commerce and economic activity.

Water Resources

Under this Proposed Plan, public lands would continue to support municipal water development including well sites, storage projects, and pipeline systems needed to sustain municipal, industrial, and agricultural purposes in the county. Municipal watersheds on public lands would also be protected under state and federal laws to prevent contamination of critical surface waters and groundwater aquifers from incompatible uses, thus providing long-term security to communities dependent on those resources.

Recent transfer of lands through exchange to the WCWCD will allow for construction and operation of a 30,000 acre-foot reservoir at Sand Hollow to supplement storage capacity at the Quail Creek Reservoir Project. BLM would also recognize unique values associated with water storage potential on five additional public land sites identified by the WCWCD or the Utah Division of Water Resources. Although actual development of any of the additional sites would require detailed engineering and environmental studies prior to approval, they offer water storage alternatives to other proposed storage projects which have been eliminated from further consideration because of environmental and resource conflicts. Such alternatives would remain in place to provide potential solutions to water storage issues likely to face Washington County in the future.

One 355-acre reservoir proposal on the upper West Fork of the Beaver Dam Wash currently under application to BLM from the WCWCD would not be approved as a result of conflicts with management objectives in this Proposed Plan for restoration of habitat for the Virgin spinedace, protection of potential habitat for the endangered Southwestern willow flycatcher, and maintenance of important riparian systems. The reservoir would have provided storage capacity

of 25,800 acre-feet of water to service municipal and industrial water needs for growing communities in the St. George area. It would also have provided one option for meeting some or all water rights claims on the Shivwits Indian Reservation. Construction of the Sand Hollow Reservoir and potential development of a pipeline to bring water from Lake Powell, however, could eliminate the need for the West Fork Beaver Dam Wash Reservoir by providing adequate water resources to meet all projected needs during the life of this Plan. The Plan also leaves open the potential of a well-field development for culinary water on the Beaver Dam Wash to meet a portion of these needs, if found consistent with other objectives in this Plan. Nevertheless, BLM recognizes that rejection of this site could have substantial economic consequences for Washington County if other alternatives do not materialize as planned. In the worst case analysis, it would be assumed that in addition to one-time losses due to lost reservoir construction and residential and commercial development that would have been made possible by water availability, ongoing annual losses would accrue from lost economic activity driven by new residents and businesses served by the reservoir. Using methodology provided by Groesbeck (1996), the one-time economic loss to the county could be as high as $568,350,000 and annual losses thereafter as high as $80,731,000 (assuming 5 percent annual population growth, 20 percent water conservation, 10 percent of new water needs met by transfer from agricultural use, and a shortage probability of .17).

Livestock Grazing Management

Public lands would continue to support up to 110 grazing allotments on nearly 560,000 acres in Washington County and thus help sustain the economic well-being and rural lifestyles of over 100 operators and their families. Land retention policies in the western third of the county and other portions of the resource area would offer stability to affected operators during a time of great change and social-economic stress within the agricultural sector of rapidly urbanizing Washington County. The maintenance of the ranching lifestyle constitutes a fundamental objective of most rural communities and unincorporated areas in the region and remains important to community leaders and other interests in the urban centers of Hurricane and St. George. Without public lands to support grazing during essential times of the year, most ranching operations in the county and their associated lifestyles would largely disappear. Although the total economic contribution from public land ranching in the county is no longer statistically significant, substantial erosion of the lifestyle would be seen by a majority of local residents as a significant and unacceptable loss to the regional culture (Washington County, 1994).

Transfer of up to 18,000 acres of public lands out of federal ownership would disrupt grazing operations on up to 24 allotments located on the urban interface, near major transportation routes, within incorporated city limits, or otherwise in the path of rapid urbanization. The transfers would involve the potential loss of up to 900 AUMs and associated income. Disruption could also occur to existing pastures, stock waters, fences, and access, and require outlay of capital to restore functionality to existing grazing systems. In negotiating exchanges and land transfers, BLM would attempt to mitigate such impacts by selective configuration of land parcels to avoid unnecessary disruption and promoting agreements with exchange proponents to help compensate for or replace lost assets.

Retirement of grazing permits within the Washington County HCP Reserve would result in the elimination of four allotments and the loss of income generated from livestock operations in those units involving 1,333 federal AUMs. Moreover, with retirement of grazing permits on the federal lands, the remaining privately-owned base properties formerly associated with those permits would become more susceptible to nonagricultural development. To the extent such development occurs, the rural lifestyle would be diminished. Similar impacts would occur if other operators voluntarily relinquish grazing permits elsewhere in the Reserve.

Recreation and OHV Management

Growth in tourism throughout the five-county area in southwest Utah continues to be high and plays an ever more important role in the

economy of the region. The Utah Division of Parks and Recreation projected such growth to be 46.3 percent between 1990 and 2000 (Utah SCORP, 1992). Public lands in Washington County would remain open to most forms of touring and outdoor recreation and, by so doing, would contribute to the pattern of growth within BLM's general recreation niche. While the public lands have traditionally supported low to moderate levels of dispersed recreation, the unprecedented growth in the recreation industry in this part of the state is forcing a change that has recreation claiming a much larger share of public land activity. The demands are widespread but are most notable in motorized recreation, mountain biking, and rock climbing, and involve an increasing number of visitors from outside the local area. Sources within the private sector, for example, claim that St. George will join Moab, Utah, as an ultimate destination for mountain bikers from around the world (Spectrum, April 3, 1998). The 1996 Economic and Travel Industry Profiles for Utah Counties, prepared by the Utah Department of Community and Economic Development, estimated travel spending in Washington County at approximately $180 million. Gross taxable sales for tourist-related services nearly doubled between 1990 and 1995, and the Washington County Travel and Convention Bureau reports the local 3 percent transient room tax generated just under $1 million in 1996. Although no data exists to depict the full impact of public land recreation on this growth, hunting opportunities and the numerous trails, open spaces, and scenic areas available on a year-round basis to the public in Washington County contribute to this important economic activity. These highly sought-after amenities would provide a continuing draw for tourists and recreation users who support local retail and service industries catering to such interests. Development and designation of new trails and linking to other trail systems on adjacent BLM and Forest Service units would provide more attractions and generate additional economic opportunities including those being embraced by a growing number of tour guides and special event promoters.

Proposals for BLM to enter into cooperative management agreements with the National Park Service and the Utah Division of Parks and Recreation for joint use and management of selected public lands adjacent to Zion National Park and Snow Canyon State Park would allow both park units and BLM to meet essential goals for visitor management and for responding to additional recreation demands. Such collaboration would be essential in dealing effectively with seasonal overcrowding and inadequate facilities. It would also provide opportunities to integrate goals of the respective parks with the economic objectives of local businesses and nearby communities by creating innovative partnerships for visitor services and concessionaire operations. Both parks continue to be major destination points for out-of-area tourists, and combined, attract well over 3 million visitors annually. As such, they play a significant role in the economic health of the county and surrounding areas.

Future Growth and Development Opportunities

Under this Proposed Plan, BLM would impose a number of administrative closures and land use restrictions necessary to protect sensitive and important resource values on public lands within the county. In many cases those values make a contribution to the social and economic well-being of the county and include such amenities as scenic landscapes, open space, clean water, stable soils, productive habitats for diverse wildlife species, properly functioning floodplains and riparian zones critical to healthy desert ecosystems, and opportunities for outdoor recreation. Frequently, these values are what bring people to live or play in Washington County. Failure to protect such values would have negative social and economic consequences that would be spread across a wide spectrum of interests throughout the region, a point recognized by the State of Utah in the 21st Century Community Initiative (Utah GRPO, 1997). Moreover, BLM is required by law and policy to take proactive steps to meet state and federal requirements for pollution abatement, soil erosion, floodplain protection, recovery of listed plant and animal species, and other environmental goals. Failure to do so would result in imposition of penalties and additional land use restrictions by enforcement agencies at state and federal levels that could be unnecessarily limiting and economically disruptive.

BLM acknowledges that the administrative closures and land use restrictions so proposed could result in numerous lost future economic opportunities within various sectors that depend in whole or in part on public lands for their conduct of business. Entities impacted could include recreation providers, mining ventures, energy firms, utility companies, agricultural enterprises, and water management agencies, among others. Lost opportunities could occur from outright prohibition of a given activity in a closed area or from increased costs associated with environmental compliance that makes the activity economically impractical or unattractive. It is not possible to predict with any degree of accuracy when and where such opportunities would actually be foreclosed without specific proposals to analyze. In considering alternatives for resource management throughout the county, BLM attempted to provide options that would allow for the full range of uses including those essential for economic stability and reasonable growth. Arguments presented to BLM during the development of this Proposed Plan that each lost opportunity would result in a net current loss to the economic well-being of Washington County are simply not persuasive where BLM has provided reasonable alternatives, and the proposed land use restrictions are the outcome of law and policy outside the scope of this Plan. Moreover, the arguments fail to take into account long-term social and economic costs associated with not adequately protecting the limited natural resources of the county and presume, without substantiation, that community values would always favor economic over noneconomic benefits. In any case, it is fully beyond the scope of this Proposed Plan to analyze and quantify each possible lost opportunity that might occur over the life of the Plan. Potential opportunities may or may not ever materialize under any land use prescription, and such analysis would amount to cumbersome and unproductive speculation.

Wild and Scenic Rivers

BLM has recommended portions or all of five river segments in Washington County as suitable for inclusion in the National Wild and Scenic Rivers System. If Congress elects to designate any or all of the segments in accordance with BLM's recommendations, Section 13 of the Wild and Scenic Rivers Act would normally create a federal reserved water right effective as of the date of enactment of the legislation. Such water right would be limited to that quantification needed to accomplish the purposes of the legislation. Because BLM's recommendations recognize and incorporate the terms of the Zion National Park Water Rights Agreement, BLM does not anticipate that the federal reserved water right would impact or foreclose development of private or municipal water rights upstream or up-gradient of Zion National Park as provided in the Agreement. No economic opportunities would be lost.

Two river segments below Zion National Park recommended as suitable are upper La Verkin Creek and that part of the lower Virgin River within the Beaver Dam Mountains Wilderness. Upper La Verkin Creek encompasses one potential reservoir site identified by the Utah Division of Water Resources. Congressional designation of that segment would foreclose future development of that site for water storage. No specific proposals for site development currently exist. Communications with WCWCD officials have indicated that interest in the site is low because of geologic concerns and the need to pursue other water development alternatives with higher priority and greater potential for meeting long-term water needs (Ron Thompson, personal communication, 1997). With other, more effective alternatives available, no adverse economic impacts would be expected to occur as a result of congressional designation.

Congressional designation of the lower Virgin River in the Beaver Dam Mountains Wilderness would have no impacts on existing rights, privileges, and contracts. Because any federal reserved water right created by designation would be subject to the McCarren Amendment, which requires such water rights to be managed in accordance with applicable state water law, existing water rights and developments would be fully protected. The extent to which unperfected water rights, future diversion changes, and new upstream developments below Zion National Park would be impacted would depend on a) the specific provisions of the legislation putting the designation in place, b) the

nature of the development proposed including the amount of instream flow reduction, if any, and c) the need for federal lands, resources, or permits to complete the development. Uncertainty over the impacts of a federal nexus on such prospective actions could have an unsettling effect on municipalities and water users needing long-term security and flexibility in water management programs. Even without wild and scenic river designation, however, changes in flows within the river could be constrained by requirements of the Endangered Species Act to protect the habitats of fish presently listed under the Act. BLM believes that flows necessary to sustain and recover protected fish species along with periodic flood events that would occur under any likely river management scenario would be adequate to sustain the values for which this river segment would be designated. As a practical matter, this means that designation of this segment under the Wild and Scenic Rivers Act would have no impacts to upstream developments that are not already imposed by existing law and regulation. No additional adverse economic impacts should occur as a result.

National recognition of any river segments designated by Congress under the Wild and Scenic Rivers Act would serve as an additional draw for tourists and recreationists to Washington County and have a corresponding positive impact on the tourism sector of the local economy. Data does not yet exist to allow a meaningful quantification of such impacts.

State, Federal, and Tribal Lands

Elements of the Proposed Plan were formulated to be as consistent and complementary as possible with the goals and objectives of other agencies or Indian tribes managing lands that abut or are intermingled with public lands in this resource area. These include the National Park Service, Forest Service, Utah Division of Parks and Recreation, Utah School and Institutional Trust Lands Administration, Shivwits Band of Paiute Indians, and adjoining BLM districts in Utah, Arizona, and Nevada. Where agency missions and resource objectives are similar, consistency was generally reached and conflicts were avoided that could have resulted in dysfunctional management along mutual boundaries with potentially adverse economic effects. Such consistency exists with the National Park Service, Forest Service, State Parks, and adjoining BLM districts. Collaborative management proposals and use of shared resources should facilitate accomplishment of respective agency missions and promote a more efficient use of public funds and resources.

Management proposals for public lands surrounding the Shivwits Indian Reservation provide for continued use of such lands by Native Americans for cultural, religious, and ceremonial purposes. Further, the Plan provides for cooperative agreements with the Shivwits Band and the Paiute Tribe to accomplish programs of mutual interest concerning the use and management of lands containing sacred sites or resources of importance to the tribe. Public lands surrounding the reservation and known sacred sites would generally be retained in public ownership and consultation would continue to be completed in accordance with the Native American Graves Protection and Repatriation Act and other applicable statutes. Thus, tribal cultural interests should be protected throughout the life of the Plan. BLM would also provide rights-of-way, land use authorizations, or agreements on public lands needed to accomplish objectives for economic development and self-determination. Along with BLM technical coordination in resource programs, these actions would support achievement of the goals of the Paiute Indian Tribe's Strategic Economic Development Plan.

Lands administered by the Utah School and Institutional Trust Lands Administration (SITLA) are managed by law for the benefit of Utah schools and institutions. The present state land ownership pattern consists, in large part, of isolated sections scattered throughout the county. Where School Trust lands are encompassed by public lands dedicated to special management for resource protection, opportunities for economic development could be curtailed as adjoining public lands may not be available for such use. In a few instances, however, potential for School Trust development could be enhanced due to lack of competing development on the nearby public lands. The Proposed

Plan recognizes the importance of effective coordination with SITLA to ensure that the purposes for which the Trust was established are realized. The following actions called for in the Plan would help accomplish that objective:

- BLM would grant access and rights-of-way across public lands for utilities or other purposes, subject to environmental analysis and plan conformance review, to allow use and development of isolated School Trust lands in the resource area; BLM would work with SITLA officials to minimize or eliminate adverse impacts, if any, to adjacent public lands or resources from such development.

- BLM would continue to promote achievement of the goals of current agreements with the State of Utah to reduce state inholdings within federal reservations through exchange of public lands to further opportunities for economic development. Within Washington County, such exchanges could substantially reduce state inholdings within the HCP Reserve, the Beaver Dam Mountains Wilderness Area, and critical habitat areas for the dwarf bear-claw poppy. In return, SITLA would receive lands of equivalent value in and adjacent to developing areas in the county and elsewhere in the state.

- To the extent that suitable lands and resources are available, BLM would promote land exchanges to consolidate federal holdings in other environmentally sensitive areas such as the Beaver Dam Slope, endangered species habitats, and Special Recreation Management Areas, while providing SITLA lands or consolidated ownership in areas of greater potential for economic return.

- BLM would continue to give priority to completing remaining applications in the county for state quantity grants and other selections provided by law that would place economically desirable lands in the School Trust.

Irreversible and/or Irretrievable Commitments of Resources

The Proposed Plan would result in irreversible and irretrievable commitment of resources as follows:

Land Disposal - Up to 18,000 acres could be removed from the public domain. Management of natural resources and public land uses on these parcels would be permanently lost. Conversely, acquisitions of up to 18,000 acres of lands possessing important resources or values would add to the public domain.

Land Use Authorizations - Numerous rights-of-way could be granted for transportation, utilities, or other community purposes under Title V of FLPMA or R&PP grants which could constitute an irreversible or irretrievable commitment of land resources to developed use on public lands.

Minerals - The extraction of locatable mineral resources would constitute an irretrievable commitment of resources on up to 800 acres of public land. Further, the potential patenting of mining claims under the General Mining Act of 1872 would also constitute an irreversible commitment of lands to nonpublic purposes.

Water Resources - Due to 18,000 acres of potential land disposal to enhance community growth and other purposes, slight increases in sediment and nonpoint source pollution may result in an irreversible degradation of water quality in the Virgin River sub-basin. The potential to develop up to two reservoir sites on public land could result in an irreversible loss of present surface resource use on up to 750 acres.

Livestock Grazing - An irreversible loss of up to 900 AUMs could occur as a result of land exchanges to protect desert tortoise critical habitat and other sensitive resources.

Recreation - There would be a permanent shift of management emphasis tending towards more developed recreational use and opportunities. OHV designations and uses would shift to "primarily limited to existing roads and trails."

VRM - Certain developments associated with land ownership changes and other authorized land uses would permanently impair the visual elements of form, line, texture, or color, primarily near and around communities.

Special Emphasis Areas - Wild and Scenic Rivers segments found suitable and/or designated by Congress as additions to the National Wild and Scenic Rivers System could result in an irretrievable loss of management opportunities for federal land use programs on affected lands depending on specific management prescriptions or actions. The continued existence of Wilderness Study Areas, managed under the Interim Management Plan guidelines, may permanently preclude certain management opportunities which have been analyzed in the Utah Statewide Wilderness Final EIS.

It is the policy of the BLM to identify unavoidable adverse effects created by the Proposed Plan. Unavoidable adverse impacts include those associated with the transfer of up to 18,000 acres of lands under public ownership to facilitate additional growth throughout the county. Such development could: a) impact visual resources, b) increase potential for water quality degradation, c) fragment wildlife habitat, and d) eliminate lands from public ownership that are currently used by grazing operators, recreationists, and OHV enthusiasts. Pressures from resulting urban growth would continue to affect wildlife and native vegetation, including special status species. Energy and mineral resource extraction on public lands has the potential to create visual intrusions, soil erosion, and compaction problems. In particular, certain types of large scale operations such as cyanide heap leach mining can prove difficult in reclaiming the land back to natural conditions. Portions of the resource area left open to OHV travel would continue to experience scarring, increased soil erosion, and loss of vegetation. There would also be an unavoidable adverse impact to livestock operators as a result of lands transfers and measures taken to protect desert tortoises within Washington County on the Beaver Dam Slope and HCP Reserve. Loss of grazing privileges and AUMs could financially impact affected operators. Proposed mineral withdrawals within the HCP Reserve and two ACECs would proscribe opportunities for future mineral exploration and development in those areas outside of established mining claims. Limited potential for mineral development in those areas greatly diminishes the extent of the adverse impact. Numerous land use restrictions imposed throughout the resource area to protect sensitive resources and other important values, by their nature, would impact on the ability of operators, individuals, and groups who use the public lands to do so freely without limitations. The Proposed Plan has sought to mitigate the nature and magnitude of such impacts by limiting restrictions to those necessary to provide the level of protection needed to accomplish management objectives and by providing alternative use areas for impacted activities. Virtually all potential unavoidable adverse impacts are indirect, long term, and difficult to quantify.

Cumulative Impacts

This cumulative impact analysis attempts to qualify and quantify the impact of past, present, and reasonably foreseeable actions, including non-federal actions, that would affect the citizens and natural resources of Washington County for approximately the next 20 years.

It is clear that public lands have a significant and profound effect on the quality of life, economy, and social welfare, and sensitive and irreplaceable resources within the county. In order to meet these challenges and best respond to public, county, and agency comment, this Proposed Plan has incorporated elements from each of the Draft RMP alternatives in an attempt to best respond to the significant needs, demands, expectations, and new information that was submitted during the 1995 to 1996 comment period.

It is also apparent that given current budget and personnel limitations, BLM cannot effectively manage certain areas of resource conflict in or near the urban interface and surrounding areas. This Proposed Plan would set the stage for significant opportunities to pursue collaborative and community-based planning prospects through cooperative management agreements, memorandums of understanding, and other instruments that facilitate cooperative management and partnership possibilities.

Lands

BLM lands play a particularly important role as a key factor in providing additional space for growth and to significantly contribute to community infrastructure needs for such elements as water development and storage, transportation routes, utility corridors, rights-of-way, R&PP leases, among other things. In addition, land exchanges with private and state entities, in order to pursue common goals, are an important role in the BLM lands program.

The land adjustment criteria were designed to assure that the needs of state, county, and local communities could be met while ensuring that appropriate management attention could still be paid to the protection and conservation of sensitive and irreplaceable resources. The location and extent of sensitive resources within the county have had the effect of essentially defining where growth can and cannot occur and have severely limited certain growth-related opportunities within the county. Under the Proposed Plan, BLM would transfer out of public ownership approximately 18,000 acres and acquire up to 18,000 acres. Land transfers are primarily around urban centers and provide for continued growth and expansion opportunities throughout Washington County. Land acquisitions would constitute positive cumulative effects for several listed and sensitive plant and animal species as well as within Special Management Areas. Acquisitions would consolidate public land ownership in areas that are currently of mixed ownership. Overall, approximately 3 percent of the resource area would have enhanced management opportunities from land consolidation. Reciprocal cumulative benefits would also occur for state and local governments by gaining lands more valuable for development purposes and allowing an opportunity for state inholding transfer and indemnity selections.

Approximately 3 percent of public lands may meet land exchange criteria. In combination with over 100,000 acres of state land and 256,060 acres of private land, 61 percent of land within the county is potentially developable. This percentage does not include Forest Service, or national and state park lands, which are dedicated to special purposes.

Land use authorizations from the BLM would continue to ensure that the local communities could meet growing infrastructure needs. The 12 proposed utility corridors within the resource area would adequately provide for inter and intrastate utility and transportation needs as well as local community requirements. It is projected that within the proposed corridors, development of rights-of-way would disturb less than 1 percent of lands within the resource area. Growth associated with community development would continue to expand into the future, thereby potentially impacting the open and undeveloped character in many areas of the resource area. Further, corridor designation and development could adversely impact minimal amounts of T&E or sensitive species habitat; however, such overall impacts would be mitigated to prevent jeopardy findings. Corridor designation is not projected to impact locatable, saleable, or leasable mineral development. There would be no significant cumulative effects from corridor designation on water resources, vegetation resources (except T&E), cultural resources, grazing management, riparian resources due to the nature of mitigation that would be required, or other conservation strategies that would be used to reduce or eliminate these impacts. Adverse cumulative impacts could be incurred to the following programs: recreation, VRM, and certain special emphasis areas. Certain recreation users would be adversely affected due to the miles of right-of-way development in areas that, in the past, were considered natural in character. In addition, the linear intrusions of the rights-of-way would constitute visually adverse impacts throughout the resource area. The natural quality of certain Special Emphasis Areas, including WSAs, Zion

National Park, and some ACECs could also be impacted where the corridors lie adjacent to the boundaries of such areas.

Energy and Mineral Resources

Overall, mineral and energy resources development on public lands would continue to be provided for in suitable areas. Approximately 68 percent of public lands in the resource area would remain open for fluid mineral leasing and development purposes under standard or special stipulations. Generally, the minimum limitations necessary are used to protect sensitive resources. For those areas that are closed (4 percent), the occurrence potential for fluid minerals is low, and future activities are expected to be minimal or nonexistent. The same is true for those areas within the resource area that are designated as "No Surface Occupancy" for fluid mineral leasing. Less than 1 percent of the land within the resource area has a high potential for fluid minerals. It is not expected that impacts to this industry as a result of closures would occur, especially in light of present leasable mineral activities within the resource area.

Current saleable mineral activity provides important resources for local community development as well as for federal and state agencies. There are numerous mineral materials sites throughout Washington County. Many of them are visually screened in areas of high visual sensitivity on public land; however, some private and public sources are sometimes very evident in the landscape. Since sand and gravel are important resources within this category, they are generally located along wash bottoms or near riverine systems. Operations of these pits can adversely affect riparian resources, water quality, wildlife resources, and fish habitat without proper mitigation. Privately owned operations do not fall under the mitigation measures specified by BLM under its mineral materials operations. While such effects are adverse, they generally are not synergistic and such impacts remain localized to specified small locations. Approximately 39 percent of public land in the resource area is closed to mineral materials development to protect numerous resources which include riparian, cultural, T&E, ACECs, highly visual sensitive areas, and other sensitive resources. The rest of the resource area (61 percent) remains open or open with restrictions for development subject to NEPA analysis and management discretion.

Approximately 91 percent of the public land in the resource area would remain open for locatable mineral development under applicable standard stipulations, plans of operation, or specific restrictions. A little over 1 percent of the resource area would actually incur adverse impacts from these types of activities based on the reasonable foreseeable development scenario of up to 800 acres of disturbance over the life of this Plan. The cumulative effect of these activities is expected to be localized in the western portion of the resource area where high potential for locatable mineral development exists. Additional acres of disturbance could occur on both private and state lands within this area as well. In analyzing these operations, BLM would place protection on all of the critical elements within the area. These protective measures would be designed to prevent any adverse direct, indirect, and cumulative impact to air and water quality, T &E species, riparian zones, and wildlife resources. Further, the cumulative effect of mining in this area (which includes the use of hazardous materials) is not anticipated to cause any significant impact to air or water quality based on the strict compliance with state and federal water law and regulation.

Cumulative impacts associated with potential withdrawals of lands from locatable mineral entry would constitute 8 percent of the resource area with overall effects being minimal due to the low potential for mineral development of those withdrawn lands. Conversely, those withdrawn lands would provide permanent protection for associated high value resources on those lands.

Soil and Water Resources

A myriad of federal and non-federal actions throughout the county have the potential for both positive and adverse impacts to surface and groundwater resources. In recognizing the need for extensive cooperative management of these resources, numerous local, state, federal, and private entities have begun to work together to maintain and sustain the conservation of this critical resource. The objective for water

resource management under the Proposed Plan would help protect groundwater, reduce erosion, sedimentation, and salinization, promote water conservation, and ensure water availability for the maintenance of key natural systems, including riparian, floodplain, and sensitive species.

Of significant importance to the county and its communities, relative to the development potential, is the Virgin River system. This river and its tributaries are integral economically, culturally, and aesthetically, and provide important habitat for several sensitive species, the management of which is directly tied to management of the river. There are numerous cooperative planning efforts involving the state, county, local governments including the WCWCD, and local conservation groups that have similar objectives for the protection and conservation of water resources, particularly the Virgin River and its tributaries. Through the Virgin River Management Plan and the WCWCD water conservation plan, as well as statewide plans, numerous agencies and interested organizations are working together to define future use and management of this river system. Numerous decisions in the Proposed Plan under the lands programs, energy and minerals programs, soils and watershed programs, vegetation, forestry and riparian programs, wildlife and grazing programs, recreation and OHV programs, as well as Special Emphasis Area programs, would have an overall positive effect on the protection and conservation of water resources within the water basin.

Given the nature of development now occurring within the county, it is expected that nonpoint source pollution would continue to increase due to pesticides, herbicides, chemicals associated with urbanized run-off, nutrient and sediment loading associated with agricultural practices and grazing, and other surface disturbing activities. This would continue to cause water pollution problems within the Virgin River system from receiving waters. Cooperative efforts between federal agencies, state and local agencies, and private entities would strive to improve, maintain, and protect water quality for beneficial uses. In addition, cooperative efforts would also strive to prevent, abate, and control new or existing pollution sources throughout the county. Point source pollution would not be allowed unless in compliance with state permits. Overall, federal and non-federal actions, laws, regulations, and policies, are designed to protect culinary water, as well as other water sources to meet beneficial uses designated by the state government. However, it is recognized that certain forms of water degradation would continue to occur given the nature of growth and development in Washington County.

It must be noted that the BLM does not own water rights to maintain instream flows needed to sustain critical resources. However, wherever possible, BLM would seek to work cooperatively with all authorizing agencies and affected interests in ensuring that there is enough water available to meet resource management needs for maintenance of riparian areas, listed fishes, recreation, livestock, and wildlife needs. Cooperative efforts are currently underway to study the requirements of water needs for these purposes.

BLM recognizes the value of specific sites on public lands that may have the potential of water storage. Without site specific information through applications and analysis, cumulative impacts to natural resources from reservoir development are undeterminable. The Sand Hollow Reservoir is proposed for development on lands recently exchanged to the WCWCD. The WCWCD contracted out to complete a Purpose and Need Study for the Sand Hollow Reservoir project in 1995. In that study, it was determined that: "Even with conservation, [Washington County's] current water supply will no longer be able to sustain the population at some point depending on growth. It will run out between 2005 and 2010 under low growth and before 2005 under medium and high growth". In conjunction with the Water Conservation and Drought Management Plan (WCWCD, 1996), the Sand Hollow Reservoir and other projects addressed in the conservation plan would provide for the future water needs of the county. It is recognized that water is the limiting factor to growth and development in this desert community. The cumulative effects of the Sand Hollow Reservoir and additional water storage projects and associated facilities on private, state, or public lands would continue

to provide water for future community expansion and growth. Growth projections and associated impacts as a result of future water development are beyond the scope of this Proposed Plan.

Riparian Resources

Riparian resources occupy only 1 percent of the public lands in Washington County. Nevertheless, they comprise some of the most important ecological components of the desert environment typical of the region. Riparian vegetation is crucial to the stabilization of stream banks, purification of flowing water, and to numerous entities that live in and around this ecosystem type. Riparian systems are critical to the integrity of natural systems, provide for desirable recreation opportunities, and provide for wildlife and livestock needs. Riparian zones link habitats, provide travel corridors, and support many listed species. When in proper functioning condition, riparian vegetation lessens the impacts of flood events. Overall, many resource programs in the Proposed Plan contain prescriptions that are designed to maintain, enhance, or protect riparian resources. Surface disturbing activity authorized br BLM would require the use of best management practices and the standard surface protection stipulations in Appendix 1. BLM policy would be to retain riparian resources in public ownership and to acquire such resources where they can be managed and protected. In general, construction of rights-of-way and associated development on public land areas would not be allowed under the avoidance classification, unless no feasible alternative is available and the action is mitigated to the satisfaction of the authorized officer. Energy and mineral resources development on public lands would have minimal impact to riparian resources as such development would not generally be allowed within riparian zones. Developments on state and private lands for sand and gravel would continue to exist with riparian potential, but are generally covered under county and municipal zoning ordinances. Soil and watershed prescriptions include many measures designed to reduce erosion and sedimentation, thereby protecting riparian zones, such as OHV limitations or closures, selected withdrawals, and right-of-way avoidance areas. Many programs could consider structural and nonstructural improvements and practices, both in uplands and in riparian areas to improve riparian and stream functionality. Associated with maintaining and enhancing riparian areas, BLM would generally retain lands within the 100-year floodplain. The WCWCD is also actively involved in floodplain protection and enhancement through the Virgin River Management Plan to protect and preserve water resources and associated riparian zones. Through BLM's implementation of Standards for Rangeland Health, overall condition of riparian resources are expected to be maintained or improved. BLM would take action when it is determined that certain land uses such as grazing, recreation, or OHV use are having a detrimental effect on riparian resources. Actions could include fencing, closures, and other means of eliminating the impacts. Private sector initiatives to protect and restore riparian areas and floodplain zones include the Virgin River Focus Area Plan, the Three Rivers Trail Initiative, the Grafton Heritage Partnership, the Virgin Falls Park Cooperative Management Agreement, and the proposed Santa Clara River Reserve. Together, these initiatives would serve to champion the protection of miles of riverine ecosystems along the Virgin and Santa Clara Rivers and complement the actions proposed in this Plan and the Virgin River Management Plan.

Vegetation Resources

Vegetative management decisions described in this Proposed Plan would facilitate the health of rangelands throughout the resource area. Fire rehabilitation efforts in suitable areas on public lands would prove an effective tool in maintaining species diversity and watershed integrity. Use of native plant species, when practical, and heterogeneous seed mixes in treatment areas would benefit both wildlife and livestock grazing, as well as improve soil retention and watershed values. Short-term closures to livestock grazing (minimum of 1 to 2 years) in areas that have been vegetatively altered through burning or seeding, as well as limiting OHV use throughout much of the resource area, should function to restore these areas to productive sites. Similar rehabilitation and management efforts are ongoing in the county within Forest Service lands, State Lands, National Park Service lands, and lands within the Shivwits Indian Reservation.

BLM's continued collaboration with Washington County on weed control would serve to help curb the proliferation of noxious weeds throughout the region. Invasive weeds will continue to create problems within the county, and efforts to arrest these species by private landowners and state, county, and federal agencies is integral to resolving potential future weed aggression.

Limiting desert vegetation sales to salvage areas only on public lands would increase the pressure on state lands for these resources. As desert landscaping becomes more and more popular in this arid area, the native species used for landscaping purposes would become more difficult to acquire and more expensive to purchase.

Most of the known populations of the dwarf bear-claw poppy and the Siler pincushion cactus occur on, near, or adjacent to private and State lands experiencing residential and commercial growth, intense OHV use, or planned future developments. Past, present, and future disturbances projected for private and state lands in this area would likely lead to a cumulative loss of dwarf bear-claw poppy and Siler pincushion cactus habitat. This Proposed Plan outlines measures to promote the survival and recovery of these species on public lands. Moreover, proposed land exchanges for bear-claw poppy habitat on school trust lands and acquisitions by the Nature Conservancy could further protect this important habitat.

Two state-listed candidate plant species also exist in heavily impacted zones near urban areas. Plant populations are very small, isolated, and fragmented. As of yet, no conservation agreements or strategies have been approved with interested local, state, or government agencies to stabilize declining populations and promote protective management. BLM's goals for these species is to collaboratively pursue such agreements and strategies. This Proposed Plan outlines measures to reduce impacts to habitat on public land so as to prevent future listing under the Endangered Species Act. Until such time that additional studies are completed and strategies developed, these populations are under continued threat due to the nature of development and outdoor activities occurring on private and state lands.

The sensitive plant species listed in Appendix 4, would also continue to incur impacts similar to those described above. Little is known about these plants and their habitat requirements and collaborative studies would be pursued with help from universities and the Utah DWR to develop conservation strategies in the future.

Fish and Wildlife Habitat

The National Park Service, Forest Service, and BLM have developed similar strategies for the protection and maintenance of wildlife habitat on federal lands under their respective jurisdictions. All of these agencies work closely with the Utah DWR to integrate population data and habitat management needs. Emphasis would continue to be placed on the maintenance of key habitats, including fawning, nesting, and crucial forage areas. It is anticipated that healthy, sustainable, and diverse wildlife populations would continue to exist. However, tremendous growth associated with community development has resulted in habitat loss and fragmentation, as well as interruptions to wildlife corridors and migration routes, and would continue to adversely affect wildlife in and near expanding communities. BLM would work cooperatively with affected interests to ensure that the most critical habitat needs are maintained for wildlife purposes. Prescriptions for the protection of these species have been incorporated into virtually every resource section of the Proposed Plan.

Of the six recovery units identified throughout the range of the Mojave desert tortoise in the Desert Tortoise Recovery Plan, two are represented in Utah. The Beaver Dam Slope population is identified as an ACEC in the Northeastern Mojave Recovery Unit and incorporates lands within Utah, Arizona, and Nevada. The other unit, identified as the Upper Virgin River Recovery Unit, is completely inclusive within Washington County in the Red Cliffs Desert Reserve.

Within the Northeastern Mojave Recovery Unit, the Beaver Dam Slope ACEC links with desert wildlife management areas, refuges, and other ACECs proposed for the reminder of this unit to provide a contiguous recovery zone of more

that 1,750 square miles. The Beaver Dam Slope ACEC boundaries have been drawn to coincide as much as possible with the same units in Arizona and Nevada. Coordinated efforts between Utah, Nevada, and Arizona state wildlife agencies, FWS, adjacent BLM units in Utah, Nevada, and Arizona, and affected permittees would lead to the development and implementation of coordinated plans for tortoise management in the Northeastern Mojave Recovery Unit. To the extent feasible, consistent land use prescriptions across state lines are being designed to protect and foster recovery for tortoise populations in accordance with recovery plan objectives. Within the upper Virgin River Recovery Unit, desert tortoise habitat in Washington county would be enhanced by a combination of reserve establishment, habitat acquisition, habitat protection, and long-term species management. The reserve includes a vast majority of high and medium density tortoise habitat within the unit. It connects with lower density habitat for movement corridors and forage areas, which should result in permanent protection of populations in this area. Land acquisition between the State of Utah, private individuals, and BLM through exchanges and purchases would ensure the contiguity of desert tortoise habitat. BLM acquisition of these lands removes the potential development threats that would be detrimental to the tortoise population and habitat. Fencing specific areas of the Reserve protects these lands from adverse urban impacts. Implementation of the HCP should substantially enhance the long-term survival of the desert tortoise in this unit. Without this HCP, there would be little prospect of long-term survival or recovery of tortoises within this unit. In conclusion, desert tortoise habitat would be maintained, enhanced, and protected throughout both Recovery Units through coordinated efforts and implementation of associated plans. Implementation of these coordinated efforts form an integral part of the overall strategy for the recovery of the Mojave desert tortoise.

Most impacts to T&E animals would be mitigated as required by the Endangered Species Act and there would not be significant cumulative impacts to threatened or endangered bird or fish species from activities authorized by permit from BLM. The actions within this Proposed Plan would protect and enhance T&E habitat through land acquisition, habitat enhancement, and restrictions on other uses such as right-of-way authorizations, energy and mineral development, OHV use, and grazing. Although the BLM decisions impose strict limitations and restrictions on OHV use in riparian areas adjacent to habitat for threatened and endangered fish in the Virgin River and associated drainages, enforcement of these policies is difficult. In addition, private and state lands within these riverine systems often remain open to OHV use. OHV use could cumulatively impact threatened and endangered fish populations through the destruction of riparian habitat and increased stream sedimentation. Uncontrolled or unmonitored OHV use on private, state, or public lands could also impact threatened or endangered bird species through noise and physical disruption, especially during nesting seasons.

Grazing

Overall, livestock operations within the county have and will continue to be heavily impacted by urban growth, increased outdoor recreation and OHV use, periodic drought, increased vandalism, market fluctuations, low beef prices, and management constraints for protection of threatened or endangered species and other sensitive resources. Although a major goal of this Proposed Plan is to provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy rangelands, other decisions within this Plan will continue to impact the industry. Land exchanges and strategies to protect riparian resources and threatened and endangered plant and animal habitat and other sensitive resources would result in the potential loss of AUMs, fragment allotments, and impact the ability to manage cohesive and economically viable operations in and near the urban areas. Privately held grazing lands in such areas also will continue to feel the pressure from urban growth, and grazing may be retired to accommodate residential and commercial development. Grazing leases on state lands with and adjacent to incorporated areas will also give way to development as increased land values create better opportunities to generate revenues for the school and institutional trust fund. Cumulatively, specific allotments and specific economic impacts from

future actions at this time are unknown. Overall, a little over 7 percent of the currently administered AUMs could be lost from public administration through land exchanges and HCP Reserve management. More than 90 percent of the AUMs on public land would remain intact, mostly in homogenous blocks of public land, generally within the western portion of the resource area, and in those areas away from developing communities. In these areas, BLM land retention policies and goals to provide permanent open space and reduce conflicts should provide long-term stability for existing operators.

Application of Utah BLM's *Standards for Rangeland Health and Guidelines for Grazing Management* would provide a comprehensive vehicle for assessing the extent to which goals for rangeland management, including soils, vegetation, water quality, and other resources are being met. Where progress is not being achieved because of grazing impacts, corrective actions would be designed and implemented in collaboration with affected permittees. Actions taken to achieve the standards should improve grazing conditions over the life of the Plan.

Recreation

This Proposed Plan, in combination with other countywide planning efforts, provides extensive opportunities for partnerships across jurisdictional boundaries. These cooperative efforts are predicted to have a considerable effect on recreational pursuits throughout the county. Future plans for hiking trails, equestrian trails, mountain bike trails, and OHV trails would involve partnerships with private individuals and organizations, the Forest Service, Utah Division of Parks and Recreation, and adjoining BLM offices working together to develop sound recreation opportunities throughout the region. Limited resources from each of the potential recreation providers would be combined to focus on areas of greatest need. Snow Canyon State Park, for example, would be able to improve services to increased numbers of visitors, while reducing impacts from congestion, through cooperative management agreements with BLM for joint use and management of adjacent public lands. Recreational demand would continue to grow, paralleling population growth within Washington County. In addition, outside visitation to Zion National Park, Snow Canyon State Park, Quail Creek Reservoir, and other popular areas has risen dramatically over the last 10 years, and will continue to do so. As recreational use increases, so will conflicts with other user groups and sensitive resources. The majority of all public lands within the resource area would remain open for recreational use. Hiking, rock climbing, sightseeing, camping, equestrian use, fishing, hunting, and other recreational uses would continue to be accommodated. Limitations due to resource conflict would restrict some activities in specific areas.

Under the Proposed Plan, visitor expectations and the demand for developed recreational camping areas would only be partially met. Restrictions would be placed on the use of some popular undeveloped dispersed camping areas. BLM would not provide the camping experience expected by past visitors and local users in order to protect riparian/riverine resources and other sensitive values. Cumulatively, visitor needs and expectations would not be met because there would be inadequately developed recreation areas on BLM, Forest Service, State, and Zion National Park lands. Conflicts between recreational visitors and livestock grazing would continue in many dispersed camping areas throughout the county. Zion National Park encourages development of "appropriate commercial and recreational facilities in environmentally compatible locations outside the park" (USDA, N.S., 1989); however, no new camping facilities or developments are proposed for public lands due to lack of funds. Large camping and picnicking groups will continue to be underserved due to the lack of developed group camping and day-use areas.

Off-Highway Vehicles

OHV use within Washington County is projected to continue to increase well into the future. However, the public lands within the resource area alone cannot meet the OHV user expectations and still continue to provide protection to sensitive resources. As communities continue to grow, the conflicts associated with the rural and urban interface will also continue. BLM would continue to work with local governments to be consistent with planning and zoning controls in

order to manage this important use. Through this Proposed Plan, OHV use on public lands would generally be limited to existing roads and trails (53 percent of public land within the resource area); however, 14 percent of public land would be open for use without restriction. Sensitive management areas are more restrictive and require OHV use on designated roads and trails (18 percent of public land within the resource area), or closed to OHV use (15 percent of public land within the resource area). The majority of closed areas are generally primitive, roadless areas that currently have no known disturbance within them. The Forest Service, through the Dixie Forest Plan, generally leaves the forest lands open for use, with specific restrictions in meadows and other sensitive areas; however, the Pine Valley Wilderness Area is closed to OHV use. Zion National Park does not allow use of OHVs within its boundaries. Adjacent BLM lands in Arizona are all generally limited to existing roads and trails except in the Beaver Dam Mountains Wilderness Area which is closed to OHV use. Future collaborative efforts with the Dixie National Forest and the Arizona Strip BLM could provide regional trails for OHV use and enjoyment. Through collaborative partnership efforts and future activity level planning, it is BLM's intent to work with interested entities to develop trail systems that promote the use of this popular activity in allowable areas where conflicts can be minimized. Ties to existing trails systems such as the popular Paiute ATV trail could be explored.

Overall, OHV use within the county would continue to be more regulated due to the extensive resource values and special management areas that require on-the-ground protection. In addition, as lands continue to be exchanged out of public ownership in traditional OHV riding areas near the outskirts of communities, riders would be displaced into other outlying areas. Due to sensitive resources on public lands surrounding St. George and other urban centers in the county, unlimited OHV riding would be more restricted. On the other hand, BLM's OHV open area at Sand Mountain adjacent to the proposed Sand Hollow Reservoir Site would become an extremely popular riding area and, in the future, could become a destination point for OHV recreationists.

Visual Resource Management

All of Washington County is comprised of outstanding scenic resources that support a considerable part of the economy in this area. Zion National Park, Snow Canyon State Park, the Pine Valley Mountains, and the vast expanse of landforms, geology, colors, elevation changes, and vegetation types throughout the county and surrounding lands create a unique vista that draws millions of visitors to the area each year.

The past 20 years of growth within the county have created an extreme transformation around the urban and outlying transportation corridors from a visual perspective. The two most scenically important routes are I-15, which bisects Washington County, and Utah Scenic Highway 9 into Zion National Park. The foreground viewshed along I-15 has been substantially changed through the development of the Wal-Mart Distribution Center, new utility lines and underground facilities, water storage tanks, Harrisburg development, private sand and gravel pits, and other private and small residential developments and associated infrastructure. The Proposed Plan would allow for additional visual effects along this corridor through land transfers. Once in private ownership, these lands could be developed into residential or commercial establishments as allowed for under county or city zoning specifications.

Public land retention policies along Highway 9 from LaVerkin to Springdale would complement the State Scenic Highway designation by restricting land transfers and other surface disturbing actions within the viewshed of this sensitive route. Development of state and private lands along this highway would continue to the extent allowed under city and county zoning ordinances.

Utility rights-of-way throughout Washington County, as well as designated communication sites, would continue to impact scenic viewsheds. Designation of the 12 utility corridors would channel large inter and intrastate proposals into these areas; however, scenic impacts would always be present. In addition, numerous rights-of-way would serve single-use purposes and could not be placed within the corridors. Mitigation would be required on all right-

of-way proposals on public lands to encourage environmentally aesthetic results. Communication sites, by virtue of their function, are usually placed on mountains or hill tops in areas that are visually prominent. Often, in areas where BLM would not permit a large tower or communication facility due to sensitive scenic resources, the applicant turns to private or state land owners in the same area for permits. This would continue to scenically impair sensitive areas.

Approximately 69,000 acres within the HCP Reserve north of St. George would have continued future protection from most surface disturbing activities to protect desert tortoises and their habitat. This afforded protection would also preserve the visual integrity of this area. Numerous ACECs and special management areas proposed within this Plan would also serve to protect the high quality visual resources.

Generally, Washington County would continue to experience altered foreground and modified middleground viewsheds with continued growth and development. However, outside of city limits, background viewsheds, which are primarily under federal or state ownership, consisting of extensive cliffs faces, mountains, and plateaus would be preserved through management actions within Zion National Park, Dixie National Forest, Snow Canyon State Park, and BLM management as prescribed in this Proposed Plan.

Wilderness Values

Cumulative impacts from congressional designation or release from protective management of Wilderness Study Areas (WSAs) were addressed in the Utah BLM Statewide Wilderness Final Environmental Impact Statement completed in 1990. This Proposed Plan assumes that the protection afforded to WSAs through the Interim Management Policy would continue until Congress makes that decision; therefore, cumulative effects on wilderness values from implementation of this Plan are not addressed.

Wild and Scenic River-Related Values

The Proposed Plan identifies portions of five rivers comprising 25.7 miles on public lands in the resource area as suitable for inclusion by Congress into the National Wild and Scenic Rivers System. Specific management actions to protect those rivers and their values are incorporated into this Plan. The management actions prescribed for protection of the suitable river segments would protect up to an 0.5-mile corridor along the river from surface disturbing activities that could directly impair the values that made the river eligible for inclusion into the National Wild and Scenic Rivers System.

Future and ongoing cooperative planning efforts with Zion National Park, Dixie National Forest, and other BLM jurisdictions could provide a comprehensive evaluation of the Virgin River basin and tributaries with respect to river-related resource values. Differing planning efforts and time schedules would delay completion of a joint suitability study report.

The Arizona Strip Resource Management Plan Record of Decision (1992) identified 34.5 miles of the Virgin River in Arizona as eligible for inclusion into the National Wild and Scenic Rivers System. The 1996 Record of Decision for the Arizona Statewide Wild and Scenic Rivers Study Report found the Virgin River suitable, but recommended a Section 5(a) study be completed for the full length (234 miles) of the Virgin River within Utah, Arizona, and Nevada due to the complexity and controversy of the issues associated with the entire watershed. This study would require all appropriate federal land management agencies to participate under congressional timeframes subject to adequate funding. Prior to making recommendations for designation, a comprehensive study of this nature would clearly and consistently address all concerns related to the river. However, Congress must act on this recommendation prior to initiation of a Section 5(a) study.

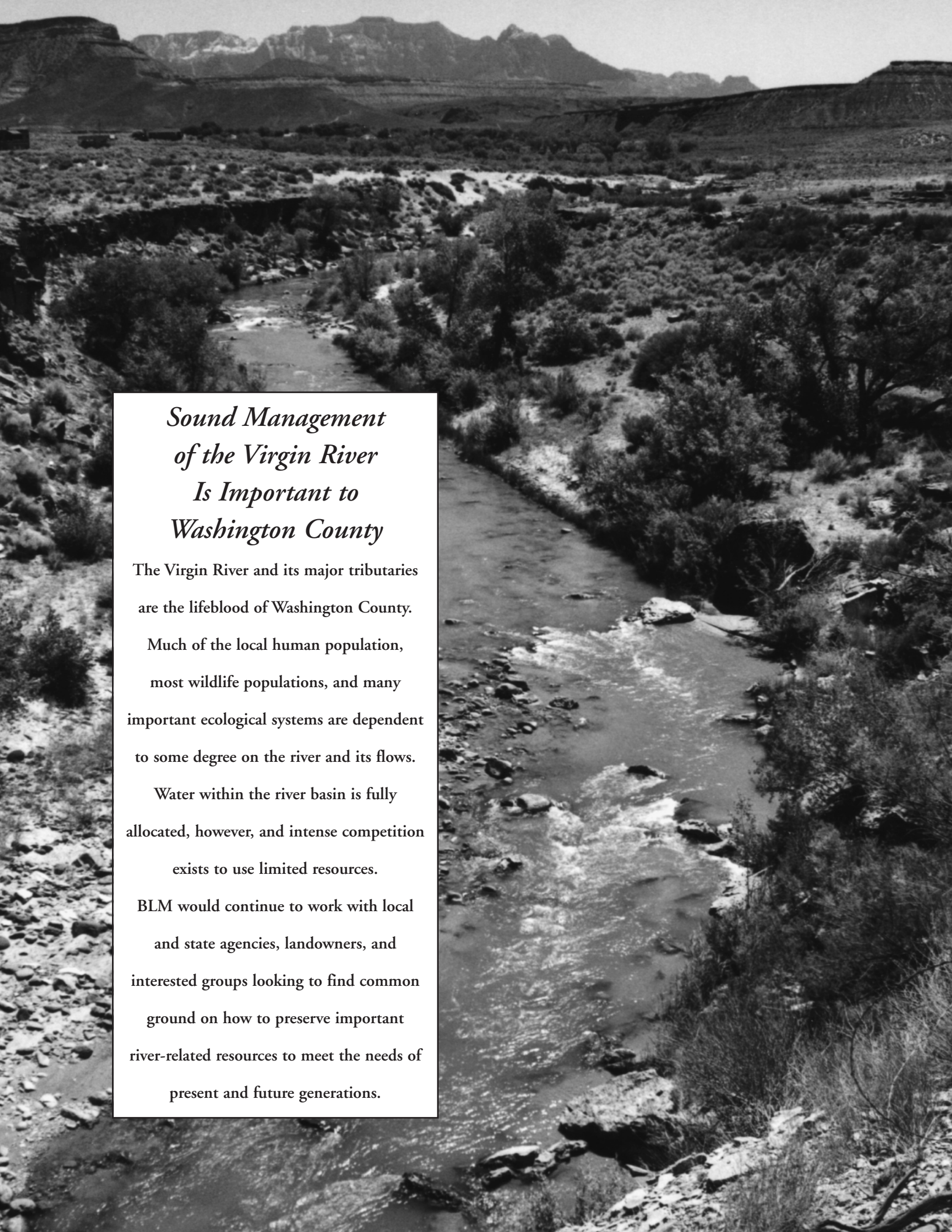
Approximately 1.34 miles of the Virgin River in Utah, contiguous to the Arizona border and within the Beaver Dam Mountains Wilderness Area, would supplement and complement the suitability finding on the Virgin River in Arizona. In addition, BLM's suitability recommendations for the rivers above Zion National Park (Deep Creek/Crystal Creek, North Fork Virgin River, and Oak Creek/Kolob Creek) could correlate with river recommendations in the ongoing Zion

National Park General Management Plan, thereby comprehensively enhancing the management of the river-related values. This is also true of the 8.63 miles along LaVerkin/Smith Creeks, adjacent to, and flowing through, Zion National Park. Six additional river segments that overlay both Park Service and public lands are currently under evaluation through the Park's General Management Planning effort. Joint conclusions as to eligibility, tentative classification, and suitability for the entire segments involved would supersede this Proposed Plan and could add additional suitable river miles for recommendation to Congress for Wild and Scenic River designation.

In addition, the Memorandum of Understanding concerning Wild and Scenic Rivers Studies in Utah (November 6, 1997) establishes a cooperative strategy to coordinate planning activities and share data among the State of Utah, Forest Service, National Park Service, and Utah BLM, as well as other governmental entities. This MOU provides for consistent criteria across agency jurisdictions when jointly evaluating logical watershed units within the state for Wild and Scenic Rivers studies. This approach could serve to provide consensus and promote increased community support for the Wild and Scenic Rivers study process.

Socioeconomic Factors

As BLM completes its expected transfer of up to 18,000 acres of public lands out of federal ownership over the life of this Plan, multiple forces would be brought to bear on the ability of the public lands to continue to meet future needs and expectations of local communities for orderly growth and public purposes. Virtually all of the prospective land transfers would occur in areas of current urbanization and rural development. In 20 years, few, if any, public lands not in special management areas or encumbered with significant environmental resources would remain in or adjacent to growing communities. Options for lease or conveyance of lands for public purposes would eventually be severely curtailed as suitable lands are transferred out of BLM's administration. The transfers would also diminish future opportunities to pursue land exchanges to achieve any one of a number of land management objectives. Communities most likely to be affected are those experiencing the greatest amount of growth and include St. George, Washington, Hurricane, Ivins, Santa Clara, La Verkin, and Toquerville. As buildout occurs on private lands in these areas over the next 20 to 40 years, private land values would increase, agricultural uses would give way to urban development, and great pressure would be brought to bear on public lands already dedicated to other purposes to accommodate additional community expansion. For the most part, the values of the remaining solidly blocked public lands would also increase for their contribution to dispersed recreation, tourism, community watersheds, mineral development, utility and transportation corridors, maintenance of existing livestock operations, and preservation of cultural and historic resources; also, for their role in maintaining important natural assets including open space, scenic values, fragile watersheds, riparian systems, essential habitats for wildlife and endangered species, and opportunities for solitude. As pressure from community growth increases, up to 20,000 acres of Utah School Trust lands that lie within the urban areas and along major transportation corridors in the county would become increasingly important for their potential to accommodate urban expansion. Additional pressure would be brought to bear on BLM and the School and Institutional Trust Lands Administration to reconfigure land ownership so as to make additional School Trust lands reasonably available for community growth. At the same time, important environmental resources now under Trust administration would be placed in public ownership for permanent management and human enjoyment.



Sound Management of the Virgin River Is Important to Washington County

The Virgin River and its major tributaries are the lifeblood of Washington County. Much of the local human population, most wildlife populations, and many important ecological systems are dependent to some degree on the river and its flows. Water within the river basin is fully allocated, however, and intense competition exists to use limited resources. BLM would continue to work with local and state agencies, landowners, and interested groups looking to find common ground on how to preserve important river-related resources to meet the needs of present and future generations.

CHAPTER 4
Public Participation

This Dixie Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (referred to as the Proposed Plan) has been prepared by the Dixie Resource Area with assistance from the BLM Utah State Office and the National Applied Resource Sciences Center in Denver, Colorado. This is the second in a series of three NEPA documents released to the public during a federal planning process. The Draft RMP (the first NEPA document) was sent to the public in October 1995 with an associated comment period until May 1, 1996. Over 800 comment letters were received on the Draft RMP as well as numerous oral comments from federal, state, and local government meetings and public meetings held in December 1995 in St. George, Hurricane, and Salt Lake City. Complete records of public comments are on file in the Dixie Resource Area Office, St. George, Utah.

The Proposed Plan, when published and distributed to the public, will accommodate a 30-day protest period. This protest period is set by regulation and cannot be extended. In addition, a 60-day Governor's consistency review runs concurrently with the first half of the protest period. All protests must be resolved prior to issuance of the Record of Decision, the third and last NEPA document of the planning process. The Record of Decision will be a concise statement of the decisions brought forth from the Proposed Plan. Among other decisions, the proposed ACEC designations and OHV categories (limitations and closures) will be approved when the Record of Decision is signed.

Key Coordination Events for the Dixie RMP

In addition to those events listed in Chapter 5 of the Draft RMP, the following coordination and information meetings were held to solicit public and agency input. Consultation with local, state, and federal government agencies, organizations and individuals, was offered and sought by BLM in order to gather additional data and information as a result of comments on the Draft RMP.

05/23/94 Interagency meeting on wild and scenic rivers

08/04/94 Open house, Salt Lake City, on wild and scenic river planning

08/09/94 Open house, St. George, on wild and scenic river planning

08/10/94 Meeting with Shivwits Band Chairman to brief and coordinate on Draft RMP

09/27/94 Briefing for the State of Utah Resource Development Coordinating Committee on Draft RMP status and strategies

10/25/94 Follow-up to briefing on 9/27/94 for the State of Utah Resource Development Coordinating Committee

03/21/95 RMP briefing for Washington County Planning and Zoning Commission

05/01/95 Meeting with Washington County Commission to receive their concerns on public land issues

08/22/95 Coordination meeting with U.S. Fish and Wildlife Service (FWS), Arizona BLM, and Nevada BLM to reach consistency in plans for desert tortoise management

10/16/95 RMP briefing for Washington County Commissioners, Washington County Water Conservancy District (WCWCD), Mayors, and Five County Association of Governments on RMP issues and status

10/18/95 RMP status and issues briefing for federal/state interagency Management Oversight Group for desert tortoise recovery (FWS, NPS, DOD, Utah DWR, Arizona Fish and Game, Arizona BLM, Nevada BLM, California BLM)

10/27/95 Published and disseminated Draft Dixie RMP/EIS - public comment period begins

12/12/95 Public meeting, St. George, to receive comments on Draft RMP

12/13/95 Public meeting, Hurricane, to receive comments on Draft RMP

12/14/95 Public meeting, Salt Lake City, to receive comments on Draft RMP

03/19-20 1996 Meetings with local and state governments and BIA to receive comments on Draft RMP

03/26-27 1996 Meetings with local and state governments to receive comments on Draft RMP

04/17/96 Meeting with Grand Canyon Trust and interested citizens on RMP issues

05/01/96 Formal public comment period ended - received over 800 comment letters and hundreds of verbal comments

05/27/96 Meeting with Grand Canyon Trust and city officials on land disposal and RMP status

06/10/96 Meeting with Utah Governor's Office of Planning and Budget on issues pertaining to plan completion and wild and scenic rivers

01/21/97 Field tour with Utah and Arizona FWS, Utah DWR, and Arizona Fish and Game for tortoise habitat planning on the Beaver Dam Slope

02/05/97 Meeting with Washington County School District on long-term school site options

02/16/97 Briefing for Shivwits Band Council on land use and planning issues adjacent to the reservation

02/20/97 Meeting with mountain bike community on bike trails and development strategies

02/25/97 Meeting and field tour with Zion National Park officials on planning coordination and land use issues affecting Zion National Park

03/11/97 Field tour and public meeting for land use, recreation, and planning issues at Land Hill

03/27/97 Meeting with federal/state interagency Management Oversight Group to coordinate land use plans for desert tortoise issues

04/02/97 Meeting with Utah Division of Water Resources on potential reservoir sites

05/27/97 Meeting with State Parks Focus Group on Snow Canyon State Park coordination for adjacent public lands

07/29/27 Meeting with WCWCD on wild and scenic river issues and transportation/utility corridors in RMP

09/09/97 Meeting with Utah Department of Transportation on transportation issues and planning

10/15/97 Meeting with WCWCD on reservoir issues

10/15/97 Meeting with Utah Division of Parks and Recreation on OHV and recreation issues

10/23/97 Meeting with Utah Division of Parks and Recreation on Snow Canyon State Park planning coordination

10/23/97 Meeting with Dixie National Forest staff (Pine Valley Ranger District) on planning coordination and land use issues

10/28/97 Briefing for the State of Utah Resource Development Coordinating Committee on RMP status and strategies

10/30/97 Meeting with planning staffs of Washington County and Five County Association of Governments on RMP issues and economic impacts

11/06/97 Meeting with Washington County Planning staff on potential major transportation routes

11/07/97 Coordination with State Parks staff on OHV issues in RMP

11/19/97 Briefing of Five County Association of Governments Steering Committee on RMP status and related issues

11/20/97 Meeting and field tour with Wasatch Trials Motorcycle Association to look at alternative use areas for competitive events

11/97-03/98 Series of meetings with state and local agencies on wild and scenic river coordination

01/06/98 Briefing for Southern Utah Planning Authorities Council on RMP status and issues

01/14/98 Meeting with FWS on consultation issues related to the Proposed RMP

01/16/98 Meeting with WCWCD on potential reservoir sites and potential impacts of designations under the Wild and Scenic Rivers Act

01/28/98 Briefing and field tour for Utah BLM Resource Advisory Council on RMP and recreation issues

03/06/98 Briefing for state and local officials on wild and scenic river suitability recommendations

03/06/98 Meeting with Utah Division of Water Resources on water issues and potential reservoir sites

05/18/98 Briefing for Washington County Commission on RMP status and issues resolution

Planning Consistency

The BLM's planning regulations require that resource management plans be consistent with officially approved or adopted resource-related plans of other federal agencies, state and local governments, and Indian tribes, so long as the guidance and resource management plans are also consistent with the purposes, policies, and programs of federal law and regulations applicable to public lands.

Table 4-1 outlines the planning consistency of the Proposed Plan with the approved management plans, land use plans, and controls of other agencies with jurisdiction in or adjacent to the planning area. The Dixie Resource Area will continue to collaborate with federal agencies, state and local governments, and Indian tribes on implementation of the RMP and on pursuing consistency with other plans and will move towards integration of such plans to the extent that they are consistent with federal laws, regulations, and policy directives. See the discussion in Chapter 1 for additional information.

TABLE 4-1 • Plan Consistency Review

NAME OF PLAN Issues/Conflicts	CONSISTENT	PARTIALLY CONSISTENT	NOT CONSISTENT	DISCUSSION
Washington County General Plan (as Amended in 1994)		X		
1) Water Rights				County Plan calls for multiple use management to allow full use of water rights on the Beaver Dam Wash. Proposed Plan management goals do not allow for proposed reservoir site on Beaver Dam Wash.
2) Recreation				States that additional nonmotorized recreation is not needed. Proposed Plan assigns one primitive recreation area outside of WSA boundaries as closed to OHV use.
3) Wild and Scenic Rivers				Declares no streams are eligible based on lack of outstandingly remarkable values. Nevertheless, it calls for basinwide, interagency studies with local participation. Proposed Plan finds portions of nine rivers eligible.
4) Mineral Leasing				Assumes T&E habitats should be left open for leasing with special stipulations and NSO stipulations should never be applied in areas greater than 40 acres. Proposed Plan applies NSO to a large portion of T&E habitats.
5) Mineral Materials				Calls for all public lands outside of designated wilderness to be open to mineral materials with special stipulations in T&E habitats. Proposed Plan closes numerous areas including most T&E habitats.
6) Woodland Products				Calls for all public lands to be open for sale of woodland and vegetative products. Proposed Plan selectively closes sensitive areas and eliminates sales of all desert vegetation except in salvage areas.
7) Wilderness Inventories				Calls for no more inventories and protective management, including wild and scenic rivers. Proposed Plan imposes limited protective management on recommended river segments and envisions potential interagency studies for others.
8) ACECs				Says ACEC designation should not be necessary if BLM would adopt activity plans with local input to protect the resources at risk. Proposed Plan specifies 10 ACECs for designation. Federal law requires BLM to give priority to designation and protection of ACECs.

TABLE 4-1 (continued) • Plan Consistency Review

NAME OF PLAN Issues/Conflicts	CONSISTENT	PARTIALLY CONSISTENT	NOT CONSISTENT	DISCUSSION
9) R.S. 2477 Roads				Calls for inventory and map of all county and BLM roads. Proposed Plan acknowledges existence and importance of roads but does not attempt to resolve R.S. 2477 assertions pending results of ongoing legal and administrative actions statewide. Proposed Plan agrees that road closures must be coordinated with county officials and users.
10) State Trust Land Exchanges				Opposes exchanges with the state that cross county lines. Given the statewide MOU on State Trust inholdings exchanges, it would be difficult for the state and BLM to avoid out-of-county exchanges. The Proposed Plan does project equal transfer and acquisition of lands within the County, as well as the possibility of in-county land reconfiguration with the State School Trust to meet goals for economic expansion.
Coordination Plan for Washington County's Urbanizing Region (1997)	X			This plan incorporates the goals, issues, and plans of the following communities: Ivins, Santa Clara, St. George, Washington, and Hurricane, and had input from Virgin, LaVerkin, Toquerville, Springdale, Washington County, and the Five County Association of Governments.
Washington County Water Management and Conservation Plan(1996)	X			
Washington County Habitat Conservation Plan (1995)	X			
Snow Canyon State Park Resource Management Plan (1998)	X			
Virgin River Management Plan (1998)	X			
Strategic Economic Development Plan for the Paiute Indian Tribe	X			
Five County Association of Governments: Overall Economic Development Plan (1995-96)	X			
Utah State Water Plan, Kanab Creek/Virgin River Basin (1993)		X		
1) Wild and Scenic Rivers				BLM acknowledges that the State of Utah has concerns over federal reserved water rights associated with the Wild and Scenic Rivers Program.
2) Reservoir Sites				Proposed Plan is inconsistent with the following potential reservoir sites: North Creek, Upper LaVerkin, Fort Pearce, Beaver Dam, Dry Wash, Tobin Wash
SITLA: Dixie Planning Unit General Management Plan (1987)		X		Inconsistencies with treatment of state lands within the Washington County HCP Reserve
Rockville Master Plan (1989)	X			
City of St. George Master Plan (1995)	X			
Dixie National Forest Land and Resource Management Plan (1986)	X			
Zion National Park Statement for Management (1994)	X			
BLM Shivwits Resource Area RMP	X			
BLM Vermillion Resource Area RMP	X			
BLM Cedar/Beaver/Garfield/ Antimony RMP	X			
BLM Kanab/Escalante RMP	X			

Additional city plans exist for Hurricane, Ivins, LaVerkin, Leeds, New Harmony, Santa Clara, Springdale, Toquerville, Virgin, Washington, Enterprise, and Hildale; however, these plans were not submitted to BLM as part of this planning consistency review.

The BLM Nevada Stateline RMP has not been completed to date. This plan has been considered but is not analyzed in this consistency overview.

Distribution - List of Agencies and Organizations

The Draft RMP listed federal, state, and local agencies, and Indian tribes that were furnished a copy of the Draft RMP. Chapter 5 of this Proposed Plan lists the agencies and organizations that commented on the Draft RMP. The following is a list of agencies, organizations, businesses, and interest groups that have been sent a copy of the Proposed Plan. In addition, copies have been made available to numerous interested individuals.

Federal Agencies

Department of Agriculture
Agricultural Stabilization and Conservation Service
Forest Service
Dixie National Forest
Natural Resource Conservation Service
Department of the Interior
Bureau of Mines
Bureau of Indian Affairs
Bureau of Land Management
  Arizona Strip Field Office
  Cedar City Field Office
  Las Vegas Field Office
Fish and Wildlife Service
Geological Survey
National Park Service
Zion National Park
Office of Environmental Affairs
Off-Shore Environmental Assessment Division
Bureau of Reclamation
Department of Commerce
Advisory Council on Historic Preservation
Environmental Protection Agency
Officer of the Solicitor
Headquarters - U.S. LEVX
Department of Energy
Pentagon (Air Force)
Army Corps of Engineers

State of Utah Agencies

Office of the State Planning Coordinator - Clearinghouse
Department of Natural Resources
Department of Community and Economic Development
Department of Environmental Quality
Division of Environmental Health
Division of Water Resources
Division of Wildlife Resources
Division of Forestry, Fire, and State Lands
Division of Indian Affairs
Division of Water Quality
Division of Oil, Gas, and Mining
Division of State History
State Institutional Trust Lands Administration
Utah OHV Advisory Council
Utah Geological Survey

Local Agencies/Government

Five County Association of Governments
Washington County Commission
Kane County Commission
Washington County Water Conservancy District
Towns/Cities of:
  St. George
  Rockville
  Washington
  Springdale
  Santa Clara
  Ivins
  New Harmony
  Toquerville
  Leeds
  Hildale
  Hurricane
  LaVerkin
  Enterprise
  Virgin
  Escalante
  Boulder

Indian Tribes

Paiute Indian Tribe and Local Band Offices

Organizations and Businesses

American Rivers
Ash Creek Special Services District
Bicycle Utah
Bicycle Vacation Guides
Bicycles Unlimited
Bike Zion Bicycle Shop
Blue Ribbon Coalition
Brian Head Cross Country
Buzzards Motorcycle Club
Dixie Escalante REA
Dixie Wildlife Federation
Friends of Arizona Rivers
Gas Resources

Glacier Guides
Grand Canyon Trust
Hurricane Canal Company
National Parks and Conservation Association
National Speleological Society
National Wildlife Federation
Natural Resources Defense Council
Nature Conservancy
Pacificorp
Pathfinder Mines
Phillips Petroleum Company
Pioneer Exploration
Plata Clay Corporation
Public Lands Council
Questar
Rocky Mountain ATV
Sierra Club
South Central Communications
Southern Utah Endurance Riders
Southern Utah Wilderness Alliance
Southwest Resource Council
St. George Off-Road Association
USMX, Inc.
USRA - Buzzards Motorcycle Club
US West Communications
Utah Associate Municipal Power Systems
Utah Power and Light
Utah Rivers Conservation Council
Utah Trail Machine Association
Vegas Valley Four Wheelers
Wasatch Trials Association
Western Clay Company
Wilderness Society
Wizards Motorcycle Club
Utah Woolgrower's Association

Congressional

Utah Delegation

Interested/Affected Individuals

Permittees
Interested Private Landowners and Other Parties

List of Preparers

PROPOSED PLAN TEAM	TITLE	ASSIGNMENT
Dixie Resource Area:		
Jim Crisp	Area Manager	Team Leader, Socioeconomic Factors, Transportation, Wild and Scenic Rivers, Water Resources
Lauren Mermejo	Project Manager	Planning and NEPA Coordination, Analysis
Bob Douglas	Wildlife Biologist	Fish and Wildlife, T&E Species
Kim Leany	Range Conservationist	Grazing, Vegetation, Forestry, Fire
Ruth Robins	Range Clerk	Grazing Table
Stephanie Ellingham	Natural Resource Specialist	Soil, Water, and Riparian Resources
Larry Gore	Geologist	Energy and Minerals, Hazardous Wastes
Randy Massey	Realty Specialist	Lands
Kathy Abbott	Realty Specialist	Lands
Dave Mermejo	Natural Resource Specialist	Visual Resources, Wilderness
R.J. Hughes	Outdoor Recreation Planner	Off-Highway Vehicles, Recreation
Gardiner Dalley	Archeologist	Cultural and Paleontological Resources
Utah State Office:		
Cheryl Johnson	GIS Specialist	Arc Info Mapping
Maggie Kelsey	Coordinator for Wilderness and Wild and Scenic Rivers	Analysis/Review
Holly Roberts	Planning Coordinator	Analysis/Review
Greg Thayn	NEPA Coordinator	Review
Boyd Christensen	State Water Specialist	Review
Ron Bolander	T&E Coordinator	Review
Earl Hindley	Riparian Coordinator	Review
Garth Portillo	Cultural Resources Coordinator	Review
Suzanne Garcia	Recreation Coordinator	Review
Sheldon Wimmer	Fire Coordinator	Review
Ted Stephenson	Special Assistant to State Director	Review
National Applied Resource Sciences Center, Denver, Colorado		
Kathy Rohling	Editor	Editing
Jennifer Kapus	Visual Information Specialist	Graphics and Layout

Special thanks to Bob Lawsen, volunteer photographer

EIS Availability

Copies of this Proposed Plan will be available for public inspection at the BLM offices listed below:

Washington Office of Public Affairs
18th and C Street, N.W.
Washington, D.C. 20240

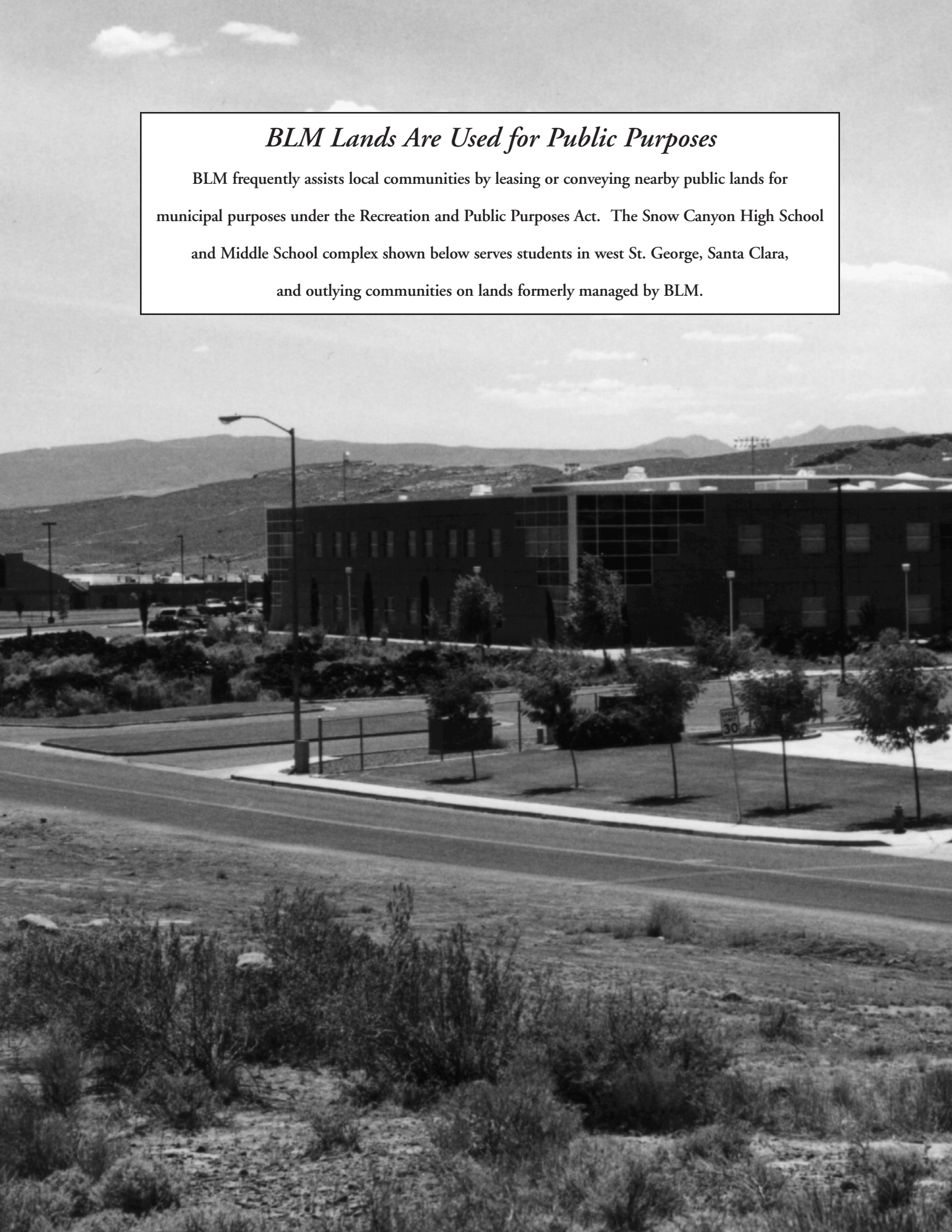
Utah State Office
324 South State
Information Access Center (4th Floor)
Salt Lake City, Utah 84111-2303
Phone (801) 539-4001

Cedar City Field Office
176 East DL Sargent Drive
Cedar City, Utah 84720
Phone (435) 586-2401

Dixie Field Office
345 East Riverside Drive
St. George, Utah 84790
Phone (435) 688-3216

BLM Lands Are Used for Public Purposes

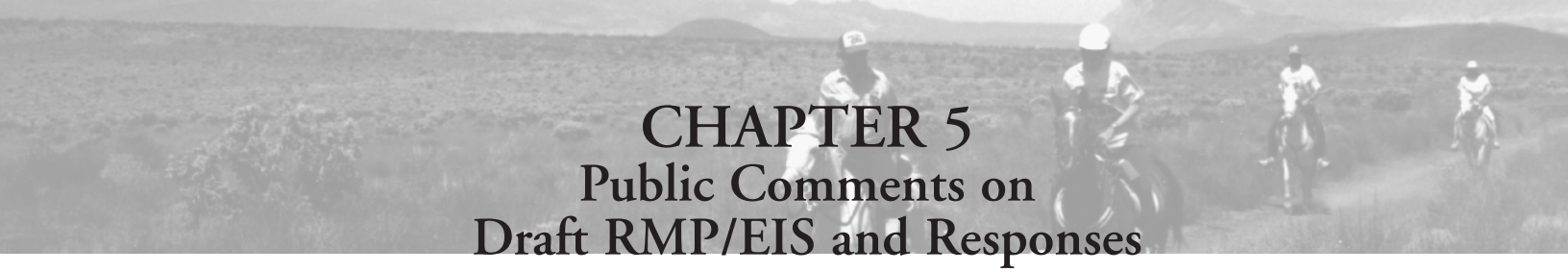
BLM frequently assists local communities by leasing or conveying nearby public lands for municipal purposes under the Recreation and Public Purposes Act. The Snow Canyon High School and Middle School complex shown below serves students in west St. George, Santa Clara, and outlying communities on lands formerly managed by BLM.



Public Lands Provide Opportunities for Motorized Recreation

Public lands in Washington County are increasingly popular for motorized recreation including organized activities such as this motorbike trials event near Sand Mountain. Increased urbanization and environmental constraints present a real challenge to BLM and user groups in locating suitable areas for riding.

Demand for four-wheeling on public lands in Washington County has exploded in recent years. BLM proposes to work with user groups, local and state governments, and adjacent land management agencies to coordinate the development, use, and management of linked-trail systems and open-use areas.



CHAPTER 5
Public Comments on Draft RMP/EIS and Responses

Public Comments

This chapter addresses the public comments received on the Draft RMP and BLM's response to those comments. All comments, written or oral, were reviewed and considered. Comments that presented new data, questioned facts or analysis, or raised questions or issues bearing directly on the alternatives, baseline information, or environmental analysis were responded to in this Proposed Plan. Comments expressing personal opinions or that had no specific relevance to the adequacy or accuracy of the Draft RMP were considered but not responded to directly. In addition, written and verbal comments received after the close of the comment period on May 1, 1996, were not addressed.

During the comment analysis process, all relevant comments were categorized and coded into 18 areas of concern. These broad categories are listed below by topic. Of the 1,600 names on the RMP mailing list, over 800 responded to the Draft RMP through comment letters and comment forms. Relevant oral comments received during the comment period reflected comments brought forth in writing. Each comment letter from the public was assigned a letter number and specific comments from each letter were organized into appropriate categories and given corresponding response numbers.

The following categories and corresponding response numbers were used for this comment/response process:

Off-Highway Vehicles	OHV-1 to OHV-21
General (General Comments)	GEN-1 to GEN-21
Areas of Critical Environmental Concern	ACEC-1 to ACEC-8
Visual Resource Management	VRM-1 to VRM-4
Lands	LAND-1 to LAND-29
Wild and Scenic Rivers	WSR-1 to WSR-28
Riparian Resources	RIP-1 to RIP-3
Range Management	RAN-1 to RAN-6
Wilderness	WILD-1 to WILD-3
Water	WATER-1 to WATER-23
Air	AIR -1
Recreation	REC-1 to REC-5
T&E Species	T&E-1 to T&E-12
Habitat Conservation	PlanHCP-1 to HCP-3
Minerals	MIN-1 to MIN-5
Soils	SOIL-1
Socioeconomic Factors	SOEC-1 to SOEC-2
Fire	FIRE-1

Table 5-1 contains the assigned letter numbers, the name of the organization and/or names of those individuals commenting on the Draft RMP, as well as corresponding comment codes. Some letters did not require a response.

TABLE 5-1 • Organizations/Individuals Commenting on the Draft RMP

13	CITY OF LA VERKIN
FIRE-1; GEN-13,14,15,16,17,18,21; HCP-1,2,3; LAND-14,15,20,21,22,23,24,29; MIN-3; SOEC-1,2; T&E-2,4,5,6,7,8,9; WATER-2,7,8,9,10,11,12,13,14,15,23; WSR-1,4,7,8,9,10,11,15,17-26,28;	
23	GRAND CANYON TRUST JEFF MEILBECK
ACEC-3,4; GEN-1,4,6,7,8,9; HCP-1,2; LAND-2,6,10,11,12,13,14,15,17; REC-1; VRM-1,2,3; WSR-3b; WILD-2; WATER-3	
26	HURRICANE CANAL COMPANY
GEN-19; LAND-20,26; OHV-13; WSR-7,8,11,14,15,17-26	
27	INTERESTED PARTY FOR DRAFT DIXIE RMP
OHV-1,2,3,4,8	
28	INTERESTED PARTY FOR DRAFT DIXIE RMP
OHV-1,2,3,4,8	
29	INTERESTED PARTY FOR DRAFT DIXIE RMP
OHV-1,2,3,4,8	

30 INTERESTED PARTY FOR DRAFT DIXIE RMP

31 INTERESTED PARTY FOR DRAFT DIXIE RMP

LAND-3

32 INTERESTED PARTY FOR DRAFT DIXIE RMP

OHV-1,2,3,4,8

33 INTERESTED PARTY FOR DRAFT DIXIE RMP

OHV-1,2,3,4,8

34 INTERESTED PARTY FOR DRAFT DIXIE RMP

OHV-1,2,3,4,8

35 INTERESTED PARTY FOR DRAFT DIXIE RMP

36 INTERESTED PARTY FOR DRAFT DIXIE RMP

OHV-1,2,3,4,8

37 INTERESTED PARTY FOR DRAFT DIXIE RMP

LAND-3

38 INTERESTED PARTY FOR DRAFT DIXIE RMP - ROBERT

OHV-1,2,3,4,8

39 INTERESTED PARTY FOR DRAFT DIXIE RMP - SAM H.

OHV-1,2,3,4,8

40 INTERESTED PARTY FOR DRAFT DIXIE RMP - SHANE

OHV-1,2,3,4,8

42 JOLICOEUR MASONRY CO. INC.

OHV-1,2,3,4,8

43 JONES LAND & LIVESTOCK KENNETH JONES

47 MAYOR CITY OF HURRICANE

GEN-13,19; LAND-20;26; OHV-13; SOEC-1; VRM-3; WATER-9,13,16; WSR-1,7,8,10,11,14,15,17-26

71 THE NATURE CONSERVANCY OF UTAH - JOEL TUHY MOAB PROJECT OFFICE

ACEC-5,6,7; T&E-2,3; LAND-19; MIN-1,2

74 TREES RANCH LTD. - JIM TREES

LAND-5

81 U.S.E.P.A. REGION VIII

GEN-10,11,12; HCP-3; LAND-26; SOIL-1; WATER-2,5,6

91 WASHINGTON COUNTY COMMISSION

FIRE-1; GEN-20; LAND-20,26; OHV-3,4,5,13,15; RAN-3,4,5,6; SOEC-2; VRM-3; WATER-16; WSR-1,7,8,10,11,14,15

93 ZION NATIONAL PARK SERVICE SUPERINTENDENT

ACEC-8; FIRE-1; GEN-18; LAND-1,5,6; REC-1; T&E-10,11,12; VRM-1,2; WILD-2; WSR-5,27

94 DAVE ACHAMMER

OHV-1,2,3,4,8

95 DAVE ACHAMMER

OHV-1,2,3,4,8

96 CAMERON ADAMS

OHV-1,4,8,10

98 JEFFREY D. ADAMS

100 CURTIS PETERSON

102 TOM ADAMSON

103 MR. & MRS. H.K. ADLER

104 TODD AILES

OHV-5,6,7,8

106 J.D. ALGENLEE

OHV-5,6,7,8

107 BRUCE ALLDREDGE

108 DAVE ALLDREDGE

110 MAURICE AMOSA

111 ZACH ANDELIN

112 BRENT & RYAN ANDERSON

OHV-1,2,3,4,8

113 C. ALLEN ANDERSON

OHV-1,2,3,4,8

114 GEORGE M. ANDERSON

115 JOHN ANDERSON

117 MATT ANDERSON

118 MOE & NOEL ANDERSON
RIP-2

121 VANETA ANDERSON

122 WAYNE ANDERSON
OHV-1,2,3,4,8

123 JOHN ANDREWS
OHV-1,2,3,4,8

126 WILMA ANGIUS
LAND-3

131 BRENT G. ARNOLD, PACIFICORP
LAND-7,8,9; OHV-13

133 JEANNE ARNOLD
LAND-3

134 SUSAN ARTHEARN
LAND-3

135 STEVE ASALL
OHV-1,2,3,4,8

136 KELLY ASHCROFT

137 KEVIN ASHLER
OHV-1,2,3,4,8

138 CANDI & J. SCOTT ASHMAN
LAND-3

141 JAMES M. ATON
ACEC-3; VRM-1

142 PAUL AUSTGEN
OHV-1,2,3,4,8

145 ASHLEY AVERETT

148 RONALD L. BAILEY

149 FROD G. BAILLIE
OHV-5,6,7,8

150 RONALD D. BAILOR

153 JASON R. BAKER

154 BRUCE BALLARD

155 DAISY BALLARD
LAND-3

157 LARRY & NELLIE BALLARD
LAND-3

159 TERINA BALLARD

160 PENNY BANNISTER
LAND-3

161 BRAD BARBER, STATE PLANNING COORDINATOR, STATE OF UTAH
GEN-1; LAND-14,20,26,27,28; MIN-4,5; OHV-4,13,18,21; REC-2,3,4; WATER-2,8,10,11,15,17,18,19,20,21; WSR-1,8,11,12,13,16

162 TOM BARBER, USRA - BUZZARDS MC. CLUB
OHV-3,11,12

164 CRAIG & CINDY BARLOCKER

165 MARK BARNES

166 MIKE BARNES

168 D. BARRETT
OHV-5,6,7,8

169 E. SHERMAN BARRUS
OHV-1,2,3,4,8

172 TIM BARTLETT

173 JAMES A. BARTON
OHV-1,2,3,4,8

174 DANIEL & JAMES BEAMS

177 MICHAEL BEARD
OHV-5,6,7,8

178 AUSTIN BEARDALL

181 ALAN B. BEAUMONT

182 DON BECK
OHV-1,2,3,4,8

183 JOAN BECK
OHV-1,2,3,4,8

185 MARCO BEFROY

187 BARBARA BELL

188 JASON S. BELL

189 JOLENE BELL
WILD-2

190 JUSTIN BELL

192 L. BENNETT & R. BENNETT
LAND-3

194 JEFF BENSON

195 DOUG BERG

197 ROBERT BERRETT

198 ED BERRY

200 LYNN BERRYHILL

LAND-1,3; VRM-1,2

201 EMMA JEAN BESS

202 BILL AND ELAINE BEST

OHV-3

203 BIGGERS; BARBARA , STEPHANIE & GERALD

OHV-5,6,7,8

205 ALLEN N. BINES

OHV-1,2,3,4,8

206 RAY BIRCH

209 BLAKE; KEITH, BILLIE, KADEE, WADE, NATHAN, TERI, ROYAL, CAROL, & JANAE

211 SHAWNA BLAKE

212 CHRISTOPHER BLAKE, MAYOR, TOWN OF IVINS

FIRE-1; GEN-13,14,15,16,17,18,21;
LAND-14,15,20,21,22,23,24,29; MIN-3;
SOEC-1,2; T&E-4,5,6,7,8,9;
WATER-2,7,8,9,10,11,12,13,14,15,23;
WSR-1,4,7,8,9,10,11,15,17-26,28

214 RICHARD BOIVIE , SANTA CLARA CITY

GEN-13; LAND-20,26; SOEC-2; WATER-2,8,9,11;
WSR-7,8,9,11,

218 BLAINE BOVEE

OHV-1,2,3,4,8

220 EDWARD L. BOWLER

RAN-1

224 AL BRABENDER

OHV-1,2,3,4,8

225 BRET AND RANDALL BRADFORD

OHV-1,2,3,4,8

227 JOSEPH BRADLEY

OHV-1,2,3,4

228 STEVEN BRADLEY

230 PAUL BRADSHAW

231 BUCK BRADY

235 JOHN BRAWALL

236 JIM BREWER

OHV-1,2,3,4,8

237 SHELBY BREWER

OHV-1,2,3,4,8

238 MAYOR, TOWN OF SPRINGDALE

LAND-1; VRM-1,2

239 STUART BRINGHURST

240 QUINN K. BRINKERHOFF

241 LINDA BRINKLEY

LAND-3

243 DAVE BROADY

OHV-5,6,7,8

244 THELLA BROCK

247 AARON P. BROWN

OHV-1,2,3,4,8

249 GARY BROWN

OHV-1,2,3,4,8

250 JODI BROWN

252 BRYON & LOU JEANNE BRUNSON

OHV-1,2,3,4,8

253 WAYNE BUATTE

256 DONALD BURGENER

OHV-1,2,3,4,5,8

259 TERRENCE BURNER

262 JACK & JAN BURNS

LAND-3

264 KATRINA BURNS

265 TOM BURROWS

266 JAN ELLEN BURTON

WILD-2; WSR-2; VRM-1; WATER-1

267 JENETTE BURTON

AIR-1; RAM-2; VRM-1; WATER-1; WILD-2,3; WSR-3b

268 MILLY & GENE BUTERA

REC-1

269 DONNA & LEE CALAHAN

OHV-1,2,3,4,8

271 MARJORIE CALL, CURTIS CALL, CLAYTON R. CALL

LAND-3

272 DON CAMPBELL

OHV-5,6,7,8

274 JERRY & NANCY CAMPBELL

OHV-3

275 JOEY CAMPBELL

276 VAL RAE CANDIE

277 DOUGLAS V. CANNON

279 RONALD V. CANNON

280 PAUL M. CARDON

281 RICHARD & CINDI CARLSON

282 RICHARD C. CARLSON

283 TERRY CARLSTON

284 CRAIG CARNER

OHV-5,6,7,8

286 CHAD JOYCE & CODY CARTER

OHV-5,6,7,8

287 JOHN CARTER

291 RICK CAVATAIO

OHV-5,6,7,8

292 RONALD J. CAVATAIO

OHV-5,6,7,8

295 ROBERT G. CHADWICK

OHV-1,2,3,4,8

296 MYNDI CHAMBERS

OHV-5,6,7,8

297 BLAIN CHAPPELL

OHV-1,2,3,4,8

298 KERRY CHARTIER

OHV-5,6,8

299 STEVEN M. CHASE

OHV-1,2,3,4,8

300 STAN CHECKETTS

OHV-1,2,3,4,8

302 ANITA & KELLY CHRISTENSEN

LAND-3

304 DARRICK CHRISTENSEN

305 DAVID CHRISTENSEN

OHV-1,2,3,4,8

306 KIM & CLIFF CHRISTENSEN

307 SCOT J. CHRISTOFFERSON

308 DAVE CLARK

309 JOSH CLARK

310 N. CLARK

312 ROBERT CLARKE

313 MARK A. CLEMENS

WATER-1; WILD-2; WSR-6

314 ESTELLE CLICK

OHV-1,2,3,4,8

315 SARAH CLINGER

ACEC-3; L-2,3; VRM-1,2

316 TERRILL CLOVE MAYOR, WASHINGTON CITY

FIRE-1; GEN-13,14,15,16,17,18,21;
LAND-14,15,20,21,22,23,24,29; MIN-3;
SOEC-1,2; T&E-4,5,6,7,8,9;
WATER-2,7,8,9,10,11,12,13,14,15,23;
WSR-1,4,7,8,9,10,11,15,17-26,28

317 ZACH CLYDE

OHV-1,2,3,4,8

318 LONNIE DEAN COCHRANE

319 PAUL COCHRANE

320 JUSTIN COLE

321 ALTON B. COLF

322 AUDREY & JEFFREY K. COLF

323 KEITH & CINDY COLLINS

OHV-1,2,3,4,8

324 LOYD COLLINS

325 BOYD COLTON

OHV-5,11

327 RUSTY CONWAY

OHV-5,6,7,8

328 ADENA COOK, PUBLIC LANDS DIRECTOR
OHV-1,4,10,11

329 BLAKE COOK
OHV-1,2,3,4,8

330 DEREK L. COOPER
ACEC-2; GEN-1; OHV-2,4,10; WSR-1

333 SHAYNE A. & JANAE COPELAND

334 BRYAN CORBIN
OHV-1,2,3,4,8

335 JASON CORDNER
OHV-5,6,7,8

338 ALMA J. COX
LAND-3

339 EVAN COX
LAND-3

340 KYLE W. COX

341 LARIN COX

342 MARVIN COX

343 ROBERT L. & EVELYN W. COX
LAND-3

344 TRACY COX

345 JANET CRAWFORD

346 C. KYLE CRESBY

350 ANNE & JEFF CROUCH

354 CUSTER
OHV-1,2,3,4,8

355 A. D.

356 JIM L. DALLEY

357 JAMES & DEBRA DANIELS

358 JOHN JACK DANIELS

359 TOM & DOTTIE DARLING
OHV-5

361 CLAYTON DAUGHENBAUGH
WILD-2; WSR-2

362 AUDREY DAVIDSON

364 GARY LEE DAVIS

365 STEVEN ANDREA TRACY JANA & KARLA DAVIS
OHV-5,6,7,8

369 MARIA DELA CRUZ
OHV-5,6,7,8

370 ELLIOT DELTTON

372 DONALD E. & ALTA DEMILLE
LAND-3

373 JUDITH DEMILLE, DWIGHT DEMILLE
LAND-3

375 MARY JANE & ARDELL D. DEMILLE
LAND-3

378 VILO DEMILLE
LAND-3

381 VINCE DESHAZER
OHV-1,2,3,4,8

382 KEITH R. DEWITT

384 MARSHA DIAL

385 FILOMENA DIAZ-JOHNSON
LAND-3

386 SIDNEY DICKSON
OHV-1,2,3,4,8

387 KENNETH DIXON
OHV-5,8

389 JOHN DODDY
OHV-1,2,3,4,8

390 PAMELA M. DOERR, JOSEPH P. DOERR
LAND-3

392 JOHN DOMBEK
WILD-2,3; WSR-3b

393 WAYNE DOMKE

394 STEVEN DONE

396 ROGER L. DUBA
AIR-1; RAN-2; WATER-1; WILD-2,3; WSR-3b

399 JIM DYER

400 MARY EAMES

401 RUSSELL EARDLEY

402 EARDLEY ; JOYCE ROBERT KYLE DUSTIN & KIM

404 STEVE & TAMRA EBERHARD

LAND-3

406 PAUL K. EDMUNDS, WESTPRO SPORTSWEAR

OHV-1,2,3,4,8

407 TIMOTHY P. & PENELOPE EICHER

REC-1

415 LEE J. ESPLIN

OHV-1,2,3,4,8

416 LEMOYNE TERRANCE LOLA ESPLIN

417 ED EVEL

OHV-1,2,3,4,8

418 M. EVENSON

LAND-3

422 PAIGE EYNON

AIR-1; RAN-2; VRM-1; WILD-2; WSR-3b

423 R.C. FAREWELL

RAN-2; VRM-1; WATER-1; WILD-2; WSR-3b

424 JEFF FARLOWE

LAND-3

426 R. FAULKNER

OHV-5,6,7,8

428 MICHELLE & CLARK R. FAWCETT

429 THERESE FEINAUER, SCOTT NARCOMBE

LAND-3

430 SANDY FERRELL

WILD-2; WSR-2

431 DANIEL FIESELER

432 BRANDON FIFE

435 DEREK FIRTH

OHV-5

436 PAUL & MARGUERITE FISCHER

REC-1

437 CARLTON R. FISH

REC-1

438 STEW FISH

OHV-1,2,3,4,8

440 CARLOTTA & WILLIS FLEMING

442 TIMOTHY FLOOD
FRIENDS OF ARIZONA RIVERS

WSR-2

443 KEVIN FLOWERS

444 MORRIS R. FLYGARO

OHV-1,2,3,4,8

446 DAVE FORD

448 SCOTT FOREMASTER

449 ROGER FOSTER

OHV-1,2,3,4,8

450 RON FOWLER

OHV-1,2,3,4,8

453 ZACHARY FRANKEL, UTAH RIVERS CONSERVATION COUNCIL

WSR-2,3c,5

455 SLOANE FREEMAN

456 GINGER FREI

459 KELLI FRIKAS

460 K. SUSAN FRY

LAND-3

461 ROBERT C. FURTEK

AIR-1; RAN-2; VRM-1; WATER-1; WILD-2,3; WSR-2,3,3b,3c

468 DOUG ARNER

469 JOHN A. & SANDRA GARNER

471 TIM GAROFALO

474 RICHARD L. GARY

OHV-1,2,3,4,8

475 BOB GASTON

OHV-3

478 BARBARA GERMAIN

WILD-2,3

481 COLLEEN GIBBENS

LAND-3

482 CHRIS GILBERT

OHV-1,2,3,4,8

483 DAVID GILBERT

OHV-1,2,3,4,8

485 JOSH GLAZIER

487 SUMNER & GAIL GLEASON

OHV-1,2,3,4,8

488 DAVID J. & MARLA GLEDHILL

489 PAMELA GLEN, RON LEARL

LAND-3

490 EDYTHE GOLDEN

491 DAN GOOD

OHV-1,2,3,4,8

492 MICKEY GOODWEILER

OHV-1,2,3,4,8

494 DALE GRANGE

OHV-3,4,5,7,8,10

495 GLENN B. GRAUS

LAND-3

497 JEFF GREENWELL

OHV-5,6,7,8

499 MIKE GREENWOOD

OHV-1,2,3,4,8

500 EARLE GREGORY

503 ROBERT GROVE

OHV-5,6,7,8

504 KIM E. GROVER

OHV-2,5,11

505 ANNA MAY GUBLER

506 BLAIR GUBLER

509 DEMAR GUBLER

OHV-10,13

510 DOUG GUBLER

514 KYLE GUBLER

OHV-14

516 R. JUDD MORGAN

OHV-1,2,3,4,8

516 LANCE & MARVENE GUBLER

517 LEON BROOKE & TERESA GUBLER

518 LYMAN W. GUBLER

520 RONALD WAYNE GUBLER

522 STEVE GUERDSEN

LAND-3

524 ED GUNDERSON

WSR-2

525 ROY D. GUNNELL ENVIR. SCIENTIST
UTAH DIVISION OF WATER QUALITY

GEN-1; LAND-14,20,26,27,28; MIN-4,5;
OHV-4,8,13,21; REC-2,3,4;
WATER-2,8,10,15,11, 17,18,19,20,21;
WSR-1,8,11,12,13,16

526 KOBY ROSETTA & T.J. GURULE

527 OSCAR GUTIERREZ

OHV-5,6,7,8

529 RON HACK

OHV-1,2,3,4,8

531 JEREMY HADONA

OHV-1,2,3,4,8

533 DAVID HAFEN

538 CHRIS HALL

RAN-2; VRM-1; WATER-1; WILD-2; WSR-2,3b

539 CLAIR W. HALL

540 DARWIN HALL

GEN-1; RIP-1

541 DARWIN HALL, ASH CREEK SPECIAL
SERVICES DISTRICT

543 IKE HALL

545 MAC J. HALL

GEN-19; LAND-20,26; OHV-13;
WSR-7,8,10,11,14,15,16,17-26

546 MORGAN HALL

548 SHIRLENE & DARCEY HALL

551 KEITH HAMMOND

RAN-2; WATER-1; WILD-2; WSR-3,3b

552 JULIE & JIM HANCOCK

LAND-2; VRM-112

554 FRANK HANGEMA
LAND-3

556 EVELYN HANS
LAND-3

557 L.N. HANS, PAUL D. HANS
LAND-3

558 G. SCOTT HANSEN
WSR-2

559 MICHAEL W. & JAN HANSEN

560 SEAN HANSEN

563 TODD HANSEN

566 BOYD S. HARDER
OHV-1,2,3,4,8

567 JANE HARDIN
LAND-3

573 JOHN HARRELSON

574 BERNARD HARRIS, ELAINE HARRIS
LAND-3

576 STEVE M. HARRIS

577 TED HARRIS
GEN-5; RAN-2; WATER-1; WILD-2; WSR-3b

578 TY RICO HARRIS

579 FRANKLIN S. HARRIS JR.
LAND-3

581 PAT HARRY

582 TAWONA HART

584 MARK HASKIN, CEDAR RIDGE SPORTS
OHV-5,6,7,8

585 BILL HATCH

586 THE HONORABLE ORRIN HATCH
UNITED STATES SENATE

588 SHARON & DAVID HATFIELD
LAND-3

590 BRIAN HAWTHORNE
OHV-1,2,3,4,5,8,10

591 KAREN & MIKE HEATH

592 STEVEN R. HEATH

594 WELDON & VIVIAN HEATON

597 JEFF D. HEF

600 TIM HEIPLE
WSR-3

602 DALE HEMENWAY
OHV-5,6,7,8

604 ROBERTA HENDERSON

606 WILLIAM HEYWOOD

607 ROBERT HIBBS

609 DON C. HIGGINS

610 ORVILLE HIGH

611 KEVIN D. & DENISE HIGLEY
OHV-5,6,8,10,11,12

613 HOLLY & JEREMY HINTON

614 CRAIG HIRSCHI
LAND-3

615 GARLAND C. HIRSCHI
LAND-3

618 BARBARA HJELLE
REC-1a

619 ZACK HOEGER

620 DANAB HOGG
OHV-3

622 MIKE HOLLEY
OHV-1,2,3,4,8

623 DEAN HOLLIDAY

625 BILL HOLMES
OHV-1,2,3,4,8

626 HOLMSTEAD: KIP, COLTON, MICHELLE,
KIRK C.,BUCK, DEAN & BLAKE

627 DONNA HOLT
ACEC-3; L-1; VRM-1,2

631 CHRISTOPHER HORGAN
OHV-2,4,11

632 FRED HORTON
OHV-5,6,7,8

633 WAYNE & GAIL HOSKISSON

AIR-1; RAN-2; WILD-2; WSR-3b

634 LLOYD HOWARD

635 A. BRECK HOWELL, DEBRA HOWELL

LAND-3

637 RAINER HUCK
UTAH TRAIL MACHINE ASSOCIATION

OHV-2,3,4,8,10,11,16,18,19

638 ROBERT E. & DORIS HUFFORD

LAND-3

639 EVERETT HULSEY

OHV-1,2,3,4,8

640 CRAIG & MICHAEL C. HUMPHRIES

641 DARREL C. HUMPHRIES

642 JAMES ALLEN HUMPHRIES

643 VIRGINIA & DON HUNDLEY

647 JIM HUNTLEY

OHV-1,2,3,4,8

648 JON HUNTLEY

OHV-1,2,3,4,8

649 GINA K. HUPKA

LAND-3

652 PAMELA HYDE, AMERICAN RIVERS/
SOUTHWEST REGIONAL OFFICE

WSR-2,3a,3b,3c,4

653 GENE ILLEY, JR

OHV-4,7,8,10,12,17

654 DAVE IMLAY

655 CORY IPSON

656 DORIS & JON ISOM

658 COLIN W. JACK ENGINEERING MGR.
DIXIE ESCALANTE REA INC.

LAND-25,26

659 DAWN & WELLS D. JACKMAN

660 LEWIS JACKSON

AIR-1; VRM-1; WATER-1; WILD-2,3; WSR-1

661 MR. & MRS. RANDY JACKSON

662 COLE TED JACOBSEN

663 J. JAMES

LAND-3

664 DELMAR JANSON

LAND-1; RAN-2; VRM-1; WATER-1; WILD-2; WSR-3b

665 RICK JENKINS

OHV-5,6,7,8

666 JOE JENNINGS

LAND-3

667 R. DREW JENNINGS, U. JENNINGS

LAND-3

668 LAYNE JENSEN, AIMEE PATTERSON

OHV-1,2,3,4,8

669 MICHELLE JENSEN

OHV-1,2,3,4,8

670 MILDRED M. JENSEN

LAND-3

671 PAUL & L.C. JENSEN

OHV-1,2,3,4,8

672 PAUL K. JENSEN

673 PERRY JENSEN

674 R. J. JENSEN

675 MIKE JEPSON

676 PAT M. JEPSON

677 W.W. JEPSON

680 KENNY JESSOP

681 HANS JESSUP

683 BILL JOHNSON

OHV-1,2,3,4,8

686 DAVE JOHNSON

OHV-1,2,3,4,8

687 DON, KRISTY, CHAD & PAM JOHNSON

688 GLEN R. & WENDY JOHNSON

689 HEATH, SHARON & CODY JOHNSON

690 JAMES JOHNSON

OHV-1,2,3,4,8

692 JOSEPH & MARY JOHNSON

693 KRIS JOHNSON
OHV-1,2,3,4,8

694 MARK JOHNSON

697 RICHARD JOHNSON

698 TREVOR JOHNSON

699 WM. MAX JOHNSON
OHV-8,10

701 CHARLES & MARY LOU JONES
OHV-1,2,3,4,8

703 DEVON & SHARI JONES

704 DON JONES
ACEC-3; L-1,2; VRM-1,2

705 G.R. JONES
OHV-1,2,3,4,8

707 J. JONES
LAND-3

708 JOHN JONES
OHV-5,8

709 KELLY JONES

710 KELLY JONES

711 ROGER JONES

712 STEPHEN JONES
OHV-1,2,3,4,8

713 TRAVIS & CHRIS JONES

715 COBY JORDAN
GEN-4; L-1,2,3;

719 BECKY, ROBERT, ZACHARY JOSETT
OHV-1,2,3,4,8

720 JAMES JUDD
OHV-8,10

722 JASON JUSTICE
RAN-2; WSR-2,3d

723 ZELDA KAY, RICHARD A. KAY
LAND-3

724 JOSEPH KEEZER
WOLVERINE PRODUCTIONS

725 STACEY KEITH

727 JOANN & RICHARD KELLER
LAND-3

729 JOE KEMPER
OHV-1,2,3,4,8

730 BRYAN & SHERI KENT

731 MAXINE KESSLING
OHV-5

732 GENE F. & MARY KIHOLM

734 MARION KINGERY
OHV-10,11

735 GEORGE KINNEY
OHV-1,2,3,4,8

736 BOBBI KIRK

739 HYLAN F. KIRKLOME

741 RAY & CELEST KLETT
OHV-3

743 TIM KLINGONSMITH

744 TONI & KIRT KLINGONSMITH

745 KEN KNIGHTON
OHV-1,2,3,4,8

747 JAMES A. KOCH

748 COLLEEN KOHLER

749 BILL KRAUSE
OHV-1,2,3,4,8

750 LARRY KREIDER, M.D.
OHV-1,2,3,4,8

751 STACI C. & DANIEL J. KROFF

753 ELAINE LILA KUNLE
REC-1

754 BARBARA R. KURTZEHORN

755 GARY KWLEGS

756 JON L. LANDEEN, LOGAN MEDICAL CENTER
OHV-1,2,3,4,8

757 LAURA LANGSLIN

759 MAXINE LANTZ
OHV-1,2,3,4,8

761 DONALD J. LARKIN

762 HEIDI LARSEN

763 M. LARSEN

LAND-3

764 MATTHEW F. LARSEN

765 RON LARSEN

766 SHANON LARSEN

767 TRUDI LARSEN-THURLEY

OHV-1,2,3,4,8

769 KENT LARSON

770 MCKAY LARSON

772 GREG & PATSY LAST

775 MIKE & LAURA LAYTON

WSR-3d

776 CHARLES LEACH

OHV-1,2,3,4,8

777 MR. & MRS. JOHN LEAO

OHV-1,2,3,4,8

779 GLENN & BRENDA LEAVITT

781 RICHARD F. LEAVITT

784 BRANDI LECLBRITTEN

785 BOB & SHAD LEE

OHV-5,6,7,8

787 C.J. LEE

LAND-3

789 GAVIN LEE

790 JAY LEE

791 JIM LEE

LAND-3

792 L. LEE

793 RICK R. LEE

OHV-1,2,3,4,8

794 RUSSELL LEE

OHV-5,6,7,8

797 SMITH LENY

798 ANGELA LEOX

LAND-3

799 TRUMANN M. LESLIE

800 JOSH LEUCIRION

801 DAVE LEWIS

OHV-5,6,7,8

803 JAMES V. LEWIS

804 VANETA & F. LEON LEWIS

LAND-3

805 WARDA LEWIS

807 CHRIS LINDFORS
VEGAS VALLEY FOUR WHEELERS

OHV-1,2,3,4,8

808 RANDY LINDSEY

WILD-1

810 LIVINGSTON

OHV-1,2,3,4,8

811 RICKY LOGAN

812 ALAN LONG

VRM-1

813 TONIE LOUDER

OHV-2,4,5,8,9,10,11,16

814 KEN LOVELAND

OHV-1,2,3,4,8

818 M.A. LUCSEE

823 L. LUVILDE

824 JEFF & SUE LYIJNEN

OHV-3

826 JOSHUA LYN

829 GREG MACKUEY

830 JULIE MACKUEY

831 GEOFF & LEE MADSEN

OHV-5,8

832 RICK MADSEN

833 RON MADSEN

835 EDWARD MAINLAND

AIR-1; WILD-2,3; WSR-3

837 SANDY & BRUCE MALMGREN

838 DENIELE & WAYNE MALNAR

839 KEN & JULIE FORD MALONEY

840 SAMI MANNS

OHV-1,2,3,4,8

841 BROT MARCHAL

842 RICK MARCHAL

843 SCOTT & KIM MARCHAL

844 KIM MARCHBANKS

OHV-1,2,3,4,8

845 STEVE MARKS

846 DENISE & TIMOTHY L. MARTIN

RIP-2

847 MIKE MARTIN

848 DAVID MARTINDALE

OHV-1,2,3,4,8

852 DAN MATHENEY

OHV-1,2,3,4,8

853 ANTHONY F. MATTERN

OHV-1,2,3,4,8

854 TONY MATTERN

OHV-1,2,3,4,8

855 DAVID R. MATTHEWS

856 SUE & ROBIN MATTHEWS

861 KIM MAZZOLA

OHV-3

863 MCKENSIDAN MCARTHUR
MAYOR CITY OF ST. GEORGE

GEN-17

864 RUSSELL MCCOY

OHV-1,2,3,4,8

865 PATRICK MCCUE

T&E-1; WSR-2,5

866 RON MCDADE

OHV-5,6,7,8

867 JOHN MCGREGOR

OHV-5,6,7,8

869 HEIDI MCINTOSH, SOUTHERN UTAH
WILDERNESS ALLIANCE

AIR-1; L-1; OHV-5,20; RAN-2; VRM-1;
WATER-1,2; WILD-1,3; WSR-2,3,3b

870 JEREMY MCKENZIE

871 DAN MCKINNEY

OHV-1,2,3,4,8

872 TERRY MCKNIGHT, JANA MCKNIGHT

OHV-1,2,3,4,8

876 ALISON MCNABB

WILD-2; WSR-2

878 SCOTT MCPHERSON

OHV-1,2,3,4,8

879 JIM MCRIMMON

880 STAN MCVEY

OHV-5,6,7

881 GIL MEACHAM

OHV-4,5,8,11

882 JAY MECHAM

884 JACK MEDAU

886 OLEH MELNYK

OHV-5,8

887 HARRY MELTS

OHV-5,10,11,12

888 M. MEMAHA

LAND-3

889 DAVID M. MERRIAM

OHV-1,2,3,4,8

891 THOMAS J. MESSENGER

AIR-1; RAN-2; L-1; VRM-1; WATER-1; WILD-2; WSR-3b

892 ELNORA MESSINA

LAND-3

894 CHRIS & MARION METZ

895 JOHN R. MICHELS

897 ALLEN MILLER

OHV-1,2,3,4,8

898 BILL MILLER
LAND-3

899 DARRELL & RANONA MILLER

900 DON R. MILLER
OHV-1,2,3,4,8

901 LADESSA MILLER
LAND-3

902 MARIAN B. MILLER
LAND-3

903 WALTER E. MILLER
OHV-1,2,3,4,8

904 RANDY & JILL MILLS

912 ESTES MOORE

915 JAIME MORENO
OHV-5,6,7,8

918 GENEVA MORTENSEN
LAND-3

919 HENRY MORTENSEN, LYLE MORTENSEN
LAND-3

920 PETE MORTENSEN
LAND-3

921 JACQIUE & C. RANDY MORTENSON

922 SEELI MORTENSON
OHV-5,6,7,8

924 JOE MOTTEN

927 LOGAN MURPHY

928 MIKE MURPHY
OHV-5,6,7,8

929 GLENN L. MURRAY
OHV-1,2,3,4,8

932 CRYSTAL NEIDER

933 NEIL
OHV-1,2,3,4,8

935 ERIC NELSON
OHV-1,2,3,4,8

936 JEFFERY NELSON
OHV-1,2,3,4,8

937 LORIE M. NELSON
OHV-1,2,3,4,8

939 NELSON; KAYE, ROBERT, KANDICE, ROBIN

940 DAWN NGO
OHV-5,6,7,8

943 ANN NIELSON
LAND-3

945 GREGORY NIELSON

946 KIMBERLY STETSON, JOHN NIELSON

947 PHIL & ANN NIELSON

948 TOM NIELSON
OHV-1,2,3,4,8

950 JESSICA NORTHRUP
OHV-5,6,7,8

951 CAMERON NORTON
OHV-5,6,7,8

955 DEBI & MARK OCHOTZKI
LAND-3

956 DALE & LEA OEHME
OHV-1,2,3,4,8

959 LINDA OITA

960 DAVID OKERLUND
OHV-1,2,3,4,8

961 ED OLDROYD
OHV-11

962 KELLY OLDROYD
OHV-5,10

963 ROBERT E. OLDROYD, ED OLROYD
OHV-1,2,3,4,8

964 CLARK OLDS

965 CLAYTON & SUE S. OLDS

966 FRANK OLIVER
OHV-5,6,7,8

967 R. R. OLSEN

968 BOBBY OLSON

969 LYNN OLSON

WILD-2

970 MEG & ROBERT W. ORTON

LAND-3; VRM-2

972 D. OTON

973 FLORIN & LANETTE OWENS
WASATCH TRIALS ASSOCIATION

OHV-5,6,7,8

974 PARK OWENS

OHV-1,2,3,4,8

975 RUSSELL PACK

T&E-1; WSR-2,4,5

976 RICK A. PAHM

977 JOHN PAMPERIN

AIR-1; RAN-2; VRM-1; WATER-1; WILD-2,3; WSR-2

978 SCOTT PAPINEAU

OHV-3

980 TIMOTHY PARKINSON, VICKI PARKINSON

LAND-3

981 JAY PARKS

OHV-1,2,3,4,8

983 TODD W. PATRICK

RAN-2; VRM-1; WATER-1; WILD-2; WSR-2,3b

984 AIMEE PATTERSON

OHV-1,2,3,4,8

985 RODNEY PATTERSON

OHV-1,2,3,4,8

989 CHRIS PEARCE

990 CAROL & IVAN PEARSON

OHV-2,5,6

991 NOLAN PEARSON

994 MR. & MRS. DAVID A. PEGGAR

OHV-1,2,3,4,8

996 STEVE G. PERRY

997 ALAN J. PETERSON

OHV-1,2,3,4,8,9,10,11

998 C. ALLEN PETERSON

OHV-1,2,3,4,8

999 CLARK PETERSON

OHV-1,2,3,4,8

1005 BRIAN PEYTON

1008 MARTIN & BEVERLY PIERCE

OHV-10

1009 CLINT & MATT PIXTON

OHV-1,2,3,4,8

1010 BRETT POLSON

1011 STEVE/RED BEAR POSITANO

1012 CHARLES & MARGARET POWERS

LAND-3; VRM-1,2

1016 DOUG PRISBREY

1017 TYFFANY PROFFITT

1018 M. SHANE PRUETT

LAND-3

1025 JAY L. RAMSAY
DIXIE SOIL CONSERVATION DISTRICT

LAND-20; WSR-14

1028 LILA GAY READ, JACK K. READ

LAND-3

1033 WILLIAM REGLAND, ELEDA REGLAND

LAND-3

1034 BRAD REMUND

1035 K. RENQUIST

LAND-3

1037 DALE REYNOLDS

OHV-1,2,3,4,8

1039 TERRY & JOYCE REYNOLDS

1041 ARLIN RICE

OHV-1,2,3,4,8

1044 PHYLLIS & GARY RICHINS

1045 A. RIDER

1047 JODY RILEY

OHV-5,6,7,8

1050 BRYAN ROBERT

OHV-1,2,3,4,8

1051 JESSIE ROBERTS

1052 LES ROBERTS

OHV-1,5,10,11

1053 RUSTY ROBERTS

1055 BLAINE ROBERTSON

OHV-1,2,3,4,8

1056 NICOLE ROBINSON

1058 GLENN E. ROEHL

OHV-1,2,3,4,8

1060 JAMIE ROGERS

1061 JIMMIE C. & MARYANN ROSENBRUCH
GLACIER GUIDES INC.

LAND-4

1062 A. ROSS

1064 GUY ROWE

OHV-1,2,3,4,8

1066 JIM RUCH

LAND-6

1068 DOUG RURFR

OHV-1,2,3,4,8

1070 BILL SANDERS

1071 MACK & BARBARA SANDERS

1073 BURTON & ANNA SANT

LAND-3

1075 JOHN SAVARESE

AIR-1; RAN-2; VRM-1; WATER-1; WILD-2,3; WSR-3,3b,3c

1077 JAMES L. SCHAEFER

1078 JOSHUA SCHEAR

1079 DAVID SCHEIN

GEN-2,3

1081 DON F. & CRISTI SCHMUTZ

1082 JEFFREY D. SCHMUTZ

1083 DANNETTE & THELMA SCHOLZEN,
KEITH SCHOLZEN

1085 KEN SCHULTZ

1086 RAYMOND F. SCHUREMAN
BACKYARDS OF AMERICA

OHV-1,2,3,4,8

1090 BOB SCOW

1091 REED SCOW

1094 LYNDA SENTHER

LAND-3

1095 RICHARD SEORCSLY

1098 MARK & TRICIA A. SEYBERT

OHV-1,2,3,4,8

1099 ELLEN SHACKELFORD

OHV-8

1100 RENAE & AMBER LEE SHAFFER

1101 BEV & KEN SHAMO

1102 CHRIS SHAMO

1103 KEVIN SHAMO

1104 KEN SHANN

1105 GREG T. SHARP

OHV-1,2,3,4,8

1106 BILL SHARPE

OHV-1,2,3,4,8

1108 STEPHEN N. & TRAVIS SHEFFIELD

1110 RUSSEL D. SHROYER

1112 R.D. SHURGUND

1113 GARY SIGLER

OHV-1,2,3,4,8

1114 LARRY SIGLER

OHV-1,2,3,4,8

1115 ROY W. & ELIZABETH E. SIMMONS

LAND-3

1116 CHRIS SIRCELLO

LAND-3

1118 EDWARD M. SKURLZEBORN

1119 BRYCE SLACK

1120 SHERWIN S. SLACK

1123 CAROLYN SMITH

OHV-5,6,7,8

1124 GLEN SMITH

OHV-1,2,3,4,8

1125 GREG S. SMITH

1127 JAMES N. SMITH, HELEN K. SMITH

LAND-3

1128 JEANIE & GEORGE SMITH

1129 JERRY W. SMITH

ACEC-1; OHV-1,4,8,9,10,15

1130 JOANNE & RONALD SMITH

1131 KELLY SMITH

OHV-5,6,7,8

1132 SMITH; JENNIFER, JIM, CAMELIA

OHV-5,6,7,8

1134 ROBIN SMITZER

LAND-3

1136 RUSSELL SNEDESER

1137 DAN B. SNEPP

OHV-1,2,3,4,8

1138 MIKE SNODGRESS

1141 BARRY SOCHAT

ACEC-3; LAND-1,3; VRM-1,2

1142 JOE SOMERSVILLE

1143 MARY SOPER

LAND-3

1144 BRAD SORENSON

OHV-1,2,3,4,8

1145 JAMES SORENSON

OHV-5,6,7,8

1148 KIM SPENDLOVE

1151 JOHN SPEZIA

AIR-1; RAN-2; VRM-1; WATER-2; WILD-2,3; WSR-2

1152 LEGRANDE SPILSBURY, SPLISBURY LAND AND LIVESTOCK CO.

1153 WADE SPIVEY

OHV-5,6,7,8

1154 RICHARD SPOTTS

WILD-2,3b

1155 DON S. SQUIRE

1156 RICK & DONNA SQUIRES

OHV-1,2,3,4,8

1158 DANIEL STANEVICH

OHV-1,2,3,4,8

1160 KATE & JIM STARLING

ACEC-3; LAND-1; V-1; VRM-2

1161 IVAN STELTA

OHV-5,6,7,8

1164 RON D. STEPHENSON

OHV-1,2,3,4,8

1165 LINDA & DAVID J. STEVENS

1166 YVONNE STEVENS-BERRY

1167 DARCY STEWART

1170 ROBERT H. STICKLER

OHV-1,2,3,4,8

1171 R.M. STOKES

OHV-1,2,3,4,8

1172 TED STOKES

OHV-1,2,3,4,8

1174 HAROLD D. & MARY LOU STORM

OHV-1,2,3,4,8

1175 COLLIN & JUSTIN STOUT

1179 SHAWN CORRY, CASEY STOUT, LINDA STRATTON

1182 CRAIG & CONNIE STRATTON

1183 DONALD STRATTON

1184 KADE STRATTON

1185 LORRY STRATTON

1186 SHAUNA & LAYNE B. STRATTON

1187 STEVEN B. STRATTON

1189 BRAD STRINGHAM

1190 GREGORY STRINGHAM

OHV-1,2,3,4,8

1191 WM. PHILLIP STRITTMATTER

OHV-1,2,3,4,8

1193 KRIS STUDER

1195 MIKE STURDEVANT

OHV-1,2,3,4,8,10,11

1196 ALAN SUNDQUIST

OHV-5,6,7,8

1197 GLEN W. SWANK

OHV-1,2,3,4,8

1198 JOHN R. SWANSON

WILD-2; WSR-3e

1199 NANCY SWDELLE

LAND-3

1200 VICKI SWITZER

LAND-3

1201 MONTY TACKER

LAND-3

1202 NEAL TAKACH, KATHERINE SMITH TAKACH

LAND-3

1204 TERRY TATE

1205 RICHARD TATTON

OHV-5,8

1207 LAREE TAYLOR, BRYCE TAYLOR

LAND-3

1209 MR. & MRS. DONALD S. TEAGUE

AIR-1; RAN-2; VRM-1; WILD-2,3; WSR-2

1210 CONNIE TERRY

LAND-3

1211 ROCKFORD & HELEN TERRY

LAND-3

1212 RONALD D. TERRY

1213 TOM TERRY, CHAIRMAN
UTAH OHV ADVISORY COUNCIL

ACEC-1; OHV-4,7,8,10,12,17

1214 D. THALAN

1215 DAN THOMAS, ROCKY MOUNTAIN ATV

OHV-1,2,3,4,8

1216 JACQUELINE & W.R. THOMAS

1219 RANDEL L. THOMAS

1220 BLYTHE THOMPSON, JIM HENNING

LAND-1; VRM-1,2

1221 JAMES W. THOMPSON

1222 LOUISE V. THOMPSON

LAND-3

1223 RON THOMPSON, WASHINGTON COUNTY
WATER CONSERVANCY DIST.

FIRE-1; GEN-13,14,15,16,17,18,21; LAND-14,15,20,21,22,23,24,29; MIN-3; SOEC-1,2; T&E-4,5,6,7,8,9; WATER-2,7,8,9,10,11,12,13,14,15,23; WSR-1,4,7,8,9,10,11,15,17-26,28

1224 NED THORN

OHV-1,2,3,4,8

1226 URSULA TISON

OHV-8,10

1227 TRACI TODHAM

1228 JIM & DONNA TOERING

OHV-1,2,3,4,8

1229 ROGER TONELL

OHV-1,2,3,4,8

1231 J. MICHAEL TROUT

OHV-1,2,3,4,8

1235 ROGER TUTTLE

OHV-4,5,10

1237 STEVEN P. UNDERWOOD

OHV-1,2,3,4,8

1239 ROBERT UZELAR

OHV-1,2,3,4,8

1240 PAUL VALENCIA

LAND-3

1242 NICHOLAS VAN PELT
THE NATURE CONSERVANCY

1244 PAMELA R. VANDERWERFF

LAND-3

1247 JOHN VERITY

OHV-1,2,3,4,8

1248 RICK VESCO, VESCO'S SPORT CENTER

OHV-1,2,3,4,8

1249 MARK VON METTENHEIM

OHV-1,4,10

1252 ELDON WALKER, JAN WALKER

LAND-3

1253 ELDON WALKER, MAYOR, TOWN OF ROCKVILLE

GEN-17; L-1,3

1255 J.R. WALLACE

LAND-3

1256 JAMES F. WALLACE

1258 ERIC WALTER

AIR-1; RAN-2; VRM-1; WATER-1; WILD-2

1261 RUSSELL D. WARNER

1262 MARIE WARRGEMS

LAND-3

1266 NATALIE WEBB

1268 CHRISTY WEISS

OHV-1,2,3,4,8

1271 PATRICIA & MARK WELLER

1272 DOUG L. WELLS

1274 DONALD P. WERBER

1275 MARK R. WERKMEISTER

OHV-10,11

1276 B.D. WEST

OHV-1,2,3,4,8

1278 JANE WHALEN
SOUTHWEST RESOURCE COUNCIL

ACEC-3,4; GEN-4; HCP-1,2;
LAND-1,12,15,16,17,18; REC-1; VRM-2; WATER-4; WILD-2;
WSR-3b

1279 CALLY WHEELER

1280 HOWARD J. WHITAKER

AIR-1; RAN-1; VRM-1; WATER-1; WILD-2,3; WSR-3c

1281 CHRISTA WHITENER

OHV-1,2,3,4,8

1282 SCOTT WHITFORD

OHV-11

1284 TERRY WHITNEY

OHV-1,2,3,4,8

1285 BRYAN WILCOX

1286 DOUGLAS WILCOX

1287 S. LEE WILCOX

1288 STEVE WILCOX

1289 SCOTT WILDE

1292 DON WILLIAMS, FEET UP

OHV-5,8,10

1294 ROY WILLIAMS

LAND-3

1298 KELLY B. WILSON

1300 TASHA WILSON

OHV-5,6,7,8

1301 WILSON RESIDENCE

OHV-5,6,7,8

1302 BOYD WINDER

LAND-3

1305 RICHARD WINSEN

LAND-3

1306 J. RAY WIRTS

OHV-1,2,3,4,8

1308 MANNY WISHNOFF

1309 KEVIN J. WITTWER, CLIFFORD WITTWER

LAND-3

1313 JOHN WOLFORD

OHV-1,2,3,4,8

1315 LESTER WOOD

1316 OMAR WOOD

OHV-1,2,3,4,8

1318 GREG WOODALL

ACEC-3; VRM-1

1324 LYNN C. WORWOOD

OHV-5,8

1325 DENNIS WRIGHT

1326 DUSTY WRIGHT

1327 GEORGE E. WRIGHT

1328 LACY & BRANDON WRIGHT

1329 RICKY G. WRIGHT

1331 JAY YASUDA

1332 LEO YASUDA

1333 E. S. YOUNG

1335 DON YOUNGDAHL

OHV-1,2,3,4,8

1337 P.Z. ZADIS

AIR-1; RAN-2; WILD-2; WSR-2

1339 JOHN ZAPPELA

OHV-1,2,3,4,8

1341 FIVE COUNTIES ASSOCIATION
OF GOVERNMENTS

LAND-20,26; OHV-5; SOEC-2; WSR-1;
WATER-9

Comments and Responses on the Draft RMP

This section contains the comments received from individuals, organizations, and governmental agencies during the scoping comment period of the Draft RMP. The comments are organized by the 18 categories discussed previously. Following the comment is the response.

Category: Off-Highway Vehicles

OHV-1

COMMENT: The Draft RMP analysis makes no mention of the negative impacts created by OHV use to warrant the closures and restrictions imposed in the Preferred Alternative C.

RESPONSE: It is BLM policy that off-road vehicle use is an acceptable use of public land wherever it is compatible with established resource management objectives. Impacts from OHVs have been documented in numerous articles and reports and are evident on the ground in many places within the Dixie Resource Area. In instances where the authorized officer determines that OHV impacts would occur in the future if not curbed, limitations or closures are allowed. OHV closures and restrictions are imposed in order to minimize damage to cultural, soil, vegetation, and watershed resources or other resources of the public lands. OHV areas and trails should also be located to minimize disruption of wildlife or significant habitats, including protection of threatened and endangered species. Lastly, OHV designated use areas and trails should minimize conflicts between OHV use and other recreational uses on surrounding public lands. Limitations or closures are necessary due to compelling resource protection needs, public safety issues, or user conflicts. By law, lands within Wilderness Areas are closed to OHVs, and Wilderness Study Areas authorize limited use through the Interim Management Policy. Please refer to the new information in the OHV Management section of the Proposed Plan, as well as reference materials cited under responses to OHV-18 and OHV-19.

OHV-2

COMMENT: The Draft RMP ignores the management of mountain bikes.

RESPONSE: Mountain bike management is brought forth into all alternatives presented in the Draft RMP on pages 2.11, 2.27, 2.48, and 2.80. See the Proposed Plan for additional information.

OHV-3

COMMENT: The Plan should separate the management of two-wheeled vehicles (motorcycles and bicycles that create a single track), and four-wheeled OHVs (vehicles that create a two-track).

RESPONSE: The BLM planning process currently has no policy or direction for depicting these two categories of OHVs and separating them into different classes for trail purposes. However, BLM is willing to work with OHV groups to resolve issues and establish trails. Future trails could be planned for single or two-track use with the help of partnerships from the OHV community. See the amended language in the OHV section of the Proposed Plan.

OHV-4

COMMENT: Motorized users were excluded from the planning process. BLM should work with interest groups, develop partnerships, and conduct education programs concerning OHV use.

RESPONSE: BLM has initiated coordination meetings with OHV and mountain biking interest groups and the Utah OHV Council. Information gathered at preliminary meetings has helped structure decisions in the Proposed Plan OHV section, and has established a foundation to create partnerships to determine the future of OHV opportunities within Washington County. Much more work needs to be done by BLM with the motorized users in the future.

OHV-5

COMMENT: Many commentors did not understand the OHV classifications of OPEN, LIMITED, and CLOSED. Predominant questions were: "Why has the BLM unilaterally closed all but 2,000 acres to OHV use in the Preferred Alternative?" "What is the difference between limited to existing roads and trails and limited to designated roads and trails?"

RESPONSE: The OHV Management section of the Proposed Plan includes a complete list of definitions for OHV management in the resource area. The Draft RMP Preferred Alternative did not "close" all but 2,000 acres to OHV use; 2,000 acres were left "open" for use without restriction. However, over 416,600 acres were left open for use on existing or designated roads and trails. See the Proposed Plan for new decisions regarding OHV use categories.

OHV-6

COMMENT: Why is BLM allowing the Sand Hollow Land Exchange when it would give away 3,000 acres of the only open OHV area in the county?

RESPONSE: The Sand Hollow Land Exchange is a legislative land exchange that was approved by Congress in November 1996. BLM has been directed by Congress to complete the land exchange. The Washington County Water Conservancy District (WCWCD) has proposed the development of a reservoir on this site. In addition, it is anticipated that they would enter into an agreement with the Utah Division of Parks and Recreation to develop a campground and other facilities that would complement OHV use in this area. In the Proposed Plan, under the Recreation and OHV Management sections, a much larger OHV area has been classified as "Open" on Sand Mountain.

OHV-7

COMMENT: The Sand Hollow Land Exchange site currently has a Special Recreation Use Permit for Motorcycle Trials. If that land is to be exchanged, the BLM should find another site that would accommodate the Trials.

RESPONSE: See the response to OHV-6. BLM has already worked with the proponent of the Motorcycle Trials to look for additional sites to accommodate the yearly trials competition.

OHV-8

COMMENT: Keep all lands open for OHV use as currently depicted in Alternative A of the Draft RMP.

RESPONSE: In light of other resource management issues and conflicts, BLM has determined that a balanced approach to OHV designations is needed to prevent growing resource degradation and conflicts with other user groups. See the responses to OHV-1 and OHV-6.

OHV-9

COMMENT: BLM should consider how OHV use benefits local economies in Washington County.

RESPONSE: It is recognized that OHV use in the county benefits the local economies and this has been incorporated into the Proposed Plan Impact Analysis in Chapter 3 under the OHV Management and Socioeconomic Factors sections.

OHV-10

COMMENT: The Draft Management Plan does not show justification for reduced OHV open areas, especially in the Preferred Alternative.

RESPONSE: See response to OHV-1.

OHV-11

COMMENT: Motorcycles and mountain bikes should be considered in the same classification.

RESPONSE: Mountain bikes are not considered OHVs because they are nonmotorized and are not included in the 43 CFR Part 8340 regulations. They are not included in specific OHV regulations and policy. Impacts from mountain bikes are different than impacts from motorcycles due to tire width, weight, size, and power.

Use areas are frequently different due to user group preference and different ground surface requirements. The Proposed Plan keeps them in separate categories.

OHV-12

COMMENT: By concentrating OHV use in one particular area, BLM is also concentrating damage to the natural resources in that area; that damage may ultimately cause additional closures.

RESPONSE: The Proposed Plan provides three "open areas" totaling 89,235 acres and leaves most roads and trails in the resource area open to OHV use. These areas were selected, in part, because of limited potential for significant resource damage. At public meetings held in December 1995, the majority of OHV enthusiasts reported confining their travel to existing roads and trails. The changes made between the Draft RMP and the Proposed Plan achieve a proper balance in providing suitable open areas, linear routes, and opportunities for future trail development in coordination with user groups and interested agencies. As a general approach, concentrating OHV use in selected areas or limiting OHVs to regularly used routes minimizes the impacts to the region as a whole. There is an advantage in concentrating OHV use in that it can be better managed and proliferation of impacted areas can be avoided. A philosophy similar to the "corridor concept" for rights-of-way can be applied to OHV use. Corridors for rights-of-way with compatible uses are prescribed in Section 503 of the Federal Land Policy and Management Act (FLPMA) to concentrate use, minimize adverse impacts, and avoid proliferation of separate routes.

OHV-13

COMMENT: The Draft Management Plan does not clarify if authorized users (those people with legal permits) are allowed to travel "off-highway" in closed or restricted areas.

RESPONSE: The definition of an off-highway or off-road vehicle does not include military, fire, emergency, or law enforcement vehicles while being used for emergency purposes or any vehicle whose use is expressly permitted by the authorized officer or otherwise officially approved. Areas designated "closed" would generally not be open for off-highway vehicle use for people with permits for livestock operations, mining operations, or other such usual permits. In areas under a "Limited" use category, authorized users would be permitted to travel "off-highway" for purposes specified in the use permit. These distinctions are now reflected in the OHV Management section of the Proposed Plan.

OHV-14

COMMENT: Leave the current OHV regulations as they are now.

RESPONSE: The current OHV regulations under the Code of Federal Regulations, Part 8340, will not be changed as a result of the Dixie Resource Management Plan. However, OHV designations for public lands in the resource area have been changed to reflect the need to protect natural resources from additional impacts from off-road travel, while providing opportunities for motorized recreation and other legitimate purposes. See response to OHV-8.

OHV-15

COMMENT: OHV decisions in Alternative D are brought forward only to make OHV decisions in Alternative C look good.

RESPONSE: Four alternative plans for the management of the public lands within the resource area were considered in the Draft RMP. Each plan was a separate, implementable, multiple-use approach to resource management and each had a different objective. The objective of Alternative C was to emphasize the balance of resource development and resource protection. The objective of Alternative D was to emphasize preserving biological systems and scenic values. Alternative formulation and analysis is required through the National Environmental Policy Act (NEPA) and through the planning regulations stipulated in 43 CFR part 1600.

OHV-16

COMMENT: Closing areas to OHV use violates the Americans with Disabilities Act and also the Rehabilitation Act of 1973.

RESPONSE: The concept of multiple use is often misconstrued to mean all uses must be allowed on all public lands. It is clearly the intent of Congress that lands be selected for management to maximize different and varying resources, not that all resources be maximized on each acre of public land. For example, multiple use means that extraction of minerals, which is an exclusive use of the land and resources, is allowed in certain areas, OHV use is allowed in some areas, and naturalness and solitude are preserved in other areas. BLM recognizes that, with special provisions and assistance, the disabled can also enjoy areas that are closed to OHVs, although in fewer numbers than if motorized vehicles and mechanized access were allowed. Limiting or closing selected natural areas does not violate the Americans with Disabilities Act or the Rehabilitation Act of 1973. Those acts, along with the Architectural Barriers Act, basically apply to developed areas, structures, and other constructed facilities. BLM strives to meet the mandate of Section 504 of the Rehabilitation Act that requires that "no otherwise qualified individual shall, solely by reason of his or her handicap, be denied the benefits of or participation in any program or activity funded or conducted by a federal agency," but this is not interpreted to mean that BLM must provide for or allow vehicular access to every square foot of the 22 million acres of BLM-managed public land in Utah. Nor does it mean that BLM cannot restrict travel routes or close areas to vehicles in order to protect natural resource values such as wildlife habitat, fragile soils, riparian vegetation, or rare plants.

OHV-17

COMMENT: The following was submitted as new information concerning OHV users:
1) "Motorcycle trail riders need trails of various skill levels, ideally with loops of 10 miles or more of mostly single-track trails. Double tracks are generally boring to intermediate and advanced riders and are best suited as connectors of single track trails."
2) "Trials motorcycle riders (note the spelling is not trails) generally do not ride trails, but prefer technical areas where they have access to an entire area. These areas are usually fairly small, some as small as 100-200 acres, others as large as 1,000-2,000 acres."
3) "ATV riders generally prefer both trails and open areas, including sand areas."

RESPONSE: This information is very useful and helped BLM recraft its OHV management proposal. The information will also be used during future activity level planning with OHV partners to develop new trails in Washington County.

OHV-18

COMMENT: How are OHVs deleterious to tortoises? Where is documentation of harm done to desert tortoise by OHV use. How many are killed each year?

RESPONSE: OHV activities are among the most widespread and best documented of threats to desert tortoises, other listed species, and habitats. The list of impacts from OHV use is extensive and includes direct mortality of tortoises, damage to tortoise burrows, damage to vegetation needed for foraging, damage to soils, disruptive noises, and wildland fire ignition. A list of articles and books that document these impacts has been provided below. In addition, the U.S. Fish and Wildlife Service's (FWS) Desert Tortoise Recovery Plan (pages 56-57) recommends that OHV activity within areas managed for desert tortoises should be limited to designated roads and trails, and that all competitive and organized events be restricted to designated roads with adherence to strict mitigating stipulations.

Adams, J.A., A.S. Endo, L.H. Stolzy, R.G. Rowlands, and H.B. Johnson. 1982. Controlled experiments on soil compaction produced by off-road vehicles in the Mojave Desert, California. J. Applied Ecology 19:167-175.

Adams, J.A., A.S. Endo, L.H. Stolzy, R.G. Rowlands, and H.B. Johnson. 1984. Desert soil compaction reduces annual plant cover. California Agriculture 36:6-7.

Berry, K.H., and L.L. Nicholson. 1984. A summary of human activities and their impacts on desert tortoise populations and habitat in California. Chapter 3 in K.H. Berry(ed), The Status of the Desert Tortoise (Gopherus agassizi) in the United States. Desert Tortoise Council Report to the U.S. Fish and Wildlife Service.

Bury, R.B. 1987. Off-road vehicles reduce tortoise numbers and well-being. USDI, National Ecology Research Center, Ft. Collins, Colorado. Research Information Bulletin #87-6.

Bury, R.B., and R.A. Luckenbach. 1986. Abundance of desert tortoises in natural and disturbed habitats. USDI, National Ecology Research Center, Ft. Collins, Colorado.

Bury, R.B., and R.A. Luckenbach, and S.D. Busack. 1977. Effects of off-road vehicles on vertebrates in the California desert. USDI, Wildlife Research Report 8, Washington D.C.
Webb, R.H. and H.G. Wilshire. 1983. Environmental effects of off-road vehicles: impacts and management in arid regions. Springer-Verlag, New York.

OHV-19

COMMENT: Where is there documented evidence that OHV use causes impacts to nesting raptors?

RESPONSE: Any direct or indirect impact to raptors, which includes destruction of active raptor nests or disturbance to nests resulting in the disruption of the nesting cycle or mortality of young, is illegal under federal law. It is BLM's responsibility, through decisions in the land use plan, applicable mitigation measures, and consultation with the FWS, to ensure that impacts to nesting raptors do not occur on public lands. During nesting periods, disturbance and stress associated with human activities in the vicinity of a raptor nest could cause direct/indirect impacts, including nest abandonment or loss of young. Sensitivity varies by type of disturbance and species. Nesting birds would be more sensitive to disturbance in the line of sight from a nest (e.g., below a cliff nest) than to activities not in the line of sight. Many studies have been completed by BLM and FWS scientists, state wildlife resource agencies, as well as university studies that document the effects of raptor nest disturbance from human activities, including OHV use. A list of articles and books that document some of these impacts is provided below.

Bury, R.B.and R.A. Luckenbach. 1983. Vehicular recreation in arid land drives: biotic responses and management alternatives. Pages 217-221 in Webb, R.H. and H.G. Wilshire, eds. Environmental Effects of Off-Road Vehicles. Impacts and Management in Arid Regions. Springer-Verlag. New York, NY.

Cooperrider, A.Y, R. J. Boyd, and H.R. Stuart, eds. 1986. Inventory and Monitoring of Wildlife Habitat. USDI, Bureau of Land Management. Service Center. Denver, CO. xviii, 858 pp.

Johnson and Carothers, 1982 Bulletin 12. Riparian Habitat and Recreation - Interrelationships and impacts in the Southwest and Rocky Mountain region. Eisenhower Consortium for Western Environmental Forestry Research

Webb, R.H. and H.G. Wilshire. 1983. Environmental effects of off-road vehicles: impacts and management in arid regions. Springer-Verlag, New York.

Weinstein, M. 1978. Impact of off-road vehicles on the avifauna of Afton Canyon, California. USDI, Bureau of Land Management, Calif. Desert Prog., Riverside, Calif., Rpt. On Contr. CA-060-CT7-2734

OHV-20

COMMENT: How does BLM define an OHV "trail"? Where has BLM designated OHV trails? How does BLM catalogue existing OHV trails? Do existing trails refer to the R.S. 2477 assertions submitted to BLM by Washington County? Does a wash bottom constitute an existing OHV trail?

RESPONSE: As depicted in the OHV Management section of the Proposed Plan, a trail is defined as "a two-track vehicle way such as a jeep trail, a single track maintained specifically to allow passage by ATVs or motorcycles, and unvegetated wash bottoms." BLM currently has no designated OHV trails in the resource area. Through partnerships formed with OHV and mountain bike groups, existing trails can be catalogued in the future, and new trails could be designated and/or developed and maintained. Some R.S. 2477 assertions that were submitted to BLM by the county are considered

trails by BLM definition; however, not all trails in the resource area were asserted by the county. A wash bottom is considered an existing trail if it is a dry wash and does not contain riparian vegetation.

OHV-21

COMMENT: BLM should establish a motorcycle area adjacent to St. George to accommodate youth and address the concerns of residents.

RESPONSE: The majority of public lands surrounding St. George are encumbered by other resource values that make the establishment of an "open" motorcycle area difficult. To the north is the Washington County Habitat Conservation Plan area that allows OHV use only on select designated roads and trails. To the west is the Shivwits Indian Reservation and public lands south of Ivins and Santa Clara that require limitations due to riparian resources, threatened and endangered species, sensitive cultural resources, and wildlife habitat. To the south and east of St. George are lands encumbered by the endangered dwarf bear-claw poppy and the siler cactus, again precluding "open" use by OHV users. Lands currently owned by the State to the south of St. George are being heavily used by OHV users. The Proposed Plan depicts an "open" area on public lands of 429 acres contiguous to these state lands. In effect, approximately 1,500 acres of state and public land west of Bloomington is suitable for motorcycle and ATV use and is "open" for use. The balance of lands in that area would remain open for use only on existing or designated roads and trails. The 34,475 acres at Sand Mountain would be left in an open category that would service users throughout the urbanizing portions of Washington County. See response to REC-1a.

Category : General

GEN-1

COMMENT: How are resource management conflicts addressed in the Draft RMP, and what opportunities do the general public have for input and appeal?

RESPONSE: Resource management conflicts were identified during scoping and issue identification in the early planning stages of the Draft RMP. The four alternatives provided different perspectives of resource management that address the issues. Resource management conflicts were generally offset through mitigation built into each alternative. Opportunities for public input are provided through the NEPA process beginning with scoping at the inception of the planning process. When the Draft RMP was completed, it was provided to the public for a review and comment period. In the case of the Dixie Draft RMP, the review and comment period lasted for almost 7 months. When the Proposed Plan is published, it will be distributed to the public for a 30-day review and protest period. Because this is a planning document, it can be protested to the Director of the Bureau of Land Management, but not appealed to the Interior Board of Land Appeals (43 CFR Part 1600). As specific planning decisions are implemented after plan approval, adversely affected parties may appeal the decisions under the provisions of 43 CFR Part 4.

GEN-2

COMMENT: Why is there no discussion of floodplains in any Alternative, and why is there no floodplain map?

RESPONSE: Under Executive Orders 11990 and 11998, federal agencies, including the BLM, are required to avoid direct or indirect support of floodplain development whenever there is a practicable alternative. In order to emphasize the importance of floodplain protection, the Proposed Plan discusses floodplains under the Riparian Resources and Soil and Water Resources sections. The Washington County Water Conservancy District (WCWCD) is currently working on floodplain mapping throughout the Virgin River Basin. Floodplain maps were not determined to be necessary in this RMP to show resource allocations to be considered.

GEN-3

COMMENT: There is no table showing how the Draft RMP complies with relevant federal statutes and executive orders such as EO 11990 (Wetlands) and EO 11989 (OHV).

RESPONSE: Page 1.4 of the Draft RMP discusses the parameters that the RMP must comply

with under the Planning Criteria section. Specified under this section are laws, Executive Orders, and regulations. To list out each one would unnecessarily enlarge the document. Adherence and compliance to all of the existing laws, executive orders, and regulations is mandated. EO 11990 directs federal agencies to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial value of wetlands in carrying out programs affecting land use. EO 11989 gives federal agencies the authority to designate emergency OHV closures to protect critical resources.

GEN-4

COMMENT: The Draft RMP should clearly state its objectives in terms of zoning by various land types such as transition areas from rural to urban, areas of rural/agricultural communities, and defacto wilderness or primitive recreational areas.

RESPONSE: BLM's planning objectives and decisions are depicted as land use designations or categories on Maps 2.1 through 2.17 in the Proposed Plan, as well as on maps that were portrayed in the Draft RMP for the four alternatives. The zones of interest to the public and other planning agencies can easily be overlain on these maps for additional planning purposes.

GEN-5

COMMENT: BLM philosophy too quickly concedes land to development and resource-extraction interests. Revise the RMP to incorporate conservation objectives to preserve resources.

RESPONSE: Section 102 of the Federal Land Policy and Management Act (FLPMA) of 1976 and other laws such as the Taylor Grazing Act, Mineral Leasing Act, General Mining Act of 1872, etc., direct the BLM to use and observe the principles of multiple use and sustained yield set forth in applicable law during the development of land use plans. Among other factors, FLPMA also directs BLM to give priority to the designation and protection of areas of critical environmental concern and to consider present and potential uses of the public lands. The Dixie Resource Area has followed the elements mandated by FLPMA to produce the Draft RMP and the Proposed Plan. Specific areas and/or specific resources are protected and preserved throughout the Draft RMP and Proposed Plan where warranted by law, executive order, regulation, policy, or management objectives.

GEN-6

COMMENT: The Draft RMP lacks a clear statement of purpose and intent.

RESPONSE: Chapter 1 of the Draft RMP describes the purpose and need for the Resource Management Plan. Additional discussion on broad goals and management focus has been included in Chapter 1 of the Proposed Plan. In addition, general management objectives have been brought forth into each resource section in Chapter 2 of the Proposed Plan.

GEN-7

COMMENT: The statements made on "Planning Issues to be Addressed" on page 1.4 of the Draft RMP are too vague to be effective. A list of land-use conflicts which are most pertinent to the resource area should be indicated.

RESPONSE: The issues brought forth on page 1.4 of the Draft were identified by Federal Register notice on July 26, 1991. These were the issues that were brought forth during the public scoping process required by 43 CFR 1610.2. The introduction to Chapter 4 of the Draft RMP (pages 4.3 - 4.8) focuses on the specific environmental issues relevant to the resource area. In addition, issues driving the management decisions in the Proposed Plan are further discussed in Chapter 1 and Chapter 2 of the Proposed Plan.

GEN-8

COMMENT: What efforts has the RMP made to be consistent with other planning documents such as the Washington County HCP, the Virgin River Management Plan, and the Washington County Open Space Plan?

RESPONSE: The Proposed Plan endorses consistency with state and local plans. See the Proposed Plan as well as the new Planning

Consistency section in Chapter 4. When the Draft RMP was released in October 1995, the Washington County HCP and the Virgin River Management Plan had not been completed. A statement on page 2.1 of the Draft RMP states: "The BLM would manage lands to meet the goals and objectives of special status plant and animal species final Recovery Plans and approved Habitat Management Plans, including the Virgin River Habitat Conservation Management Plan (Draft)." On page 2.39, the Draft RMP states: "The BLM would cooperate with FWS, state and local governments in developing and implementing applicable HCPs for the preservation of desert tortoise and other listed or candidate species." In addition, Chapter 5 of the Draft RMP discussed plans that would be given full consideration as land use decisions are made, including the Virgin River Habitat Conservation and Management Plan. The Washington County Open Space Plan is not completed or available for use at this time.

GEN-9

COMMENT: The RMP should address the fact that loss of BLM lands to disposal can be counterbalanced by the protection of lands under other entities, e.g., The Virgin River Land Preservation Association or The Nature Conservancy. Bringing this forth would help clarify the importance and benefits of coordinated management efforts.

RESPONSE: BLM recognizes that collaboration with other public land users and state and local agencies is extremely important and that it was not given adequate attention in the Draft RMP. The Proposed Plan has added major commitments to this effect throughout the Proposed Plan.

GEN-10

COMMENT: The Draft RMP does not adequately display the environmental effects of the proposed action.

RESPONSE: A RMP is basically a programmatic NEPA document that does not complete an in-depth analysis by specific actions. Rather, a RMP provides planning level analysis of impacts of an alternative as a whole on the physical and social environment. The analysis of environmental consequences in Chapter 3 of the Proposed Plan provides adequate descriptions of effects commensurate with the level and nature of the Proposed Plan. Site-specific analysis would be completed in subsequent project level documents.

GEN-11

COMMENT: The RMP should display the environmental consequences of its proposals on adjacent lands including Zion National Park, Dixie National Forest, State School Trust Lands, Paiute Indian Reservation, and private landowners. The analysis failed to disclose whether its management enhanced or detracted from opportunities on these lands.

RESPONSE: The Proposed Plan has been revised to include a specific section discussing proposed management decisions through partnerships with immediate neighbors, including Zion National Park and the Shivwits Indian Reservation. The Proposed Plan has been expanded to provide a general analysis of the impacts of the Proposed Plan to local, state, and federal land neighbors in Chapter 3.

GEN-12

COMMENT: A comprehensive cumulative analysis of past and projected activities was not completed, especially in light of those generated by other entities and occurring on other ownerships such as Zion National Park, State Lands, etc.

RESPONSE: For purposes of the generalized programmatic RMP, a generic cumulative impact analysis, consistent with the environmental consequences analysis, was appropriate and provides sufficient information to disclose anticipated effects of alternatives in the RMP. The Proposed Plan contains elements of four separate alternatives, and as such, a new cumulative impact analysis has been completed. A comprehensive cumulative impact analysis would be completed on future proposed actions as site specific projects warrant this type of analysis.

GEN-13

COMMENT: The baseline or "no action" alternative is used in an arbitrary manner throughout

the RMP and EIS. It is impossible to determine the rationale and basis for this alternative. The "no action" alternative, which is Alternative A in the Draft RMP/EIS does not reflect decisions made in the BLM Management Framework Plan (MFP). There is no approved BLM plan or amendment which incorporates many of the Alternative A resource decisions into the MFP. The problems and deficiencies resulting from not applying a consistent and rigorous standard for the "no action" alternative are too numerous to recount.

RESPONSE: The description of the "no action" alternative in the Draft RMP mischaracterizes the emphasis of the alternative as reflecting only the decisions of the MFP. As per 43 CFR 1610.4-5, under the planning regulations for the formulation of alternatives, the "no action" alternative means the continuation of present level or systems of resource use. Continuation of current management includes MFP decisions that are still useful and reliable, guidance from national level policy which has been established through legislation, regulations, executive orders, or other Presidential, Secretarial, or Director- approved documents. Guidance for current management can also be developed at the State Director, District Manager, and Resource Area Manager level as well as from information and data gathered from new inventories. The "no action" alternative attempts to reflect BLM's management strategies currently applied under the older directives until completion of this Resource Management Plan. Changes in the text have been made through the Errata Sheet to clarify the purpose and emphasis of this alternative.

GEN-14

COMMENT: How were cultural and paleontological resources allocated in the plan?

RESPONSE: Cultural and paleontological resources were not "allocated" in the Draft RMP or in the Proposed Plan. References to allocations for these sensitive resources is misleading. In fact, cultural and paleontological resources are protected by law. They are managed in some locations through proposed designation of ACECs and limitations on other uses in areas of known paleontological and cultural resources such as the Dinosaur Trackway and the Fort Pearce Historical Site.

GEN-15

COMMENT: Why are the HMP objectives displayed on Table 3-5 in the Draft RMP not part of Alternative A, the No Action Alternative?

RESPONSE: The HMP objectives discussed in Chapter 3 are a part of all of the Alternatives in the Draft RMP. Under the "Common To All" section of the Draft RMP on page 2.1 it states: "The BLM would manage lands to meet the goals and objectives of...approved Habitat Management Plans..."

GEN-16

COMMENT: On page 4.2 of the Draft RMP, item number 6, the wording of this statement implies the BLM will savage all archeological sites before transfer. Is this correct?

RESPONSE: This statement has been corrected and amended and is included in the Errata Sheet.

GEN-17

COMMENT: Numerous inconsistencies were brought forth concerning Table 5- 1 in Chapter 5 of the Draft RMP. This table provided a general overview of local, county, state, and federal plans and the Draft RMP's consistency with those plans.

RESPONSE: A new, more in-depth consistency review was completed for the Proposed Plan, taking the comments into consideration. See Chapter 4 of the Proposed Plan for more detailed information.

GEN-18

COMMENT: Closing or restricting areas to use for rights-of-way, OHVs, potential reservoir sites, mineral and oil exploration and development, materials sales, grazing, land sales and exchanges, R&PPs, camping, limiting water development, etc., all have huge potential adverse impacts on the public and individual public land users. Many of the potentially

adverse impacts could be avoided with proper management and/or decisions.

RESPONSE: Professional management of the public lands, in accordance with the mandates of a variety of applicable Federal laws, includes more than just the accommodation of intensive or consumptive uses. Of equal importance is the consideration of resource conservation, preservation, and the application of multiple use and sustained yield. Section 102 of FLPMA specifically states that "the public lands be managed in a manner that will protect the scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife...." In order to carry out this aspect of the BLM mission, appropriate limitations must be placed on other uses in certain locations. The function of land use planning is to identify resource characteristics, use and preservation options, alternative opportunities for management, and ultimately establish a management blueprint "that will best meet the present and future needs of the American people" (FLPMA Section 103). To the extent possible, this means all of the people: national, regional, and local. Further, the objective for any particular BLM land use plan must be to provide for the "harmonious and coordinated management of the various resources without permanent impairment of the productivity of the land and the quality of the environment with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or the greatest unit output" (FLPMA, Section 103).

GEN-19

COMMENT: The Draft RMP completely fails to address valid pre-existing rights especially in light of the vast majority of road rights-of-way across BLM lands within the Dixie Resource Area.

RESPONSE: R.S. 2477 roads are addressed in the Draft RMP on page 4.5 under "Impacts on Access and Transportation from Revised Statute 2477" and are further addressed in the impact analysis in Chapter 3 of the Proposed Plan. A new discussion and additional information is also included in the Transportation section of the Proposed Plan. Current R.S. 2477 assertions will not be resolved until administrative processes are put into place by new regulations, federal court action, or legislation in the U.S. Congress. FLPMA Section 701 clearly states that it does not terminate any valid lease, permit, patent, right-of-way, or other land use right or authorization existing on the date the act was passed (October 21, 1976). It also states that "All actions by the Secretary concerned under this act shall be subject to valid existing rights." Therefore, the Dixie RMP/EIS and the associated Record of Decision, must as a matter of law, recognize valid existing rights. Both the Draft RMP and Proposed Plan make a clear declaration on that point. The policy and legal debate on the road right-of-way issue centers around interpretation of Revised Statute 2477 (R.S. 2477). That law was repealed by FLPMA in 1976, but its effects are now a matter before the U.S. Courts. Resolution of this debate is a national and statewide issue beyond the scope of the Dixie RMP.

GEN-20

COMMENT: Why was no meaningful analysis on preliminary decisions made for wildlife resources?

RESPONSE: Extensive analysis was completed for special status animal species within the Draft RMP. Page 4.6 in the Draft RMP states that; "The impacts of forage allocation for wildlife are addressed in the BLM Hot Desert Grazing Management FEIS. The impact analysis found in the FEIS is incorporated by reference and no further analysis is included."

GEN-21

COMMENT: We do not believe the applicable laws and regulations relating to planning and EIS preparation permit sufficient latitude to BLM to modify the current Draft Plan to make it acceptable to the competing interests. Therefore, we strongly suggest it be withdrawn and that BLM embark on a more modest cooperative and collaborative effort to amend the current MFP to provide the needed guidance for

BLM managers for the three major issues identified in the Draft RMP.

RESPONSE: Considerable latitude and judgement may be exercised by each federal agency and each EIS preparation group regarding the reasonable content of draft and final EIS documents. A Draft EIS is released for review and comment prior to completion as a final EIS. Fairly significant changes to the Draft may be made, if appropriate, in response to the comments. As long as the reasonable range of alternatives is not greatly enlarged, it is not necessary to reissue the Draft for additional comments. It is unlikely that BLM could prepare a plan that would be acceptable to competing interests in all respects, given the nature and extent of the controversies on public lands in Washington County. When a Final EIS document is issued, the opportunity for additional public input is available during a "protest" period prior to agency decisions. Neither the Draft nor Final RMP/EIS are decision documents.

Substantial coordination and collaboration with various interest groups and agencies has occurred over a long period of time during the preparation of the Dixie RMP. Many meetings, letters of comment, informational materials, and opinions have been part of the process. A summary of this coordination is contained in Chapter 4 of this Proposed Plan. BLM has considered all of the varied input. The Proposed Plan responds to the numerous comments made on the Draft RMP and provides for the integration of approved plans of local governments and agencies where such are consistent with federal law, regulations, and policies. BLM believes that the overall range of alternatives presented in the Dixie Draft RMP was reasonable. Clarification, adjustments, and further information presented in this Proposed Plan are within the general scope and intent of the Draft document. Therefore, it is not necessary to reissue a new Draft for review and comment.

Category: Areas of Critical Environmental Concern

ACEC-1

COMMENT: Why are all ACECs closed or limited to OHV use? Justification for this action is not shown in the Draft RMP.

RESPONSE: All 11 ACECs proposed in the Draft RMP have resource values that must be protected in accordance with the Federal Land Policy and Management Act. Those values are listed on Table 3-10 in the Draft RMP on page 3.37 and are discussed in Chapter 4 of the analysis. Three of the 11 ACECs are also included within Wilderness Study Areas, which are managed under special land use prescriptions. See the Proposed Plan for changes that have been made to ACEC OHV decisions and for expanded justifications.

ACEC-2

COMMENT: What is the justification and scientific evidence for adding additional ACECs in this plan?

RESPONSE: FLPMA requires that ACECs be given priority during inventory, identification, and development of land use plans. Nomination of ACECs is a public process initiated through a Federal Register notice. The BLM, in evaluating the nomination, applies standard ACEC "relevance and importance" criteria to determine if the nominated area meets the criteria. If the criteria is met, the ACEC must be brought forward into the planning process. Additional ACECs were not added to the Draft RMP and are basically the same ACECs that were brought forth in the remanded 1990 Dixie Final RMP.

ACEC-3

COMMENT: The Zion Scenic Corridor should be protected as an ACEC.

RESPONSE: The area between Virgin and Springdale was considered and assessed for ACEC designation. It was determined that this area did not meet the scenic relevance or importance criteria for consideration as an ACEC due to the lack of public land ownership along Highway 9. See Appendix 9 of the Draft RMP.

ACEC-4

COMMENT: Evaluate the expansion of the Red Bluff ACEC to capture dwarf bear-claw poppy plants on the northwestern boundary of the

ACEC. Expand the Canaan Mountain ACEC boundary to the bottom of Smithsonian Butte to protect the south view, and expand the Red Mountain ACEC boundary to the SRMA boundary to protect scenic values.

RESPONSE: Proposed ACECs were carefully evaluated when they were nominated for consideration and assessed for importance and relevance criteria. The nominations for these ACECs, and their justifications, did not warrant expansion of these ACECs for the purposes mentioned in the comment. Documentation is available at the Dixie Resource Area Office.

ACEC-5

COMMENT: There is a conflict between the ACEC boundary for Beaver Dam Slope as shown on the map and acreage figures for Alternative C, and as depicted on the map and acreage figures for Alternative D. Why is this?

RESPONSE: Under Alternative C of the Draft RMP, the Beaver Dam Slope ACEC incorporated all of the identified desert tortoise critical habitat as well as the expanded Woodbury Desert Study Area. Under Alternative D, only the boundary of the formerly identified critical habitat for desert tortoise was brought forward, and the expanded Woodbury Desert Study Area was deleted from the ACEC. The Proposed Plan incorporates the expanded Woodbury Desert Study Area into the new Beaver Dam Slope ACEC boundary.

ACEC-6

COMMENT: The City Creek ACEC boundary should be expanded as is depicted in Alternative D to provide protective management for desert tortoise critical habitat and to create a special management area of suitable size for aiding the recovery of this species.

RESPONSE: The City Creek ACEC is not carried forth into the Proposed Plan because it has been incorporated in the Washington County Habitat Conservation Plan. The ACEC boundary, as proposed in Alternative D of the Draft RMP, is fully within an even larger area encompassing the HCP boundary. Specific management of the HCP was analyzed in the FWS's Desert Tortoise Incidental Take Permit EIS. Implementing the majority of management decisions in this document is incumbent upon the BLM and is carried forward in the Proposed Plan. Management decisions within the HCP are specifically for the protection and enhancement of desert tortoise and their habitat, as well as for other special status species. Applying an ACEC boundary over the HCP boundary would be redundant.

ACEC-7

COMMENT: The camping restriction of no overnight camping within 1 mile of the Fort Pearce Historic Site is not carried over into the prescriptions for the Warner Ridge/Fort Pearce ACEC. Why?

RESPONSE: The Errata Sheet has corrected this inconsistency. In addition, the no overnight camping restriction has been carried forth into the prescriptions for this ACEC through the Sand Mountain SRMA management prescriptions in the Proposed Plan.

ACEC-8

COMMENT: Would the BLM consider the eastern portion and the southern tip of Smith Mesa as another ACEC to protect Anasazi sites?

RESPONSE: New proposals for ACECs would have to be processed through a Plan Amendment after the Dixie RMP is finalized. Public nomination of new ACECs must provide specific details concerning the proposed ACEC including maps and justification for such action in accordance with ACEC nomination policy. The BLM would then apply relevance and importance criteria to determine if further planning action is warranted.

Category: Visual Resource Management

VRM-1

COMMENT: BLM should designate the highly visually sensitive lands between La Verkin and Zion National Park (including the Virgin River) a Scenic Corridor. (This corridor was referred to as the "Zion Scenic Corridor" or the "Virgin River Corridor" in numerous letters.)

RESPONSE: BLM has no authority under current law or regulation to designate a "Scenic Corridor". The State of Utah has designated Highway 9 as a "Scenic Byway" and BLM has proposed to support this designation by assigning VRM Class II objectives in this area. See the discussion in the Visual Resources Management section of the Proposed Plan for more information.

VRM-2

COMMENT: The "Zion Scenic Corridor" should be designated as a Visual Resource Management Class II area.

RESPONSE: BLM acknowledges the extraordinary scenic values in the area between La Verkin and Zion National Park, as well as the attributes of the state's Scenic Byway designation along Highway 9. In accordance with the county, some local communities, and other public recommendations for this area, a VRM Class II designation has been placed along this route. See the Visual Resource Management section of the Proposed Plan for further clarification.

VRM-3

COMMENT: How can VRM Classes change throughout the alternatives when they are determined using the same procedures?

RESPONSE: Visual values are identified and quantified in baseline visual inventories. The inventory includes an arduous and complex identification of scenic quality, visual sensitivity, distance zones, and relative value units. This information is available in the Dixie Resource Area Office in St. George. Based on alternative goals and objectives, BLM planning guidance allows for changes to baseline VRM classifications to provide additional protection through mitigation requirements for any future proposed actions. Changes to the VRM baseline inventory should be justified for resource protection purposes.

VRM-4

COMMENT: Draft RMP, Page 4.53, column 1, last paragraph: How does a reservoir affect a visually sensitive area since water is generally regarded as a pleasing aspect of any scene?

RESPONSE: As in any setting where people make their own judgement calls, visually pleasing scenes are in the eye of the beholder. A reservoir placed within a desert backdrop would change the inherent natural setting of the area as a whole. The analysis in Chapter 4 of the Draft RMP identified the changes as sensitive, but does not identify them as pleasing or objectionable. A reservoir would change the four basic elements of visual contrasts which include line, form, texture, and color.

Category: Lands

LAND-1

COMMENT: Any disposal of land within the Zion Scenic Corridor would compromise the experience of the scenic beauty of the area. Why is BLM proposing to dispose of these lands so integral to the "Zion experience?".

RESPONSE: In response to numerous comments and local concerns about the lands between La Verkin and Springdale, and as a result of field examinations, BLM has reconsidered its land ownership changes in this area. Generally, federal lands within view of the state's scenic Highway 9 would be retained in public ownership. Refer to the Lands section and coincident map in the Proposed Plan.

LAND-2

COMMENT: Why isn't the Dixie Resource Area using land outside of Washington County for the completion of the land trades required for the Washington County Habitat Conservation area? Identify other lands that can be used.

RESPONSE: Other lands within the state are currently being used as part of the land exchange process for the County's Habitat Conservation Area. Proposals have included lands in Park City, Kane County, and Iron County, among others. Moreover, many of the private land owners in the Conservation Area are local residents who would like to remain in Washington County and are not interested in exchanging lands in other areas.

LAND-3

COMMENT: BLM should retain lands within and adjacent to the Rockville City limits in public ownership.

RESPONSE: There are no public lands identified for disposal in the Proposed Plan near Rockville. Generally, federal lands within view of the state's scenic Highway 9 would be retained in public ownership. See additional information in the Lands section and on the coincident map.

LAND-4

COMMENT: BLM should not dispose of lands south of the Santa Clara River T. 25, 16 W. or north of the Santa Clara River on the west boundary of 42 S., 16 W. These lands have value to the Santa Clara River system and open space needs for the future.

RESPONSE: Descriptions of these lands in the comment were inaccurate or not specific enough to know exactly what tracts of land are of concern. However, BLM is currently under a land exchange agreement with the State Institutional Trust Lands to exchange lands in T. 42 S., R. 16 W (see Lands map) for lands within the Washington County Habitat Conservation Area. Lands along the Santa Clara River have been pulled out of this exchange proposal.

LAND-5

COMMENT: Delete the easement acquisition across Trees Ranch in Alternative C as an alternative trail has already been agreed to with the National Park Service.

RESPONSE: The Proposed Plan reflects this deletion.

LAND-6

COMMENT: The BLM should add lands in T. 42 S., R. 10 W. section 6 as acquisition lands in the Proposed Plan to reflect the interests expressed by the town of Springdale and Zion National Park.

RESPONSE: Acquisition by the federal government is no longer feasible due to current landowner development of the property.

LAND-7

COMMENT: Existing utility corridors should be so designated in the Proposed Plan and should be identified as useable for future expansion.

RESPONSE: Only two existing utility corridors are currently designated in the Dixie Resource Area: IPP Corridor and the Navajo-McCullough Corridor. Both of these corridors would continue to be utilized for new projects. The Proposed Plan does identify 10 additional utility corridors intended for future use. Please see the Lands section and Utility Corridor Map in the Proposed Plan.

LAND-8

COMMENT: All corridors identified in the Western Regional Corridor Study should be designated for use as corridors in the Proposed Plan.

RESPONSE: The Western Regional Corridor Study has been taken into consideration in the Proposed Plan. The Study identifies three corridors in the resource area: the Navajo-McCullough Corridor, the IPP Corridor, and a utility corridor running north of St. George through the Washington County HCP Reserve and over to S.R. 18 through Veyo. The Proposed Plan identifies the first two corridors; however, the corridor through the Washington County HCP Reserve has been modified to coincide directly with S.R. 18. Rights-of-way will continue to be allowed on a case-by-case basis in this area in accordance with the HCP utility protocol. No additional designated corridors are anticipated within the HCP.

LAND-9

COMMENT: The upgrade of utilities within existing corridors should be allowed as a "Categorical Exclusion".

RESPONSE: The determination of NEPA requirements for the upgrading of existing utilities is dependent upon the extent of the upgrade. Often, upgrading of existing utilities can be allowed under the existing right-of-way grant with no additional NEPA requirements. If substantial changes are made to a right-of-way, an environmental assessment or even an environmental impact statement could be required. Upgrading of utilities within an existing right-of-way is allowed under a Categorical Exclusion only when there is no additional surface disturbance or impact to the human environment.

LAND-10

COMMENT: How will lands be disposed of in an equitable manner through the exchange process? Is there a general management policy for disposals?

RESPONSE: Land exchanges would be completed in accordance with land exchange regulations found in 43 CFR part 2200. A decision to dispose of land through exchange is made only after determining that the exchange will serve the public interest. General management policy for disposals is to ensure that the BLM receive lands with public values when exchanging out of other public lands. All lands under exchange, both federal and non-federal, must comply with the appraisal standards set forth in 43 CFR part 2201 and with the Department of Justice's "Uniform Appraisal Standards for Federal Land Acquisition".

LAND-11

COMMENT: How is the 80 acres of public land across the river from Grafton proposed to be managed?

RESPONSE: The majority of the 80 acres of public land across from Grafton, and partially transected by the Virgin River, would be managed in accordance with the preliminary decisions described under the Riparian Resources section of the Proposed Plan. Future partnerships with other agencies or conservation groups could help BLM manage this area and protect the riparian and floodplain resources. BLM is also working with Zion National Park to help implement their transportation plan. In doing so, the acreage currently under a Utah DOT gravel permit could be converted to a Visitor Contact Station for the Park. See the section in the Proposed Plan under Special Emphasis Areas, Zion National Park Coordination. In addition, portions of the 80-acre site could become an integral part of the Grafton rehabilitation project and be used for a parking area and pathway to a new footbridge across the Virgin River to the old Grafton Town site.

LAND-12

COMMENT: The Draft RMP states on page 2.34 that public lands within designated corridors would be retained in public ownership unless their disposal would not conflict with the corridor objectives. Why, then, are lands identified for disposal between Virgin and Rockville when they are within this corridor?

RESPONSE: Due to the scenic sensitivity of the area and in light of the state highway designation of a Scenic Byway, the Proposed Plan shows adjustments to the potential land disposals in this area. Please see the Lands section of the Proposed Plan.

LAND-13

COMMENT: Why aren't federal conservation easements being considered as an alternative to land acquisition within the HCP.

RESPONSE: Federal conservation easements would be considered as an alternative in acquisitions where it is practical and makes sense. With respect to the private lands within the HCP, a myriad of landowner issues, as well as the pragmatics of financing, make such easements difficult. Such easements would need to be granted in perpetuity and allow no nonconforming development within the HCP. To date, BLM has found that purchase, exchange, or donation in the HCP has worked best in meeting the public's needs as well as private landowner's needs.

LAND-14

COMMENT: Explain the difference between sale and exchange and why exchange is preferred.

RESPONSE: Land sales and land exchanges have different Federal Land Policy and Management Act (FLPMA) requirements. Land sales procedures are regulated under 43 CFR Part 2710 in accordance with FLPMA. Land sales must meet specific disposal criteria listed under 43 CFR 2710.0-3, must be made only in implementation of an approved land use plan, be initiated by the BLM, and follow a specific bidding process. On the other hand, land exchanges are regulated by 43 CFR Part 2200 in accordance with FLPMA. Land exchanges are discretionary in nature, must be determined to be in the public interest, must be of equal value

or equalized in accordance with the methods set forth in 43 CFR 2201.6, must be within the same state, and among other policies, must be in conformance with the land use plan. It is currently the Secretary of the Interior's policy to consider exchanges over other forms of land disposal because it helps achieve other public purposes and is prudent to do so. BLM has identified private and state lands with important public values that would be in the public interest to acquire. By selling land, we lose an opportunity to acquire those lands by exchange.

LAND-15

COMMENT: Acquisition described in Alternative D for lands along the Virgin River within Zones 4 and 5 of the HCP should be carried over into the Proposed Plan.

RESPONSE: The Proposed Plan does identify the majority of these lands for acquisition in accordance with the Washington County Habitat Conservation Plan. See the Lands map in the Proposed Plan for clarification.

LAND-16

COMMENT: The Draft RMP does not address the impact the land disposal would have on riparian habitat.

RESPONSE: Impacts from disposal of riparian habitat are discussed in the Draft RMP on page 4.41, right column, paragraph two, and on page 4.46, left column, paragraph three. BLM riparian policy is to exchange lands only when the public lands would be enhanced through equal or better riparian habitat. The goals of exchange would be to improve or enhance existing BLM riparian areas. In addition, see the Proposed Plan Riparian section for additional information concerning riparian land changes.

LAND-17

COMMENT: The proposed right-of-way corridor along the north side of Red Mountain ACEC/WSA should require that lines be placed underground to protect the natural quality on 1,140 acres within the Red Mountain WSA.

RESPONSE: A 345 kV powerline is already located in this proposed corridor. Requiring utility companies to place lines underground in this remote area is monetarily unfeasible and unreasonable. This corridor is outside the WSA and there are no requirements for buffer zones. Each proposal for use of the corridor would be independently analyzed for its impacts to WSA values and appropriate mitigation measures would be stipulated.

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LAND-18

COMMENT: What does the new land exchange criteria do that current federal regulations can't?

RESPONSE: The criteria is used to determine when land ownership changes would be considered in the public interest when the affected lands are not specifically identified for transfer or acquisition in a resource management plan. The use of this criteria has proven to be a successful method of compiling and assimilating the numerous policies, regulations, and authorities that allow for land changes in a resource management plan. The fact that numerous regulations and statutes exist that allow for land ownership changes does not necessarily mean that the change can take place. These criteria provide the mechanism by which specific land changes may be considered as resource management plans are implemented well into the future without having to complete a land use plan amendment.

LAND-19

COMMENT: Explain why the original Instant Study Area is a right-of-way exclusion area and the rest of the Beaver Dam Slope ACEC is a right-of-way avoidance area.

RESPONSE: This inconsistency has been corrected in the Proposed Plan as well as included in the Errata Sheet. As the Instant Study Area is within the Beaver Dam Slope ACEC, all of the ACEC would be a right-of-way avoidance area and not an exclusion area.

LAND-20

COMMENT: BLM is not following Department of the Interior policy and basic planning by not including a map showing transportation systems in the "No Action" alternative. Regardless of

ownership, these roads should still be displayed on a map. What roads will be available for use?

RESPONSE: Please see the discussion of R.S. 2477 roads on page 4.5 of the Draft RMP. Current R.S. 2477 assertions will not be resolved until administrative processes are put into place by new regulations, federal court action, or legislation in the U.S. Congress. A section on Transportation has been added to the Proposed Plan and provides further information. Lack of resolution of R.S. 2477 issues at the national and state levels prevents finalization of a complete transportation plan. However, a transportation plan map covering the Dixie Resource Area is available at the Cedar City District Office.

LAND-21

COMMENT: Alternative A failed to recognize the existing Navajo-McCullough or I-15 Utility Corridors.

RESPONSE: The Navajo-McCullough Corridor was discussed in Chapter 3 and inadvertently left off the map for Alterative A. The Errata Sheet incorporates this oversight. The Virgin River Management Framework Plan does not designate an I-15 Utility Corridor for inclusion into the No Action alternative.

LAND-22

COMMENT: Alternative A identified OHV Closed Areas, OHV Areas Limited to Designated Roads and Trails, Riparian Areas, Cultural Sites, VRM Class II Areas, Desert Tortoise Critical Habitat, and T&E and Candidate Plant Habitat as Avoidance Areas. The Virgin River MFP had no such designation. This assumption must be corrected.

RESPONSE: Although the MFP did not specifically identify "avoidance areas", the categories noted in the comment require restrictions on activities and would still be applied to any new applications for rights-of-way on a case-by-case basis to protect critical resources. Avoidance by means of bypassing, circumventing, or routing around an important resources would still be a part of mitigation applied before or during the NEPA process. Other alternatives would be sought in those areas that are determined to have resource values that must be avoided by law, regulation, or policy. A change has been made to the title and legend of Map 2A.2 in the Draft RMP as reflected in the Errata Sheet.

LAND-23

COMMENT: On pg. 2.15, column 1, paragraph 6, the statement at the end of this paragraph regarding land tenure adjustments states, "and are in accordance with land exchange goals and objectives and other RMP planning decisions" is ambiguous and impossible to interpret exactly what is intended, especially since no RMP planning decisions have yet been made.

RESPONSE: It is important to understand that all resource decisions portrayed under each alternative of the Draft RMP and the Proposed Plan are linked to one another. Consistency with other decisions made in each alternative of the Draft RMP and the Proposed Plan is integral to the lands program. The land exchange goals and objectives are further defined in the Proposed Plan under the Lands section. RMP planning decisions are preliminary decisions until the Record of Decision is signed at the end of the planning process. Until that time, reference to RMP planning decisions are those preliminary decisions set forth in the alternatives of the Draft RMP or in the Proposed Plan.

LAND-24

COMMENT: For analysis purposes, it is not reasonable to assume that all lands within the full width of a right-of-way would necessarily be disturbed.

RESPONSE: This is true; however, under a right-of-way application, the full width would be included within the grant to the private, state, or other entity. Case-by-case analysis of each application would include the affected portion of each right-of-way and cultural and biological clearances would be mandated for the full portion. For general purposes of this broad overview, the assumption that the full width could be disturbed is warranted.

LAND-25

COMMENT: There is a need for a utility corridor to connect the IPP corridor to the Navajo-McCullough corridor on the west slope of

Beaver Dam Mountains and on the west side of the Beaver Dam Wash adjacent to the Nevada border.

RESPONSE: Due to the sensitivity of desert tortoise critical habitat and a tristate ACEC within this area, it is highly improbable that a new corridor would ever be designated within this area. Individual rights-of-way on a case-by-case basis would be considered. See Proposed Plan, Lands section.

LAND-26

COMMENT: What is the difference between a right-of-way and a utility corridor?

RESPONSE: A right-of-way means the public lands are authorized to be used or occupied pursuant to a right-of-way grant. A right-of-way grant may be issued to an individual, partnership, corporation, association, or other business entity, and any federal, state, or local governmental entity including municipal corporations authorizing the use of a right-of-way over, upon, under, or through public lands for construction, operation, maintenance, and termination of a project. A utility corridor is a corridor that has been formally designated across any public lands, allowing for numerous rights-of-way within a specific area. A corridor is defined as a linear strip of land which may or may not have a prescribed width, and which is limited by technological aspects, environmental considerations, topographical limits, or significant land uses. A corridor is a land use designation, identified to provide policy and planning direction regarding preferred locations of compatible linear facilities. A primary purpose of designating corridors in the RMP is to "minimize adverse environmental impacts and the proliferation of separate rights-of-way" and to comply with the mandate for "utilization of rights-of-way in common...to the extent practical" (FLPMA, Section 503). Aspects to be considered in designating corridors are: "national and state land use policies, environmental quality, economic efficiency, national security, safety, and good engineering and technological processes." (FLPMA Section 503). Designation of corridors does not imply entitlement of use or assure the automatic granting of new rights-of-way for linear facilities. FLPMA states that existing transportation routes and utility corridors may be designated as corridors, but it does not require it. Generally, corridor designation addresses the need for major cross-country routes rather than local distribution networks. Local transportation and utility proposals are usually considered on an individual basis without corridor designations. Project specific rights-of-way are required across public land regardless of corridor designation.

LAND-27

COMMENT: Why wasn't the Lake Powell pipeline that is proposed to empty into Sand Hollow Reservoir included in this Resource Management Plan?

RESPONSE: The feasibility study for the Lake Powell pipeline project was completed after the cut-off date for inclusion of new material for the Draft RMP. The study stated that this project was not expected to be considered for 20 years or more due to budgetary constraints and anticipated future growth patterns in Washington County. This timeframe would place project implementation beyond the expected life cycle of the Proposed Plan. The proposed pipeline is referenced in the Proposed Plan. BLM would continue to consider rights-of-way on a case-by-case basis when found consistent with the current Land Use Plan.

LAND-28

COMMENT: Obstruction of mineral development of State Trust lands by imposing restrictions on adjacent or surrounding federal lands would keep the Trust Lands Administration from fulfilling their fiduciary duties to administer the trust corpus in a manner which obtains the optimum values from the trust lands; any trust lands so encumbered should be included as lands to be acquired by the BLM through purchase or exchange.

RESPONSE: BLM policy, as required by Court decision (State of Utah vs. Andrus, Oct.1, 1979) is that BLM must provide reasonable access to inheld lands. Therefore, if valid uses are allowed on State Trust Lands, BLM would allow access across public lands to support these uses. Acquisition of inholdings in selected areas is addressed in the Lands section of the Proposed Plan.

LAND 29

COMMENT: If lands identified by the state for selection and classified in accordance with 43 CFR part 2400 would be considered consistent with the Plan, then lands applied for under the Recreation and Public Purposes Act for exchanges and sales which are classified under Part 2400 should also be considered consistent with the Plan.

RESPONSE: In accordance with 43 CFR part 2620, the Sate of Utah may exercise its right to acquire public land through state quantity or other special grants. These lands may or may not be identified in the Proposed Plan and would be considered consistent with the Proposed Plan if they are classified as suitable in accordance with federal regulations. This approach was taken (in accordance with Utah BLM policy) to facilitate retirement of the remaining debt to the State of Utah under the various grant authorities. All other land transfers, R&PPs, and exchanges would be considered consistent with the Proposed Plan if they meet one or more of the criteria for land ownership changes brought forth in the Lands section of the Proposed Plan. FLPMA requires that public lands may be sold under section 203 only if they are specifically identified for disposal in the approved Plan.

Category: Wild and Scenic Rivers

WSR-1

COMMENT: On December 31, 1994, BLM entered into an Interagency Agreement to cooperatively define common criteria and processes for use in determining the eligibility and suitability of Utah rivers. The Draft RMP does not recognize that agreement and lists 10 segments as meeting eligibility standards. Why were more wild and scenic river designations being added to this Plan? What is the justification and scientific evidence to support these designations? Findings are not supported by adequate studies or analysis. Criteria used and conclusions made cannot be supported by facts. Eligibility was not determined by common interagency criteria as requested by the Governor and Utah's congressional delegation. In order for a river to be eligible, it must have an outstandingly remarkable value. It is doubtful if any portion of the Virgin River satisfies this criterion.

RESPONSE: In order to resolve a protest made on the 1991 Proposed Dixie RMP, BLM agreed to take another look at wild and scenic river considerations through this subsequent planning effort. BLM does not designate rivers into the National Wild and Scenic Rivers System, but makes recommendations to Congress regarding the eligibility and suitability of rivers for congressional designation. BLM's authority to review rivers within its jurisdiction and make recommendations to Congress regarding those rivers is found in Section 5(d)(1) of the Wild and Scenic Rivers Act. The reasons for specific eligibility findings are identified in Appendix 7 of this Proposed Plan. The outcome of the Interagency Agreement to which the above comment refers is the interagency (BLM, FS, NPS) document "Wild and Scenic River Review in the State of Utah, Process and Criteria for Interagency Use." Its use as guidance for this effort is also discussed in Appendix 7. Although this interagency document was completed after initial eligibility findings had been made, the process and criteria used to make those findings were generally consistent with those identified in the interagency document. In keeping with the coordination efforts espoused by the agreement, BLM has coordinated with the FS and NPS regarding river segments that are contiguous with segments on other agency lands. BLM has also entered into a separate Memorandum of Understanding (MOU) with Zion National Park dated February 1998. This MOU provides that some public land river segments contiguous to segments within Zion National Park will be studied as part of the current planning effort for Zion National Park. BLM continues to believe that portions of the Virgin River are eligible. Refer to Appendix 7 in the Proposed Plan for additional information.

WSR-2

COMMENT: BLM's selection criteria was flawed considering that out of all the stream segments reviewed, only 10 were found eligible. Many more streams have outstandingly remarkable values then were identified as having them. BLM failed to properly assess the out-

standingly remarkable nature of certain values (such as threatened or endangered species identified in connection with more than 30 streams). BLM guidelines state: "Of particular importance is the presence of federal or state-listed, threatened or endangered species, or unique habitat or critical habitat links for these species." Rivers that should have been found eligible for such outstanding attributes as cultural sites, endangered species habitat, or outstanding scenery include Leeds Creek, North Creek, Beaver Dam Wash, Moody Wash, and Bear Trap Canyon. Alternative C is based upon a narrow and contrived application of the standards of outstandingly remarkable values.

RESPONSE: The term "outstandingly remarkable value" is not defined by the Wild and Scenic Rivers Act, other than that it includes scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values. A guideline generally accepted by the federal agencies is that determinations of outstandingly remarkable values should be a matter of informed professional judgment. BLM Manual 8351 contains descriptions of the nature of outstandingly remarkable values. These descriptions are meant to be illustrative rather than definitive or all-inclusive. For example, although the presence of endangered species within a river is an indicator that an outstandingly remarkable value may exist, the uniqueness, rarity, or exemplary nature of that value within a regional, physiographic, or geographic comparative basis is also considered. BLM revisited previous findings of identified streams based on comments. Refer to comments WSR-3a, WSR-3b, WSR-3c, WSR-3d, and Appendix 6 in this Proposed Plan.

WSR-3

COMMENT: BLM failed to properly include as eligible many other rivers that are free-flowing and possess one or more outstandingly remarkable values. The "40 percent rule " was illegally applied to eliminate rivers.

RESPONSE: BLM inventoried for eligibility on all rivers of which it was aware within the planning area. The "40 percent rule" was not applied. Appendix 7 lists free-flowing segments and outstandingly remarkable values that were identified. These findings are based upon professional judgement using available information, including input from other agencies, local governments, and the public. The findings reflect changes from the Draft RMP in response to public comment.

WSR-3a

COMMENT: BLM inaccurately applied the definition of "free-flowing" to mean those rivers which are "boatable or floatable". Fourteen rivers appear to have been deemed noneligible solely on the basis that they flow intermittently. These are Bear Canyon, Black Canyon, Cottonwood Creek, Cougar Canyon, Dry Creek, Dry Sandy Creek, Dry Wash, Graveyard Wash, Jackson Wash, Leap Creek, Little Creek, Sand Cove Wash, Wet Sandy Creek, and Willis Creek. According to proper procedure, these rivers should have been disqualified only if they flowed intermittently and had no outstanding values.

RESPONSE: BLM did not consider whether or not a river was "boatable or floatable" as a factor in its wild and scenic review. In fact, many of the river segments found by BLM to be free-flowing are neither "boatable or floatable." BLM used the definition of free-flowing that is provided by Section 16(b) of the Wild and Scenic Rivers Act and in BLM's 8351 Manual as "...existing or flowing in natural condition without impoundment, diversion, straightening, ripraping, or other modification of the waterway. The existence, however, of low dams, diversion works, and other minor structures at the time any river is proposed for inclusion in the national wild and scenic rivers system shall not automatically bar its consideration for inclusion...." BLM's 8351.31 Manual provides further clarification when it says that "the volume of flow is sufficient if it is enough to maintain the outstandingly remarkable values identified within the segment." As far as the 14 ephemeral segments are concerned, the commentor did not identify any outstandingly remarkable values that had been overlooked. However, in response to the comment, BLM has reevaluated the 14 ephemeral segments that had previously been assessed as non-free-flowing in the 1995 Draft RMP. All but one (Dry Sandy Creek) of the 14 identified river segments possess sufficient flows and riverine characteristics to determine

them free-flowing. However, none of the identified segments contain an outstandingly remarkable river-related value; thus, all 14 segments remain ineligible. Note, however, that Willis Creek will be reevaluated in conjunction with its contiguous river segment within Zion National Park when the Park completes its general management plan.

WSR-3b

COMMENT: BLM left out many streams that should have been found eligible. BLM improperly applied the standard of regional significance in order to exclude free-flowing streams with outstandingly remarkable values from further consideration. Streams that were so excluded include: Bear Trap Canyon, Beaver Dam Wash, Docs Pass Canyon, Goose Creek, Gould Wash, Grapevine Wash, Horse Valley Wash, Jackson Spring Wash, Leeds Creek, Magotsu Creek, Moody Wash, North Ash Creek, North Creek, West Fork O'Neal Gulch, Pine Park Canyon, Quail Creek, Second Creek, Sheep Canyon, Sheep Corral Canyon, Short Creek, Shunes Creek, South Creek, Squirrel Canyon, and Water Canyon.

RESPONSE: BLM believes that regional significance was properly applied. BLM Manual 8351 discusses regional or national significance as factors for consideration in determining outstandingly remarkable values. In order to determine whether or not a river-related value has regional significance, the review team identified the planning area as a place where three major geographic areas (Great Basin, Colorado Plateau, and Mojave Desert) transition together. The uniqueness of that transition was taken into consideration as rivers were compared against other rivers within their respective geographic areas. This comparison was not done in order to exclude streams from consideration, but rather to understand if any of the streams possess values of regional significance. BLM continues to believe that the river-related values identified for most of the 24 streams are not of regional significance. Note that values in Bear Trap Canyon, Shunes Creek, and Goose Creek will be reevaluated in conjunction with contiguous river segments within Zion National Park when the Park completes its general management plan.

WSR-3c

COMMENT: The BLM arbitrarily and capriciously excluded from the list of eligible rivers ones that it had previously identified as eligible. These include Bear Trap Canyon, Goose Creek, North Creek, Pine Park Canyon, Quail Creek, and Shunes Creek. Also, Maxwell Canyon, which was identified in May 1993 as eligible, is now not even found free-flowing.

RESPONSE: As a standard part of its wild and scenic review process, Utah BLM provided for a public comment period on preliminary eligibility findings. The intent is to receive as much input as possible on river values before deciding which rivers are in fact eligible for further consideration in the planning process. The list of rivers identified in the May 1993 "Planning Update" was a preliminary findings list wherein public review and comment was requested. It is true that some rivers shown in the preliminary listing as eligible were not identified as eligible in a later "Planning Update" or in the Draft RMP. This is not because of any arbitrary capricious action on BLM's part, but rather because the comments received from the public in response to the May 1993 Planning Update were carefully considered and further review was done before BLM determined which rivers were, in fact, eligible to be considered further in this planning effort. Reasons for the determinations have been clearly documented in Appendix 7 of this Proposed Plan. Note that the eligibility of BLM-managed portions of Bear Trap Canyon and Goose Creek will be reevaluated in conjunction with contiguous river segments in Zion National Park as the Park develops its general management plan.

WSR-3d

COMMENT: Many miles of rivers were improperly excluded by BLM from further review of their suitability. The Virgin River is the most notable example. Home to Virgin spinedace, Virgin River chub, and woundfin minnows, over 60 miles of the Virgin River deserves to be protected. The East and North Fork of the Virgin River, La Verkin Creek, Orderville Creek, Santa Clara River, Deep Creek, and Beaver Dam Wash also need protection.

RESPONSE: Most of the Virgin River on BLM-managed lands in Washington County was found eligible and reviewed for suitability. The BLM-managed portion of the East Fork and Orderville Creek are not managed under BLM's Dixie Resource Area and therefore are not included in this planning effort. The North Fork of the Virgin River, Deep Creek, and portions of La Verkin Creek were found eligible and reviewed for suitability. Although not originally found eligible, the mainstem of Beaver Dam Wash was revisited based upon comments received on the Draft RMP. As a result of resegmentation, an additional segment has now been found eligible and reviewed for suitability. Please refer to Appendix 7 and Appendix 8 for additional information. Also refer to the response for WSR-2.

WSR-3e

COMMENT: The following streams should be designated into the National Wild and Scenic Rivers System: Ash Creek, Bear Trap Canyon, Beaver Dam Wash, Beaver Dam Wash-East Fork, Beaver Dam Wash-West Fork, Birch Creek, Bull Canyon, Bunker Peak Wash, Coal Pits Wash, Cottonwood Spring Wash, Cottonwood Wash, Deep Creek/Crystal Creek, Docs Pass Canyon, Ep Creek, Fort Pearce Wash, Goose Creek, Gould Wash, Grape Vine Wash, Grape Vine Spring Wash, Horse Valley Wash, Jackson Spring Wash, La Verkin Creek/ Smith Creek, Leeds Creek, Magotsu Creek, Moody Creek, North Fork Virgin River, North Ash Creek, North Creek, Oak Creek/Kolob Creek, Pine Park Canyon, Quail Creek, Santa Clara River, Second Creek, Sheep Canyon, Sheep Corral Canyon, Short Creek, Shunes Creek, South Creek, Squirrel Canyon, Tobin Wash, Virgin River, Water Canyon, West Fork O'Neal Gulch. (No reasons were provided.)

RESPONSE: Not all of the listed streams are eligible or suitable. Refer to Appendix 7 and Appendix 8 of this Proposed Plan for additional information.

WSR-4

COMMENT: The BLM has done an incomplete suitability analysis based on what is contained in Appendix 7 of the Draft RMP. One of the criteria in particular that was not analyzed is whether or not there is local and state support for designation.

RESPONSE: The purpose of the suitability component is to determine whether rivers are appropriate additions to the national system by considering tradeoffs between river corridor development and river protection. This was done in the Draft RMP by analyzing the impacts that would result from alternative ways of managing the river corridors. Some suitability criteria could not be fully addressed until public comments were received on the Draft RMP. The suitability analysis in Appendix 8 of this Proposed Plan has been updated based on comments received. Also refer to the Wild and Scenic Rivers portion of the Proposed Plan under the Special Emphasis Areas section.

WSR-5

COMMENT: Dixie National Forest and Zion National Park officials identified eight streams in their areas as eligible for wild and scenic river study and there was no discussion of these streams in the Dixie Draft RMP. These include for the FS, the Main and East Forks of the Beaver Dam Wash, Leap Creek, Leeds Creek, Magotsu Creek, Pine Park Canyon, Tobin Wash, and for the NPS, North Creek.

RESPONSE: BLM did review the BLM-managed segments of these streams and the findings are documented in Appendix 7. Although BLM consulted with the Dixie National Forest and Zion National Park for consistency regarding rivers within their respective jurisdictions, the Dixie RMP deals specifically with river segments on BLM-managed lands within the planning area, not Forest Service and National Park segments that are outside the planning area. The Forest Service had not found their portion of the streams eligible, but had simply begun review of those segments, which was subsequently curtailed. In order to further facilitate coordination, BLM and NPS have entered into an agreement to reconsider some stream segments on BLM-managed lands that are contiguous to stream segments within Zion National Park during the current planning effort for the Park. North

Creek is not included in this study due to the private lands that separate the Park lands from the public lands and the changes in characteristics of the river corridor between the two jurisdictions. An agreement to jointly study rivers that are contiguous with the Dixie National Forest will also be considered when planning efforts are begun for forest lands.

WSR-6

COMMENT: Why wasn't the Beaver Dam Wash determined eligible? The cottonwood groves along the wash north of Lytle Ranch, the vistas of the Beaver Dam Mountains, the solitude and lack of human impacts, all give this area a character worthy of wild and scenic river designation.

RESPONSE: BLM reviewed previous findings regarding the main stem of the Beaver Dam Wash. As a result of that review and resegmentation, a segment of the Beaver Dam Wash both south and north of Lytle Ranch has now been determined eligible. Refer to Appendix 7 for more information. Solitude and lack of human impacts are wilderness values rather than wild and scenic values.

WSR-7

COMMENT: BLM improperly determined eligibility because there was no local government input and the values were not compared on a regional basis. The area of consideration should have included the Colorado Plateau. Washington County's General Plan finds that none of the rivers are eligible for inclusion in the National Wild and Scenic Rivers System. Why was the general plan ignored? Wild and scenic studies should not be done until they can be done jointly with local and state agencies on a statewide or Colorado River Basin basis.

RESPONSE: There was local government input regarding eligibility. BLM asked for and received state and local government input on preliminary eligibility findings. BLM also asked for and received comments from local governments and the public as part of the scoping process for the Draft RMP. BLM has also received comments from state and local governments on the Draft RMP. Values were compared on a regional basis. As discussed in Appendix 7 of this Proposed Plan, BLM defined the region of consideration as the transitional zone of the Colorado Plateau, the Great Basin, and the Mojave Desert. Outstandingly remarkable values for each identified free-flowing river were analyzed in the context of the specific geographic area within which each river flows. There is no requirement that joint studies be done on a statewide basis, although a significant effort has been made to develop common criteria and provide intergovernmental coordination for wild and scenic studies in the State of Utah. BLM did not ignore findings made by Washington County; it just does not agree with those comments. See Appendix 7 for the reasons.

WSR-8

COMMENT: The current MFP does not mention wild and scenic rivers, but in spite of this the "no action" alternative includes protective management for 63 miles of streams. What authority did BLM use to exercise protective management on 63 miles of streams in connection with a wild and scenic river inventory? It is also not appropriate to apply protective management to streams proposed as suitable. The Wild and Scenic Rivers Act does not provide such authority. The Act provides authority for BLM to initiate studies and investigations and make recommendations to Congress, but protective management is inappropriate until such congressional designation is made for those components.

RESPONSE: The 63 miles of streams were found eligible for further planning based on an inventory that preceded the publication of the Draft RMP. It is true that the Wild and Scenic Rivers Act does not provide the authority to protect these segments. The Federal Land Policy and Management Act (FLPMA), Section 302, provides general protection authority for BLM-managed public lands, and is the authority BLM uses for case-by-case protection of river-related values during the period of time that the RMP is in a draft stage. This is consistent with BLM policy in BLM Manual 8351. Refer to Appendix 7 for additional information. It is important to note that until a land use plan has been completed, the general protective authority under FLPMA Section 302 does not change the man-

agement of the river. Whenever development is proposed along eligible river segments, alternatives would be considered in NEPA documents to mitigate impacts to the values that make the river eligible. BLM has determined that full protective management would only be applied to segments recommended as suitable once the Record of Decision is approved. Section 202 of FLPMA is BLM's planning authority, and provides for protection of suitable segments through specific management actions identified in the completed RMP. Eligible segments not found suitable in the completed RMP would no longer receive case-by-case protection, and would be managed according to decisions in the RMP.

WSR-9

COMMENT: There is no analysis or description of the impacts resulting from the closures of the 10 eligible river segments to all other uses which may conflict or compete with these designations such as mining, reservoirs, rights-of-way, grazing, water rights, and off-highway vehicle use.

RESPONSE: Alternative D in the Draft RMP addressed conflicts with other uses that would occur if all 10 eligible segments were found suitable and designated by Congress into the National Wild and Scenic Rivers System. The analysis has been revised in the Final RMP based on public comment, and addresses impacts from implementation of the Proposed Plan. Conflicts are also discussed in the updated suitability analysis for the eligible segments in Appendix 8 of this Proposed Plan.

WSR-10

COMMENT: Wild and Scenic Rivers studies conducted by the BLM were not in accordance with the law or joint Department of the Interior and Agriculture regulations. These require that "...a team of professionals from interested local, state, and federal agencies are to be invited to participate by the study agency." No such team was organized.

RESPONSE: The Wild and Scenic Rivers study for this RMP effort has been conducted under the authority of Section 5(d)(1) of the Wild and Scenic Rivers Act, in which Congress directs federal agencies to consider the potential for national wild, scenic, and recreational river areas in all planning for the use and development of water and related land resources. The study has been conducted in accordance with BLM Manual 8351 which provides wild and scenic river policy and program direction. The Joint Department of Interior and Agriculture guidelines were crafted in 1982 to provide consistency for specific river studies mandated by Section 5(a) of the Act. They were never adopted as regulations. Their use today as guidance is only as directed by the agencies. More recent guidance is BLM Manual 8351, published in May 1992 and amended in December 1993.

WSR-11

COMMENT: How would designating 10 streams as eligible, or however many as suitable, affect reserved water rights? The Draft RMP has little or no discussion on the effects that wild and scenic designation would have on perfected and unperfected water rights. The Draft RMP does say that federal reserve water rights may be asserted. In the history of water resource management and administration, it is evident that the federal government never assumed the authority to regulate water allocation from the individual states. In fact, the McCarren Amendment specifically requires the federal government to claim and adjudicate its water needs in the state water processes. The attempts by BLM to designate certain streams as candidates for inclusion in the National Wild and Scenic Rivers System will affect the state's ability to administer water resources. By proposing the various stream segments for designation, the BLM expands the impact of the action to all private and public land and water-rights holders located above the proposed reach, affecting even the economy of the region. Change applications based on existing water rights would be subject to the designated flows, and future groundwater development and water rights transfers would be affected. The Wild and Scenic Rivers Act would reserve reaches of these streams for purposes as set forth under the Act, which implies that reserved water rights would be claimed. There is concern that BLM will use the provision contained in Section 13, paragraph (b) of the Act to exercise claimed reserved

water rights independently of Utah water law. Such an action would be contrary to historical precedent and to principles set forth in the McCarren Amendment. If BLM intends to claim a federal reserve water right, it should be done in accordance with Utah water law and the procedures established therein. The effects of designation on water rights must be quantified and analyzed.

RESPONSE: Identifying streams as eligible or suitable for purposes of planning on public lands managed by BLM does not bring with it a federal reserve water right, nor does it in any way negate existing privately-held water rights. The suitable segments identified in the Proposed Plan would be managed as identified in the Plan, which does not include assertion of federal reserve water rights. The only time that BLM would have any occasion to affect the development of an existing water right would be if an entity wished to access public lands in order to perfect that water right. In such cases, the proposed action would be analyzed on a case-by-case basis and appropriate mitigation would be applied to protect the river values in a manner consistent with the land use plan. No federal reserve water right would attach unless and until Congress designates a specific stream segment into the National Wild and Scenic Rivers System. Even then, designation of any river segment as a result of congressional action would be subject to existing rights, privileges, and contracts. Under Section 12 of the Wild and Scenic Rivers Act, termination of such rights, privileges, and contracts would happen only with the consent of the affected non-federal party. Section 13 of the Act limits federal reserved water rights at the time of the designation to amounts necessary to accomplish the purposes of the Act. Such water rights would be junior to existing rights, and existing water rights and developments on designated streams would not be affected by designation or the creation of such junior federal reserved water rights. Federal law, including Section 13 of the Act and the McCarren Amendment (43 U.S.C. 666), recognize state jurisdiction over water adjudications, and also allow for federal reserved water rights to be adjudicated and protected. BLM recognizes that water resources within the Virgin River system are already fully allocated. If Congress designates into the national system any of the stream segments on public lands being managed under this proposed land use plan, BLM would continue to work with affected local, state, federal, and tribal partners to identify instream flows necessary to meet critical resource needs and to promote cooperative, innovative strategies under state law to address those needs. See the socioeconomic impact analysis in the Proposed Plan for additional information.

WSR-12

COMMENT: Although so-called "suitable" segments may only comprise small portions of rivers, the effects of wild and scenic designation would extend the entire length of a river both to its headwaters and below the designated section. Section 7 of the Wild and Scenic Rivers Act precludes any federal agency from "assisting by loan, grant or license, or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established..." which would include section 404 permits and Federal Energy Regulatory Commission (FERC) licensing as well as other federal assistance and permitting. Once designated, any development or diversion structures may be precluded or limited for the entire length of the river. For example, although only a small portion of the Virgin River would be classified as "wild", any upstream diversion or change in use may prevent any assistance or licensing by the federal government for water development and storage for the entire length of the river and its tributaries, and would prevent the further use and development of water throughout the entire reach of the river, notwithstanding the need of future water development for local areas. The State of Utah specifically will be restricted in the future use and development of two large blocks of school trust land, one located to the south and the other to the north of St. George.

RESPONSE: All future development upstream or downstream of congressionally designated river segments would not be barred; allowable development would be determined by its potential impact on the river values. The comment quotes only a part of a sentence from Section 7.(a) of the Wild and Scenic Rivers Act, but fails to identify the following sentence also within

Section 7.(a) which clarifies the intent. That sentence states: "Nothing contained in the foregoing sentence, however, shall preclude licensing of, or assistance to, development below or above a wild, scenic, or recreational river area or on any stream tributary thereto which will not invade the area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area on the date of designation of a river as a component of the National Wild and Scenic Rivers System." Therefore, should the Virgin River be designated by Congress, any potential effects of future development of the two large blocks of school trust land on the wild and scenic values of the Virgin River would be analyzed. It is not anticipated that development of the two large blocks of State lands would either invade the river area or unreasonably diminish the scenic, recreational, and fish and wildlife values present in the area, as the state land blocks are not located within the Virgin River corridor. See the response to WSR-11 and the socioeconomic impact analysis in the Proposed Plan for additional information.

WSR-13

COMMENT: Suitability findings on five segments (LaVerkin Creek/Smith Creek, Virgin River, Deep Creek/Crystal Creek, North Fork of the Virgin, and Oak Creek/Kolob Creek) would conflict with the reserved water rights settlement for Zion National Park. The state is very concerned that this agreement could be nullified by the actions set forth in the Dixie RMP. It is important that these conflicts be resolved.

RESPONSE: The Proposed Plan recognizes the Zion Water Rights Agreement and has been made consistent with its terms. See the Proposed Plan under Special Emphasis Areas for additional information. Although the Agreement would allow for some development that could result in loss of flows (less than 10 percent) within river segments above Zion National Park, sufficient water would be left to maintain the eligibility and suitability of these segments.

WSR-14

COMMENT: The wild and scenic rivers suitability figures seem to change from one alternative plan to another plan. It is only logical that a river segment is either suitable or not, based on definition and not on what management is used.

RESPONSE: The determination of suitability is not based on a definition, but as a result of consideration of several criteria, one of which is: "What are the reasonably foreseeable potential uses of the land and related waters which would be enhanced, foreclosed, or curtailed if the area were included in the NWSRS, and the values which would be foreclosed or diminished if the area is not protected as part of the NWSRS?" An array of suitability alternatives is, therefore, analyzed in order to determine what impacts would result both with and without wild and scenic river protection. According to BLM's 8351 Manual, at least one alternative analyzed in detail shall assume designation of all the eligible river segments in accordance with the tentative classifications that have been made, and another alternative shall assume no designation. Different suitability is thus assumed for each alternative in order to facilitate impact analysis. Actual determination of suitability is made in the Proposed Plan, and is based on the impact analysis as well as other factors. Refer to Appendix 8 in the Proposed Plan as well as the new analysis in Chapter 3.

WSR-15

COMMENT: The Draft RMP is structured with the assumption that eligibility has already been determined. All alternatives make the assumption that 10 river segments are eligible. Chapter 3 of the Draft RMP assumes that the eligibility determinations have been made. This is improper. There is no record of decision regarding these eligibility determinations, and there was never an opportunity to protest or appeal the eligibility determination if the decision is already made.

RESPONSE: Findings of eligibility, through a field inventory process, had to be made for planning purposes in order to identify which segments would be analyzed in the Draft RMP for suitability. However, determinations of eligibility are not final until the RMP is final. Public comments on eligibility findings made in the Draft RMP were analyzed and have resulted in changes. There is an opportunity to protest the eligibility findings made in the Proposed Plan. Refer to Appendix 7 in this Proposed Plan for these eligibility findings.

WSR-16

COMMENT: BLM could easily implement land use criteria to protect the resource values on land they administer rather than propose river segments for designation.

RESPONSE: In some cases BLM has considered the effects of other types of designations in protecting values that make rivers eligible for wild and scenic river consideration. Refer to Appendix 8 for additional information.

WSR-17

COMMENT: The West Fork of Beaver Dam Wash does not meet eligibility or suitability requirements. As far as eligibility is concerned, the river from the narrows to Motoqua does not meet the requirements of free-flowing as a road goes up the river bottom and crosses the river over 20 times. There is a diversion on the private land above the narrows and a reservoir upstream in Nevada. There are no outstandingly remarkable values: the amount of recreational use is minimal, there is little left of a historical nature, and on a regional basis there are numerous streams with riparian vegetation as good or better than this. As far as suitability is concerned, the opportunity for a reservoir development would be foreclosed and create potentially huge economic losses within the county if the segment is found suitable.

RESPONSE: Neither the road nor the upstream water developments affect the free- flowing aspects of the river. The volume of flow is sufficient if it is enough to support any outstandingly remarkable values. (Refer to comment WSR-3a). BLM continues to believe that outstandingly remarkable values exist for this segment and that it is eligible. Refer to Appendix 7 for the rationale. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-18

COMMENT: Fort Pearce Wash does not meet eligibility or suitability requirements. As far as eligibility is concerned, there are no outstandingly remarkable values when considered on a regional basis. The spotted bat is not a listed species. The old pioneer fort structure was never completed or used, and because it is a National Register property, it already receives sufficient protection under the Antiquity Act. The suitability assessment in the Draft RMP/EIS is inadequate. How can an 0.5 mile segment be managed? The foreclosure of the opportunity for a reservoir site was not addressed.

RESPONSE: BLM continues to believe that outstandingly remarkable values exist for this segment and that it is eligible. Refer to Appendix 7 for reasons. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-19

COMMENT: The Deep Creek/Crystal Creek segment does not meet eligibility or suitability requirements. The hydrologic, recreation, and fishery values are not outstandingly remarkable on a regional basis. Crystal Creek is similar to a number of canyons on the Kolob Terrace and Zion National Park. Deep Creek has scenic, geologic, and recreational values equal to Zion National Park, but not more remarkable. There is a road that crosses Deep Creek. Land ownership is 50 percent private and is isolated from other BLM-managed public lands, making it difficult to manage. Water rights could be affected.

RESPONSE: BLM continues to believe that outstandingly remarkable values exist for this segment and that it is eligible. Refer to Appendix 7 for reasons. A narrow, steep, cliff-exposed, difficult trail does exist across Deep Creek and would continue to be used under permit only. This does not preclude a "wild" designation. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-20

COMMENT: The LaVerkin/Smith Creek segment does not meet eligibility or suitability requirements. The scenic, recreational, riparian, and hydrologic values are not outstandingly remarkable when compared on a regional basis. The suitability analysis in the Draft RMP/EIS is inadequate. It does not address the effects on water

rights. There is a proposed reservoir site on this stream, which would be foregone with designation. Less than half of the miles of the stream are controlled by BLM.

RESPONSE: BLM continues to believe that outstandingly remarkable values exist for this segment and that it is eligible. Refer to Appendix 7 for reasons. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-21

COMMENT: Moody Wash-Segment B does not meet eligibility or suitability requirements. Fisheries are not outstandingly remarkable. The Virgin spinedace is not a listed species. The largest number of fish are in the upper mainstem of the Virgin River. The suitability analysis in the Draft RMP/EIS is inadequate. Existing water use and rights would be affected. The BLM cannot manage this small segment.

RESPONSE: BLM continues to believe that outstandingly remarkable values exist for this segment and that it is eligible. Refer to Appendix 7 for reasons. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-22

COMMENT: The portion of the North Fork Virgin River that is on BLM- managed land is not eligible or suitable. Scenic and recreational values of the BLM segment are not outstandingly remarkable on a regional basis when compared to Zion National Park, Paria Canyon, or the Escalante Canyon. There is no way BLM can administer these isolated tracts as a wild and scenic river. Designation would affect water rights and the ability to develop them.

RESPONSE: BLM continues to believe that outstandingly remarkable values exist for this segment and that it is eligible. Refer to Appendix 7 for reasons. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-23

COMMENT: The Oak Creek/Kolob Creek segment is not eligible or suitable. The scenic, recreational, and wildlife values are not outstandingly remarkable when compared with opportunities within Zion National Park, the Dixie Forest, Escalante Canyons, or the Paria River. This cannot be managed by BLM. Water development and water rights would be affected.

RESPONSE: BLM's interdisciplinary team continues to believe that outstandingly remarkable values exist for this segment and that it is eligible. Refer to Appendix 7 for reasons. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-24

COMMENT: Virgin River Segment B is not eligible or suitable. Scenic, recreational, wildlife, fishery, and cultural values are not outstandingly remarkable on a regional basis. During low-water flow periods, the major water supply is the effluent from the St. George sewer plant. This segment provides the poorest habitat on the Virgin River for Virgin chub and Woundfin because of non-native fish. The Red Shiner is dominant. The segment is not free-flowing because the fish barrier above the gorge is a major structure. The BLM does not administer 50 percent of this segment. Water rights and water development upstream would be affected.

RESPONSE: BLM continues to believe that outstandingly remarkable values exist for this segment and that it is eligible. The fish barrier does not affect the segment's free-flowing values because it does not constitute a major structure that significantly alters the river's character and there is enough flow to support outstandingly remarkable values. The water released from the St. George sewer plant has been treated to meet state standards. Refer to Appendix 7. The suitability assessment has been substantially modified based on public comment. Refer to comments WSR-3 and WSR-11, as well as to Appendix 8.

WSR-25

COMMENT: Virgin River Segment A is not eligible or suitable. The segment is not free-flowing due to four major diversions and major developments including a power plant, cement

pipe plant, and sewer plant. The scenic, recreational, wildlife, and fishery values are not outstandingly remarkable when compared on a regional basis (compared to Zion National Park, Dixie National Forest, Escalante Canyon, Paria River, etc.) This segment is not manageable. Designation would seriously hinder development and implementation of the Virgin River Management Plan, and would affect current water rights and the ability to develop them.

RESPONSE: The existing flow is adequate if it is enough to support any outstandingly remarkable values. The existence of developments within the stream corridor affects the segment's tentative classification rather than its eligibility. The segment is tentatively classified as recreational. BLM still believes that the segment has outstandingly remarkable values and finds the segment to be eligible except for a 1-mile segment at the Quail Creek Diversion, which is determined to be non-free-flowing. Refer to Appendix 7 for reasons. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-26

COMMENT: Santa Clara River Segment B is not eligible or suitable. There are two major diversions in this segment and two below the segment. There is a road which parallels the stream and crosses it at least twice. The rock art panels are nice on a local basis but not outstandingly remarkable on a regional basis. They are already protected by the Antiquity Act. The segment is not manageable by BLM. There is no public access to this segment except across private land. A designation could affect water rights and use of water both up and downstream.

RESPONSE: The diversions on this segment do not constitute major structures. BLM continues to believe that outstandingly remarkable values exist and that the segment is eligible. Refer to Appendix 7 regarding BLM's eligibility findings. The suitability assessment has been substantially modified based on public comment. Refer to Appendix 8.

WSR-27

COMMENT: The National Park Service supports designation of the following river segments: LaVerkin Creek/Smith Creek, North Fork Virgin River, and Oak Creek/Kolob Creek. Proposals for WSR status need to incorporate the terms of the proposed settlement of reserved water rights at Zion National Park. Additionally, the NPS would like BLM to reevaluate three additional river segments contiguous to the park. These are Beartrap, Goose, and North Creek. All are free-flowing and have outstanding values that are regionally significant to the Colorado Plateau: scenic, recreational, geologic, hydrologic, and ecological attributes. In addition, both Goose Creek and Beartrap provide critical habitat for the Mexican Spotted Owl, North Creek provides habitat for the Virgin spinedace, and all three attract visitors, enhanced by their proximity to Zion National Park.

RESPONSE: North Fork Virgin River, Oak Creek/Kolob Creek, and the portion of LaVerkin Creek/Smith Creek contiguous to Zion National Park are determined suitable in the Proposed Plan. Beartrap and Goose Creek will be reevaluated during preparation of the general management plan for Zion National Park. BLM reviewed North Creek, but still finds the BLM-managed segment ineligible. Refer to Appendix 7. The Proposed Plan acknowledges the water rights agreement for Zion National Park.

WSR-28

COMMENT: Unless authorized by Congress, it is improper to consider federal reserve water rights in connection with wild and scenic rivers. Such discussion should be deleted from the document. If not deleted, the economic and social effects on privately held water rights should be completely analyzed.

RESPONSE: Federal Reserve Water Rights have only been considered as an aspect of congressional designation. The effects of designation on privately held water rights have been addressed. See the Proposed Plan Impact Analysis, the Impacts on Socioeconomic Factors section, for additional information as well as the response to comment WSR-11 above.

Category: Riparian Resources

RIP-1

COMMENT: Gould Wash is not a riparian area as shown in the Draft RMP. It is dry a good share of the time.

RESPONSE: Riparian inventories conducted throughout the Dixie Resource Area documented and mapped riparian areas in accordance with the vegetation type associated with the area. Map 3.8 in the Draft RMP depicts surface water on public lands and Map 3.10 shows areas which contain riparian vegetation. Even when surface flows are infrequent, riparian vegetation can be supported by underground water stored within the channel. Portions of Gould Wash contain tamarisk, seepwillow, and salt grass vegetation which support the riparian classification; over half of the wash does not support a riparian classification, however.

RIP-2

COMMENT: How will BLM protect riparian areas from degradation as a result of grazing?.

RESPONSE: Please see the Riparian and Grazing sections of the Proposed Plan. In addition, Utah's Standards for Rangeland Health and Guidelines for Grazing Management have been incorporated into the Grazing section.

RIP-3

COMMENT: Draft RMP, Pg. 2.67. column 1, paragraph 5: BLM has no authority to protect riparian habitat on canals. This would be an infringement upon the right-of-way grant to the individual.

RESPONSE: The Clean Water Act and Executive Order 11990 mandate the protection or mitigation of man-made wetlands. The The U.S. Army Corps of Engineers would maintain jurisdiction over those areas along canals that have tenable wetlands associated with them.

Category: Range Management

RAN-1

COMMENT: The Gunlock Allotment grazing plan is working well and does not need an intensive grazing management plan.

RESPONSE: Livestock grazing on the Gunlock Allotment, as well as recreation use and other factors, would be reviewed to determine if changes are needed to improve the riparian habitat. Both the Draft RMP and this Proposed Plan bring forth a recommended decision to make the Gunlock Allotment a priority allotment for riparian monitoring studies. Adjustment of grazing management is only one of many options that could be considered. See the amended language in this Proposed Plan.

RAN-2

COMMENT: BLM must consider the various public lands resources which are adversely affected by livestock grazing and weigh those factors. The Draft RMP only considers grazing limitations where there are T&E species.

RESPONSE: The Draft RMP considered many other resources in relationship to livestock grazing. Proposed decisions that could limit or adjust grazing uses, in addition to T&E species, are listed under the Riparian, Wildlife, and Livestock Grazing Management sections in the Draft RMP under all alternatives. Livestock grazing management would be managed in accordance with Utah's Rangeland Standards and Guidelines (see Grazing section of the Proposed Plan). Additional information concerning livestock grazing and other grazing issues are incorporated throughout the Proposed Plan and in the Hot Desert Grazing EIS. Grazing management, as described in the Proposed Plan, would continue until monitoring, field observations, inventories, or other data indicates that a change is necessary.

RAN-3

COMMENT: All allotments except two are classified as having “I” (Intensive Management) characteristics. This classification suggests that these allotments are presently in only fair to poor condition with a downward trend. (See definition in Appendix 4 of Draft RMP). This suggests that present management practices are inadequate and that the best way to improve these range areas would be to further reduce the allotments.

RESPONSE: Of the 110 active allotments in the Dixie Resource Area, 23 are assigned the "Intensive Management" category ("I"). There are several criteria used to determine which category an allotment is assigned. Range condition is

only one of the criteria used. Many times an allotment is assigned an "I" category based on meeting several of the other criteria, even through the range condition may be good to excellent. In general, monitoring studies indicate that most of the "I" allotments are in fair to excellent condition except for small areas of high livestock concentration such as riparian areas or around livestock waters. However, these areas usually constitute only a small portion of the allotment.

RAN-4

COMMENT: How many allotments remain as viable units after the desert tortoise HCP is implemented and the Beaver Dam Slope ACEC prescriptions are applied?

RESPONSE: Portions of four allotments that are within the heart of the Washington County HCP Reserve would be closed due to the recommendations brought forth in the Incidental Take EIS Decision Record. Others could be closed where operators chose to relinquish their permits. At this time it is difficult to know how many allotments would remain viable following the land exchanges necessary to acquire private and state lands within the HCP area. Because land exchanges are most prevalent close to the more urbanized areas, it is assumed that livestock operations near the St. George and the Hurricane areas would, over time, be acutely impacted. Refer to the Fish and Wildlife, Habitat Management, and Grazing Management sections in the Proposed Plan as well as the analysis for further information. The land exchange process continues to be slow and will take many years to complete. The current proposal for the Beaver Dam Slope ACEC should leave all livestock operations viable in this area. The operators would be impacted by active season restrictions placed on tortoise habitat within the Beaver Dam Slope ACEC.

RAN-5

COMMENT: As a result of changes in livestock management due to the desert tortoise and other issues, who would be responsible for fencing where it is needed, and at what cost?

RESPONSE: No fencing needs have been identified as a result of the Beaver Dam Slope ACEC. Land exchanges in support of the HCP area could result in needed fences on new boundaries. In these cases, a Washington County Ordinance asserts that, where private land borders public land, the private land owner would be responsible for fencing his/her private property if they do not want permitted livestock on their property. Because future land exchange boundaries are unknown at this time, costs of fencing potentially new boundaries cannot be ascertained.

RAN-6

COMMENT: What are the economic impacts, not just the price per AUM, but a total economic analysis of desert tortoise protection on each individual permitted and the County as a whole?

RESPONSE: This analysis would be outside the scope of the Proposed Plan. The FWS Incidental Take EIS, which is the authorizing document for the HCP, as well as the FWS Economic Analysis on Desert Tortoise Protection provides information on the socioeconomic impacts of this action. Refer to the Impacts on Socioeconomic Factors section under the Proposed Plan Impact Analysis for specific information related to the direct impacts of this Proposed Plan.

Category: Wilderness

WILD-1

COMMENT: BLM should not be closing large pieces of land for wilderness designation.

RESPONSE: The Dixie Resource Management Plan simply acknowledges existing Wilderness Study Areas (WSAs); it does not establish new WSAs. The WSAs depicted in the Draft RMP as well as in the Proposed Plan were identified in 1980 in response to Section 603 of the Federal Land Policy and Management Act (FLPMA). This was done through a public process independent of the Dixie Resource Management Plan. The Utah Statewide Wilderness Environmental Impact Statement (EIS) was completed in 1990 and this document contained an analysis of the effects of potential wilderness designation throughout Utah. In 1991, BLM

provided statewide recommendations for designating selected areas as part of the National Wilderness Preservation System (NWPS). Only Congress can make such designations. However, until Congress acts on this matter, BLM is required by FLPMA Section 603 to protect the wilderness characteristics within the WSAs in order to maintain the option for Congress to designate wilderness. BLM's Interim Management Policy and Guidelines for Lands Under Wilderness Review (IMP) provides the direction on how this protection is to be achieved. The time for public comment on establishment of these WSAs is long past. By law, they must be protected under BLM's IMP until Congress acts to either include them in the NWPS or release them for nonwilderness uses.

WILD-2

COMMENT: The BLM failed to evaluate the need for further wilderness in its planning process in violation of Section 202 of FLPMA.

RESPONSE: All public lands in the Dixie Resource Area were inventoried for wilderness potential by 1980 as a result of the FLPMA Section 603 mandate noted above. At the inception of the Dixie RMP in 1985, it was determined by the Dixie planning team that further wilderness inventory was not necessary within the RMP effort because the statewide wilderness process was still underway. BLM recommendations were submitted in 1991 and have not yet been acted upon by the Congress.

Section 202 of FLPMA provides the basic planning authority for BLM land use planning and provides guidelines and limitations. Within these provisions, all resources on the public lands can be addressed as appropriate, but the section does not specifically require that every single resource be addressed in every RMP. Therefore, the lack of further wilderness studies within the RMP is not a violation of FLPMA Section 202. At the time the Draft RMP was released for public comment in October 1995, the planning team did not identify conditions pertaining to the public lands that warranted the need to consider additional wilderness study.

WILD-3

COMMENT: The management of H.R. 1500 lands was ignored in the Draft RMP.

RESPONSE: H.R. 1500 refers to one of several statewide wilderness proposals introduced in Congress for public lands in Utah managed by BLM. None of these proposals has been enacted to date (as of April 1998). Areas proposed for wilderness in H.R. 1500 are based on a citizen proposal which, in terms of BLM management, has no legal status at this time. These lands were not ignored in the Dixie RMP. They are part of the planning area. Various alternatives for managing these lands were presented in the Draft RMP based on their resource characteristics and the array of potential uses. The Proposed Plan provides management prescriptions for these lands. However, H.R. 1500 lands have not been singled out for special treatment in the Plan merely due to the H.R. 1500 proposal. BLM has no planning guidance for the management of wilderness values outside of WSAs. However, BLM is careful to allow for a case-by-case review of any actions within H.R. 1500 areas. See the response to WILD-2 regarding additional wilderness inventory.

Category: Water

WATER-1

COMMENT: BLM failed to follow process by accepting water demands from local water districts, including dam sites and development, without looking at the broad public interest.

RESPONSE: BLM is mandated to coordinate with state and local governments in planning endeavors through Section 202 of the Federal Land Policy and Management Act (FLPMA). The State of Utah has completed a water plan for the Kanab Creek/Virgin River Basin in which they identified the majority of sites discussed in the Draft RMP. In addition, the Washington County Water Conservancy District (WCWCD) has identified dam sites for their future needs on public land in Washington County. BLM's responsibility during planning is to identify those sites, determine conformance with the Proposed Plan where possible, and to consider those sites when analyzing other actions in the areas identified by the state or WCWCD for a proposed dam site. The Proposed Plan does not approve those sites for future dams; it merely acknowledges that the state and WCWCD have completed local planning efforts and iden-

tified potential sites for their future possible needs. Please see additional information in the Soil and Water Resources section of the Proposed Plan.

WATER-2

COMMENT: The Environmental Consequences discussion failed to explore the effects of reservoir development at the level that each alternative would allow. Guessing that only one or two reservoirs would be built and analyzing only the two ignores the impact of the possibility of approving up to 11 sites.

RESPONSE: Refer to pages 4.1, 4.23, and 4.41 in the Draft RMP for a discussion of Reasonably Foreseeable Actions (RFA). Although the Draft displayed different levels of development for reservoir sites in Alternative B (11 sites) and Alterative C (6 sites), the RFA in Chapter 4 was specific for one site in Alternative C and two sites in Alternative B. Thus, the analysis under the RFA determines the threshold for dam sites on public lands. For example, only two dams considered within a pool of 11 sites would be deemed consistent with the plan under Alternative B. Only one dam site considered within a pool of 6 sites would be deemed consistent with the plan under Alternative C. In the Proposed Plan, two dams within a pool of six sites would be considered consistent with the Plan. If a third dam were proposed, a plan amendment would be required.

WATER-3

COMMENT: BLM should recognize the importance of the Virgin River Corridor, including the 100-year floodplain from LaVerkin to Zion National Park, and retain and manage these lands for the long-term benefit of the public.

RESPONSE: The BLM does recognize the importance of these lands and has adjusted its land transfer recommendations accordingly. See the Lands map in the Proposed Plan for clarification. However, BLM is committed to working with local, state, other federal agencies, or interested conservation groups to accomplish effective management of riparian areas along this stretch of the Virgin River where the public lands are small, fragmented, and isolated. BLM could consider a change in ownership if long-term management under a new owner would enhance riparian values to a greater extent than if held under BLM administration. Refer to the Lands and Riparian Resources sections of the Proposed Plan for more details.

WATER-4

COMMENT: The Draft RMP does not address the impacts on endangered fish from the Quail Creek Diversion, especially in light of the proposed Sand Hollow Reservoir.

RESPONSE: The Environmental Assessment for the Quail Creek Diversion was completed and approved in 1985. This document analyzed the effects to the fish in the Virgin River. The Sand Hollow Land Exchange was exempted from the NEPA process through congressional legislation.

WATER-5

COMMENT: The Draft RMP does not analyze the effects of proposed water development projects (11 wells, 113 reservoirs, 224 springs, and 1 pond) on wetlands or springs.

RESPONSE: BLM has filed claims on the above-listed waters to help meet the needs of livestock, wildlife, and recreation users. The majority of the springs have already been developed for those intended uses. The reservoirs, wells, and pond were developed for livestock and wildlife use. The information provided on these wells, reservoirs, springs, and pond was for background data on the current existing affected environment. Any future developments would require additional, case-by-case NEPA analysis and would be in conformance with the protocols and decisions described in the Soil and Water Resources and Riparian Resources sections of the Proposed Plan. Because water rights and water management are dynamic and continuously changing, it is imperative that other multiple-use planning decisions be compatible with executive orders and federal/state water laws in order to protect critical resources.

WATER-6

COMMENT: There was no discussion of the state-listed waters under Section 303 (d) of the

Clean Water Act and no indication if the State Section 305 list was consulted. The analysis does not determine if there are impacted waters or how to avoid additional impacts to waters of the U.S.

RESPONSE: BLM is committed to help solve the 303(d) listings through numerous actions being undertaken in the Proposed Plan and through the implementation of Utah BLM's Standards for Rangeland Health. One of BLM's main objectives is to ensure compliance with state and federal laws pertaining to water quality and pollution prevention. The Soil and Water Resources section of the Proposed Plan has incorporated a myriad of decisions that would prevent impacts to waters of the U.S. BLM is fully aware of the 303 (d) list and the state Section 305 list and has established a working protocol with the state to set up water sampling and monitoring stations to comply with this law. BLM continues to work with the Utah Division of Water Resources to provide input into the 305 (b) report.

WATER-7

COMMENT: The list of reservoir sites inventoried by the state and WCWCD and provided to BLM for this planning effort were ignored in the Draft RMP.

RESPONSE: The Draft RMP recognized 11 sites that were identified by both the State and the WCWCD. See pgs. 3.11 and 3.12 as well as Map 3.8 in the Draft RMP. Sites identified by the state were taken from the Utah State Water Plan - Kanab Creek/Virgin River Basin in which they identify nine sites for potential reservoirs on BLM land. Four sites are not carried forward for discussion due to various factors. Of the 21 sites identified by the WCWCD for potential reservoir sites, direct conflicts with critical resources narrowed that list to the sites in the Draft RMP. All five of the state sites were also recommended by the WCWCD. See the response to WATER-15 for more detailed information as well as the Soil and Water Resources section of the Proposed Plan.

WATER-8

COMMENT: Reservoir sites should have been treated equally and fairly with ACECs and Wild and Scenic River values since they may directly impact and conflict with each other.

RESPONSE: BLM does recognize the planning efforts put forth by the state and the WCWCD, and has incorporated this information in the Proposed Plan. However, no written proposals for reservoir sites are on record at this time except for the Sand Hollow Reservoir site (now in private ownership) and for the West Fork Beaver Dam Wash, which has been found inconsistent with the Proposed Plan. Future proposals would be reviewed on a case-by-case basis and would be considered in light of the highest and best use of the land and current land use prescriptions. The Proposed Plan contains an expanded discussion of these issues in the section on Soil and Water Resources.

WATER-9

COMMENT: Clarify that BLM's instream flow studies are for resource information and BLM would not attempt to exert federal reserved or other instream flow requirements without specific federal legislation or a cooperatively developed and approved plan or program by local, state, or federal agencies. Flows must be obtained in accordance with state law and recognize existing approved private water rights.

RESPONSE: In accordance with Utah state law, BLM fully understands it cannot hold an instream flow for a water right and that the Utah Division of Wildlife Resources and the Division of Parks and Recreation are the only two entities that can hold such a water right. This clarification has been made in the Soil and Water Resources section of the Proposed Plan along with a commitment to work with state and local agencies and water users to develop joint strategies for determining and maintaining instream flows needed for critical resources.

WATER-10

COMMENT: On pg. 2.8, column 1; Map 3.10 does not show potential dam sites as stated.

RESPONSE: This change has been made on the Errata Sheet and now references Map 3.8 in Chapter 3.

WATER-11

COMMENT: The Draft RMP states that 11 reservoir sites would be considered, but how will these potential reservoir sites be protected?

RESPONSE: The Draft RMP did not explain how the reservoir sites were to be protected; however, the Proposed Plan has clarified this concern and has provided for a level of scrutiny on the six proposed sites prior to permitting any future actions in these areas (see Soil and Water Resources section of Proposed Plan). Of the 11 sites brought forth in Alternative B of the Draft RMP, only 6 have been carried forth into the Proposed Plan due to various factors depicted in the response to WATER-15. Although not consistent with the Proposed Plan, the majority of the rejected sites would be protected in light of their locality in or near sensitive areas including ACECs, riparian areas, Special Status species habitat, Wild and Scenic River eligibility, and important recreational or other sensitive values.

WATER-12

COMMENT: Draft RMP, Page 2.25: What does BLM intend to do in the way of developing water-based recreation in connection with the proposed reservoirs?

RESPONSE: The statement referred to merely allows for water-based recreation on the proposed reservoir sites if approved and permitted, and if the proponent chooses to make them recreational reservoirs. BLM would enter into an agreement with the applicant to allow for the development of recreational water-based activities; however, BLM would not be the developer or the manager of these areas. BLM would probably enter into an agreement, much like the one with the WCWCD and the State of Utah at Quail Creek Reservoir, for the development of water-based recreation under the management of the state or local agency.

WATER-13

COMMENT: What is the effect of designating the West Fork Beaver Dam Wash an antidegradation stream by the state?

RESPONSE: The effect of supporting a state designation of an antidegradation stream segment along the West Fork Beaver Dam Wash would be to help protect the pristine water quality associated with the stream. Specific mitigation would be required by all users in the area, including the mining industry, so as to not degrade the clear, clean water of the Beaver Dam Wash in accordance with the standards set in R317.2-3. See the Soil and Water Resources section of the Proposed Plan for further information.

WATER-14

COMMENT: In reference to the Draft RMP Water section in Chapter 3, the most current study of water needs completed by Boyle Engineering for the Washington County Water Conservancy for the year 2010 is 59,059 acre feet for municipal and industrial use and 123,768 acre feet for agricultural use for a total of 182,827 acre feet. For the year 2020, it is estimated as being 89,325 acre feet for municipal and industrial use and 142,363 acre feet for agricultural use for a total of 231,688 acre feet.

RESPONSE: This new information has been added to our Errata Sheet. However, BLM will continue to refer to state and Five-County Association of Government predictions as well.

WATER-15

COMMENT: What was the criteria for screening other potential dam sites identified by the WCWCD and the State of Utah Division of Water Resources? When and by whom was the Fort Pearce site found unsuitable as a dam site?

RESPONSE: The Utah Division of Water Resources completed a study entitled Preliminary Analysis of Potential Damsites in the Virgin River Basin in January 1992, which identified up to 98 potential reservoir sites in the Virgin River Basin. Through a series of additional evaluations, the Division of Water Resources reduced the list to the "best 16 potential damsites" in a capacity of over 3,000 acre feet. Of the 16 damsites found to have the best potential for water storage of over 3,000 acre feet, only 6 were located on public land within the Dixie Resource Area. These sites were: LaVerkin Creek (two alignments), Warner Valley, Lower Santa Clara Creek, Upper Beaver Dam Wash,

Fort Pearce, and North Creek. The Division of Water Resources later reevaluated sites that could hold less than 3,000 acre feet, and determined that 16 additional sites had good potential for water storage. Of these, only two were on public land within the resource area. They were Dry Wash (south of Ivins) and Tobin Wash. Of all eight potential sites identified by the Division of Water Resources on public land within the resource area, BLM carried forth five of the sites into the Draft RMP. They were: La Verkin Creek (two alignments), Warner Valley, Lower Santa Clara Creek, and the Upper Beaver Dam Wash.

The WCWCD identified additional potential reservoir sites in two letters to BLM on December 12, 1992, and May 24, 1993. Of the 14 additional sites identified by the WCWCD, the Draft RMP carried 3 of the sites forward (Dry Creek, Anderson Junction, Sand Hollow), as well as 2 additional later requests (Grapevine Wash, Leeds Creek). Many of these sites had been identified by the Division of Water Resources in their earlier studies, but eliminated from further investigation due to various reasons. Inadvertently, two other sites not located on BLM lands were also brought forward into the Draft RMP. These were the Santa Clara Shem site located within the Shivwits Indian Reservation and the proposed enlargement of Gunlock Reservoir which is on state lands. The rest of the sites not considered in the Draft RMP are listed in the table below with applicable rationale. In total, the Draft RMP considered 12 potential reservoir sites proposed by either the State Division of Water Resources or the WCWCD (or both) within the array of alternatives. See the Draft RMP, pages 3.10 - 3.12 for reference to these sites.

Table 5.2 portrays state and WCWCD proposed reservoir sites that were not considered in the Draft RMP and/or the Proposed Plan and the

TABLE 5-2 • Reservoir sites not considered or not carried forward into the Dixie RMP.

STATE PROPOSED RESERVOIR SITES	CONFLICTS WITH PUBLIC LAND RESOURCES OR OTHER ISSUES
North Creek- lower site	Eliminated from further consideration by BLM due to potential problems with oil well contamination and potential spinedace habitat. In addition, the March 1995 Purpose and Need Study completed by the Washington County Water Conservancy District (WCWCD) identified this site as no longer meeting their needs and abandoned further evaluation due to potential expense of capping the oil wells.
Fort Pearce Wash	Eliminated from further consideration by BLM due to conflicts with the Fort Pearce National Register Historic Site, as well as riparian and wildlife resources. In addition, the March 1995 Purpose and Need Study completed by the WCWCD rejected this site due to cost considerations.
Dry Wash (42 S. 17 W. Sec. 1)	Currently being processed for state selection to the Utah State Institutional Trust Lands Administration.
Tobin Wash	Not enough information was provided to carry this site forward - additional evaluations are needed by the Division of Water Resources.
WCWCD PROPOSED RESERVOIR SITES	**CONFLICTS WITH PUBLIC LAND RESOURCES OR OTHER ISSUES**
Shunes Canyon	Eliminated from further consideration by BLM due to conflicts with Canaan Mountain WSA, spinedace populations, and potential Southwestern willow flycatcher habitat.
North Creek - upper site	Eliminated from further consideration by BLM due to conflicts with BLM Riparian Demonstration Area and existing spinedace populations.
Grafton	Eliminated from further consideration by BLM due to conflicts with river-related resource management including: scenic and historical values, and riparian and wildlife resources (including spinedace and potential Southwestern willow flycatcher).
Virgin City	Site is located on private land and is operational as the Quail Creek Diversion.
Ash Creek (Dry Wash)	Eliminated through Division of Water Resources evaluation due to

TABLE 5-2 (continued) • Reservoir sites not considered or not carried forward into the Dixie RMP.

WCWCD PROPOSED RESERVOIR SITES (CONTINUED)	CONFLICTS WITH PUBLIC LAND RESOURCES OR OTHER ISSUES
Ash Creek (Dry Wash)	Eliminated through Division of Water Resources evaluation due to major geological problems.
Quail-Ash Creek	Not enough information provided to determine location of the site.
Grassy	Land has been exchanged and is no longer under federal ownership.
City Creek	Land not under federal ownership; also would conflict with Washington County HCP Reserve management objectives.
Dry Wash (Graveyard Wash)	Eliminated from further consideration by BLM due to conflicts with potential ACEC values associated with riparian, riverine, wildlife, and cultural resources. Also conflicts with a potential recreational/educational reserve being coordinated with local communities.
Bloomington	Eliminated from further consideration by BLM due to conflicts with Virgin River management objectives, potential ACEC values associated with threatened and endangered species, riverine, riparian, and wildlife resources. Poses potential migration barrier for T&E and sensitive native fish species. State Division of Water Resources identified potential geological problems with this site.
Pah Tempe Springs Collection and Transmission	Collection site not under federal ownership. If transmission line bisects public lands, future NEPA documentation is required.
RESERVOIR SITES IDENTIFIED IN 1995 DRAFT RMP AND NOT BROUGHT FORTH INTO PROPOSED PLAN	**CONFLICTS WITH PUBLIC LAND RESOURCES OR OTHER ISSUES**
West Fork Beaver Dam Wash	Eliminated from further consideration by BLM due to conflicts with proposed ACEC values associated with riparian, hydrologic, and wildlife resources including spinedace and potential Southwestern willow flycatcher habitat.
Lower Santa Clara	Eliminated from further consideration by BLM due to conflicts with potential ACEC values associated with riparian, riverine, wildlife (spinedace and migratory and nongame bird species habitat), and cultural resources. Also conflicts with a potential recreational/educational reserve being coordinated with local communities.
Sand Hollow	Land was exchanged to the Washington County Water Conservancy for potential reservoir development to facilitate Zion National Park management and the HCP Reserve.
La Verkin Creek - upper site	Eliminated from further consideration by BLM due to conflicts with riparian and wildlife resources, as well as conflicts with the Wild and Scenic River suitability determination.
Santa Clara - Shem Site	Site is within the Shivwits Indian Reservation and not on public land. Development would encounter conflicts with spinedace habitat and other river-related resources.
Enlargement of Gunlock Reservoir	Site is under state land jurisdiction and not on public land. Development would encounter conflicts with spinedace habitat.

reasons that these sites were deleted from further consideration.

The Proposed Plan brought forth six of those potential sites that did not appear to have critical conflicts with the management objectives. Identification of these sites in the Plan does not approve these sites for reservoir projects. It merely identifies the sites as having potential to hold water storage, and would require extensive NEPA compliance if an application is received to construct such sites.

WATER-16

COMMENT: The Draft RMP does not provide for development of valid nonperfected water rights in WSAs where such development would be consistent with applicable laws.

RESPONSE: WSAs are designated and managed as required under Sections 603 and 202 of FLPMA. Only Congress can designate WSAs or wilderness or release them for uses other than wilderness. The Draft RMP does not alter the requirement for management of WSAs as provided for in BLM Handbook H 8550-1.

WATER-17

COMMENT: Why were only 6 of the 11 reservoir sites selected in Alternative C? How were these selections made?

RESPONSE: In Alternative B, where 11 sites were identified for potential reservoir development, the proposed decisions did not include potential ACEC designations as in Alternative C. In addition, under Alternative B, all potentially eligible wild and scenic rivers were deemed unsuitable and therefore lost eligibility status. However, in Alternative C, the majority of rivers where reservoirs were proposed were found potentially eligible and/or suitable for further consideration by Congress and also fell within proposed ACECs. Potential reservoir sites not identified in Alternative C are La Verkin Creek due to Wild and Scenic River suitability; Lower Santa Clara due to conflicts with ACEC objectives and cultural resources, riparian resources, and T&E or sensitive species; West Fork Beaver Dam Wash due to conflicts with spinedace habitat restoration, potential Southwestern willow flycatcher habitat, and ACEC objectives; enlargement of Gunlock Reservoir because it would be on state-owned lands and would also have conflicts with spinedace habitat; the Shem site because it would be on lands within the Shivwits Indian Reservation and would also have conflicts with spinedace habitat and other river-related resources. See the response to WATER-15 for additional information.

WATER-18

COMMENT: What was the source for the 214,804 acre feet average flow of the Virgin River at the Bloomington Gaging Station on page 3.10 of the Draft RMP? The USGS in their 1994 Water Resource Data for Utah showed the annual flow from 1978-1994 to be 178,000 acre feet. The State's Kanab Creek/Virgin River Basin study in August 1993 showed an annual flow of 185,691 acre feet for the 1978-1990 period. The average annual flow of the 1941-1990 period was estimated to be 138,518 acre feet.

RESPONSE: The source for the 214,804 acre feet average flow was obtained from Bloomington Gaging Station studies; however, the source is currently unknown. The new information provided above has been added to the Errata Sheet.

WATER-19

COMMENT: Draft RMP, Page 3.12: The state feels that the 155,000 acre feet number as an estimate of total annual groundwater recharge is not well defined. It should be qualified that the estimate of annual groundwater recharge may change with ongoing studies by the USGS and Utah Division of Water Rights.

RESPONSE: This new information has been added to our Errata Sheet.

WATER-20

COMMENT: BLM should include the use designations for surface water within the resource area as outlined in Standards of Quality for Waters of the State Administrative Code-317-2.

RESPONSE: The use designations are an important source of information that were overlooked in the Draft RMP. However, the Draft RMP did state that the decisions in the RMP would

adhere to applicable state laws and therefore, R-317.2 is incorporated by reference. The Soil and Water Resources section of the Proposed Plan has provided additional information on how BLM would adhere to and work with the Division of Water Resources to uphold and maintain the standards set by the State of Utah in R-317.2.

WATER-21

COMMENT: The Draft RMP did not reference the current MOU with the Utah Departments of Environmental Quality and Agriculture to coordinate water pollution control activities.

RESPONSE: The revised Soil and Water Resources section of the Proposed Plan references this MOU and provides specific actions where BLM would work with the state to coordinate planning activities for the conservation of public land waters and to improve, maintain, and protect the quality of such for beneficial uses, as well as, prevent, abate, and control new or existing pollution problems within the County.

WATER-22

COMMENT: Under the Soil and Water sections of the Draft RMP, best management practices (BMPs) were not discussed for sediment control. Why?

RESPONSE: BLM tries to implement BMPs through mitigation requirements on a case- by-case basis; however, the Proposed Plan has incorporated this terminology for future use. BMPs are an important criteria in our management standards. Refer to the Soil and Water Resources section of the Proposed Plan.

WATER - 23

COMMENT: Since the Virgin River is used for municipal water purposes, the watershed of the Virgin River above the WCWCD diversion dam near Virgin should be considered a municipal watershed as well.

RESPONSE: BLM does not designate municipal watersheds through its planning process. Under state regulations R309-113 (Drinking Water Source Protection Procedures), it is the responsibility of the municipal water company to protect the watershed for the municipal water source. Protection is accomplished though state policies outlined in R309-106-5, which include formulating a Memorandum of Understanding with the land holders that could potentially impact that water source. Lands along the Virgin River upstream from the diversion dam are primarily under private ownership. In order to protect a municipal watershed, the WCWCD would need to establish a boundary for the watershed, and if necessary, work with BLM to complete a land use plan amendment to formulate more protective, stringent decisions for public lands within that watershed. These decisions could include closure of affected lands to mineral materials sales, restricting fluid mineral development, grazing constraints, or other applicable decisions to protect the watershed. This Proposed Plan offers decisions along the public land portions of the Virgin River within the riparian and floodplain zones that would protect and enhance those specific resources.

Category: Air

AIR-1

COMMENT: The Draft RMP gave no consideration to smog and haze impacts from community growth and visitation.

RESPONSE: There are no decisions in the Proposed Plan that would permanently degrade air quality in Washington County to the extent that it would be in violation of state law. If actions conform with state law, and ultimately with the Clean Air Act under EPA, NEPA does not require analysis of such actions on air quality as it would not be an issue of concern. BLM does recognize that land exchange decisions in the Proposed Plan could increase development in the county, thereby increasing smog and haze; however, development not within state air quality standards would need to be permitted by the state. In addition, actions that BLM may take on future wildfire and prescribed burns could temporarily decrease air quality. See new information in the Air Quality section in Chapter 2 of the Proposed Plan.

Category: Recreation

REC-1

COMMENT: Explain the recreation opportunity spectrum (ROS) process and what it is used for. Why was the inventory only limited to special recreation managements areas (SRMAs)?

RESPONSE: The ROS process is overviewed in the Draft RMP in Chapter 3, page 3.28, and in Appendix 10. The map depicting these areas is Map 3.14. This mechanism is only an inventory used as a management tool for recreational planning during this RMP process. It is not a plan decision.

The ROS inventory was limited to SRMAs due to a management decision made during the early planning phases of the Draft RMP. It was to be used to help determine recreational opportunities for those specific areas known to have a higher recreational use. The extensive recreation management areas (ERMAs) did not receive the inventory status because they were not considered intensive recreation areas, even though casual use does occur.

REC-1a

COMMENT: The area between SR18 and Red Mountain WSA should be changed to a Primitive ROS class and be closed to OHVs to protect Dammeron Valley residents.

RESPONSE: The area between SR-18 and Red Mountain WSA was inventoried as a Roaded Natural Area during the ROS process due to a number of factors. The area has an existing powerline and access road going through it at the base of the Red Mountain WSA. In addition, a water pipeline and holding tank, as well as access to those areas, is currently in place. A large portion of the area is being considered for a proposed utility corridor serving the needs of Dammeron Valley to the Sand Cove power plant. The area is open for greenwood fuel sales, thus requiring open access. For these reasons, the area does not conform to a primitive classification. This comment brought to BLM's attention an inconsistency on Map 2C.10. This area should not have reflected an OHV closure from SR18 to the WSA Boundary. It should have depicted the area as open for use on existing roads and trails and this change has been incorporated into the Errata Sheet.

BLM is not in a position to resolve all of the problems that interface between the developed and nondeveloped areas throughout the County. Community interface problems will continue to amplify as communities expand and more and more people demand recreational space. Those public lands that lie adjacent to developed private lands can be controlled to the extent allowed under federal law, through city and county ordinances. BLM would be happy to work with city or county officials to coordinate respective land use plans to help resolve conflicts where possible.

REC-1b

COMMENT: The Red Cliffs SRMA should not be assigned a Rural ROS class. It is inside Zone 4 of the Desert Tortoise Reserve and should be assigned a Primitive classification.

RESPONSE: See the responses to the last two questions. The area is riddled with roads and trails, and the ROS inventory process displays this fact. Inventory findings should not be altered to a different class because it is within the HCP. Zone 4 of the HCP would be open for use on designated roads and trails as is allowed for in the FWS Incidental Take EIS. Refer to the OHV Management section of the Proposed Plan for further information.

REC-1c

COMMENT: The Deep Creek SRMA should not be depicted under a Semi- Primitive Motorized ROS class as it will dramatically increase use and impacts to these remote areas and to the Zion National Park riparian areas of Deep Creek, Crystal Creek, North Fork, and Kolob Creek.

RESPONSE: See responses to REC-1 and REC-1a. The ROS inventory does not determine OHV categories. The area above Zion would be open for OHV use on either existing or designated roads and trails. It is currently open for use throughout that area, and would therefore be more restrictive when the RMP is completed. See the OHV Management section of the Proposed Plan for further information.

REC-2

COMMENT: In the Draft RMP, Alternative C, OHV section: Why are only two OHV competitive events of no more than 300 people allowed per year?

RESPONSE: The intent of this proposed decision was to limit impacts from large OHV events within the resource area. In addition, the limited staff and budgeting of the BLM office administering these permits currently does not provide for adequate monitoring of such events on a larger scale. The specific limit of two events has been dropped in the Proposed Plan in favor of more general provisions that allow flexibility. See changes in the Proposed Plan under the OHV Management section.

REC-3

COMMENT: Information concerning recreation in Chapter 3 of the Draft RMP is very generic. Future demand estimates for dispersed recreation is lacking. New, more timely data with trends and rationale associated with actions is needed as recreation uses and demands change.

RESPONSE: The Recreation and Off-Highway Vehicle Management sections of the Proposed Plan have brought forth more updated information provided by the Utah SCORP (1992) and the State Division of Parks and Recreation through the OHV Advisory Council. See these two sections in the Proposed Plan for additional information.

REC-4

COMMENT: OHV use is a form of recreation and should not be treated separately. This unequal treatment is especially evident in SRMA prescriptions.

RESPONSE: The BLM recognizes that OHV use is a form of recreation; however, the OHV Management section still remains a separate section in the Proposed Plan. Bureau regulations establish criteria for designating public lands as open, limited, or closed to the use of off-road vehicles and for establishing controls governing the use and operation of off-road vehicles in such areas. In addition, Executive Orders 11644 and 11989 provide the authority to BLM to define zones of use by off-road vehicles on public lands and to allow for special protection of public lands when it is determined that use of off-road vehicles will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat, and cultural or historic resources. Planning for OHV use in the resource area requires separate decisions and maps than from those generated through the recreation planning process. Considerable off-road travel is also attributed to nonrecreation use and must be addressed in the Proposed Plan. Refer to the Proposed Plan Recreation and OHV Management sections for further details.

REC-5

COMMENT: BLM should take an active role in managing recreation through physical development and information dissemination. This should be discussed through language for partnership building and creative cooperation to better meet the needs of recreationists.

RESPONSE: The BLM in Washington County is not in a position to meet future recreational demands due to internal budgetary and personnel constraints. BLM will have to rely on future partnerships and cooperative management agreements with the state, towns, user groups, private entities, and conservation groups to help promote, manage, and expand the recreational opportunities in the area. See the Proposed Plan Recreation and OHV Management sections for further information.

Category: T&E Species

T&E-1

COMMENT: Why were the endangered relict leopard frog and the Bonneville cutthroat trout totally excluded from analysis decisions?

RESPONSE: These species do not naturally occur on the public lands administered by the Dixie Resource Area.

T&E-2

COMMENT: Recent changes published in a new Notice of Review in the February 28, 1996,

Federal Register have rendered parts of Appendix 3 in the Draft RMP obsolete. The Draft RMP's list of 30 plant and animal species is now reduced to 3 species. The BLM Utah State Office is compiling a formal list of sensitive species for public lands in Utah which includes the majority of the old candidate species. This should be added as a new appendix in the Proposed Plan.

RESPONSE: Refer to Appendix 4 in the Proposed Plan which contains the updated species lists. Realize, however, that most of the sensitive species have not been inventoried for habitat needs, distribution, or location. Although these species are listed as sensitive species in Utah, they are not federally listed, and therefore do not hold the same legal requirements for protection. BLM will work with state and local agencies and conservation groups to provide adequate protection to these species as they are inventoried and habitat needs are realized.

T&E-3

COMMENT: The Proposed Plan should include a reference to a policy written in BLM Manual section 6840.06.D concerning additional listing and protection of species of concern not listed by the FWS.

RESPONSE: Manual 6840.06.D refers to sensitive species and states, "State Directors, usually in cooperation with State wildlife agencies, may designate sensitive species. By definition, the sensitive species designation includes species that could easily become endangered or extinct in a State. Therefore, if sensitive species are designated by a State Director, the protection provided by the policy for candidate species shall be used as the minimum level of protection." In response to the policy identified in BLM Manual 6840.06.D, Utah BLM has issued two Instruction Memoranda containing state sensitive plant and animal lists (See Appendix 4 of the Proposed Plan). The animal list is the same one that was developed by the Utah Division of Wildlife Resources and released in March 1997. The plant species list is the result of input and review by several botanists in the state. Both of these lists are dynamic and subject to change as new information becomes available.

T&E-4

COMMENT: Draft RMP, Chapter 1, page 1.6: This section states that the Plan "will consider wildlife habitat management opportunities that would maintain, improve, and expand priority species and their habitat." How will priority species be expanded?

RESPONSE: In most instances, the words improve and/or expand are interchangeable in context. Several actions in the Proposed Plan provide for habitat expansion opportunities. Land acquisitions within the HCP and riparian areas would allow for expansion of habitat for the desert tortoise and special status fish species by providing protective measures under BLM planning authority. Protective measures within riparian areas such as OHV limitations, fluid mineral Category 3 classifications, and proposed riparian enhancement projects would help protect the Southwestern willow flycatcher habitat and expand protected nesting habitat areas needed for recovery and delisting. Critical mule deer winter range could be manipulated through prescribed burns or other methods to allow for expanded feeding opportunities. Working with partners from local, state, and federal agencies, as well as conservation groups, to protect and enhance riparian areas and floodplains throughout the Virgin River sub-basin should improve and expand priority species numbers and use within the Virgin River and major tributaries. These are but a few of the many examples of decisions in the Proposed Plan that could expand priority species and their habitat.

T&E-5

COMMENT: Management of sensitive species should be coordinated with local government agencies, private land and water owners, and federal land users.

RESPONSE: All wildlife actions would be coordinated with the Utah Division of Wildlife Resources and other affected parties or land users. Coordination is also mandated through the National Environmental Policy Act process and is an open process for public participation. Development of conservation plans and strategies also provides opportunities for public involvement.

T&E-6a

COMMENT: What actions would BLM continue or coordinate in an effort to protect and enhance T&E fish habitat?

RESPONSE: The BLM would continue to implement the 1995 Spinedace Conservation Agreement and the 1995 Recovery Plan for the Virgin River Fishes. Specific actions that would help protect and enhance T&E fish habitat can be found throughout the Resource sections of the Proposed Plan.

T&E-6b

COMMENT: Why would BLM acquire nondevelopment easements on private and state lands between Quail Creek Reservoir to the Washington Field Diversion and acquire land between the LaVerkin Power Plant and Quail Creek Reservoir? What authority would be used to acquire the easements and the lands. What would be the cost? What would be the effects? What would this do for the fish that is not being done now? How would it change current management? Does this proposal have public support?

RESPONSE: Nondevelopment easements between Quail Creek Reservoir and the Washington Fields Diversion were considered in Alternative D of the Draft RMP in concert with its emphasis on preserving biological systems and scenic values. Such easements would be designed to minimize development in the floodplain to protect floodplain values and habitats for endangered and candidate fish species. Costs were not evaluated in the Draft RMP. The provision is not carried forward into the Proposed Plan because BLM believes that such easements are best acquired by local or state agencies, or organizations along that stretch of the Virgin River. Land acquisitions along the Virgin River between the La Verkin Power Plant and the Quail Creek Reservoir are carried forward into the Proposed Plan so as to meet BLM's commitments under the Washington County Habitat Conservation Plan to acquire non-federal lands within the Reserve. Acquisitions would take place with landowner consent under the Federal Land Policy and Management Act (FLPMA) and Land and Water Conservation Fund authorities.

T&E-7

COMMENT: Where and what is important nesting habitat for the Southwestern willow flycatcher? How would it be managed and what would be the effects on other activities such as water management and conservation, use for right of ways, grazing, and wildlife and threatened and endangered species.

RESPONSE: Critical nesting habitat has not been determined by the FWS in Utah; however, important nesting habitat consists of dense riparian old growth that is usually a few hundred feet wide. Vegetation could include tamarisk, coyote willow, Gooding willow, and Fremont cottonwood communities. Impacts to other activities would be considered on a case-by-case basis through Section 7 consultation with the FWS. Specific management actions for the Southwestern willow flycatcher habitat are discussed in the Proposed Plan under special status species.

T&E-8

COMMENT: Alternative D in the Draft RMP indicates Sand Mountain would be closed to OHV use to protect the spotted Warner Valley dunes June beetle. Why would BLM close an area to protect the June beetle when it is not known if they even exist there and what their habitat requirements are?

RESPONSE: When the Draft RMP was being written from 1985 to 1995, studies were being conducted on the sand dunes in Warner Valley to determine if the beetle was present and/or threatened or endangered. Because the objective of Alternative D was to place an emphasis on preserving biological systems, this alternative took a proactive approach to prevent listing of this beetle if warranted through scientific study. Further studies have shown that this beetle does not inhabit the Sand Mountain sand dunes at this time. The Proposed Plan does not carry this proposed decision forth.

T&E-9

COMMENT: Reference was made to conducting a Section 7 consultation with the FWS for any actions relating to the Virgin spinedace in Chapter 4. This species is neither listed nor proposed for listing and should therefore not be discussed under the Section 7 consultation process.

RESPONSE: The Virgin spinedace was removed from a proposed listing status with the FWS in 1996 after the Virgin Spinedace Conservation Agreement and Strategy was approved. Both federal and state agencies, including the FWS, were signatory to this agreement. The Draft RMP was published in the fall of 1995, when the spinedace was still proposed for listing. Although future actions would not require a Section 7 consultation, the FWS is part of the Virgin Spinedace Conservation Team that oversees administration of the conservation agreement. Actions that could affect the Virgin spinedace must be in compliance with the Conservation Agreement and Strategy.

T&E-10

COMMENT: Area limitations for peregrine falcon do not extend long enough to provide protection to the birds throughout the nesting period. In order to protect nestlings not yet fledged, the time should be extended through the end of July.

RESPONSE: The American Peregrine Falcon Recovery Plan, approved on December 14, 1984, indicates that fledging occurs in mid-June to mid-July. Because Washington County is at a lower elevation level than the majority of the Rocky Mountain southwest populations, seasonal changes occur earlier, resulting in nesting and fledging occurring earlier. Studies conducted by BLM biologists in the Cedar City District indicate that young falcons in Washington County are fledged by the end of June, alleviating the need to continue protective status on those nesting sites throughout the month of July.

T&E-11

COMMENT: Wintering bald eagles roost communally in winter areas which may not be protected by riparian measures. Locations of winter roosting areas need to be determined and those areas protected from disturbance for the duration of their use by bald eagles.

RESPONSE: BLM works closely with the Utah Division of Wildlife Resources and the FWS during the scoping process of any proposed action requiring a NEPA document. Protection of bald eagle roosting sites would be determined on a case-by-case basis, as inventories are completed, and consultation and coordination is accomplished. See the clarification to this effect in the Proposed Plan under the Fish and Wildlife Habitat Management section.

T&E-12

COMMENT: Desert tortoise protection outside the critical habitat areas was not addressed. Increasing disturbance by hikers and their dogs on the small tortoise population near Zion National Park could become a serious problem and constitute a "taking" under the Endangered Species Act.

RESPONSE: As per the FWS's Desert Tortoise Incidental Take Permit EIS (1995), the desert tortoise area on private land contiguous to Zion National Park is a "take" area. The EIS states: "Desert tortoises are known to occur in the Springdale area immediately adjacent to Zion National Park in an area of approximately 159 acres of private land. It is suspected that desert tortoises here were introduced and are not native to the area. The small parcel has been designated a take area due to its proximity to urban development and its isolation from the main desert tortoise populations in the county." BLM would be required to consult with the FWS prior to any irreversible or irretrievable action on any project that occurred outside of the HCP area that was authorized, funded, or carried out by the BLM that would affect tortoises or adversely modify critical habitat. This RMP does not provide for management of activities that occur on private lands.

Category: Habitat Conservation Plan

HCP-1

COMMENT: How is BLM following the acquisition strategy outlined in the HCP?

RESPONSE: The acquisition strategy outlined in the HCP states that lands would be acquired upon the principle of willing seller/willing buyer

through three avenues: State Institutional Trusts Lands-BLM exchange, private landowner-BLM exchange, and by purchase through the Land and Water Conservation Fund (LWCP). Acquisition through exchange has been impeded due to concerns for cultural resources, impacts to existing land uses, and disagreements between parties over land values. The State of Utah has entered into a Memorandum of Understanding with BLM to look at acquisition of public lands throughout Utah. However, the State Institutional Trust Lands Administration is still interested in developable lands within Washington County. Although some private land owners within the HCP would like to exchange for lands outside the State of Utah, congressional action would be necessary to allow this to happen. Approximately $2 million per year has been provided for purchase of private lands within the HCP through the LWCF. BLM is actively pursuing additional LWCP funding to help alleviate current land base value disparities within the resource area.

HCP-2

COMMENT: Pressures from the creation of the HCP should not force the compromise of other equally critical areas.

RESPONSE: We agree. Public land made available for exchange within the resource area in order to implement the HCP are screened on many different levels by resource specialists. Numerous parcels, or portions thereof, that have been brought forth for discussion by applicants interested in exchange have been disapproved by the BLM due to other critical resources. See the Lands section in the Proposed Plan for land exchange criteria.

HCP-3

COMMENT: Why is there no mention of the FWS Incidental Take Permit EIS in the Draft RMP? The FEIS should display how both efforts relate and what the consequences are on each when implementing the other.

RESPONSE: At the time of publication of the Draft RMP, the FWS Incidental Take Permit EIS on the Washington County HCP had not been completed. The Draft RMP went out for public review in October 1995, and the Take Permit was not approved until 1996. The Draft RMP did state, however, on page 1.6 that; "This plan (Draft RMP) will consider the goals and objectives of the Desert Tortoise Habitat Management on the Public Lands: A Range Wide Plan, 1988. BLM will implement those portions of the Washington County Habitat Conservation Plan (April 1994) that affect public lands and are not contrary to laws, policy, or regulation." The Proposed Plan incorporates the Take EIS by reference and portrays BLM decisions that are necessary to implement the HCP.

Category: Minerals

MIN-1

COMMENT: The Woodbury Desert Study Area expanded ACEC boundary should be withdrawn from locatable mineral entry. This area was proposed as an ACEC so that the area's creosote-bush-bursage-joshua tree communities could be included in the regional, multiagency system of scientific reference/natural areas.

RESPONSE: The Woodbury Desert Study Area has been included into the Beaver Dam Slope ACEC boundary; however, it is not withdrawn from locatable mineral entry in the Proposed Plan. Under mining law regulations, an ACEC requires that a plan of operation be completed prior to any surface disturbance; a locatable mineral withdrawal is not mandated. In addition, the Desert Tortoise Recovery Plan provides that mining activity would be continued in tortoise areas.

MIN-2

COMMENT: Map 2C.5 portrays the S1/2 of section 22, T. 43. S., R. 18 W. as a Category 2 under Fluid Mineral leasing. Why is this so when the rest of the area is either a Category 3 or Category 4? This is part of the Woodbury Desert Study Area proposed ACEC (incorporated into the Beaver Dam Slope ACEC) and should either be closed or put under no surface occupancy.

RESPONSE: This area is all under a Category 3 fluid mineral leasing stipulation due to the proposed ACEC designation. Refer to the Mineral Materials Map and the Wildlife section of the Proposed Plan for changes. This inconsistency

has also been resolved by changes to the Draft RMP (see Errata Sheet).

MIN-3

COMMENT: Draft RMP, Page 4.13, Column 2, Paragraph 4: What is the basis for estimating that 800 acres of desert tortoise habitat would be disturbed?

RESPONSE: The 800 acres of estimated disturbance was developed under a Reasonably Foreseeable Action (RFA) scenario. This is a potential future action where specific allocations cannot be determined during development of the planned actions. RFAs are developed through interdisciplinary team input using past and present information to make an informed estimate of the potential action and its impacts. For further explanation, see the Draft RMP, Page 4.1, and 4.9. Additional clarification of an RFA is presented in the Proposed Plan at the beginning of the Analysis section. New analysis in the Proposed Plan under the Wildlife section shows that only a portion of the high potential mineral area is overlain by critical desert tortoise habitat, and acreage figures have been adjusted appropriately.

MIN-4

COMMENT: On the west side of the resource area, leaving the area open to mineral locations and allowing development of locatable minerals under a plan of operation is not congruous with closing the area to mineral materials and requiring no surface occupancy for fluid minerals development.

RESPONSE: Section 204 of FLPMA allows for the withdrawal of land from the general land laws, including mineral location and entry. However, allowing mineral location in the area under a plan of operation provides for a managed, controlled, and monitored operation subject to specific mitigation requirements imposed by the BLM. Mineral materials closures in this area are prescribed to protect riparian resources, high watershed values, and threatened and endangered species. Map 3.6 in the Draft RMP displays the known mineral materials potential in the western part of the Resource Area. It is evident that the majority of these materials occur along the Beaver Dam Wash, the most sensitive area of this desert ecosystem. Requiring a Category 3 (No Surface Occupancy) for fluid minerals development is also needed to protect the previously mentioned resources, while still allowing fluid mineral leasing to occur.

MIN-5

COMMENT: On Map 2C.7, the Draft RMP displays the Beaver Dam Wash (within desert tortoise habitat) as being closed to mineral materials recovery. The Fish and Wildlife Tortoise Recovery Plan allows for limited mining in tortoise habitat areas.

RESPONSE: The mining allowed for in the Recovery Plan recognizes that valid existing rights under the 1872 mining law will mean continued presence of mining operations for the life of the recovery project. Mineral materials sales are discretionary, however. BLM has provided amply for mineral materials elsewhere in the resource area closer to the locations where such materials would be put to use. To further the objectives of desert tortoise recovery, the restrictions on mineral materials sales in the Beaver Dam Slope are warranted and in keeping with the goals of the Recovery Plan.

Category: Soils

SOIL-1

COMMENT: The analysis did not provide solid information related to watershed sensitivity, areas of unstable terrain, or erosion concerns and their relationship to proposed activities. Referencing several soil surveys doesn't provide adequate evaluation of the affected environment. Cumulative effects are impossible to determine without comprehensive soils discussion.

RESPONSE: As discussed in the Chapter 3 Soil section of the Draft RMP, prior watershed condition inventories were completed in the 1980s. However, these inventories were determined to be unreliable. The only information available concerning soils is discussed in the Draft RMP, Chapter 3. NEPA does not require inventory or reinventory to acquire deficient information, but

to use the best information currently available. Map 3.7 in the Draft RMP displays saline, gypsum, and high erosion hazard soils. In addition, Map 3.9 depicts the Navajo aquifer, municipal watersheds, and critical watersheds currently known within the resource area. The sensitive areas shown on these maps have been used extensively to help formulate decisions throughout the planning process. We feel that they provide critical information to the affected environment section of the Draft RMP, and certainly drive portions of the environmental and cumulative impact analysis.

Category: Socioeconomic Factors

SOEC-1

COMMENT: The Draft RMP used as a basis for analysis the assumption that BLM lands contribute little or nothing to the personal income and tax base and that there are no unavoidable adverse impacts. These are clearly not valid assumptions and constitute a serious major flaw in the Draft RMP.

RESPONSE: See the new socioeconomic evaluation in the Proposed Plan for clarification and new analysis.

SOEC-2

COMMENT: The adverse impacts of the restrictions and closures on the human environment and the custom and culture of local people must be identified and evaluated in the EIS.

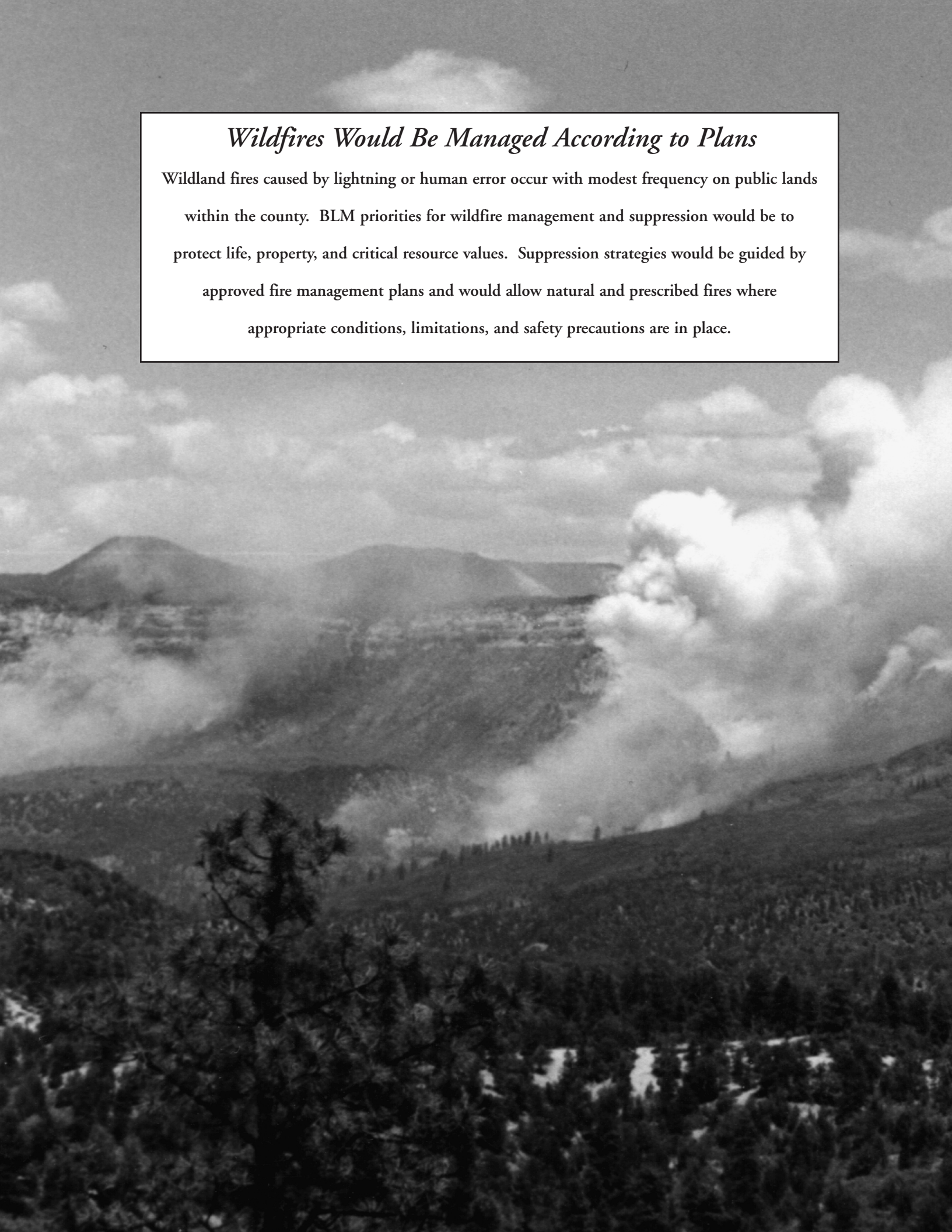
RESPONSE: Refer to the new Socioeconomic analysis in the Proposed Plan for an overview of the impacts to socioeconomics from the Proposed Plan.

Category: Fire

FIRE-1

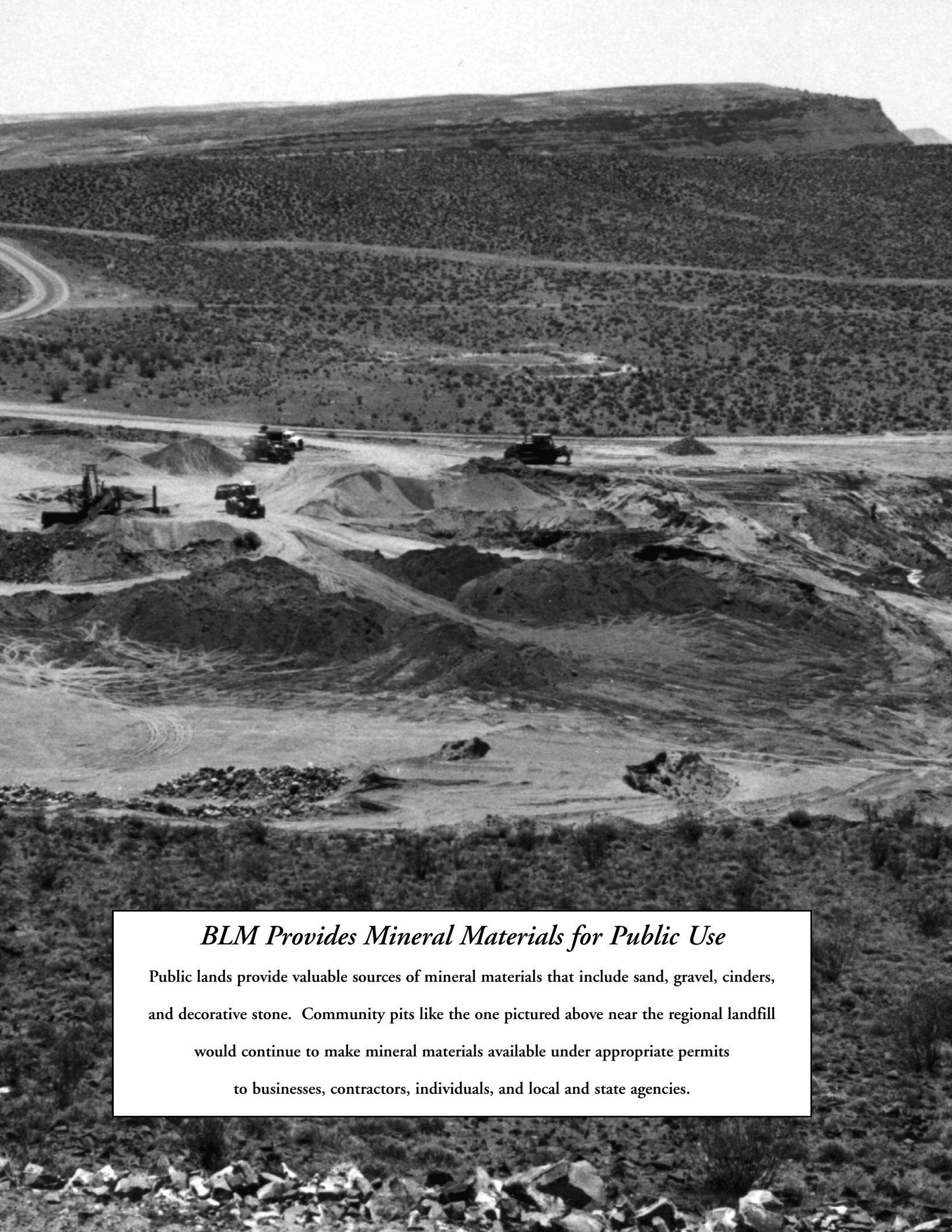
COMMENT: Numerous comments concerning the Fire section in the Draft RMP were submitted to BLM during the comment period from various state and local agencies. These comments pointed out the inconsistencies of the preliminary fire management decisions throughout the Fire section.

RESPONSE: The Department of the Interior has changed the direction that fire management will be taking in the future. The preliminary decisions brought forth in the Fire section of the Draft RMP have been replaced by a new fire protocol that is discussed in the Proposed Plan. An activity level Dixie Fire Plan is currently being completed in coordination with federal, state, and local agencies. A brief overview of the future Fire Plan is provided in the Proposed Plan; however, detailed actions and analysis will occur during the activity level planning stage. Since the publication of the Draft RMP, new fire protocols essentially state that BLM would reintroduce fire back into ecosystems in a manner that protects life, property, and sensitive resources. See the Fire Management section in the Proposed Plan. The Dixie Resource Area will conduct activity level plans and NEPA analysis for fire planning in the future.



Wildfires Would Be Managed According to Plans

Wildland fires caused by lightning or human error occur with modest frequency on public lands within the county. BLM priorities for wildfire management and suppression would be to protect life, property, and critical resource values. Suppression strategies would be guided by approved fire management plans and would allow natural and prescribed fires where appropriate conditions, limitations, and safety precautions are in place.



BLM Provides Mineral Materials for Public Use

Public lands provide valuable sources of mineral materials that include sand, gravel, cinders, and decorative stone. Community pits like the one pictured above near the regional landfill would continue to make mineral materials available under appropriate permits to businesses, contractors, individuals, and local and state agencies.

APPENDIX 1
Standard Procedures Applied to Surface Disturbing Activities

The following are standard operating procedures applied to surface disturbing activities. These measures are applied, when necessary, to reduce environmental impacts. Some projects may require construction use plans and/or reclamation plans.

General

Areas subject to surface disturbance would be evaluated for the presence of cultural resources or values. This is usually accomplished through the completion of a cultural clearance. An on-the-ground inspection by a qualified archeologist, historian, or paleontologist is required.

In cases where cultural resources are found, the preferred response would be to modify the proposed action to avoid the cultural resource (avoidance). If avoidance is not possible, actions would be taken to preserve the data or value represented by the cultural resource (mitigation).

Areas subject to surface disturbance would be evaluated for the presence of threatened, endangered, or candidate animal or plant species. This is usually accomplished through the completion of a biological clearance. An on-the-ground inspection by a qualified biologist is required.

In cases where threatened, endangered, or candidate species are effected, the preferred response would be to modify the proposed action to avoid species or their habitat (avoidance). If avoidance of a threatened, endangered, or candidate species or its habitat is not possible, a Section 7 Consultation with the U.S. Fish and Wildlife Service (FWS) would be required, and a biological assessment would be prepared to recommend actions to protect the species or its habitat.

Roads

Recognized roads, as shown on the Cedar City District Office Transportation Plan, will be used when the alignment is acceptable for the proposed use. At a minimum, vehicle use will be limited to existing roads and trails in fragile soil areas. Generally, new roads will be required to follow natural contours, be constructed in accordance with the standards described in BLM Road Standards and BLM Manual section 9113, and be reclaimed to BLM standards.

In order to control or reduce sediment from roads, proper road placement and buffer strips to stream channels, graveling, proper drainage, seasonal closure, and in some cases, redesign or closure of old roads, will be required. Construction may be prohibited during periods when soil material is saturated, frozen, or when watershed damage is likely to occur.

On newly constructed roads and permanent roads, the placement of topsoil, seeding, and stabilization will be required on all cut and fill slopes (unless conditions prohibit this, e.g., rock). No unnecessary sidecasting of material (e.g., maintenance) on steep slopes will be allowed. In areas of higher elevation within the resource area, snow removal plans may be required while a road is used for access so that snow removal does not adversely affect reclamation efforts or resources adjacent to the road.

Reclamation of abandoned roads will include requirements for reshaping, recontouring, resurfacing with topsoil, installation of water bars, and seeding on the contour. The removal of structures such as bridges, culverts, cattleguards, and signs will be required. Stripped vegetation will be spread over the disturbance for nutrient recycling where practical. Fertilization or fencing of these disturbances will not normally be required. Additional erosion control measures (e.g., fiber matting) and road barriers to discourage travel will be required if necessary.

Temporary road closures may be needed during spring runoff periods, in elk wintering areas, or other critical areas to protect resources.

Well Pads And Facilities

Any sediment control structures, reserve pits, or disposal sites would be designed to contain a

100-year flood, 6-hour storm event. Storage volumes within these structures would have a design life of 25 years.

Abandoned sites must be satisfactorily rehabilitated by the lessee in accordance with a plan approved by the BLM.

Before reserve pits and production pits are reclaimed, all residue will be removed and trucked off-site to an approved disposal site.

All surface use plans covering reclamation will be adhered to. This plan will include objectives for successful reclamation covering soil stabilization, plant community composition, and desired vegetation density and diversity.

No surface disturbance is allowed on slopes in excess of 25 percent unless erosion controls can be ensured and adequate revegetation is expected. Detailed engineering proposals and revegetation and restoration plans will be required in these areas.

On producing locations, operators will be required to reduce slopes to original contours (not to exceed 3:1 slopes). Terraces or elongated water breaks (erosion control measures) will be required after slope reduction. Facilities will be required to approach zero runoff from the location until the area is stabilized to avoid contamination and water quality degradation downstream. All unused portions of facilities or producing well locations will be resurfaced with topsoil and seeded with soil stabilizing species. Mulching, erosion control measures, and fertilization may be required to achieve acceptable stabilization.

Abandoned locations will be required to be recontoured to conform to the surrounding terrain. Construction of erosion and runoff control measures and placement of topsoil will be required after recontouring. All sediment will be retained on site.

The collection and analysis of soil samples from disturbed areas may be required to determine reclamation potential, appropriate seed mixtures, and nutrient deficiencies. This will be the responsibility of the grantee or lessee. Testing (as determined by the BLM) may include pH, mechanical analysis, limiting salt content, nitrogen, phosphorus, and potassium.

Fertilization may be required if there is evidence of a nutrient deficiency. If needed to produce adequate germination and growth, the topsoil and selected seed species would be inoculated with soil microorganisms. The site will be seeded if slopes exceed 30 percent or contain 35 percent surface rock content. Mulching and fencing, unless deemed unnecessary due to low grazing pressure, will be required. Fences will be required to remain until reclamation is successful.

Reshaping to create shallow depressions (to catch surface runoff) may be required in areas receiving 10 inches or less of annual precipitation.

No sour gas (natural gas containing dangerous levels of hydrogen sulfide) lines will be located closer than 1 mile to a populated area or sensitive receptor. The applicants must use the best available engineering design (i.e., alignment, block valve type and spacing, pipe grade, etc.), and best construction techniques (i.e., surveillance, warning signs, etc.) as approved by the authorized officer to minimize both the probability of rupture and radius of exposure in the event of an accidental pipeline release of sour gas. A variance from the 1-mile distance may be granted by the authorized officer based on detailed site-specific analysis that would consider meteorology, topography, and special pipeline design and/or construction measures. This analysis would ensure that populated areas and sensitive receptors would not be exposed to an increased level of risk.

Pipelines and Communication Lines

Existing crowned and ditched roads will be used where possible to minimize surface disturbances.

Where possible, clearing of pipeline and communication line rights-of-way will be accomplished with the least degree of disturbance to topsoil. Where topsoil removal is necessary, it will be stockpiled (windrowed) and respread over the disturbance after construction and

backfilling are completed. Vegetation removed from the right-of-way will also be required to be respread to provide protection, nutrient recycling, and a natural seed source.

To promote soil stability, the compaction of backfill will be required (not to extend above the original ground level after the fill has settled). Water bars, mulching, and terracing will be required, as needed, to minimize erosion. Instream protection structures (e.g., drop structures) may be required in drainages crossed by a pipeline to prevent erosion.

The fencing of linear disturbances near livestock watering areas (distance determined on site-specific basis) may be required.

If linear facilities follow the same right-of-way for all or part of the route, they will generally be required to be constructed so that only one reclamation effort is required. Generally, they will be required to be constructed either concurrently or during the same field season.

Applicants constructing water pipelines across public lands may be asked to supply a small water tap for use by wildlife or livestock.

Air Quality Protection Measures

Special air quality protection-related stipulations may be added to BLM grants of rights-of-way necessary for construction. In addition, BLM will coordinate with the Utah Department of Environmental Quality (Utah DEQ) during the issuance of permits to construct emission sources. This coordination may result in the addition of stipulations to these permits.

BLM will require the applicant to prepare a detailed analysis of the risks involved with the development of sour gas pipelines and treatment facilities. These analyses are designed to project impacts both to the public and to resource values. Plant siting will be scrutinized to ensure that only areas with the least potential for the transport of pollutants are considered. To aid in achieving these goals, BLM will consult with the State of Utah, the Forest Service, industry, and the public to ensure that the most technically sound, environmentally balanced, and economically feasible decisions are made.

Reclamation

The objectives for reclamation efforts emphasize: 1) stabilization through establishment of ground cover, 2) establishment of vegetation consistent with land use objectives, 3) reduction of visual contrast, and 4) reshaping to natural contour.

Reclamation will be required on all disturbed areas. On roads left intact for access purposes, the stabilization of all disturbed areas, except the running surface, will be required.

Only areas needed for construction will be allowed to be disturbed. Reclamation (by the lessee or grant holder) will be initiated as soon as possible after a disturbance occurs. Continued efforts will be required until satisfactory vegetation cover is established and the site is stabilized.

Topsoil

Before a surface disturbing activity is authorized, BLM will determine total topsoil depth. The amount of topsoil to be removed, along with topsoil placement areas, will be specified in the authorization. The uniform distribution of topsoil over the area to be reclaimed will be required, unless conditions warrant a varying depth. On large surface disturbing projects, topsoil will be stockpiled, mulched, and seeded to reduce erosion. Where feasible, topsoil stockpiles will be required to be designed to maximize the surface area to reduce impacts to soil microorganisms. Areas used for spoil storage will be required to be stripped of topsoil before spoil placement. The replacement of topsoil after spoil removal will be required.

Temporary disturbances which do not require major excavation (e.g., pipelines and communication lines) may be stripped of vegetation to ground level using mechanical treatment, leaving topsoil intact and root mass relatively undisturbed.

Seeding

Only plant species adaptable to local soil and climatic conditions will be utilized in revegeta-

tion efforts. On all areas to be reclaimed, seed mixtures will be required to be site-specific and to include species promoting soil stability. Livestock palatability and wildlife habitat needs will be given consideration in seed mix formulation. Interseeding, secondary seeding, or staggered seeding may be required to accomplish revegetation objectives. A friable, but firm seed bed will be required prior to seeding. Drill seeding will be required unless conditions indicate that broadcast seeding is necessary (e.g., greater than 30 percent slope or greater than 35 percent rock content). During rehabilitation of areas in important wildlife habitat, provisions will be made for the establishment of native browse and forb species, if determined to be beneficial for the habitat affected.

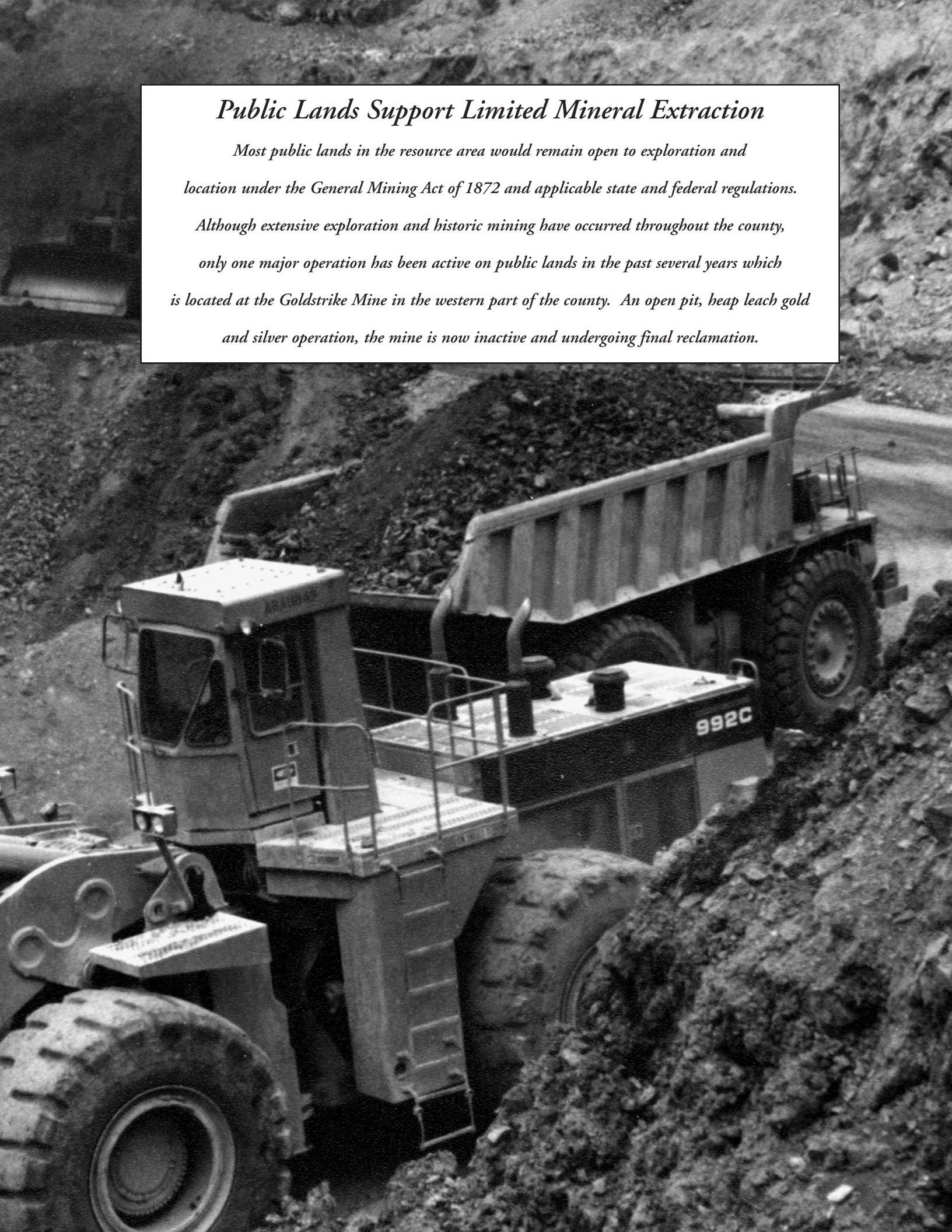
Follow-up seeding or corrective erosion control measures will be required on areas of surface disturbance which experience reclamation failure.

Treatments

Trees, shrubs, and ground cover (not to be cleared from rights-of-way) will require protection from construction damage. Backfill will be required to be replaced in a similar sequence and density to preconstruction condition. The restoration of normal surface drainage will be required.

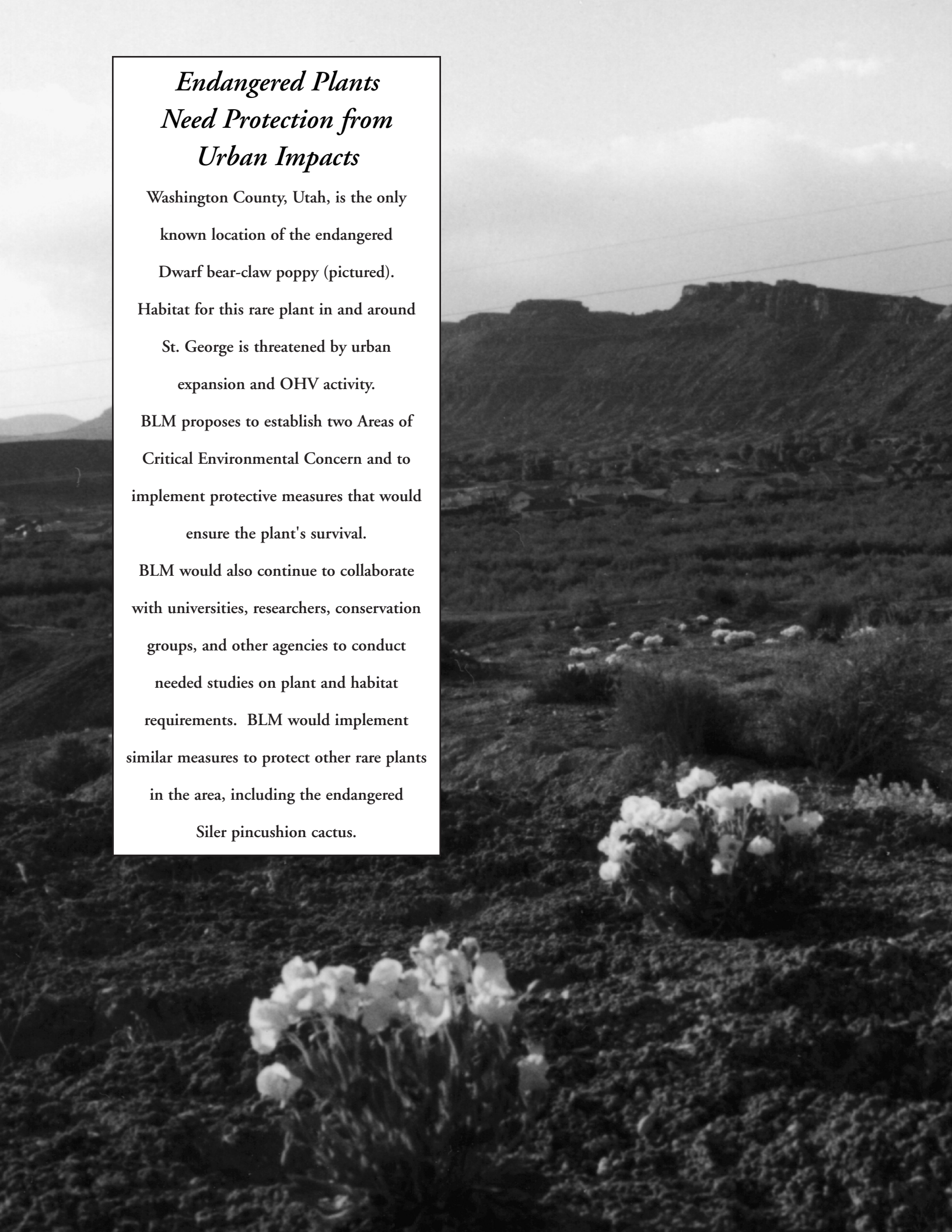
Any mulch used will be free from mold, fungi, or noxious weed seeds. Mulch may include native hay, small grain straw, wood fiber, live mulch, cotton, jute, synthetic netting, and rock. Straw mulch should contain fibers long enough to facilitate crimping and provide the greatest cover.

The grantee or lessee will be responsible for the control of all noxious weed infestations on surface disturbances. Control measures will adhere to those allowed in the Final Environmental Impact Statement for Vegetation Treatment on BLM Lands (1991).



Public Lands Support Limited Mineral Extraction

Most public lands in the resource area would remain open to exploration and location under the General Mining Act of 1872 and applicable state and federal regulations. Although extensive exploration and historic mining have occurred throughout the county, only one major operation has been active on public lands in the past several years which is located at the Goldstrike Mine in the western part of the county. An open pit, heap leach gold and silver operation, the mine is now inactive and undergoing final reclamation.



Endangered Plants Need Protection from Urban Impacts

Washington County, Utah, is the only known location of the endangered Dwarf bear-claw poppy (pictured). Habitat for this rare plant in and around St. George is threatened by urban expansion and OHV activity.

BLM proposes to establish two Areas of Critical Environmental Concern and to implement protective measures that would ensure the plant's survival.

BLM would also continue to collaborate with universities, researchers, conservation groups, and other agencies to conduct needed studies on plant and habitat requirements. BLM would implement similar measures to protect other rare plants in the area, including the endangered Siler pincushion cactus.

APPENDIX 2
Oil and Gas Leasing Stipulations

Introduction

One of the goals of this Proposed Plan is to allow appropriate oil and gas exploration and development. It is recognized that oil and gas operations must be analyzed under FLPMA and NEPA and mitigated to prevent unnecessary impacts to the human environment and natural resources.

This Proposed Plan contains two elements which would control oil and gas leasing and operations. The first is the classification of all of the lands in the Dixie Resource Area and the application of stipulations where appropriate. This appendix details which stipulations would be applied to each parcel of land. The second element is addressed in Appendix 1, which lays out standard operating procedures for all surface disturbing activities.

Oil and gas leasing and operations are regulated by 43 CFR 3100. These regulations are applicable on all leases and surface operations. Onshore Oil and Gas Orders also provide extensive protection for specific lease operations and are not repeated in this Proposed Plan.

Lease terms are attached to every Offer to Lease and Lease for Oil and Gas (Form 3100-11), which provide resource protection for land, water, and air, along with cultural, biological, and visual resources. The lease terms also address bonding and reclamation requirements.

In addition to the federal regulations, there are also state regulations controlling oil and gas operations. These can be found in the Oil and Gas Conservation Act in Title 40-6 of the Utah Code. Counties may also regulate oil and gas operations through various ordinances, although they cannot prevent operations on a valid federal lease.

Oil And Gas Leasing Categories

The proposed RMP has four categories of leasing: 1) closed to leasing, 2) no surface occupancy, 3) open with stipulations, and 4) open. The closed to leasing category is established by 43 CFR 3100.0-3, which exempts some specified lands from leasing. Some withdrawals and segregations also close lands to leasing, depending on the specific language in the withdrawal or segregation decision. No surface occupancy and open with stipulations are more fully described under "Oil and Gas Stipulations" in the following section. The open category is the remainder of the federal land for which no special concerns were noted that would require stipulations.

Oil And Gas Stipulations

Utah BLM policy (IM UT 90-157, January 24, 1990) requires that oil and gas stipulations follow the format developed by the interagency Rocky Mountain Regional Coordination Committee (RMRCC) in 1989. This format has four basic parts: 1) the description of the stipulation, 2) the legal description of the lands on which it applies, 3) the purpose of the stipulations, and 4) modifications, exemptions, or waivers to the stipulation.

Three categories of stipulations were developed by RMRCC. These are: 1) No Surface Occupancy (NSO), 2) Timing Limitations (TL), and 3) Controlled Surface Use (CSU).

The RMRCC also recognized that occasionally more detailed information concerning limitations that already exist in law, lease terms, regulations, or operational orders may be needed. This information may be provided to the operator in a Lease Notice. A Lease Notice may address special items the lessee should consider when planning operations, but does not impose new or additional restrictions.

Lease Notices (LN) should not be confused with Notices to Lessees (NTL), which are described in 43 CFR 3164.2. A Notice to Lessee is a written notice issued by the authorized officer. NTLs implement regulations and operating orders, and serve as instructions on specific items of importance within a state, district, or area.

In accordance with the RMRCC format, each stipulation may contain Modifications, Exceptions, and Waivers. These allow operations where subsequent field studies or administrative actions render the stipulation wholly or partly unnecessary for the protection of the human environment or natural resources.

- A Modification is defined as a "fundamental change to the provisions of a lease stipulation, either temporarily or for the term of the lease. A modification may, therefore, include an exemption from or alteration to a stipulated requirement. Depending on the specific modification, the stipulation may or may not apply to all other sites within the leasehold to which the restrictive criteria applied."

- An Exemption is defined as a "case-by-case exemption from a lease stipulation. The stipulation continues to apply to all other sites within the leasehold to which the restrictive criteria applies."

- A Waiver is defined as a "permanent exemption from a lease stipulation. The stipulation no longer applies anywhere within the leasehold."

Table A2-1 outlines oil and gas stipulations for No Surface Occupancy, Table A2-2 profiles Conditional Use Surface Stipulations for oil and gas development, Table A2-3 provides Timing Limitation Stipulations, and Table A2-4 denotes Lease Notice items for the Proposed Plan.

Split-Estate Lands

Split-estate lands are lands in which the surface and mineral estates are owned by different entities. The lands of concern are where the surface is owned by either a private entity or the state, but oil and gas rights are retained by the federal government.

Split-estate lands are open to leasing unless one of the exemptions in 43 CFR 3100.0-3 apply; however, the Proposed Plan may apply stipulations as needed to protect surface resources.

The BLM policy for oil and gas leasing and approval of lease operations was set forth in Washington Office IM-89-201, January 4, 1989. This policy states:

- BLM need only consider the planning and management of federal minerals under the Federal Land and Policy Management Act (FLPMA). Activities and use of the surface are not subject to FLPMA planning requirements, and the BLM has no authority under FLPMA over use of the surface by the surface owner. The same standard for environmental protection will be applied on split-estate lands as would be used for federal surface.

- BLM's National Environmental Protection Act (NEPA) responsibilities are basically the same as for federal surface. The fact that impacts will occur on private surface does not diminish the BLM's responsibility to consider alternatives or the BLM's authority to impose mitigation measures since the impacts will be caused as a direct consequence of activity approved by the BLM and conducted pursuant to a federal oil and gas lease. The BLM should carefully consider the views of the surface owner and the effect on the owner's use of the surface from implementation of possible mitigation measures, as well as the effect such measures would have on attaining other program goals.

- Under the National Historic Preservation Act, BLM is responsible for consulting with the State Historic Preservation Officer to identify and mitigate the effects of its actions and authorizations on historic properties and, if effects would occur, for giving the Advisory Council on Historic Preservation an opportunity to comment. These responsibilities are the same on split-estate lands as on public lands.

- Oil and gas leasing and operations on split-estate lands constitute federal actions under the Endangered Species Act (ESA). As such, the requirements and procedures of the ESA apply to split estate lands just as they do to federal lands including, as appropriate, preparation of biological assessments and the conduct of consultations.

- If the surface owner refuses access, it may be feasible to obtain the needed information without actual entry onto the private surface.

In order to prevent problems with incompatible development, the Proposed Plan includes a no surface occupancy stipulation for split-estate lands with authorized residential subdivisions, just as it does for surface structures and improvements on federal land. In all other cases, split-estate lands in the Dixie Resource Area will be categorized and have the same stipulations applied as the nearby federal lands. For example, if there is a riparian zone and critical deer winter range on the parcel, the parcel would be categorized as open with stipulations. The no surface occupancy stipulation would be applied to the riparian zone and the timing limitation stipulation would be applied to the winter range, just as if the surface was in federal ownership.

TABLE A2-1 • No Surface Occupancy Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
NSO-01	Surface structures and developments	FS Admin Site (T. 39 S., R. 16 W., sec.3 S2SWSESE)	5	Surface structures and developments. These sites have surface developments or features which are not compatible with oil and gas drilling or production. EXCEPTION: None MODIFICATION: None WAIVER: A waiver may be granted by the Area Manager if the surface structure or development being protected is removed, relinquished, or abandoned.
		Public Water Reserves	1,137	
		Baker Dam Developed Recreation Area	290	
		Red Cliffs Developed Recreation Area	1,085	
		R&PP Leases and Patents	620+	
		Dinosaur Trackway	40	
NSO-02	Desert Tortoise Critical Habitat in Special Management Areas	Beaver Dam Slope ACEC	48,519	Desert Tortoise critical habitat: These sites encompass the habitat which has been determined to be critical to the survival of the Desert Tortoise population. The Desert Tortoise is a listed species under the Endangered Species Act. EXCEPTION: The Authorized Officer may grant an exception (allow surface occupancy) upon completion of formal consultation with the U.S. Fish and Wildlife Service that yields a no-jeopardy opinion if a plan of development is submitted that does not significantly impact tortoise habitats or populations. The plan of development may demonstrate no significant impact will occur through mitigation of impacts, compensation (in accordance with Bureau policy), and restoration of the land to predisturbance condition. MODIFICATION: The Authorized Officer may modify the area of this stipulation to accommodate approved minor changes in the Washington County HCP Reserve boundary. WAIVER: None
		Washington County HCP Reserve	45,270	

TABLE A2-1 (continued) • No Surface Occupancy Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
NSO-03	Natural, scenic, and primitive recreational values associated with special management areas	Closed OHV areas: Primitive ROS areas (Beartrap Canyon, Taylor Creek Canyon, LaVerkin Creek Canyon, Cottonwood Canyon, Canaan Mountain, Red Mountain, LaVerkin Creek/Black Ridge, Deep Creek) Segments of rivers classified as wild and proposed as suitable under the W&S River Act. Canaan Mountain SRMA Ripple Arch	91,704 total: All areas listed are included within the OHV Closed designation	Natural, scenic, and primitive recreational values associated with special management areas: These sites have primitive recreational values which are not compatible with oil and gas drilling or production. EXCEPTION: The Authorized Officer may grant an exception for roads, pipelines, or power lines to cross these areas if there is no practical alternative route and mitigation can be applied to reduce impacts to a satisfactory level. MODIFICATION: None. WAIVER: None
NSO-04	Back Country Byway Scenery	0.5 mile either side of centerline of the Smithsonian Butte National Back Country Byway	2,366	Back Country Byway scenery: Oil and Gas exploration and development activities would be incompatible with the purpose of maintaining the scenic quality of the designated National Back Country Byway. EXCEPTION: The Authorized Officer may grant an exception if a plan of development is submitted demonstrating the activity would be fully screened from the byway, and the values for which the Back Country Byway was established would be preserved. MODIFICATION: The Authorized Officer may modify the width (to less than 0.5 mile from the centerline) if it is demonstrated a narrower width would allow the activity to be fully screened from the byway, and the values for which the Backcountry Byway was established would be preserved. WAIVER: none

TABLE A2-1 (continued) • No Surface Occupancy Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
NSO-05	ACEC Values	Warner Ridge/ Ft. Pearce ACEC	4,281	ACEC values: Values to be protected are: Warner Ridge/Ft. Pearce - Endangered Plant species, saline soils, riparian system, candidate animal species, waterfowl, raptors, and nongame species. Red Bluff - Endangered plant species and saline soils. Canaan Mountain - High scenic values and cultural resources Red Mountain - High scenic values. Upper Beaver Dam Wash - Watershed and riparian values Lower Virgin River - Riparian values, endangered fish habitat, cultural resources, and wildlife habitat Santa Clara River/Land Hill - Cultural resources, candidate fish species, riparian values, and wildlife habitat These values are incompatible with surface or visual disturbances resulting from oil and gas exploration and development. EXCEPTIONS: The Authorized Officer may grant an exception for specific, low-impact actions if a plan of development is submitted which demonstrates the project will preserve the values for which the ACEC was established. MODIFICATIONS: None WAIVER: None.
		Red Bluff ACEC	6,186	
		Canaan Mountain ACEC	31,355	
		Red Mountain ACEC	4,854	
		The part of the Upper Beaver Dam Wash ACEC closed to OHV	15,968	
		Lower Virgin River ACEC	1,822	
		Santa Clara River/Land Hill ACEC	1,645	

TABLE A2-1 (continued) • No Surface Occupancy Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
NSO-06	Riparian zone	All mapped riparian zones in Dixie Resource Area	4,600	Riparian zone: The need to improve and maintain vegetation and functional conditions of riparian zones in the Dixie Resource Area is incompatible with the disturbances resulting from oil and gas exploration and development. No surface occupancy restrictions would protect important biological components and habitats of resident and migratory species listed under the Endangered Species Act or otherwise at risk from declining habitat quality or availability. For the protection of impoundments and streams, and/or riparian wetland vegetation zones, activities associated with oil and gas exploration and development, including roads, transmission lines, and storage facilities, are restricted to an area beyond the riparian vegetation zone EXCEPTION: The Authorized Officer may grant an exception for roads, pipelines, or power lines if there is no practical alternative route and mitigation can be applied to reduce impacts to a satisfactory level. MODIFICATION: None WAIVER: None
NSO-07	Split-Estate lands	Lands with oil and gas rights retained by federal government, with surface in private ownership, and with a county approved residential subdivision (planned or existing)	24,136	Split-Estate Lands: The impacts of oil and gas development are generally incompatible with residential subdivisions. EXCEPTIONS: None MODIFICATIONS: A modification may be granted by the Authorized Officer if the operator provides written documentation that lease operations are approved by the surface owner. WAIVER: A waiver may be granted by the Authorized Officer if the operator provides written documentation that lease operations are approved by the surface owner.

TABLE A2-2 • Conditional Surface Use Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
CSU-01	Fragile soils	Severely erodible soils as mapped	121,865	Fragile Soil Areas: Prior to surface disturbance of fragile soils, it must be demonstrated to the Authorized Officer through a plan of development that the follow performance objectives will be met. Performance Objectives: I. Maintain the soil productivity of the site II. Protect off-site areas by preventing accelerated soil erosion (such as landsliding, gullying, rilling, piping, etc.) from occurring. III. Protect water quality and quantity of adjacent surface and groundwater sources. IV. Select the best possible site for development in order to prevent impacts to the soil and water resources. EXCEPTION: None. MODIFICATION: None. WAIVER: None
		Curly Hollow watershed	11,210	
		Frog Hollow watershed	6,760	
		Slopes equal to or greater than 25 percent	various	

TABLE A2-2 (continued) • Conditional Surface Use Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
CSU-02	Surface and ground-water quality	Municipal watersheds High recharge areas of Navajo aquifer Lower part of Upper Beaver Dam Wash ACEC Santa Clara River/ Gunlock ACEC	3,116 22,650 17,095 1,998	Surface and Ground Water Quality: Prior to authorizing surface disturbance, the Authorized Officer may require the proponent to submit a plan of development which would demonstrate the proposed action would not: (1) result in a net increase in sediment contribution, and/or (2) degrade existing water quality parameters, including but not limited to specific conductance, turbidity, organic/inorganic contaminant levels, and dissolved oxygen. If approval is granted, and developments result in these standards being exceeded, additional measures would be required to correct the deficiencies. The proponent may be required to monitor surface and ground water throughout the life of the project. EXCEPTION: None MODIFICATION: None. WAIVER: None.
CSU-03	FERC and powersite withdrawals	Federal Energy Regulatory Commission withdrawals Powersite withdrawals	196 2,138	FERC and Powersite Withdrawals: Withdrawals will be subject to Special Stipulations required by the Federal Energy Regulatory Commission (see BLM Form 3730-1). EXCEPTION: None MODIFICATION: None WAIVER: The Authorized Officer may waive this stipulation if the withdrawals are relinquished or terminated.

TABLE A2-3 • Timing Limitation Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
TL-01	Mule Deer	Crucial mule deer winter range	45,897	Mule Deer: This area encompasses mule deer winter range designated as crucial by the Utah Division of Wildlife Resources. No development activity is allowed from November 1 through April 15. (Development is allowed between April 15 and October 31.) EXCEPTIONS: (1) The Authorized Officer may grant an exception if an environmental analysis indicates the proposed action could be conditioned so as not to interfere with habitat function or compromise animal condition with the project vicinity. (2) An exception may be granted if the proponent, BLM, and Utah DWR negotiate compensation that would satisfactorily offset anticipated impacts to mule deer winter activities or habitat condition. (3) Under mild winter conditions, when prevailing habitat or weather conditions allow early dispersal of animals from all or portions of the project area, an exception may be granted to suspend no more than the last 60 days of this seasonal limitation. Severity of winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the winter range during the winter months. (4) Exceptions may also be granted for actions specifically intended to enhance the long- term utility or availability of suitable habitat. MODIFICATIONS: (1) The Authorized Officer may modify the size and timeframes of this stipulation if Utah DWR monitoring information indicates current animal use patterns are no longer consistent with dates established for animal occupation. (2) Modifications may be authorized if the proposed action could be conditioned so as not to interfere with habitat function or compromise animal condition. (3) The limitation may be modified if the proponent, BLM, and Utah DWR agree to habitat compensation which satisfactorily offsets detrimental impacts to activity and habitat condition. WAIVER: This stipulation may be waived to the extent the Utah DWR determines that all or specific portions of the area no longer constitute real or prospective critical deer winter range.

TABLE A2.3 (continued) • Timing Limitation Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	Stipulation Description and Purpose
TL-02	Elk	Elk calving areas	2,900	Elk Calving Areas: This area encompasses elk calving areas. No development activity is allowed from May 1 through July 30 to prevent disruption to calving and subsequent loss of animals. (Development is allowed between August 1 and April 30.) EXCEPTIONS: (1) The Authorized Officer may grant an exception if an environmental analysis indicates the proposed action could be conditioned so as not to interfere with habitat function or compromise animal condition within the project vicinity. (2) An exception may be granted if the proponent, BLM, and Utah DWR negotiate compensation that would satisfactorily offset anticipated impacts to elk calving activities or habitat condition. (3) Exceptions may also be granted for actions specifically intended to enhance the long- term utility or availability of suitable habitat. MODIFICATION: (1) The Authorized Officer may modify the size and timeframes of this stipulation if Utah DWR monitoring information indicates that current animal use patterns are no longer consistent with dates established for animal occupation. (2) Modifications may be authorized if the proposed action could be conditioned so as not to interfere with habitat function or compromise animal condition. (3) Modifications may be authorized if the proponent, BLM, and Utah DWR agree to habitat compensation that satisfactorily offsets detrimental impacts to activity and habitat condition. WAIVER: This stipulation may be waived to the extent the Utah DWR determines that all or specific portions of the area no longer constitute real or prospective elk calving areas.

TABLE A2.3 (continued) • Timing Limitation Stipulations

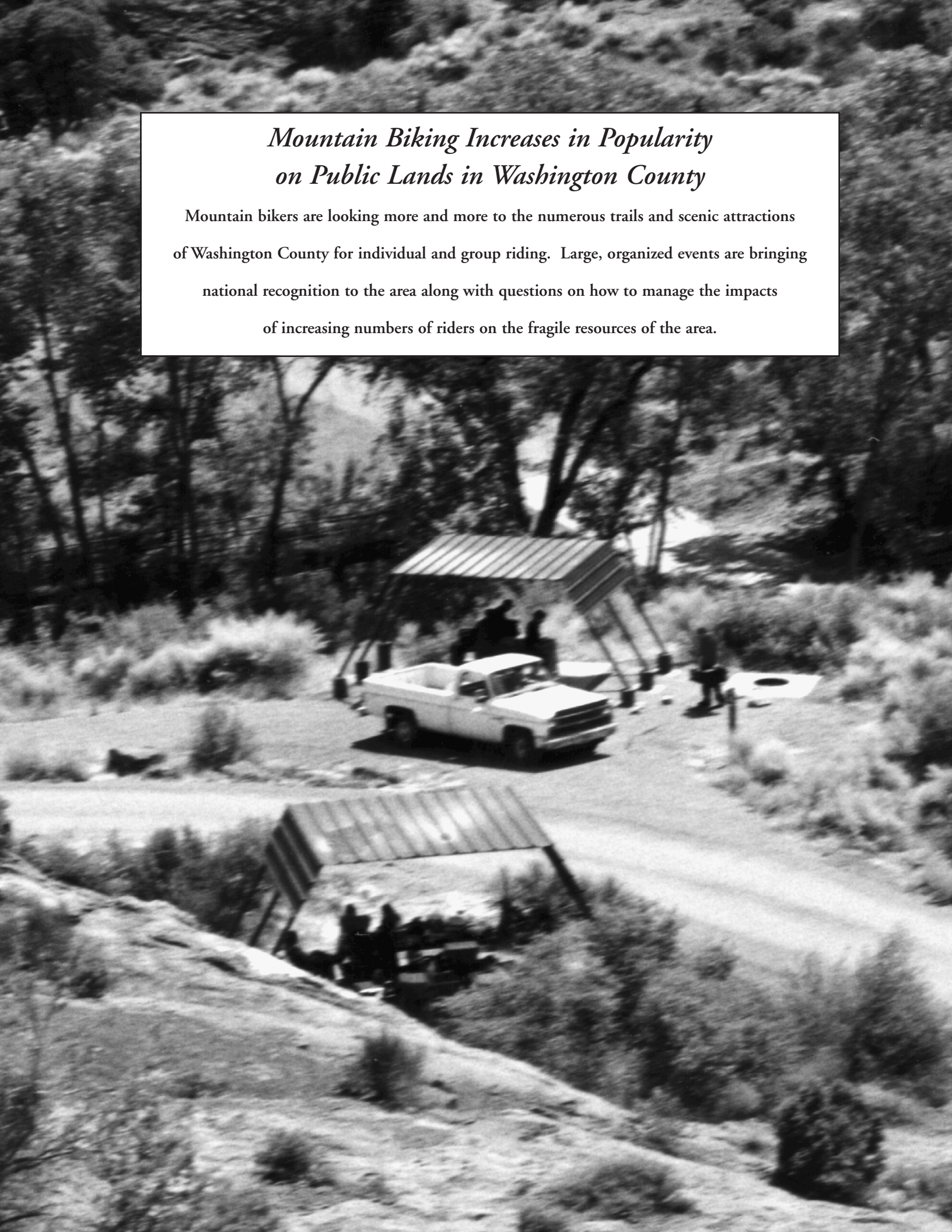
STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
TL-03	Desert Tortoise	Desert Tortoise habitat outside of the Washington County HCP Reserve and the Beaver Dam Slope ACEC	15,183	Desert Tortoise: This area encompasses identified Desert Tortoise habitat outside of the Washington County HCP reserve and Beaver Dam Slope ACEC. No development is allowed between March 16 and October 14. (Development is allowed from October 15 to March 15 subject to on-site biological evaluation and consultation with the U.S. Fish and Wildlife Service.) EXCEPTION: The Authorized Officer may grant an exception (allow development during the closed period) if formal consultation with the U.S. Fish and Wildlife Service reveals no adverse impact to the tortoise habitat and yields a no-jeopardy opinion. MODIFICATION: None WAIVER: None
TL-04	Golden Eagle	Nest sites	various	Golden Eagle Nest Sites: This area encompasses identified Golden Eagle nest sites. No development is allowed within 0.5 mile of identified nests from February 1 to June 30, or until the fledging and dispersal of the young. (Development is allowed July 1 through January 31.) EXCEPTION: (1) An exception may be granted if an environmental analysis of the proposed action indicates the nature or conduct of the activity could be conditioned so as to not impair the utility of the nest for current or subsequent nesting activity or occupancy. (2) An exception may be granted if the nest is unattended or remains unoccupied by April 15 of the project year. MODIFICATION: (1) The Authorized Officer may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function. (2) The Authorized Officer may modify the size of the stipulation area if the proposed action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. WAIVER: A waiver may be granted if there is no reasonable likelihood of site occupation over a minimum 10-year period.

TABLE A2.3 (continued) • Timing Limitation Stipulations

STIP CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	STIPULATION DESCRIPTION AND PURPOSE
TL-05	Peregrine Falcon	Nest sites	various	Peregrine Falcon Nest Sites: This area encompasses identified Peregrine Falcon nest sites. No development is allowed within 0.5 mile of identified nests from March 15 to June 30, or until the fledging and dispersal of the young. (Development is allowed July 1 through March 14.) EXCEPTION (after FWS consultation): (1) An exception may be granted if an environmental analysis of the proposed action indicates the nature or conduct of the activity could be conditioned so as to not impair the utility of the nest for current or subsequent nesting activity or occupancy. (2) An exception may be granted if the nest is unattended or remains unoccupied by May 15 of the project year. MODIFICATION (after FWS consultation): (1) The Authorized Officer may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function. (2) The Authorized Officer may modify the size of the stipulation area if the proposed action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. WAIVER (after FWS consultation): A waiver may be granted if there is no reasonable likelihood of site occupation over a minimum 10-year period.
TL-06	Mexican Spotted Owl	Nest sites	1,812	Mexican Spotted Owl Nest Sites: This area encompasses identified Mexican Spotted Owl nest sites. No development is allowed within 0.5 mile of identified nests from February 1 to August 31, or until the fledging and dispersal of the young. (Development is allowed September 1 through January 31.) EXCEPTION (after FWS consultation): (1) An exception may be granted if an environmental analysis of the proposed action indicates the nature or conduct of the activity could be conditioned so as to not impair the utility of the nest for current or subsequent nesting activity or occupancy. (2) An exception may be granted if the nest is unattended or remains unoccupied by May 15 of the project year. MODIFICATION (after FWS consultation): (1) The Authorized Officer may modify the size of the stipulation area if an environmental analysis indicates that a portion of the area is nonessential to nest utility or function. (2) The Authorized Officer may modify the size of the stipulation area if the proposed action could be conditioned so as not to impair the utility of the nest site for current or subsequent nest activities or occupation. WAIVER (after FWS consultation): A waiver may be granted if there is no reasonable likelihood of site occupation over a minimum 10-year period.

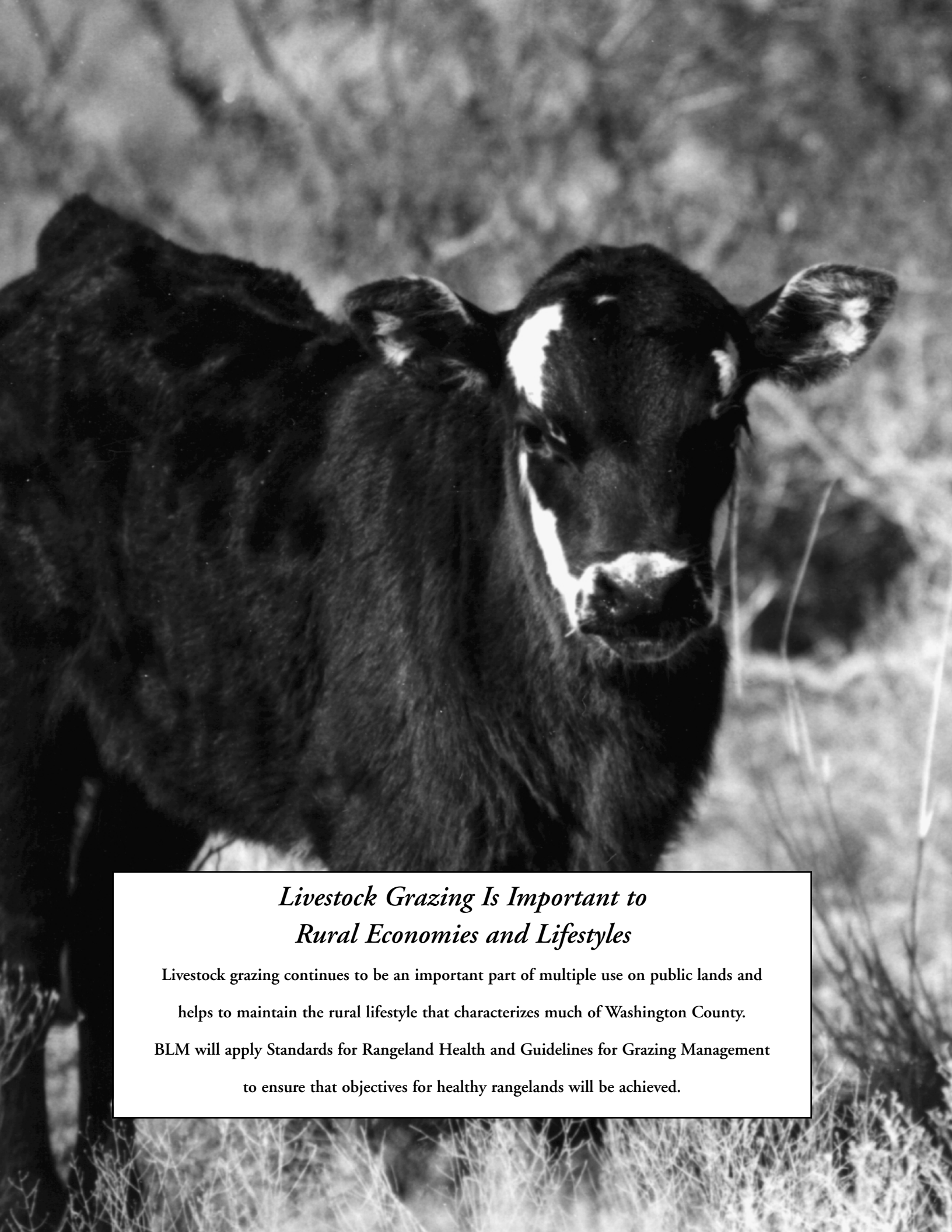
TABLE A2-4 • Lease Notices

LEASE NOTICE CODE	PROTECTED RESOURCE	AREAS PROTECTED	ACRES PROTECTED	NOTICE DESCRIPTION AND PURPOSE
LN-01	Reservoirs and perennial streams	Mapped reservoirs Identified perennial streams	various	To protect reservoirs and perennial streams from unnecessary pollution and sedimentation, 43 CFR 3101.1-2 (the 200 meter rule) will be applied to prevent surface disturbance within 100 yards of the high water line of permanent water bodies.
LN-02	Special Status Species habitat	Mapped habitat for proposed and listed threatened and endangered species	103,218	Leasing activity other than casual use will be subject to appropriate consultation or conference with the U.S. Fish and Wildlife Service.
LN-03	Riparian and riparian-related resources	200 meters adjacent to riparian areas	various	43 CFR 3101.1-2 allows the Authorized Officer to require activities to be moved up to 200 meters to protect specific resources. The authorized officer may apply this regulation adjacent to riparian zones where site-specific analysis shows a need to further protect riparian- related resources including Southwest willow flycatcher habitat and nesting sites.



Mountain Biking Increases in Popularity on Public Lands in Washington County

Mountain bikers are looking more and more to the numerous trails and scenic attractions of Washington County for individual and group riding. Large, organized events are bringing national recognition to the area along with questions on how to manage the impacts of increasing numbers of riders on the fragile resources of the area.



Livestock Grazing Is Important to Rural Economies and Lifestyles

Livestock grazing continues to be an important part of multiple use on public lands and helps to maintain the rural lifestyle that characterizes much of Washington County. BLM will apply Standards for Rangeland Health and Guidelines for Grazing Management to ensure that objectives for healthy rangelands will be achieved.

APPENDIX 3
Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah

Standards for Rangeland Health and Guidelines for Grazing Management

for
BLM Lands in Utah

United States
Department of the Interior
Bureau of Land Management
Utah State Office

May 1997

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RECORD of DECISION
and
FINDING OF NO SIGNIFICANT IMPACT

ACTION

Adopt and implement the Utah Bureau of Land Management Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah. Standards describe the ecological conditions that BLM will achieve through management of land uses. Guidelines are grazing management practices that BLM will apply in order to attain those Standards.

DECISION

It is my decision to adopt and implement the Standards for Rangeland Health and Guidelines for Grazing Management as described in the accompanying document, dated December 1996. These Standards and Guidelines are State Director's Policy, pursuant to 43 CFR 1600 (Planning Guidance) and 43 CFR 4180 (Grazing Administration). As such, Standards will apply to all BLM decisions concerning all uses of BLM Lands in Utah (notwithstanding law and regulation to the contrary), and Guidelines will apply to all BLM decisions concerning grazing on BLM Lands in Utah.

Existing land use plans have been reviewed and I have determined that these Standards and Guidelines are in conformance with existing decisions contained in Resource Management Plans and Management Framework Plans in this state and supplement those plans. The plan conformance review document is available at the BLM Utah State Office. Those plans may be amended as necessary in the future to assure that objectives and decisions in those plans fully implement the requirements and intent of Standards and Guidelines. Existing plans affected by this decision are:

Resource Management Plans	Management Framework Plans
Box Elder	Randolph
Pony Express	Park City
House Range	Sevier River
Warm Springs	Mountain Valley
Diamond Mountain	Parker Mountain
Book Cliffs	Henry Mountain
Price River	Paria
San Rafael	Zion
Grand	Vermillion
San Juan	Virgin River
Cedar-Beaver-Garfield-Antamony	Pinyon

This decision will be effective upon approval of these Standards and Guidelines by the Secretary of the Interior, which is anticipated prior to February 12, 1997. If they are not approved prior to

that date, the Fallback Standards and Guidelines contained in 43 CFR 4180 may be implemented. The Fallback Standards and Guidelines, if so implemented, will remain in effect until the proposed Standards and Guidelines are approved.

A period for public protest and the Governor's Consistency Review is being provided pursuant to BLM regulations. That period ends January 28, 1997. Protests are to be filed with the Utah State Director, Bureau of Land Management, P.O.Box 45155, Salt Lake City, UT 84145-1155.

FINDING OF NO SIGNIFICANT IMPACT

Based on scoping, public participation, and the comparison of anticipated impacts described in the Administrative Determination contained in the Draft Utah Standards and Guidelines, I have determined that no significant impacts will occur and that neither an environmental impact statement nor an environmental assessment is required. Impacts from implementing the Utah Standards and Guidelines would be the same as implementing the Fallback Standards and Guidelines analyzed in the Rangeland Reform '94 EIS. In the short term and long term there will be beneficial impacts to water quality, riparian and terrestrial wildlife habitat, wildlife, riparian area functions, ecological processes, rangeland productivity and plant cover and diversity. In the short term there will be impacts to grazing permittees and some land users in the form of increased costs, restrictions or changes in the way BLM Lands are used and/or reductions in allowable use. In the long term, rangeland resource production will be sustained, both in amount and quality, and grazing permittees and other users should realize a gain.

APPROVED BY:

G. William Lamb
State Director, Utah

4/7/97
Date

APPROVED BY:

Bruce Babbitt
Secretary of the Interior

MAY 20 1997
Date

INTRODUCTION

This document describes policies, practices, and procedures that the Bureau of Land Management (BLM) in Utah will implement in order to assure BLM lands are healthy. The concept of healthy rangelands expresses the BLM's desire to maintain or improve productivity of plant, animal (including livestock), soil, and water resources at a level consistent with the ecosystem's capability.

In order to meet society's needs and expectations for *sustained* production and conservation of natural resources from BLM rangelands, use of these lands must be kept in balance with the land's ability to sustain those uses. Identifying that balance requires an understanding and application of ecological principles that determine how living and non-living components of rangelands interact. Recognition of the interdependence of soil, water, plants, and animals (including livestock) is basic to maintaining healthy rangelands and the key element in BLM's proposed Standards and Guidelines.

The policies, practices, and procedures contained in this document are referred to as Standards and Guidelines. Standards and Guidelines will apply to all uses of BLM land for forage, including livestock, wildlife, and wild horses and burros.

Standards describe desired ecological conditions that BLM intends to attain in managing BLM lands, whereas Guidelines define practices and procedures that will be applied to achieve Standards. While Standards will initially be applied to grazing, it is BLM's intent to eventually apply these Standards to all rangeland uses that have the ability to affect or be affected by the ecological characteristics of rangelands.

FUNDAMENTALS OF RANGELAND HEALTH

The Bureau of Land Management has defined four Fundamentals of Rangeland Health, which are the basic ecological principles underlying sustainable production of rangeland resources. These Fundamentals are embodied in BLM's new Grazing Regulation (43 Code of Federal Regulations, Part 4100) which became effective in August of 1995. These four **Fundamentals of Rangeland Health**, which also serve as the basis for Standards and Guidelines for Grazing Management, are:

1) Watersheds are in, or are making significant progress toward, properly functioning physical condition, including their upland, riparian/wetland, and aquatic components; soil and plant conditions support water infiltration, soil moisture storage, and release of water that are in balance with climate and landform, and maintain or improve water quality, water quantity, and timing and duration of flow.

2) Ecological processes, including the hydrologic cycle, nutrient cycles, and energy flow, are maintained, or there is significant progress toward their attainment, in order to support healthy biotic populations and communities. [1]

3) Water quality complies with State water quality standards and achieves, or is making progress toward achieving, established BLM management objectives such as meeting wildlife needs.

4) Habitats are, or are making significant progress toward being, restored or maintained for Federal threatened and endangered species, Federal Proposed, Federal Candidate, other special status species, native species, and for economically valuable game species and livestock.

By developing Standards and Guidelines based on the Fundamentals listed above, and by applying those Standards and Guidelines to BLM land management, it is BLM's intent to:

→ PROMOTE HEALTHY, SUSTAINABLE RANGELAND ECOSYSTEMS THAT PRODUCE A WIDE RANGE OF PUBLIC VALUES SUCH AS WILDLIFE HABITAT, LIVESTOCK FORAGE, RECREATION OPPORTUNITIES, WILD HORSE AND BURRO HABITAT, CLEAN WATER, CLEAN AIR, ETC.;

→ ACCELERATE RESTORATION AND IMPROVEMENT OF PUBLIC RANGELANDS TO PROPERLY FUNCTIONING CONDITION, WHERE APPROPRIATE;

→ PROVIDE FOR THE SUSTAINABILITY OF THE WESTERN LIVESTOCK INDUSTRY AND COMMUNITIES THAT ARE DEPENDENT UPON PRODUCTIVE, HEALTHY RANGELANDS; and

→ ENSURE THAT BLM LAND USERS AND STAKEHOLDERS HAVE A MEANINGFUL VOICE IN ESTABLISHING POLICY AND MANAGING BLM

Ecological processes such as energy flow, hydrologic cycle and nutrient cycle, while important, cannot be practically measured in the field on vast areas managed by BLM. Ecological processes are addressed through indicators in other Standards (such as upland watersheds) . These indicators can be measured or observed to determine if the hydrologic cycle, nutrient cycle, and energy flows are functioning properly. For example, the amount of yearly vegetative production (measurable) that is left to turn in to litter (measurable) that in turn becomes soil organic matter (difficult to measure) are all indicators. Production and litter have been selected as indicators; soil organic matter was not although it may, in practice, be used for special situations.

RANGELANDS.

STANDARDS AND GUIDELINES

STANDARDS are descriptions of the desired condition of the biological and physical components and characteristics of rangelands. Standards:

- are measurable and attainable;
- comply with various Federal and State statutes, policies, and directives applicable to BLM rangelands; and
- *establish goals for resource condition and parameters for management decisions.*

Indicators are features of an ecosystem that can be measured or observed in order to gain an understanding of the relative condition of a particular landscape or portion of a landscape. Indicators will be used by the rangeland manager to determine if Standards are being met. The indicators proposed for use are commonly accepted and used by members of the rangeland management profession in monitoring rangelands. Methods and techniques for evaluating these indicators are also commonly available. In using these terms, it should be recognized that not every indicator applies equally to every acre of land or to every ecological site. Additional indicators not listed below may need to be developed for some rangelands depending upon local conditions.

Similarly, because of natural variability, extreme degradation, or unusual management objectives, discretion will be used in applying Standards. Judgements about whether a site is meeting or failing to meet a Standard must be tempered by a knowledge of the site's potential. Examples of this are thousands of acres of the Great Basin in western Utah where native perennial grass species have been replaced by cheatgrass, an annual exotic species. It will be difficult and expensive to return all those areas to their natural potential because they have been greatly altered. It may not even be feasible to restore such areas from such an altered state to a state similar to "natural" conditions.

Site potential is determined by soil, geology, geomorphology, climate, and landform. Standards must be applied with an understanding of the potential of the particular site in question as different sites have differing potentials.

GUIDELINES are management approaches, methods, and practices that are intended to achieve a standard. Guidelines:

- *typically identify and prescribe methods of influencing or controlling specific public land uses;*
- *are developed and applied consistent with the desired condition and within site*

capability; and
- *may be adjusted over time.*

It should be understood that these Standards and Guidelines are to be applied in making specific grazing management decisions. However, it should also be understood that they are considered the minimum conditions to be achieved. Flexibility must be used in applying these policy statements because ecosystem components vary from place to place and ecological interactions may be different.

Standards and Guidelines for use on BLM Land in Utah are described in the following pages. Standards and Guidelines, once approved by the Secretary of the Interior, will be implemented through subsequent Resource Management Plans (RMPs) and other decisions by BLM officials involving matters related to management of grazing. Where applicable, the statewide Guidelines may be adopted as terms and conditions for grazing permits and leases. Additional Guidelines may be identified and implemented through subsequent Resource Management Plans and activity plans to address local situations not dealt with by the statewide Guidelines.

STANDARDS for RANGELAND HEALTH

Standard 1. UPLAND SOILS EXHIBIT PERMEABILITY AND INFILTRATION RATES THAT SUSTAIN OR IMPROVE SITE PRODUCTIVITY, CONSIDERING THE SOIL TYPE, CLIMATE, AND LANDFORM.

As indicated by:

a.) Sufficient cover and litter to protect the soil surface from excessive water and wind erosion, promote infiltration, detain surface flow, and retard soil moisture loss by evaporation.

b.) The absence of indicators of excessive erosion such as rills, soil pedestals, and actively eroding gullies.

c.) The appropriate amount, type, and distribution of vegetation reflecting the presence of (1) the Desired Plant Community (DPC), where identified in a land use plan conforming to these Standards, or (2) where the DPC is not identified, a community that equally sustains the desired level of productivity and properly functioning ecological conditions.

Standard 2. RIPARIAN AND WETLAND AREAS ARE IN PROPERLY FUNCTIONING CONDITION. STREAM CHANNEL MORPHOLOGY AND FUNCTIONS ARE APPROPRIATE TO SOIL TYPE, CLIMATE AND LANDFORM.

As indicated by:

a.) Streambank vegetation consisting of, or showing a trend toward, species with root masses capable of withstanding high streamflow events. Vegetative

cover adequate to protect stream banks and dissipate streamflow energy associated with high-water flows, protect against accelerated erosion, capture sediment, and provide for groundwater recharge.

b.) Vegetation reflecting: Desired Plant Community, maintenance of riparian and wetland soil moisture characteristics, diverse age structure and composition, high vigor, large woody debris when site potential allows, and providing food, cover, and other habitat needs for dependent animal species.

c.) Revegetating point bars; lateral stream movement associated with natural sinuosity; channel width, depth, pool frequency and roughness appropriate to landscape position.

d.) Active floodplain.

Standard 3. DESIRED SPECIES, INCLUDING NATIVE, THREATENED, ENDANGERED, AND SPECIAL-STATUS SPECIES, ARE MAINTAINED AT A LEVEL APPROPRIATE FOR THE SITE AND SPECIES INVOLVED.

As indicated by:

a.) Frequency, diversity, density, age classes, and productivity of desired native species necessary to ensure reproductive capability and survival.

b.) Habitats connected at a level to enhance species survival.

c.) Native species re-occupy habitat niches and voids caused by disturbances unless management objectives call for introduction or maintenance of non-native species.

d.) Habitats for threatened, endangered, and special-status species managed to provide for recovery and move species toward de-listing.

e.) Appropriate amount, type, and distribution of vegetation reflecting the presence of (1) the Desired Plant Community, where identified in a land use plan conforming to these Standards, or (2) where the DPC is not identified a community that equally sustains the desired level of productivity and properly functioning ecological processes.

Standard 4. BLM WILL APPLY AND COMPLY WITH WATER QUALITY STANDARDS ESTABLISHED BY THE STATE OF UTAH (R.317-2) AND THE FEDERAL CLEAN WATER AND SAFE DRINKING WATER ACTS. ACTIVITIES ON BLM LANDS WILL FULLY SUPPORT THE DESIGNATED BENEFICIAL USES DESCRIBED IN THE UTAH WATER QUALITY STANDARDS (R.317-2) FOR

SURFACE AND GROUNDWATER. [2]

As indicated by:

a) Measurement of nutrient loads, total dissolved solids, chemical constituents, fecal coliform, water temperature and other water quality parameters.

b) Macro invertebrate communities that indicate water quality meets aquatic objectives.

GUIDELINES for GRAZING MANAGEMENT

1. Grazing management practices will be implemented that:

a) Maintain sufficient residual vegetation and litter on both upland and riparian sites to protect the soil from wind and water erosion and support ecological functions;

b) Promote attainment or maintenance of proper functioning condition riparian/wetland areas, appropriate stream channel morphology, desired soil permeability and infiltration, and appropriate soil conditions and kinds and amounts of plants and animals to support the hydrologic cycle, nutrient cycle and energy flow.

c) Meet the physiological requirements of desired plants and facilitate reproduction and maintenance of desired plants to the extent natural conditions allow;

d) Maintain viable and diverse populations of plants and animals appropriate for the site;

e) Provide or improve, within the limits of site potentials, habitat for Threatened or Endangered species;

f) Avoid grazing management conflicts with other species that have the potential of becoming protected or special status species;

g) Encourage innovation, experimentation and the ultimate development of alternative to improve rangeland management practices; and

h) Give priority to rangeland improvement projects and land treatments that

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BLM will continue to coordinate monitoring water quality activities with other Federal, State and technical agencies.

offer the best opportunity for achieving the Standards.

2. Any spring and seep developments will be designed and constructed to protect ecological process and functions and improve livestock, wild horse and wildlife distribution.

3. New rangeland projects for grazing will be constructed in a manner consistent with the Standards. Considering economic circumstances and site limitations, existing rangeland projects and facilities that conflict with the achievement or maintenance of the Standards will be relocated and/or modified.

4. Livestock salt blocks and other nutritional supplements will be located away from riparian/wetland areas or other permanently located, or other natural water sources. It is recommended that the locations of these supplements be moved every year.

5. The use and perpetuation of native species will be emphasized. However, when restoring or rehabilitating disturbed or degraded rangelands non-intrusive, non-native plant species are appropriate for use where native species (a) are not available, (b) are not economically feasible, (c) can not achieve ecological objectives as well as non-native species, and/or (d) cannot compete with already established non-native species.

6. When rangeland manipulations are necessary, the best management practices, including biological processes, fire and intensive grazing, will be utilized prior to the use of chemical or mechanical manipulations.

7. When establishing grazing practices and rangeland improvements, the quality of the outdoor recreation experience is to be considered. Aesthetic and scenic values, water, campsites and opportunities for solitude are among those considerations.

8. Feeding of hay and other harvested forage (which does not refer to miscellaneous salt, protein, and other supplements), for the purpose of substituting for inadequate natural forage will not be conducted on BLM lands other than in (a) emergency situations where no other resource exists and animal survival is in jeopardy, or (b) situations where the Authorized Officer determines such a practice will assist in meeting a standard or attaining a management objective.

9. In order to eliminate, minimize, or limit the spread of noxious weeds, (a) only hay cubes, hay pellets, or certified weed-free hay will be fed on BLM lands, and (b) reasonable adjustments in grazing methods, methods of transport, and animal husbandry practices will be applied.

10. To avoid contamination of water sources and inadvertent damage to non-target species, aerial application of pesticides will not be allowed within 100 feet of a

riparian/wetland area unless the product is registered for such use by EPA.

11. On rangelands where a standard is not being met, and conditions are moving toward meeting the standard, grazing may be allowed to continue. On lands where a standard is not being met, conditions are not improving toward meeting the standard or other management objectives, and livestock grazing is deemed responsible, administrative action with regard to livestock will be taken by the Authorized Officer pursuant to CFR 4180.2(c).

12. Where it can be determined that more than one kind of grazing animal is responsible for failure to achieve a standard, and adjustments in management are required, those adjustments will be made to each kind of animal, based on interagency cooperation as needed, in proportion to their degree of responsibility.

13. Rangelands that have been burned, reseeded or otherwise treated to alter vegetative composition will be closed to livestock grazing as follows: (1) burned rangelands, whether by wildfire or prescribed burning, will be ungrazed for a minimum of one complete growing season following the burn; and (2) rangelands that have been reseeded or otherwise chemically or mechanically treated will be ungrazed for a minimum of two complete growing seasons following treatment.

14. Conversions in kind of livestock (such as from sheep to cattle) will be analyzed in light of Rangeland Health Standards. Where such conversions are not adverse to achieving a standard, or they are not in conflict with land BLM use plans, the conversion will be allowed.

MONITORING AND ASSESSMENT

The determination of whether or not a particular grazing unit, pasture or allotment is meeting a Standard will be made by the Authorized Officer based on rangeland assessments and monitoring.

Monitoring the indicators will be in the form of recorded data from study sites or transects. It may be supplemented by visual observations and other data by BLM or other agency personnel, ranchers, interested public, wildlife agency personnel, or other resource data.

Assessments are the interpretation of data, observations, and related research findings. Assessments are the usual basis for prescribing grazing adjustments or practices. In some cases, such as with threatened or endangered species, Section 7 consultation with the U. S. Fish and Wildlife Service under the Endangered Species Act will occur. In all cases, conformance with Standards and Guidelines is a local

decision based on local circumstances involving a collaborative process with affected interests.

Should an assessment determine that an allotment is not meeting a standard, the next step is to determine the cause of failing to meet the Standard. If that determination reveals that grazing is involved or partially responsible, the Authorized Officer, with involvement of the interested parties, will prescribe actions that ensure progress toward meeting the Standard. Those actions may be a part of an activity plan, a coordinated management plan, or an administrative decision. Corrective management actions will be based on actual on-the-ground data and conditions.

Appendix A contains additional information about specific indicators to be monitored.

CONSULTATION, COORDINATION and PUBLIC PARTICIPATION

Public involvement in developing these Standards for Rangeland Health and Guidelines for Grazing Management for BLM Lands in Utah was obtained through individual consultation, public meetings, and public mailings.

The following entities were consulted by the Rangeland Health Team Leader prior to preparation of the Draft S&Gs:

Utah Department of Natural Resources
Utah Department of Agriculture
Utah State University (Department of Natural Resources)
Utah Cattleman's Association
Utah Wilderness Society
Southern Utah Wilderness Association
Sierra Club
Audubon Society
Utah Woolgrowers
Utah Farm Bureau
Forest Service, USDA
National Resource Conservation Service, USDA
The Nature Conservancy

BLM Utah formed a Rangeland Health Team, consisting of a variety of specialists from BLM, Forest Service, State of Utah, Utah State University, and the National Resource Conservation Service. Members of the Team consulted with peers within and outside their respective offices. The Team met on three occasions to prepare the Preliminary Draft and Draft documents as well as serving as advisors to the Utah BLM Advisory Council.

Consultation found that the level of public interest was relatively low. It also found these concerns: (1) the eventual Standards and Guidelines must be realistic and implementable, (2) they must be based on good science, (3) they should address social and economic concerns, (4) Standards must be measurable, (5) decisions concerning Standards and Guidelines must involve input from interested parties, (6) all forms of grazing should be dealt with, not just livestock, and (7) the Utah Standards and Guidelines must be flexible enough to deal with a wide variety of local situations.

The Draft document was mailed to the public in August 1996 for review and comment, opening a 60 day comment period. Approximately 1950 Draft documents were mailed with about 1780 of those going to BLM grazing permittees. The remainder went to county commissions, State and Federal agencies, Native American tribes and nations, environmental groups, and numerous interested individuals. A total of 39 responses was received from those sources. A list of people and entities receiving the Draft can be obtained from the Utah BLM State Office.

Public meetings to provide information and receive public comments were held in Salt Lake City, Brigham City, Moab, Roosevelt, Richfield and Cedar City during the week of September 9. Open houses were held at BLM offices during the same time in Vernal and Moab. In total, 52 people attended those meetings and open houses. Sixteen people provided formal comments.

The Utah BLM Resource Advisory Council (RAC) met seven times to consider S&Gs. The first four meetings were orientation and education meetings: Jan. 19 and Feb. 16 in a classroom setting with instructors from agencies and universities, and March 22 and 23 and May 8, 9 and 10 on field trips to gain hands-on experience. The RAC met on June 13 and 14, and again on July 15 to prepare the Draft. It met again to consider public comments on the Draft and prepared the Final on Nov. 1, 1996.

BLM's responses to the public comments received on the Draft document are contained in the section titled "Public Comments and Responses".

This Final version of Standards for Rangeland Health and Guidelines for Grazing Management on BLM Lands has been submitted to the Governor of the State of Utah for his consistency review pursuant to the Federal Land Policy and Management Act. It is also subject to public protest during the period provided by BLM.

COMMENTS AND RESPONSES

Public comments have been addressed in the following section if they relate to inaccuracies in interpreting BLM policy and regulation, contain suggestions for more desirable scientific applications and methodologies, or contain substantive disagreements or interpretations.

1. ***Comment:*** *The Draft S&Gs document does not comply with the intent of BLM grazing regulations to emphasize native species in support of ecological function. It does not go far enough in giving preference to native plant species over introduced species.*

Response: Standard 3 states "Desired species, including native, threatened, endangered, and special-status species, are maintained at an appropriate level for the site and species involved." It is BLM's intent that native species will be favored over introduced species wherever possible; however, where native species cannot feasibly be maintained or reintroduced, compatible introduced species may be considered. Scientific literature supports this position. Many studies have shown the difficulty in reintroducing native species and the current scientific thinking now is that desirable, non-invasive introduced species can be utilized to support ecological function and provide a transitional ecosystem until native species can re-establish themselves. Several comments expressed concern with too much use of crested wheatgrass. BLM agrees that vast homogeneous stands of crested wheatgrass or any other species are not best, but may often be the only realistic alternative considering the site potential of much of the rangeland involved. BLM will continue to manage for vegetative diversity and assist in developing and securing more native or quasi-native plant species. Guideline 5, we believe, clearly states that intent as well.

2. ***Comment:*** *A number of comments expressed concern over BLM's intent to use qualitative and quantitative data for assessing rangeland health. Some favored using only quantitative ("hard") data; others favored using more qualitative ("soft") data.*

Response: While these comments do not directly relate to Standards and Guidelines, they relate to a very critical part of assessing rangeland health. One reality of rangeland management today is that the BLM does not have the human and financial resources to collect the amount of "hard" data that may be required to make decisions. Another reality is that there is significant controversy over the suitability of traditional monitoring techniques for making management decisions. Combining those two concerns with the increasingly important need to obtain more involvement from interested publics, BLM believes that a combination of qualitative and quantitative data applied through a consensus approach is the desirable course to choose.

3. ***Comment:*** *The BLM Draft S&Gs do not satisfy the regulatory requirement to address ecological functions (energy, water, and nutrient cycles).*

Response: This topic has been reviewed thoroughly by the Resource Advisory Council, the Rangeland Health Team, and during consultation with scientific authorities. That deliberation resulted in the conclusion that these basic ecological functions cannot practically

be monitored directly in field on a scale necessary to assess millions of acres of BLM Lands. The Standards and Guidelines were developed with the intent that the functioning of ecological processes is absolutely necessary to attaining rangeland health. The measurement of those functions would have to be rates, accomplished through measurements of other indicators such as plant cover (including cryptogamic crusts), litter, plant species composition, productivity, erosion rates, diversity of species and age classes, etc.

4. ***Comment:*** *The Draft section on Historic Perspective contains erroneous statements about the effect of herbivory on the evolution of rangelands in Utah. Some commented that grazing was insignificant in shaping plant communities while others believed that grazing was essential to maintaining healthy rangelands because Utah rangelands evolved with herbivory.*

Response: The Historic Perspective section was included in the Draft only for the purpose of providing the reader with a brief background of how grazing has been a very significant rangeland health factor for years. Since this section is not especially relevant to Standards and Guidelines content, it has been deleted from the Final. The question the public and BLM faces today is not whether grazing is essential for or detrimental to maintaining viable, healthy rangelands but rather what are the ecological "goalposts" and how is grazing to be managed to attain those goals.

5. ***Comment:*** *Can, or should there be limits or thresholds for indicators of rangeland health that BLM establishes and uses to determine if rangeland conditions are meeting or not meeting the Standard? Why aren't specific, measurable attributes such as stubble height included? There is an obvious lack of quantifiable indicators.*

Response: Acceptable levels and thresholds will be established for many indicators, but on a site specific basis. It was not deemed possible or desirable to attempt to establish specific thresholds, acceptable limits or ranges for all the indicators for all of the BLM Lands in Utah. For the most part, however, these thresholds are already established for the Water Quality and Riparian/Wetland Standards by the State of Utah (water quality) and the BLM Riparian Area Management - Process for Assessing Riparian Proper Functioning Condition (riparian/wetland). A mix of qualifiable and quantifiable thresholds or indicators for uplands soils/watersheds and plant and animal communities will need to be determined locally because of extreme variability between locations. Reference areas will be used, to the extent they are known or can be found, to establish indicator baselines for proper functioning condition for uplands and biotic communities. Since plant and animal populations are susceptible to land use activities and difficult to "standardize," the BLM, with assistance from other interested parties and agencies, will continue to identify Desired Plant Communities (compared to reference areas) and key animal species through land use plans and activity plans.

6. ***Comment:*** *The Draft Standards and Guidelines do not describe the monitoring techniques and protocol that BLM will use to determine if Standards are being met.*

Response: It is not the intent of this document to describe specific indicators that will be applied or specific monitoring techniques that will be employed. This document focuses on developing Standards and Guidelines. (See Response to Comment 5). Utah BLM will

prepare a Standards and Guidelines Implementation Strategy or handbook for field instruction and public information. This document will explain how S&Gs will be implemented and monitored. Although monitoring is obviously critical to successfully meeting the Standards, BLM does not consider monitoring to be part of developing the S&Gs. BLM anticipates that this document will be finished by March 1997 and available for public information. Additional information about monitoring techniques can be found in Appendix A of this document.

7. ***Comment:*** *Several comments were received that questioned definitions of terms in the glossary, or suggested other terms should be defined. Some examples are the terms Rangeland Health, crypto-gamic crusts, sustainability, desired natural community, and viable.*

Response: The glossary has been reviewed and definitions added or changed as appropriate to conform with definitions currently accepted by the scientific community.

8. ***Comment:*** *The Standards for Rangeland Health should be applied to other uses and users of BLM Lands, such as recreation and mining.*

Response: BLM agrees with this statement and intends to develop Standards and Guidelines for other land uses later. First priority is given to Grazing Management because the Grazing Regulations of August 1995 require BLM to have them complete by February 1997.

9. ***Comment:*** *The new regulations require that the Standards and Guidelines must address subsurface soil conditions, stream energy dissipation, sediment capture, groundwater recharge, stream bank stability, stream channel morphology and function, and kinds and amounts of soil organisms, plants, and animals to support ecological function.*

Response: These are important features and indicators of rangeland health. They are addressed in Standard 1, Standard 2, Standard 3 and Guideline 1.

10. ***Comment:*** *Footnote 1 (page 3) should be deleted because it implies the S&Gs are more valid (and more scientific) than the Fundamentals. Footnote 2 should also be eliminated because it illegally attempts to avoid regulatory requirements to address nutrient cycling and energy flow.*

Response: Footnote 1 has been deleted because BLM feels it was somewhat misleading and confusing. Footnote 2 remains (as footnote 1) because BLM feels it is an accurate explanation to the reader that ecological processes are, for practical purposes, difficult if not impossible to measure over vast acreage. BLM has attempted to satisfy the regulatory requirements by developing the Standards for upland soils and riparian areas to include indicators that will indirectly address ecological processes, such as allowing sufficient residual vegetation and litter to support ecological function and providing for proper infiltration and permeability. We agree that, if possible, it would be desirable to monitor nutrient and energy cycles but the technology and capability is not available to do that on a large scale. By definition, a Standard must be measurable and that is the difficulty in developing a Standard for ecological functions.

11. ***Comment:*** *The fact that indicators are "commonly accepted" by the rangeland management profession is not the full test for acceptable indicators. The measures of wildlife biologists, ornithologists, herpetologists, conservation biologists, mycologists, and ecologists, to name a few, are equally relevant under BLM's new ecosystem management focus for range management.*

Response: Wildlife biologists, ecologists, soils specialists, water quality specialists and other specialists were consulted with and involved in preparing the S&Gs. BLM considers "rangeland managers" to be inclusive of the specialists mentioned above. A wide variety of ecological specialists need to be involved in making management decisions. Please refer to the List of Preparers in this document.

12. ***Comment:*** *It is incorrect to state that the purpose of the S&Gs is to "provide guidance ... of all forms of grazing on public lands in Utah." The S&Gs are solely to guide livestock grazing management.*

Response: BLM Utah has broadened the scope of the August 1995 Grazing Administration Regulations which states that the fundamentals and standards and guidelines are limited to livestock grazing administration. The Federal Land Policy and Management Act and BLM's regulations for planning give the State Director authority to develop rules and guidance for public land planning. The Utah State Director is employing that authority to broaden Standards and Guidelines to apply to all forms of grazing. This, we believe, is a very realistic and impartial approach to dealing with rangeland health because it allows BLM to deal with any grazing use that is detrimental to rangeland health.

13. ***Comment:*** *We urge you to improve the chances of standardizing interpretations of the Standards and Guidelines in the field . . . a wide variety of interpretations could largely supplant this effort and defeat its purpose. Consistency in interpretation is key to success of this effort.*

Response: BLM agrees that consistency is difficult yet critical to success. Managing rangeland resources requires a blend of science and art, and is not always exact. Nonetheless, BLM intends to strive for consistency by providing field direction (Implementation Strategy) and to continue to utilize the best science available. Standards and Guidelines will be implemented by establishing management objectives that contain quantitative and qualitative benchmarks or targets for numerous indicators that are applicable to a given site. Those objectives will be developed and monitored in a multi-disciplinary and public manner.

14. ***Comment:*** *The guideline referring to "weed free hay" should be changed to read "weed seed free hay." Weeds will not hurt ranges if they are not seeded out.*

Response: The term "weed free hay" refers to hay that has been inspected in the field and certified by an inspector of the Utah Department of Agriculture as being free of weeds. The guideline directs that only such inspected and certified hay may be brought onto BLM Lands.

15. ***Comment:*** *Where a standard is being exceeded, can the permittee expect to receive a*

proportional increase in AUMs? It seems fair to us that if a penalty is to be imposed for failure to meet the Standards, then a reward should be offered for exceeding the Standard.

Response: BLM currently has no provision for rewarding cooperators who assist in meeting or exceeding a Standard, other than operational flexibility and increased tenure. However, we believe that incentives need to be considered in any cooperative management plan.

16. ***Comment:*** *It is unlikely that Indicator d. of Standard 1 will ever be used and should be deleted. What is currently done and is measurable is the plant cover or biomass. It is then assumed that if plant cover is maintained, there is an appropriate amount of organic matter incorporated into the soil.*

Response: Indicator d. has been deleted because the Resource Advisory Council and BLM agree that soil organic matter will not routinely be monitored.

17. ***Comment:*** *BLM's intentions of promoting sustainable and properly functioning rangeland ecosystems may in some cases conflict with the BLM's intention of providing for the sustainability of the western livestock industry and communities. The document is not clear on how such potential conflicts will be resolved.*

Response: BLM's view is that the sectors of the western livestock industry that are dependent upon public lands can only be sustained on a long-term basis as long as grazing is in balance with the rangeland's ability to produce forage. As the Final S&Gs document states, it is BLM's intent to promote healthy, sustainable rangeland ecosystems that produce a wide range of public values such as wildlife habitat, clean water, livestock forage, recreational opportunities, etc. Sustaining the integrity and proper functioning of ecosystems is BLM's primary concern; producing goods, services, and public values from those ecosystems is secondary.

18. ***Comment:*** *Several comments addressed the Guideline for placing salt a specified distance from water. Some favored a certain distance (i.e., 1/4 mile), others opposed it. Some comments were concerned about creating numerous trampled areas by requiring livestock permittees to move salt/supplement locations every year.*

Response: The Guideline has been reworded to stress that although there is not minimum distance required, salt and other nutritional supplements will be located away from riparian and other permanent water sources. Because of concern for creating additional disturbed areas by moving supplements every year, that requirement was deleted. It was also determined that because rangeland conditions are so variable it may be unworkable to require a minimum of 1/4 mile. However, it is BLM's position that supplements be located so that they minimize impact to riparian/wetland areas and areas adjacent to those supplements.

19. ***Comment:*** *A definition of sustainability is needed.*

Response: A definition has been included in the glossary.

20. ***Comment:*** *The document states that "conformance with S&G's is a local decision based on local circumstances involving a collaborative process with affected interests." We are not sure what the "affected interests" are and the term needs to be defined in the glossary.*

Response: BLM's intent is to make resource decisions with the assistance and benefit of thinking from all parties that are interested in that decision. No definition is offered for "affected interests" because decision-making for BLM Lands is a public process open to anyone.

21. ***Comment:*** *Guideline 10 states that aerial application of pesticides will not be allowed within 100 feet of a riparian/wetland area unless the product is registered for such use by EPA. How will this be controlled and monitored?*

Response: Aerial application of pesticides has become an uncommon practice but is still utilized to some extent. Aerial application is closely monitored by observing weather conditions, drift, handling procedures, and extent of coverage to avoid introducing chemicals into non-target areas. This is standard procedure on BLM Lands.

22. ***Comment:*** *There should be an "action" section that describes what will happen when Standards are not being met or when "significant" progress in meeting the Standards is not occurring.*

Response: The monitoring and assessment section of this document briefly describes that the Authorized Officer will take corrective actions to ensure progress toward meeting the Standard. Also, refer to 43 CFR 4180.2 which requires action by the Authorized Officer before the beginning of the next grazing season upon determining that grazing is a factor in failing to achieve the Standards and conform with the Guidelines. Also, see Response to Comment 6.

23. ***Comment:*** *Each Standard should have its own Guidelines.*

Response: An earlier version of this Draft attempted to do this. It was found to be very redundant and confusing.

24. ***Comment:*** *The Standards and Guidelines do not address the effect of grazing and grazing management activities on cultural resources.*

Response: BLM acknowledges that some cultural resources could and are affected by grazing and grazing related activities. Cultural values, such as sacred sites and herbs and medicines could be considered under Standards and Guidelines since they are components of the natural ecosystem. However, they were omitted because BLM already has clear direction to identify and avoid adverse impact to such values by any land use activity, including grazing.

25. ***Comment:*** *In many cases, activities which impact protected or special status species have nothing to do with grazing management. Grazing should not be impacted unless it is clearly documented that grazing practices are causing impacts to the species.*

Response: BLM agrees. The process for evaluating the effect of grazing on a

Standard involves determining why the Standard is not being met, and if grazing is a factor in failing to meet the Standard.

26. ***Comment:*** *The requirement to use only certified weed free hay on BLM Land is another unfunded Federal mandate, which will increase costs to operators unnecessarily.*

Response: Certified weed free hay is more expensive than other hay and will raise the cost of feeding animals, but it is a necessary step to be taken to reduce the rate of noxious weeds spread. However, feeding hay to permitted livestock on BLM Land is not allowed except in emergency conditions as stated in Guideline 9. Some hay is fed to saddle stock, for example, but this is a very minor amount and will have to be certified weed free. The overall increase in costs to livestock operators will be negligible.

27. ***Comment:*** *The current standard in Utah is that a mechanically treated area will remain ungrazed for only one season. Doubling the time will create problems for operators, as well as additional stress on other allotment areas.*

Response: There may be some disagreement over this Guideline, but scientific literature supports removing grazing for two growing seasons. This does not mean 2 years. Treated areas may often be grazed after the second growing season, which is often less than 2 years.

28. ***Comment:*** *I think it is very realistic to state, based on 40 years of research, that the best option we have for restoration of depleted rangelands to native species will be using introduced species as a forerunner to native grass establishment. What a terrible defeat it will be for soil conservation and future biodiversity on sensitive disturbed BLM Lands, if this management tool is removed or limited in its scope of use.*

Response: The subject of introduced vs. native species is frequently debated and difficult to resolve. The Resource Advisory Council and BLM heard many polarized opinions on this subject and discussed it thoroughly. The Standards and Guidelines are intended to be implemented in a way that allows use of and management for both classes of plants, with preference given to natives. See revised Guideline 5.

29. ***Comment:*** *Guideline 9 discusses feed as a source of noxious weeds, but none of the Guidelines address vehicle routes and other human intrusions as an invasion path for noxious weeds.*

Response: The spread of noxious weeds by vehicles is a significant and complex problem. Most vehicles on BLM Lands are recreational, and would not fall under these Standards and Guidelines. BLM realizes vehicular travel is a weed problem, but ensuring that weeds are not spread by vehicles, whether recreational or livestock related, is a major challenge. BLM has taken steps to eliminate weed transport by its own vehicles and machinery.

30. ***Comment:*** *At whose expense will improvements for livestock be constructed, relocated or modified? (Guideline 3.)*

Response: These costs will be borne by the livestock operator, BLM and other cooperators in proportion to their ownership or investment.

31. ***Comment:*** *We do not agree with the proposed Guidelines because they allow grazing to continue in areas where the Standards are not being met.*

Response: That is correct. However, BLM's grazing regulations state that some form of corrective action must be taken prior to the beginning of the next grazing season should a determination be made that livestock grazing is a factor in failing to meet the Standard. Corrective action may involve changing seasons of use, numbers or class of livestock, or complete removal.

32. ***Comment:*** *The importance of cryptogamic crusts in Colorado Plateau ecosystems should be explicitly recognized. Erosion rates should be monitored.*

Response: These indicators, while referred to indirectly under Standard 1, will be identified in the Implementation Strategy or handbook that is under development. BLM agrees these are important indicators.

33. ***Comment:*** *These Guidelines offer exemptions from achieving Standards under certain conditions based on economic considerations. The regulations do not offer that flexibility.*

Response: BLM agrees with your statement and Standards 1.c. and 3.e. have been modified to address your concern. Exemptions will be very limited and will be justified. Some flexibility is necessary to ensure public acceptability and account for site-specific conditions.

LIST OF PREPARERS

The following individuals were involved in preparing Utah's Standards and Guidelines:

Name	Affiliation		Expertise
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GLOSSARY OF TERMS

Accelerated Erosion - Soil loss above natural levels resulting directly from man's activities. Due to the slow rate of soil formation, accelerated erosion can lead to a permanent reduction in plant productivity.

Activity Plan - A detailed and specific plan for managing a single or several resources or land uses undertaken as needed to implement more general land use plan decisions, regulations, policies, etc.

Allotment - An area of land where one or more individuals graze their livestock. Generally consists of varying amounts of public land, State land, and private land. Livestock grazing is regulated by BLM who determines the number of livestock, class of livestock, and season of use for each allotment through the land use planning process.

Annual Plant - One that completes its life cycle and dies in 1 year or less.

Aquatic or Aquatic Habitat - Relating to streams, rivers, springs, lakes, ponds, reservoirs, and other water bodies; plants and animals that live within or are entirely dependent upon water to live.

Authorized Officer - Any person authorized by the Secretary of the Interior to administer the laws and regulations pertaining to public lands.

Biological Diversity (or biodiversity) - The relative abundance or numbers of species and subspecies in an area or community; referring to plants, animals, and all living organisms. Includes species diversity and genetic variations within species.

Biotic Communities - The assemblage of native and exotic plants and animals associated with a particular site or area, including micro-organisms, algae, fungi, vascular and herbaceous plants, invertebrate and vertebrate animals.

Cover - Generally, the plants or plant parts, living or dead, on the surface of the ground. May also include cryptogamic crusts and rock covering the soil surface.

Cryptogamic (Cryptobiotic) Crust - A biological community that forms a surface layer or crust on some soils. Generally includes algae, microfungi, mosses, lichens, and bacteria. Important in soil protection and nutrient supply. Once depleted or disrupted, requires many years to recover.

Desired Plant Community (DPC) - A plant community which produces the kind, proportion, and amount of vegetation necessary to meet or exceed management objectives for an ecological site. DPC is defined, recognizing site's ability to produce the desired vegetation through natural succession, management, land treatment, or a combination of the three, by an interdisciplinary team.

Ecological Site - A category of land having a unique combination of physical properties (soil, aspect, slope, climate) differing from other kinds of land in its ability to produce vegetation and respond to management.

Ecology - The science concerned with the interrelationship of organisms and their environment.

Ecosystem - Organisms together with their abiotic environment forming an interacting system.

Energy Flow - The passage of energy from the sun through producing plants to consuming animals and back to the soil, thence back to plants and animals, etc.

Environmental Assessment (EA) - A concise public document generally prepared by a Federal agency. It serves to (1) disclose the effect on the environment of a proposed action, (2) assist in determining if an Environmental Impact Statement is needed, and (3) fulfill an agencies

requirements under the National Environmental Policy Act.

Erosion - The wearing away of land/soil by water, wind, gravitation, or other geologic agents. Often categorized into sheet erosion (even, overland flow), rill erosion (numerous but small channels), and gully erosion (less numerous but more major channels). Natural erosion is that which occurs under natural conditions (without the influence of man's activities).

Exotic species - Plant or animal species not native to ecosystems of the United States; generally referring to undesirable species that occupy sites in place of more desirable species.

Feed - Harvested forage, hay, and grain provided to grazing animals.

Fecal Coliform - Bacteria originating from animal waste that enters a water supply (stream) and can eventually cause disease in humans.

Floodplain - The land area adjacent to a stream which is periodically flooded; an important component function of a riparian area.

Forage - All browse and herbaceous growth available and acceptable to grazing/browsing animals.

Functioning Physical Condition - A characteristic of a component of an ecosystem, usually a portion of a landscape or watershed, that indicates the degree of sustainability of that component; a balance between ecosystem components that is sought in order to assure continued production of desired resources.

Grazing - Consumption of forage from rangelands or pastures by livestock, wild horses and burros, or wildlife.

Grazing Permit or Lease - Official permission to graze a specific number, kind, and class of livestock for a specified period of time on a defined area of public rangelands.

Grazing Season/Season of Use - The period of the year during which grazing is authorized on public lands.

Growing Season - The period of the year during which weather conditions allow plant growth Commonly, the period of time from beginning to cessation of twig/leaf growth which often equates to that portion of the year between last frost of spring to first frost of fall.

Guideline - Management approaches, methods, and practices that are intended to achieve a Standard.

Habitat - The natural abode of a plant or animal that provides food, water, shelter, and other biotic, climatic, and soil factors necessary to support life.

Herbaceous - Vegetative growth having no woody component, such as grasses and forbs.

Herbivore - Animals that subsist mainly or entirely on plants or plant materials.

Hydrologic Cycle - The movement of water and water vapor from the atmosphere to the earth, through the soil, overland, water courses, organisms, and back to the atmosphere.

Indicator - A feature of the environment (i.e., soil, water, etc.) that is used to express and/or measure the desirable or undesirable condition of that environmental component.

Infiltration - The downward entry of water into the soil.

Intrusive - Plant species having the ability to spread and establish themselves on ecological sites where they were absent in the original vegetation, especially following disturbances; invaders.

Kind of Animal - Referring to the species of grazing animal; i.e., domestic sheep or cattle, domestic or wild horses/burros, goats or wildlife such as elk, deer, antelope, bison, etc.

Kind of Livestock - A domestic animal species or species group such as sheep, cattle, goats, horses, or burros.

Land Use Plan - Any document developed to define the kinds of use, goals and objectives, management practices and activities that will be allowed to occur on an area of land. In BLM, a Resource Management Plan or Management Framework Plan. The document that translates general guidance or policy (such as Standards and Guidelines) into more specific management direction and decisions for specific land and water areas.

Landform - A discernible natural landscape that exists as the result of geological activity, such as a plateau, basin, or mountain. In general, the physical attributes of an area of land, such as slope, exposure, geologic origin, soil type, etc.

Litter - Undecomposed or slightly decomposed plant material deposited on the soil surface. A major source of nutrients entering the soil.

Macroinvertebrate - Larger, visible members of the insect, mollusk, and other animal species used as indicators of desired water conditions.

Microclimate - Local, site-specific climatic conditions that differ from the general climate because of local differences in elevation and exposure. Also, the climate at or near the surface of the ground that determines the ability of plant species to propagate and survive, including soil moisture, humidity, irradiation, amount of sunlight, cryptogams, etc.

Native Species - Any species of plant or animal that is naturally occurring within a given area

of land or body of water; part of the original flora or fauna of the United States; indigenous.

Noxious Plant - A plant that is undesirable because it is of no forage value (or even toxic) or is capable of invading a community and replacing native species. Also referred to as invasive, non-native species.

Nutrient Cycle - Passage of nutrients between plants, animals, and the soil. Along with energy cycle and water cycle, an indicator of ecosystem functionality, or "rangeland health".

Nutrient Load - Nutrients, such as nitrogen, phosphorus, potassium, that when found in high concentrations are detrimental to aquatic life; may originate from decaying vegetation or man's activities (fertilizers).

Perennial Stream - A stream that flows throughout the year for many years.

Permeability - The ease with which gases, liquids (water), or plant roots penetrate or pass through a soil or a layer of soil. A key factor in influencing the rate of water infiltration.

Perennial Plant - A plant that has a life cycle of 3 or more years.

Plant Cover - The amount (usually a percentage) of the soils surface that is occupied or covered by plant material.

Point Bars - Soil and rocks deposited by flowing streams that can become suitable sites for plant establishment and growth.

Properly Functioning Condition - An attribute of a landform that indicates its ability to produce desired natural resources in a sustained way. When used to refer to a riparian area, expresses the ability of the ecosystem to dissipate energy, filter sediment, transfer nutrients, develop ponds and channel characteristics that benefit fish production, waterfowl, and other uses, improve water retention and ground-water recharge, develop root masses that improve streambank stability, and support greater biodiversity. In upland landforms, an indication of the ecosystem's ability to sustain the natural, biotic communities.

Public Lands - Any land or interest in land outside the State of Alaska owned by the United States and administered by the Secretary of the Interior through the Bureau of Land Management. Used synonymously with "BLM Lands".

Rangeland (or Public Rangelands) - Deserts, grasslands, shrublands, mountains, canyons, forests, woodlands, and riparian areas that support an understory or periodic cover of herbaceous and woody vegetation amenable to production of tangible products such as forage, wildlife habitat, water, minerals, energy, plant and animal gene pools, recreational opportunities, and other vegetative products. Also valuable for the production of intangible products such as open space, natural beauty, and study of natural ecosystems. Rangeland

includes lands revegetated naturally or artificially to provide a plant community that is managed similarly to natural vegetation.

Rangeland Assessments - The analytical process of using scientific data and visual observations to determine the relative condition of a rangeland for the purpose of prescribing needed changes in management, usually in livestock grazing.

Rangeland Health - The degree to which the integrity of the soil and ecological processes and components of rangeland ecosystems are sustained and functioning. Serves as a measure of whether the capacity of rangelands to produce commodities and satisfy values is being conserved. Expressed in terms of healthy, at risk, or unhealthy.

Rangeland Improvement Projects - Man-made manipulations and structures applied to or built upon rangelands for the purpose of improving productivity or ecosystem function; generally, reseedings, weed control, water retention structures, stream channel structures, erosion control structures, fences, etc.

Rangeland Monitoring - Collecting scientific data about rangeland attributes that indicate whether desired conditions are being achieved; generally, data about vegetation, soil erosion, grazing use, climate, etc.

Residual Plant Cover/Residual Vegetation - Standing herbaceous vegetation that remains after grazing.

Resource Advisory Council - A group of citizens representing a diversity of interests concerned with management of public lands. In Utah, a statewide body with 15 members advising the BLM State Director about public land issues and solutions.

Riparian Area - Lands along, adjacent to, or contiguous with perennial and intermittently flowing rivers and streams, and the shores of lakes and reservoirs, that exhibit vegetation characteristics reflective of permanent water influence. Consisting of two groups: (1) lentic (standing water), and (2) lotic (running water).

Sediment - Soil transported from its point of origin into drainages and streams by water, or relocated from point of origin to other sites by wind.

Sensitive Species - All species that are under status review, have small or declining populations, or live in unique habitats. May also be any species needing special management. Sensitive species include threatened, endangered, or proposed species as classified by the U.S. Fish and Wildlife Service, or species designated by a State wildlife agency as needing special management.

Series Description - A classification of soils having similar characteristics such as structure, particle size, horizon thickness, moisture holding capacity, density, and parent material; also

characterized by specific vegetation.

Sinuosity - Configuration of a stream and its channel, developed over time by volume of water passing, soil, streambank vegetation, and gradient; an "S"-shaped configuration is indication of greater sinuosity, which is desirable for proper riparian area functioning.

Site Potential or Site Capability - The optimal productivity of a given area of land or a range site expressed in amount of wildlife habitat, forage production, clean water yield, water infiltration, biodiversity, and other desired resource products, depending upon the natural characteristics of the site, such as precipitation, type of soil, exposure, temperature, plant succession, and past management.

Soil A-Horizon - The upper-most layer of topsoil characterized by finer particles of soil and higher concentration of organic matter. In many desert soils, this horizon is poorly developed or absent.

Soil Moisture - Water stored in the soil; an important feature of soils which determines the amount of vegetation that will be produced.

Standard - A description of the desired condition of the biological and physical components and characteristics of rangelands. An objective to be achieved by management.

Stream Channel Morphology - The shape, depth, width, gradient, and other features of a stream channel that affect the flow of water and how the stream channel shapes and re-shapes itself over time.

Supplemental Feed - Nutritional additives (salt, minerals, vitamins, protein blocks) or harvested forage given to livestock to correct dietary deficiencies.

Sustained Yield - Production of specified resources or commodities at a given rate over time.

Sustainability - The concept that natural processes are functioning in away that assures the sustained yield of commodities and public values to the extent possible considering the capability of the land to do so.

T & E Species - Plant or animal species listed by the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act as either in danger of becoming extinct or threatened to the degree that their continued existence as a species is in question. Proposed Species: plant or animal species proposed by USFWS for listing as Endangered; protected under the ESA. Candidate Species: plant or animal species considered as potentially Threatened but not yet proposed by USFWS for listing; not protected by the ESA.

Total Dissolved Solids - A variety of salts and salt aggregates that, when dissolved in water, can change the chemical nature of that water. In high concentrations, can become lethal to

aquatic life.

Uplands - Land at a higher elevation than the alluvial plain or low stream terrace; all lands outside the riparian, wetland, or aquatic zones.

Utilization - The percentage of annual growth of vegetation that has been removed by a grazing animal; used as an indicator of grazing intensity.

Vigor - The relative health of a plant, judged by observing its robustness and over-all ability to sustain and regenerate itself considering the climate and productivity of the site it occupies; expressed in relative terms of poor, medium and high.

Watershed - The total area above a given point on a waterway that contributes runoff water to the streamflow at that point; an area draining water into a drainage or stream.

Wetland - Permanently wet or intermittently water-covered areas, such as swamps, marshes, bogs, and potholes.

Woody - Consisting of wood such as trees or bushes.

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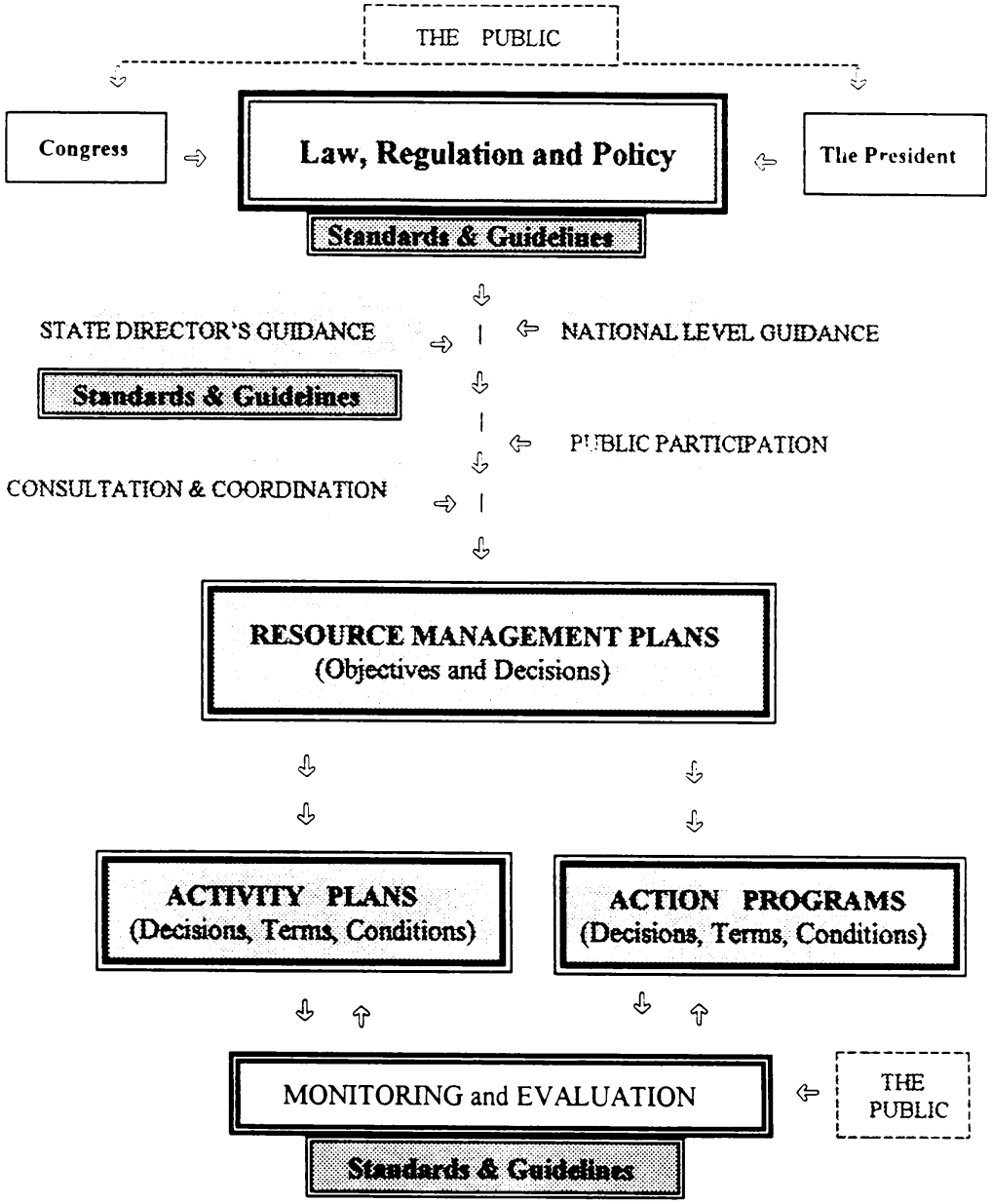
APPENDIX A. Monitoring and assessment techniques for measuring the indicators of Rangeland Health

standard	*indicators*	*technique/assessment*	*frequency*
Standard 1: Upland soils exhibit permeability and infiltration rates that sustain or improve site productivity, considering the soil type, climate and landform.	Cover and litter, composition Water infiltration Soil erosion (rills, pedestals, gullies) and deposition	Condition, trend , use studies Photo plots, cover studies Qualitative assessments [1] for biological and physical components Water quality measurements	Yearly 1 to 3 yr. intervals As needed As needed
Standard 2: Riparian and wetland areas are in prop-erly functioning condition. Stream channel morphol-ogy and functions are appropriate to soil type, climate and landform.	Hydrogeomorphic: (floodplain, recharge/discharge, ground water, sinuosity, width/depth ratio, etc.) Vegetation: (type, canopy, reproduction, production, root density, etc.) Erosion/deposition: (bank and bed stability, deposition) Soils: (type, soil water states, capillarity, etc.) Water Quality: (sedim., temp., nutrients, salinity, etc.)	Riparian Proper Functioning Condition Assessments, pursuant to BLM TR 1737-9 and TR 1737-11. Condition and trend, cover studies Habitat assessments Water quality measurements	1 to 5 years As needed 1 to 5 years 1 to 10 years
Standard 3: Desired species, including native, threatened, endangered, and special status species, are maintained at a level appropriate for the site and species involved.	Vegetation: (age classes, frequency, density, composition, productivity, ratio of native/non-native, etc.) Soils: (erosion, bare space, infiltration, etc.) Habitats: (cover, connectivity, abundance of species, diversity, etc.)	Condition and trend, photo plots , utilization or residual levels, etc. Qualitative assessments for biological and physical components. Habitat assessments, biological opinions (sec. 7 ESA)	1 to 5 years As needed As needed
Standard 4: BLM will apply and comply with water quality standards established by the State of Utah (R.317-2) and the Clean Water and Safe Drinking Water acts. Activities on BLM Lands will fully support designated beneficial uses described in the Utah Water Quality Standards for surface and groundwater.	Nutrient loads, total dissolved solids, chemical constituents, fecal coliform, temperature, metal, etc.	Water chemistry, macroinvertebrate and other analyses as approved and required by the State, EPA, BLM, etc.	As needed, in conjuntion with interagency data collection efforts and/or as required by the State of Utah or BLM's management objectives.

1. The BLM is developing a qualitative, rapid assessment process for upland watersheds, soils, and ecological processes which will generally be used in conjunction with quantitative data. The objective is to develop a process for determining whether an upland ecosystem is functioning (meeting or progressing toward meeting the Standards), functioning at risk (marginally meeting or failing to meet the Standards), or non-functioning (failing to meet the Standards)

APPENDIX B. Application of Standards and Guidelines to Multiple Use Management of BLM Lands



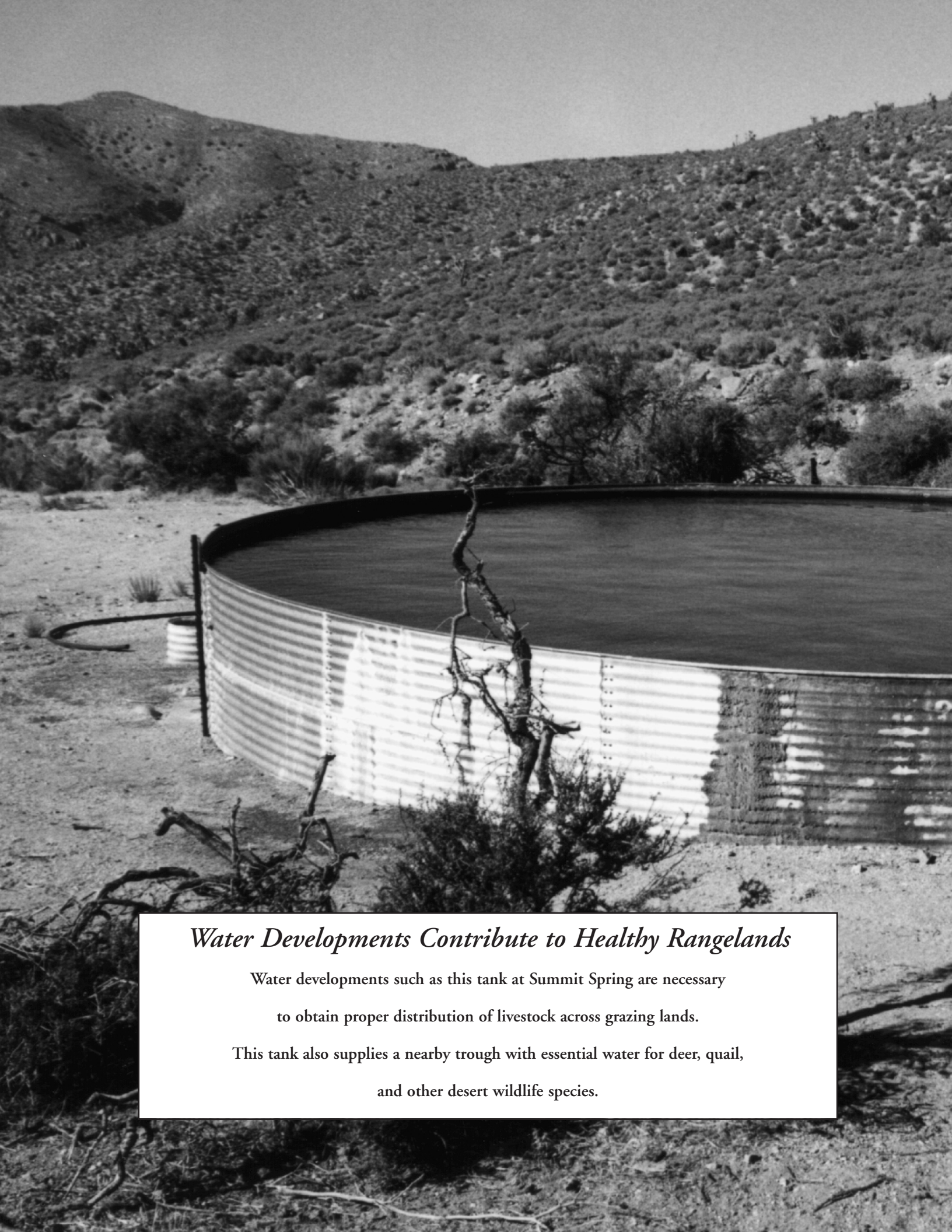
APPENDIX C. List of NEPA documents providing NEPA documentation that supports the Administrative Determination for Utah's Standards and Guidelines.

Dixie Resource Management Plan, (ongoing)
Cedar Beaver Garfield Antimony Resource Management Plan, (1984)
House Range Resource Management Plan includes Rangeland Program Summary, (1987)
Warm Springs Management Plan includes Rangeland Program Summary, (1987)
Pony Express Resource Management Plan includes Rangeland Program Summary, (1990)
Box Elder Resource Management Plan includes Rangeland Program Summary, (1986)
Diamond Mountain Resource Management Plan, (1995)
Book Cliffs Resource Management Plan includes Rangeland Program Summary, (1985)
Grand Resource Management Plan includes Rangeland Program Summary, (1985)
San Rafael Resource Management Plan includes Rangeland Program Summary, (1989)
San Juan Resource Management Plan includes Rangeland Program Summary, (1991)

Vegetation Treatment on BLM Lands Final Environmental Impact Statement, (1991)
Rangeland Health Reform Final Environmental Impact Statement, (1995)

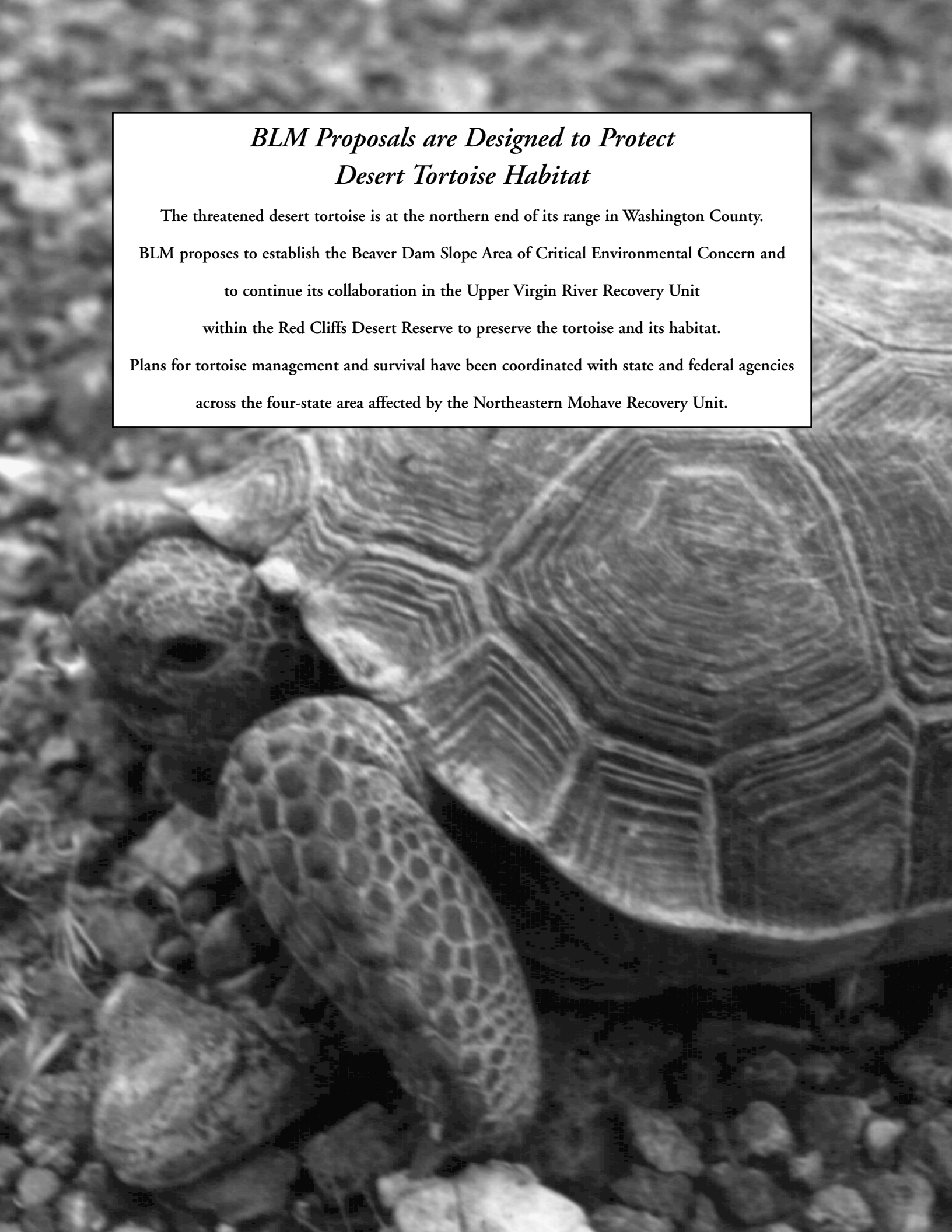
Final Hot Desert EIS, (1978)
Kanab/Escalante Grazing Management Final EIS, (1980)
Pinyon Grazing Management Final EIS, (1982)
Price River Grazing Final EIS
Henry Mountain Grazing Final EIS
Randolf Grazing EIS, (1979)
Tooele Grazing Final EIS, (1983)
Parker Mountain Grazing Final EIS, (1980)
Mountain Valley Grazing Final EIS, (1980)
Ashley Creek Grazing Final EIS, (1982)
Three Corners Grazing Final EIS, (1980)

Note: This list does not include subsequent amendments (if any) pertaining to grazing management.



Water Developments Contribute to Healthy Rangelands

Water developments such as this tank at Summit Spring are necessary to obtain proper distribution of livestock across grazing lands. This tank also supplies a nearby trough with essential water for deer, quail, and other desert wildlife species.



BLM Proposals are Designed to Protect Desert Tortoise Habitat

The threatened desert tortoise is at the northern end of its range in Washington County. BLM proposes to establish the Beaver Dam Slope Area of Critical Environmental Concern and to continue its collaboration in the Upper Virgin River Recovery Unit within the Red Cliffs Desert Reserve to preserve the tortoise and its habitat. Plans for tortoise management and survival have been coordinated with state and federal agencies across the four-state area affected by the Northeastern Mohave Recovery Unit.

APPENDIX 4

Threatened and Endangered Listed Species Candidate Species, and Nonlisted Sensitive Species

Federally Listed Species in Washington County/ Dixie Resource Area

Animals:

Chub, Virgin River (*Gila robusta seminuda*)
Eagle, bald (*Haliaeetus leucocephalus*)
Falcon, American peregrine (*Falco peregrinus anatum*)
Flycatcher, Southwestern willow (*Empidonax traillii extimus*)
Owl, Mexican spotted (*Strix occidentalis lucida*)
Tortoise, desert (*Gopherus agassizii*)
Woundfin (*Plagopterus argentissumus*)

Plants:

Dwarf bear-claw poppy (*Arctomecon humilis*)
Siler pincushion cactus (*Pediocactus sileri*)

Federal Candidate Species in Washington County

Animals:

None

Plants:

Astragalus eremiticus var. ampullarioides
Astragalus holmgreniorum

Nonlisted Sensitive Plant Species within Washington County/ Dixie Resource Area*

Astragalus eremiticus var. ampullarioides
Astragalus holmgreniorum
Camissonia bairdii
Camissonia gouldii
Cirsium virginensis
Epilobium nevadense
Erigeron sionis
Haplopappus crispus
Haplopappus leverichii
Jamesia americana var. zionis
Penstemon ammophilum

* These plant species were excerpted from the State/ BLM statewide list

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

IN REPLY REFER TO
6840 N
(UT-933)

July 18, 1997

Instruction Memorandum No. UT 97-66
(Expires 09/30/98)

To AFO's

From: State Director

Subject: Revised Utah Bureau of Land Management Sensitive Animal Species List

In August, 1996, Instruction Memorandum No. UT 96-69 was released to the Field Offices in the State detailing interim Utah Bureau of Land Management (BLM) plant and animal sensitive species lists and policy. The animal species list attached to that Instruction Memorandum was a 1987 list developed by the State of Utah's Division of Wildlife Resources (DWR). In March, 1997, DWR released a new, revised sensitive animal species list. The purpose of this Instruction Memorandum is to replace the old 1987 DWR list with the new 1997 list (attached). This new list now becomes Utah BLM's official Sensitive Animal Species list.

Some debate still exists regarding the proper status of some bat species in the State. Additional research is needed on this issue. A clarification on the status of bat species will be forthcoming at a later date. Work is also continuing on refining and updating the plant species list. Any questions or concerns regarding Utah BLM's Sensitive Species lists or policy can be directed to Ronald Bolander at (801) 539-4065.

Attachment
Utah Sensitive Species List: Utah Division of Wildlife Resources (30 pp)

UTAH STATE SENSITIVE SPECIES LIST---MARCH 17, 1997

UTAH SENSITIVE SPECIES LIST
(MARCH 1997)

DEFINITIONS

A. For the purposes of this list, **wildlife** includes all vertebrate animals and aquatic invertebrates in Utah that are living in nature, except feral animals.

B. **Extinct Species**: any wildlife species that has disappeared in from the world.

C. **Extirpated Species**: any wildlife species that has disappeared from Utah since 1800.

D. **State Endangered Species**: any wildlife species or subspecies which is threatened with extirpation from Utah or extiction resulting from very low or declining numbers, alteration and/or reduction of habitat, detrimental environmental changes, or any combination of the above. Continued long-term survival is unlikely without implementation of special measures. A management program is needed for these species if a Recovery Plan has not been developed.

E. **State Threatened Species**: any wildlife species or subspecies which is likely to become an endangered species within the foreseeable future throughout all or a significant part of its range in Utah or the world. A management program is needed for these species if a Recovery Plan has not been developed.

F. **Species of Special Concern**: any wildlife species or subspecies that: has a declining population, i.e., has experienced a substantial decrease in population, distribution and/or habitat availability **(SP)**, or has a limited distribution, i.e., occurs in limited areas and/or numbers due to a restricted or specialized habitat **(SD)**, or has both a declining population and a limited range **(SP/SD)**. A management program, including protection or enhancement, is needed for these species.

G. **Conservation Species**: any wildlife species or subspecies, except those species currently listed under the Endangered Species Act as Threatened or Endangered, that meets the criteria of Endangered, Threatened or of Special Concern, but is currently receiving sufficient special management under a Conservation Agreement developed and/or implemented by the state to preclude its listing above.

UTAH STATE SENSITIVE SPECIES LIST---MARCH 17, 1997 2

SENSITIVE BIRD SPECIES OF UTAH

EXTINCT SPECIES

Passenger Pigeon (*Ectopistes migratorius*)

STATE ENDANGERED SPECIES

American Peregrine Falcon (*Falco peregrinus anatum*)[1]
Southwestern Willow Flycatcher (*Empidonax traillii extimus*)[1]

STATE THREATENED SPECIES

Bald Eagle (*Haliaeetus leucocephalus*)[2]
Ferruginous Hawk (*Buteo regalis*)
Yellow-Billed Cuckoo (*Coccyzus americanus occidentalis*)
Mexican Spotted Owl (*Strix occidentalis lucida*)[2]

SPECIES OF SPECIAL CONCERN

(SP: Due to declining populations)

Northern Goshawk (*Accipiter gentilis*)
Swainson's Hawk (*Buteo swainsoni*)
Caspian Tern (*Sterna caspia*)
Black Tern (*Chlidonias niger*)
Burrowing Owl (*Athene cunicularia*)
Common Yellowthroat (*Geothlypis trichas*)
Short-eared Owl (*Asio flammeus*)
Yellow-breasted Chat (*Icteria virens*)

(SD: Due to limited distribution)

American White Pelican (*Pelecanus erythrorhynchos*)
California Condor (*Gymnogyps californianus*)
Osprey (*Pandion haliaetus*)
Sharp-tailed Grouse (*Tympanuchus phasianellus columbianus*)
Williamson's Sapsucker (*Sphyrapicus thyroideus*)
Three-Toed Woodpecker (*Picoides tridactylus*)

(SP/SD: Due to declining populations and limited distribution)

Sage Grouse (*Centrocerus urophasianus*)
Mountain Plover (*Charadrius montanus*)[3]
Long-billed Curlew (*Numenius americanus*)
Black Swift (*Cypseloides niger*)
Lewis' Woodpecker (*Melanerpes lewis*)
Crissal Thrasher (*Toxostoma crissale*)
Bell's Vireo (*Vireo bellii*)
Grasshopper Sparrow (*Ammodramus savannarum*)

[1] Species is federally listed as Endangered
[2] Species is federally listed as Threatened
[3] Species if federally listed as Candidate

UTAH STATE SENSITIVE SPECIES LIST---MARCH 17, 1997 3

SENSITIVE MAMMAL SPECIES OF UTAH

EXTIRPATED

Grizzly Bear (*Ursus arctos*)
Fisher (*Martes pennanti*)
Gray Wolf (*Canis lupus*)

STATE ENDANGERED SPECIES

Black-footed Ferret (*Mustela nigripes*)[1]

STATE THREATENED SPECIES

Utah Prairie Dog (*Cynomys parvidens*)[2]
Wolverine (*Gulo gulo*)

SPECIES OF SPECIAL CONCERN

(SP: Due to declining populations)

Spotted Bat (*Euderma maculatum*)

(SD: Due to limited distribution)

Allen's Big-eared Bat (*Idionycteris phyllotis*)
Dwarf Shrew (*Sorex nanus*)
Desert Shrew (*Notiosorex crawfordi*)
Abert Squirrel (*Sciurus aberti navajo*)
Belding Ground Squirrel (*Spermophilus beldingi*)
Thirteen-lined Ground Squirrel (*Spermophilus tridecemlineatus*)
Spotted Ground Squirrel (*Spermophilus spilosoma*)
Wyoming Ground Squirrel (*Spermophilus elegans*)
Yellow Pine Chipmunk (*Tamias amoenus*)
Rock Pocket Mouse (*Chaetodipus intermedius*)
Olive-backed Pocket Mouse (*Perognathus fasciatus*)
Merriam's Kangaroo Rat (*Dipodomys merriami*)
Cactus Mouse (*Peromyscus eremicus*)
Southern Grasshopper Mouse (*Onychomys torridus*)
Marten (*Martes americana*)
Pika (*Ochotona princeps*)
Ringtail (*Bassariscus astutus*)
Northern Flying Squirrel (*Glaucomys sabrinus*)

(SP/SD: Due to declining populations and limited distribution)

Western Red Bat (*Lasiurus blossevillii*)
Big Free-tailed Bat (*Nyctinomops macrotis*)
Brazilian Free-tailed Bat (*Tadarida brasiliensis mexicana*)
Townsend's Big-eared Bat (*Plecotus townsendii*)
Desert Kangaroo Rat (*Dipodomys deserti*)
Northern Rock Mouse (*Peromyscus nasutus*)
Stephen's Woodrat (*Neotoma stephensi*)
Virgin River Montane Vole (*Microtus montanus rivularis*)
Mexican vole (*Microtus mexicanus*)
Northern River Otter (*Lutra canadensis*)
North American Lynx (*Felis lynx canadensis*)

[1] Species is federally listed as Endangered
[2] Species is federally listed as Threatened

UTAH STATE SENSITIVE SPECIES LIST---MARCH 17, 1997 4

SENSITIVE AMPHIBIAN SPECIES OF UTAH

EXTINCT SPECIES

Relict Leopard Frog (*Rana onca*)

SPECIES OF SPECIAL CONCERN

(SP: Due to declining populations)

Boreal Toad (*Bufo boreas boreas*)[3]
Arizona Toad (*Bufo microscaphus microscaphus*)
Lowland Leopard Frog (*Rana yavapaiensis*)

(SD: Due to limited distribution)

Pacific Treefrog (*Pseudacris triseriata maculata*)

CONSERVATION SPECIES

Spotted Frog[3] (*Rana pretiosa*)

[3] Species if federally listed as Candidate

UTAH STATE SENSITIVE SPECIES LIST---MARCH 17, 1997 5

SENSITIVE REPTILE SPECIES OF UTAH

STATE ENDANGERED SPECIES

Banded Gila Monster (*Heloderma suspectus cinctum*)
Desert Tortoise (*Gopherus agassizii*)[2]

SPECIES OF SPECIAL CONCERN

(SP: Due to declining populations)

Utah Mountain Kingsnake (*Lampropeltis pyromelana infralabialis*)
Utah Milk Snake (*Lampropeltis triangulum taylori*)

(SD: Due to limited distribution)

Desert Iguana (*Dipsosaurus dorsalis*)
Utah Banded Gecko (*Coleonyx variegatus utahensis*)
Utah Night Lizard (*Xantusia vigilis utahensis*)
Desert Night Lizard (*Xantusia vigilis vigilis*)
Mojave Zebra-tailed Lizard (*Callisaurus draconoides rhodostictus*)
California King Snake (*Lampropeltis getulus californiae*)
Southwestern Black-headed Snake (*Tantilla hobartsmithi*)
Desert Glossy Snake (*Arizona elegans eburnata*)
Painted Desert Glossy Snake (*Arizona elegans philipi*)
Sonora Lyre Snake (*Trimorphodon biscutatus lambda*)
Utah Blind Snake (*Leptotyphlops humilis utahensis*)
Mojave Patch-nosed Snake (*Salvadora hexalepis mojavensis*)
Southwestern Speckled Rattlesnake (*Crotalus mitchelii pyrrhus*)
Mojave Rattlesnake (*Crotalus scutulatus scutulatus*)
Mojave Desert Sidewinder (*Crotalus cerastes cerastes*)

(SP/SD: Due to declining populations and limited distribution)

Western Chuckwalla (*Sauromalus obesus obesus*)
Glen Canyon Chuckwalla (*Sauromalus obesus multiforaminatus*)
Many-lined Skink (*Eumeces multivirgatus gaigeae*)
Plateau Striped Whiptail (*Cnemidopherus velox*)
Great Plains Rat Snake (*Elaphe guttata emoryi*)
Smooth Green Snake (*Opheodrys vernalis*)

[2] Species is federally listed as Threatened

UTAH STATE SENSITIVE SPECIES LIST---MARCH 17, 1997 6

SENSITIVE FISH SPECIES OF UTAH

EXTINCT

Utah Lake Sculpin (*Cottus echinatus*)

STATE ENDANGERED SPECIES

Bonytail (*Gila elegans*)[1]
Colorado Squawfish (*Ptychocheilus lucius*)[1]
Humpback Chub (*Gila cypha*)[1]
Razorback Sucker (*Xyrauchen texanus*)[1]
Woundfin (*Plagopterus argentissumus*)[1]
Virgin River Chub (*Gila seminuda*)[1]
June Sucker (*Chasmistes liorus*)[1]

STATE THREATENED SPECIES

Lahontan Cutthroat Trout (*Oncorhynchus clarki henshawi*)[2]
Roundtail Chub (*Gila robusta*)

SPECIES OF SPECIAL CONCERN

(SP: Due to declining populations)

Leatherside Chub (*Gila copei*)
Flannelmouth Sucker (*Catostomus latipinnis*)
Bluehead Sucker (*Catostomus discobolus*)

(SD: Due to limited distribution)

Bonneville Cisco (*Prosopium gemmiferum*)
Bonneville Whitefish (*Prosopium spilonotus*)
Bear Lake Whitefish (*Prosopium abyssicola*)
Bear Lake Sculpin (*Cottus extensus*)
Desert Sucker (*Catostomus clarki*)

CONSERVATION SPECIES

Colorado River Cutthroat Trout (*Oncorhynchus clarki pleuriticus*)
Bonneville Cutthroat Trout (*Oncorhynchus clarki utah*)
Virgin Spinedace (*Lepidomeda mollispinis mollispinis*)
Least Chub (*Iotichthys phlegethontis*)[3]

[1] Species is federally listed as Endangered
[2] Species is federally listed as Threatened
[3] Species if federally listed as Candidate

UTAH STATE SENSITIVE SPECIES LIST---MARCH 17, 1997 7

SENSITIVE MOLLUSK SPECIES OF UTAH

STATE ENDANGERED SPECIES

Kanab Ambersnail (*Oxyloma haydeni kanabensis*)[1]
Fish Springs Pond Snail (*Stagnicola pilsbryi*)
Utah Valvatasnail (*Valvata utahensis*)[1]

STATE THREATENED SPECIES

California Floater (*Anodota californiensis*)
Thickshell Pondsnail [Utah Band Snail] (*Stagnicola utahensis*)

SPECIES OF SPECIAL CONCERN

(SP: Due to declining population)

Round Mouth Valvata (*Valvata humeralis*)

(SD: Due to limited distribution)

Clinton Cave Snail (*Pristiloma subrupicola*)
Eureka Mountainsnail (*Oreohelix eurekensis eurekensis*)
Lyrate Mountainsnail (*Oreohelix haydeni haydeni*)
Ogden Rocky Mountainsnail (*Oreohelix peripherica wasatchensis*)[3]
Wet-rock Physa [Zion Canyon Snail] (*Physella zionis*)
Yavapai Mountainsnail (*Oreohelix yavapai*)

(SP/SD: Due to declining populations and limited distribution)

Brian Head Mountainsnail (*Oreohelix parowanensis*)
Fat-whorled Pondsnail (*Stagnicola bonnevillensis*)[3]
Utah Physa [Utah Bubble Snail] (*Physella utahensis*)
Uinta Mountainsnail (*Oreohelix eurekensis uinta*)
Desert Spring Snail (*Pyrgulopsis deserta*)
Fish Lake Physa Snail (*Physella microstriata*)

[1] Species is federally listed as Endangered
[3] Species if federally listed as Candidate

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

IN REPLY REFER TO
6840
(UT-933)

August 28, 1996

Instruction Memorandum No. UT 96-69
(Expires: 09/30/97)

To: AFOs

From: State Director

Subject: Interim Utah Bureau of Land Management Sensitive Species List Policy

At the recent July Utah Leadership Team (ULT) meeting, some concern was expressed regarding the status of candidate and other sensitive plant and animal species located on Public Lands in the State. This instruction memorandum discusses the current situation and identifies Bureau of Land Management (BLM) policy regarding these species. This policy is applicable to Public Lands and Federal leases. Details regarding Indian lands will be forthcoming.

On February 28, 1996, U.S. Fish and Wildlife Service (FWS) published a notice for an updated plant and animal species candidate list in the *Federal Register* (Vol. 61. No. 40/ Wednesday, February 28, 1996/Proposed Rule). This updated list essentially contains only those species previously identified as category 1 candidates. These species are now known simply as candidate species. The old category 2 candidate and category 3 lists were officially deleted.

Many species deleted from this new candidate list are of concern to BLM in Utah. Some are known to be rare, while there is a lack of important information for many others. As a result, Utah BLM has determined that a need exists to create a formal sensitive species list for plants and animals thought to occur on the Public Lands in Utah. The authority and policy regarding the development of this list is found in the BLM 6840 Manual, Special Status Species Management (.06 D.), which states:

> "State Directors, usually in cooperation with State wildlife agencies, may designate sensitive species. By definition the sensitive species designation includes species that could easily become endangered or extinct in a State. Therefore, if sensitive species are designated by a State Director, the protection provided by the policy for candidate species shall be used as the minimum level of protection."

Utah BLM will use the following as interim sensitive plant and animal species lists. The Native Utah Wildlife Species of Special Concern list issued by the Utah Division of Wildlife Resources (DWR), December 1987, will be used as the sensitive animal species list (see attached copy).

Those species, not actually listed as threatened or endangered or as candidates, should be considered as being on the sensitive species list. Additional work with DWR is planned to update and correct this list.

With regards to sensitive plant species, a potential list prepared by the Utah Natural Heritage Program (UNHP) was distributed for review to several botanists within and outside of Utah BLM. It was hoped that comments could be submitted and that work on a final list could begin in late August or early September. However, due to the heavy demands of the current summer field season, this work will need to be postponed and an interim list used. In 1995, a list was developed by an interagency rare plant working group including personnel from BLM, FWS, Forest Service, and the UNHP. This included those species the group felt should be category 1 and category 2 candidate species when the next *Federal Register* Notice was issued. However, the list was never formalized because of the change in FWS philosophy regarding candidate species. The list is fairly complete and will serve as an excellent interim document until a final list is completed. It has been modified to reflect only those species known or suspected to occur on BLM administered Public Lands in Utah. Therefore, with the receipt of this memorandum, consider the attached plant species list as Utah BLM's official, but interim, sensitive plant species list until further notice.

It is important to remember that the protection provided by the policy for candidate species shall be used as the minimum level of protection for the sensitive species identified in the two lists attached to this memorandum. If you have any questions, please call Ronald Bolander in the State Office at (801) 539-4065.

2 Attachments

1. Utah Division of Wildlife Resources Native Utah Wildlife Species of Special Concern. (6pp)
2. Modified Interagency Rare Plant Working Group Plant List (4pp)

Vandalism Continues to Plague Public Land Managers

Malicious vandalism of informational and directional signs and other public facilities continues to be a costly and disturbing problem on public lands. The challenge is particularly difficult because of the remote location of most of the structures involved. BLM would continue to work with law enforcement officials, schools, and user groups to try to stem the number of incidents experienced every year.

APPENDIX 5
Grazing Summary Table, 1998

Number (GIS)	Allotment Name	Number of Permittees	Management Category	Grazing System	Livestock Number	Livestock Kind	Authorized Use (AUMs)	AMP Status	Season of Use	Months
4001	Airport	1	C	1P C	1	H	7	NP	FtoW	7.0
4002*	Alger Hollow	Retired	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4104***	Anderson Junc.	1	C	1P	2	C	12	LI	WtoSP	6.0
4003	Apex Slope	2	I	4P RR	58	C	297	I	WtoSP	6.5
4078	Ash Creek	1	C	1P	18	C	88	LI	WtoSP	5.0
4004	Beaver Dam Slope	7	I	4P D	423	C	2708	I	FtoSP	7.0
4005	Big Mountain	1	I		87	C	412	I	SPtoF	5.0
4083	Big Mountain Custodial	1	C	1P C	3	C	15	NP	SUtoF	5.0
4006	Big Plains	1	C	1P	30	C	15	NP	all year	12.0
4049	Black Canyon	1	C	1PC	2	C	12	LI	SPtoF	6.0
4102	Black Ridge	1	M		100	C	288	LI	SPtoF	5.5
4007	Boomer Hill	2	I	2P D	31	C	155	I	WtoSU	5.0
4008	Boot Spring	1	M	2P	20	C	90	I	FtoSP	4.5
4009	Box Canyon	1	C	2P D	19	C	48	LI	SP	2.5
4010	Bull Mountain	1	I	2P D	48	C	240	I	WtoSP	5.0
4017	Buttermilk	1	C	1P C	8	C	40	NP	SPtoF	5.0
4099	Canaan Flat	1	C	1P C	6	C	72	LI	all year	12.0
4141	Canaan Gap	1	M	1P	39	C	254	LI	FtoSP	6.5
4100	Canaan Mountain	2	C	1P C	53	C	188	NP	SUtoF	4.0
4020	Canaan Ranch	1	C	1P	2	C	24	NP	all year	12.0
4188	Cane Beds	1	C	1P	7	C	84	NP	all year	12.0
4061	Canyon	1	I	2P D	17	C	119	I	FtoSP	7.0
4076	Castle Cliffs	2	I	2P D	79	C	514	I	FtoSP	6.5
4010	Cave	1	C	1P	2	C	5	NP	SUtoF	3.5
4093	Cedar Mountain	1	C	1P C	25	S	20	NP	SUtoF	4.0
4011	Central	2	I	2P D	73	C	292	I	FtoS	4.0
4012	Cinder Mountain	1	C	1P	1 2	C H	18	NP	FtoSP	7.0
4013	Coalpits	1	M	1P	48	C	96	I	W	2.0
4068	Coalpits Custodial	1	C	1P	2	C	20	NP	WtoF	10.0
4069	Coalpits Upper Mesa Custodial	1	C	1P C	16	C	32	LI	FtoW	2.0
4026	Cottonwood	1	C	1P C	17	C	119	NP	FtoSP	7.5
4110	Cottonwood Point	2	C	1P C	49	C	244	NP	all year	12.0
4014	Cougar Canyon	1	I	2P DR	20	C	120	LI	SPtoF	6.0
4095	Crystal Creek	2	M	1P C	42	C	188	NP	SUtoF	4.5
4015	Curly Hollow	5	M	3P D	234	C	1380	I	FtoSP	7.0
4016	Dagget Flat	1	I	2P D	40	C	149	I	SUtoF	3.6
4085	Dalton Wash	1	C	1P SL	2	C	24	LI	all year	12.0
4018	Desert Inn	1	I	3P D 1P SL	125 166	C C	836 564	I	FtoF	11.0
4075	Diamond Valley	1	M	1P	40	C	80	I	F	2.0
4019	Dome	1	M	2P RR	40	C	221	LI	WtoSP	5.5
4029	Dry Creek	1	C	2P	50	C	200	I	WtoSP	4.5
4073	Eagle	1	C	1P C	9	C	63	LI	FtoSP	7.0
4096	East Deep Creek	1	C	1P	45	C	203	NP	SUtoF	4.5
4072	EP Creek	1	C	1P	1	C	12	NP	all year	12.0
4086****	Fault	Unallotted	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Number (GIS)	Allotment Name	Number of Permittees	Management Category	Grazing System	Livestock Number	Livestock Kind	Authorized Use (AUMs)	AMP Status	Season of Use	Months
4021	Fort Pearce	4	C	2P D	109	C	655	I	FtoSP	7.0
4052	Goat Ranch	1	I	2P D	108	C	486	I	SUtoF	4.5
4022	Gooseberry	1	M	3P RR	39	C	232	I	FtoSP	6.0
4097	Gordon Creek	1	C	1P	15	C	69	NP	SUtoF	4.5
4023	Gould Ranch	1	C	1P	5	H	25	LI	FtoW	5.0
4024	Grafton	1	C	1P	100	C	280	LI	FtoSP	7.0
4089	Grafton Wash	1	C	1P	8	C	36	NP	WtoSP	4.5
4090	Grapevine	1	C	1P	30	C	120	NP	SUtoF	4.0
4025	Gunlock	2	C	1P	65	C	494	I	FtoSP	7.5
4070	Gyp Hills	1	C	1P	1	C	8	NP	FtoSU	8.0
4081	Harrisburg	1	C	1P	24	C	99	I	WtoSP	6.0
4105	Herd House	1	M	1P	37	C	178	I	WtoSP	4.5
4082	Honeymoon Trail	1	M		165	C	1237	I	FtoSP	7.5
4027****	Hurricane	Unallotted	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4028	Hurricane Fault	4	I	3P D	160	C	1118	I	FtoSP	7.0
4063	Hurricane Mesa Custodial	1	C	1P	4	C	48	NP	all year	12.0
4030	Jackson Wash	4	I	3P D	280	C	1519	I	FtoSP	6.0
4031	Kolob Terrace	1	C	1P	110 100	C C	221 151	NP	SptoSU F	2.0 1.5
24020	Lambs Knoll	1	C		2	C	10	LI	SutoF	5.0
4032	Land Hill	1	C	2P D	10	C	40	I	WtoSP	4.0
4079	La Verkin	1	C	1P	20	C	40	LI	WtoSP	2.0
4199	La Verkin Creek	1	C	trailing	230	C	99	LI	SPtoF	0.3
4080*	Leeds	Retired	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4084	Lindell	1	C	1P	1	C	12	LI	all year	12.0
4033	Little Creek	1	I	4P D	110	C	608	I	FtoSP	7.5
4034	Little Plain	1	C	1P	4	C	16	LI	FtoW	4.0
4065	Magotsu	3	C	1P	5	C	35	NP	FtoSP	7.0
4094	Maxwell Canyon	1	C	1P	7	C	40	NP	SPtoF	6.0
4067	Mesa Custodial	1	C	2P	3	C	17	LI	SPtoF	5.5
4109	Mine Valley	1	I		54	C	375	I	FtoSP	7.0
4036	Minera Wash Intensive	3	C	1P	73	C	219	I	SP	3.0
4035	Moody Wash	1	C	1P	4	C	30\	LI	FtoSP	7.5
4037	Mountain Dell	1	C		21	C	48	I	FtoW	2.0
5159**	New Harmony	Retired	N/A	N/A	N/A	N/A	N/A	N/A\	N/A	N/A
4038	North Grafton	1	C	1P	2	C	14	LI	FtoSP	7.0
4120	Oil Well	1	C	1P	5	C	25	NP	FtoSP	5.0
4091	Park	1	C	1P	2	C	24	NP	all year	12.0
4077	Pintura Seeding	1	C	1P	9	C	40	LI	WtoSP	4.5
4064	Race Track	1	C	1P	6	C	33	LI	WtoSP	5.5
4039	Red Butte	1	C	1P	2	C	14	LI	SPtoF	7.0
4040	Red Cliffs	1	M	2P D	4	C	20	I	WtoSP	5.0
4098	Riverview Ranch	1	C	1P	2	C	24	NP	all year	12.0
4041	Rock Spring	1	C	1P	1 3	C S	13	LI	SPtoW	8.0
4103*	Rockville	Retired	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5269	Russel Fields	1	C	1P	4	C	12	NP	all year	12.0
4042	Sand	1	I	3P D	41	C	276	I	FtoSP	7.0
4043	Sand Cove Reservoir	1	C	1P	2	C	15	LI	FtoSP	7.5
4044	Sand Hills	1	C	1P	10	C	28	LI	WtoSP	5.5

Number (GIS)	Allotment Name	Number of Permittees	Management Category	Grazing System	Livestock Number	Livestock Kind	Authorized Use (AUMs)	AMP Status	Season of Use	Months
4045	Sand Mountain	1	I	2P D	222	C	1447	I	FtoSP	7.0
4062	Sand Wash Custodial	1	C	1P	4	C	26	LI	FtoSP	6.5
4046	Sandstone Mountain	1	C	1P	38	C	109	LI	WtoSP	3.0
4071	Santa Clara Creek Custodial	1	C		5	C	27	LI	WtoSP	3.0
4047	Santa Clara Creek Int.	1	I	2P D	16	C	92	I	FtoSP	6.0
4048	Scarecrow Peak	5	I	4P D	716	C	3556	I	FtoSP	5.0
					498	C	1022		SP	2.0
4087	Segler	1	C	1P	1	C	3	NP	SPtoF	5.0
4050	Smith Mesa	1	C	1P	2	C	24	LI	all year	12.0
4073	Sod	1	C	1P	7	C	7	NP	SP	2.0
4051	Stout Custodial	1	C		1	C	2	NP	W	2.0
4074	Terrace	1	I	4P RR	25	C	300	I	all year	12.0
4088	Toquerville	3	C	1P	30	C	113	LI	WtoSP	4.5
4053	Trail	1	M	1P	36	C	214	NP	FtoSP	6.0
4054	Twin Peaks	1	I	3P RR	137	C	538	I	FtoSP	4.0
				1P SL	78	C	169		SP	3.0
					71	C	323		SUtoF	4.5
4055	Veyo	2	I	4P RR	100	C	742	I	FtoSP	7.5
4056	Virgin	1	C	2P D	41	C	144	I	WtoSP	4.5
4057	Warner Ridge	1	M	1P	20	C	100	I	WtoSP	5.0
4092	Warner Valley	1	C	1P	22	C	124	NP	WtoSP	5.5
4058*	Washington	Retired	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4133	Wells Spring	1	C	1P	5	C	33	NP	FtoW	5.5
4106	West Deep Creek	1	M	1P	50	C	310	NP	SutoF	3.5
4059	White Dome	1	M	1P	50	C	100	I	W	2.0
4060	Yellow Knolls Custodial	2	C	1P	2	C	16	LI	FtoSP	7.0
				5,391	C	29,200				
				28	S					
				8	H					

C = Custodial
D = Deferred
DR = Deferred Rotation
RR = Rest Rotation
SL = Season Long

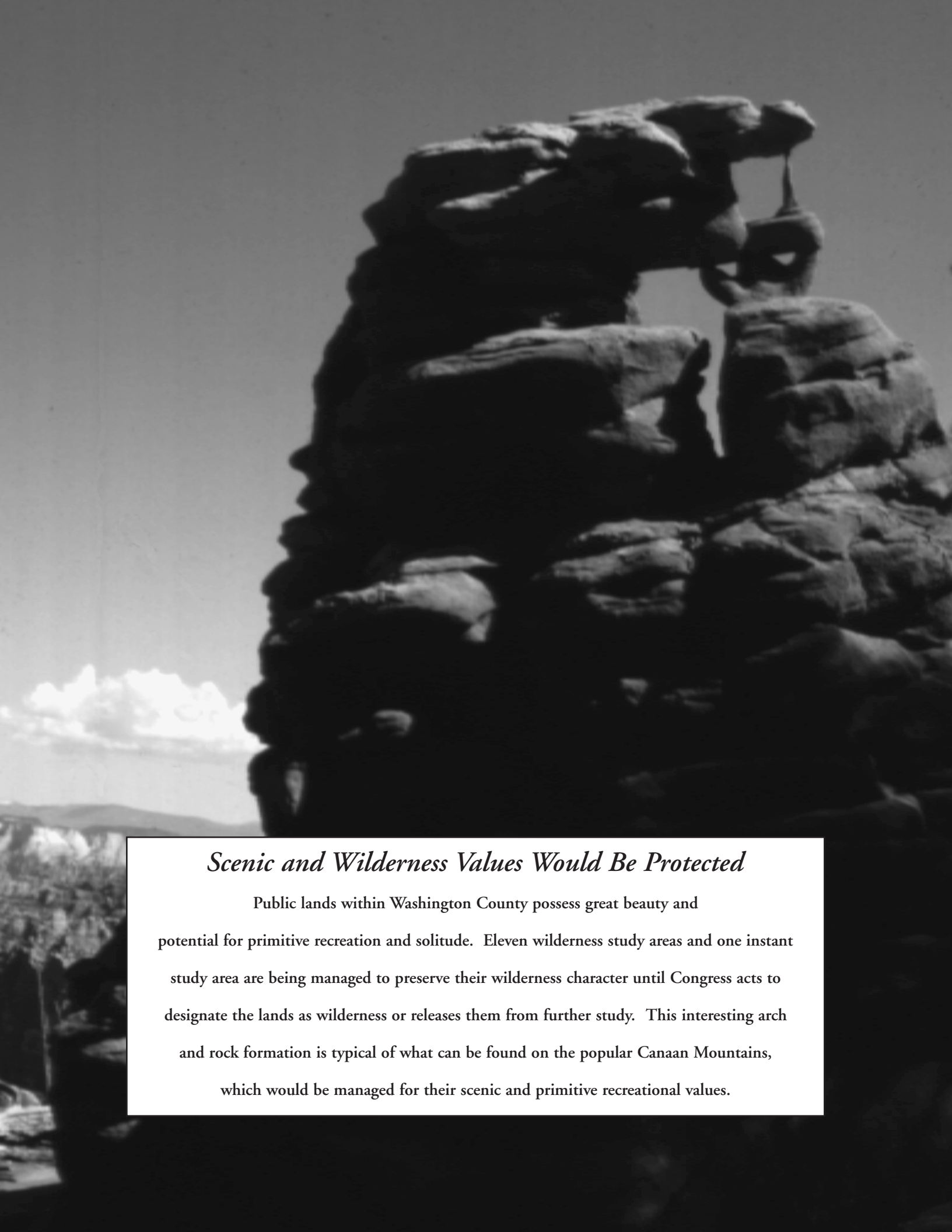
1P = One Pasture
2P = Two Pastures
3P = Three Pastures
4P = Four Pastures

I = Intensive
LI = Less Intensive
NP = No Plan

C = Cattle
S = Sheep
H = Horse

I = Improve
M = Maintain
C = Custodial

* Retired for Washington County HCP or Administrative Purposes.
** Portion of Highway Pasture/New Harmony Allotment retired for Administrative Purposes.
*** Beaver River Resource Area administers Anderson Junction Allotment.
**** Unallotted for Administrative Purposes.



Scenic and Wilderness Values Would Be Protected

Public lands within Washington County possess great beauty and potential for primitive recreation and solitude. Eleven wilderness study areas and one instant study area are being managed to preserve their wilderness character until Congress acts to designate the lands as wilderness or releases them from further study. This interesting arch and rock formation is typical of what can be found on the popular Canaan Mountains, which would be managed for their scenic and primitive recreational values.

APPENDIX 6
Visual Resource Class Objectives

In accordance with BLM Manual Handbook 8410-1 (January 17, 1976), visual resource management classes are established through the resource management planning process for all BLM-administered lands. During the RMP process, the class boundaries are adjusted as necessary to reflect the resource allocation decisions made in RMPs. Visual management objectives, as detailed below, are established for each class.

Class I Objective

The objective of this class is to preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

Under this class most surface disturbing activities would not be authorized.

Class II Objective

The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Under this class, surface disturbing activities could be authorized if when they are completed the disturbed area could be returned to a condition of being unnoticeable and or natural appearing to those seeing the area for the first time.

Class III Objective

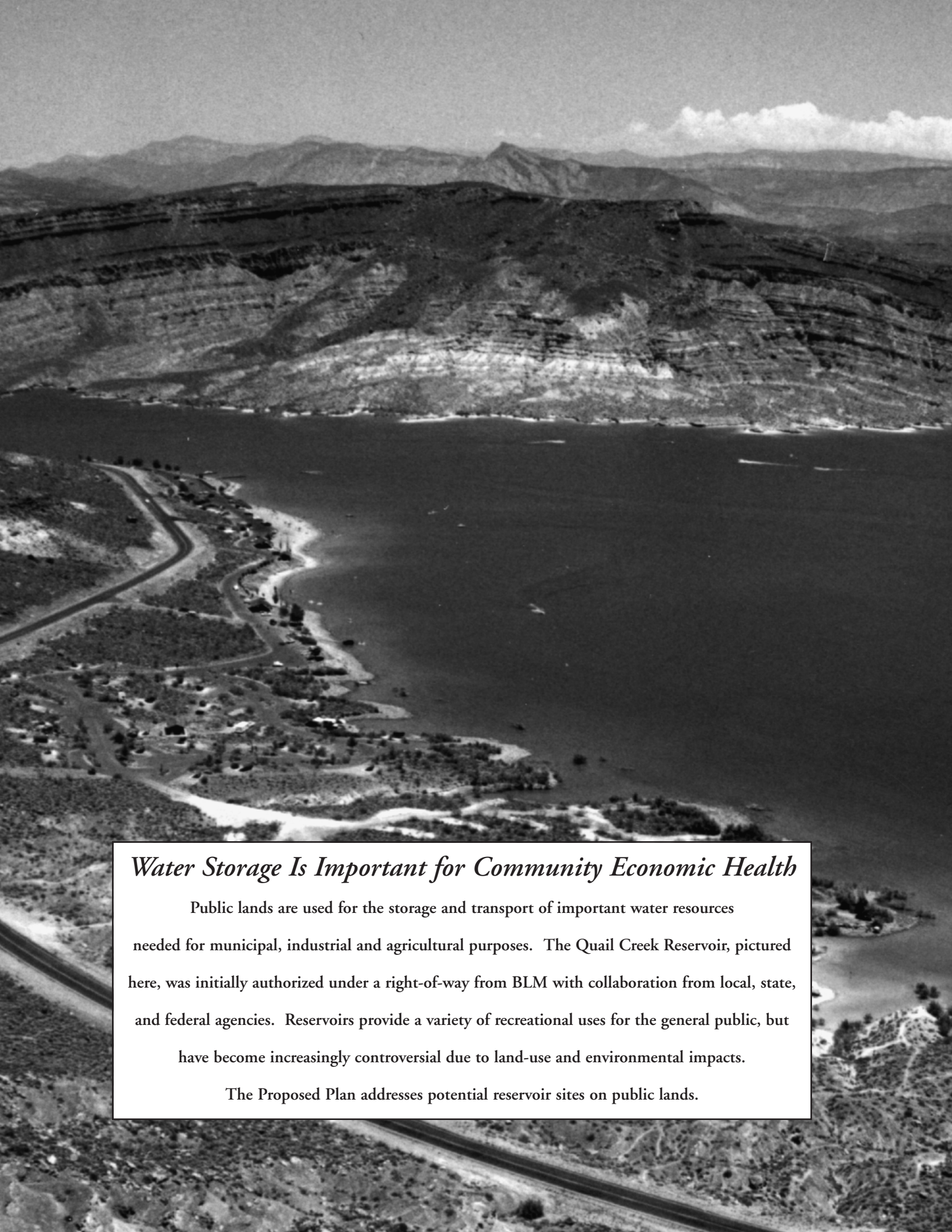
The objective of this class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Under this class, most surface disturbing activities could be authorized subject to the reclamation standards noted in Appendix 1.

Class IV Objective

The objective of this class is to provide for management activities which require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.

Under this class, visual values would not be limiting to proposed developments but would be subject to the reclamation standards noted in Appendix 1.



Water Storage Is Important for Community Economic Health

Public lands are used for the storage and transport of important water resources needed for municipal, industrial and agricultural purposes. The Quail Creek Reservoir, pictured here, was initially authorized under a right-of-way from BLM with collaboration from local, state, and federal agencies. Reservoirs provide a variety of recreational uses for the general public, but have become increasingly controversial due to land-use and environmental impacts.

The Proposed Plan addresses potential reservoir sites on public lands.

APPENDIX 7
Summary of Eligibility and Tentative Classification Determinations for Rivers in the Dixie Resource Area

Background

The basic purpose and authority for identification, evaluation, and management of potential Wild and Scenic River (WSR) segments is contained in the Wild and Scenic Rivers Act (Act) of October 2, 1968 (P.L. 90-542, as amended). As of February 1994, 148 rivers have been designated into the National Wild and Scenic Rivers System (NWSRS). None are in Utah.

Additions to the NWSRS can be accomplished by an Act of Congress, or under certain conditions, by the Secretary of the Interior. Section 5 (d) of the Act provides direction to all federal agencies to evaluate potential additions during their planning efforts.

Policy and program direction to aid in fulfilling requirements of the Act is provided in BLM Manual 8351 and in the 1982 U.S. Department of the Interior - U.S. Department of Agriculture (USDI-USDA) Final Revised Guidelines for Eligibility, Classification, and Management of River Areas (47 FR 39454). As the result of a 1994 Interagency Agreement to work cooperatively to define common criteria and processes for Utah rivers, the BLM (Utah State Office), USDA Forest Service (Intermountain Region), and National Park Service (Rocky Mountain Region) developed additional guidance: Wild and Scenic River Review in the State of Utah, Process and Criteria for Interagency Use (July 1996).
.
BLM's policy is to identify and evaluate all rivers (as defined in the Act) located on BLM-administered lands to determine if they are eligible and suitable for addition to the NWSRS. This evaluation is done through the resource management planning process. All eligible river segments are tentatively classified as either wild, scenic, or recreational.

It is BLM's policy, within its authority, and subject to valid existing rights, to manage rivers that BLM has determined eligible in a manner that would protect the values supporting eligibility and tentative classification determinations. If an eligible river is later found to be nonsuitable for designation, management protection for wild and scenic purposes is discontinued.

Eligibility Determination Considerations

The first part of BLM's wild and scenic river review process is to identify rivers that are eligible for NWSRS designation by Congress. To be eligible, a body of water must be a free-flowing river and must possess at least one outstandingly remarkable river-related value.

Is It a Free-Flowing River?

To be considered a free-flowing river, it must be a flowing body of water, or estuary, or section, portion, or tributary thereof, including rivers, streams, creeks, runs, kills, rills, and small lakes. A river can be any size or length, and does not have to be floatable or boatable. For purposes of eligibility determination, the volume of flow is sufficient if it is enough to maintain any outstandingly remarkable river-related values identified. The body of water must be existing or flowing in a natural condition without major modification of the waterway such as channelization, impoundment, diversion, straightening, and riprapping. However, some minor modifications can be allowed such as low dams, diversion works, and minor structures. The river can lie between impoundments or major dams.

Does It Have at Least One Outstandingly Remarkable Value?

The body of water must have at least one outstandingly remarkable river-related value, i.e., scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, such as biological, botanical, ecological, hydrological, and paleontological. In order to be assessed as "outstandingly remarkable," a river-related value must be a unique, rare, or exemplary feature

that is significant at a regional or national level. A list of criteria used to help make this determination is included later in this appendix.

Tentative Classification Considerations

To protect wild and scenic values prior to Congressional designation, eligible river segments are tentatively classified and management measures instituted as necessary to ensure appropriate protection of the values supporting the eligibility and classification determinations.

Section 2(b) of the WSRA specifies three classification categories: wild, scenic, and recreational. Classification is based on the type and degree of human developments associated with the river and adjacent lands as they exist at the time of the evaluation. Classifications cannot overlap.

Wild rivers are free of impoundments and are generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted.

Scenic rivers are generally free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped but accessible in places by roads.

Recreational rivers are readily accessible by road or railroad, may have some development along their shorelines, and may have small diversions and dams.

Eligibility Determinations for Rivers in the Dixie Resource Area

Rivers Considered

All water bodies in the Dixie Resource Area were evaluated for possible eligibility. Sources used to identify water bodies included the Cedar City District list of drainages; the Cedar City District Stream/Riparian list identified in the 1989 Cedar City Fish and Wildlife 2000 Plan; the Nationwide Rivers Inventory (NRI) (National Park Service, 1982, 1986, 1988); and the American Rivers Outstanding Rivers List: Utah (American Rivers, Inc., 1988). From these sources, the Dixie Resource Area developed an inventory list of 61 bodies of water. At least portions of 57 of these bodies of water met the definition of free-flowing, and were reviewed further for eligibility with regard to outstandingly remarkable river-related values. During scoping for the Dixie RMP, the Resource Area asked for public nominations of eligible rivers, but none were received. In 1993, public comments were received regarding preliminary findings of eligibility. Public comments regarding river eligibility were also received in 1993 prior to publication of the Draft RMP in October 1995.

During the public comment period on the BLM 1995 Draft RMP/EIS, BLM received approximately 50 letters concerning wild and scenic river findings and issues. Refer to the Public Comments on Draft RMP/EIS and Responses in Chapter 5 of this Proposed Plan. Based on these comments, BLM revisited specific wild and scenic river processes and findings. For example, identified rivers were reviewed with respect to how free-flowing and outstandingly remarkable values had been evaluated. BLM reevaluated the 19 intermittent/ephemeral rivers that had previously been assessed as non-free-flowing in the 1995 Draft RMP. It was determined through the reevaluation that all but 4 of the 19 rivers possess sufficient flows and riverine characteristics to determine them free-flowing. However, none of the identified rivers were found to have any outstandingly remarkable river-related values, thus all 19 remain ineligible. Another example involves the Beaver Dam Wash where the main stem and West Fork of Beaver Dam Wash have been consolidated, resegmented, reevaluated, and an additional portion of the river found eligible. The reevaluation, completed in 1998, resulted in several additional changes to Tables A7-1, A7-2, and A7-3 of this Appendix.

In November 1997, BLM's Utah State Director entered into agreement with the Governor of Utah, Forest Service, National Park Service, and affected local agencies establishing a cooperative relationship among agencies for conducting wild and scenic river studies in Utah. The agreement strives to provide consensus regarding wild and scenic recommendations to

Congress, applies consistent criteria across agency jurisdictions, and attempts to address river segments in logical watershed units within the state.

Although the Statewide Interagency Agreement occurred too late to be fully implemented for the Dixie Proposed RMP/Final EIS, BLM entered into a separate agreement with Zion National Park (February 1998) to facilitate wild and scenic consistency and coordination. This agreement identifies six isolated tracts of public land adjacent to Zion National Park (Willis Creek, Goose Creek, Beartrap Canyon, Middle Fork Taylor Creek, Kolob Creek Narrows, and Shunes Creek) where evaluation of the entire river segment across federal lands may affect evaluation conclusions as to wild and scenic eligibility. The agreement provides that these six public land segments be included in the National Park Service river study. BLM and the National Park Service would strive to reach a joint conclusion as to eligibility, tentative classification, and suitability for the entire segment involved. Such decisions would either complete, affirm, or supersede BLM's original conclusions. Until such time as the National Park's General Management Plan is completed, BLM's original conclusions as to eligibility would stand. Similar agreements would be considered in coordination with the Dixie National Forest or adjacent BLM jurisdictions for streams crossing within Dixie Resource Area boundaries.

Region of Consideration

To be considered outstandingly remarkable, wild and scenic river values must be outstanding in a regional context. The Dixie Resource Area lies within the transitional zone of the Colorado Plateau, the Great Basin, and the Mojave Desert. Each identified free-flowing river was considered in the context of which of the above three regional types it flows within.

Summary Determinations

Of the 57 free-flowing rivers identified, 9 rivers or portions thereof were determined to be eligible for congressional designation into the NWSRS and given tentative classifications. These rivers are shown on Map 2.16. Some of the rivers cross private, state, Zion National Park, and/or Dixie National Forest lands in addition to BLM lands. However, eligibility and tentative classification determinations apply only to those river sections that are associated with public lands under BLM jurisdiction. BLM has no authority on portions of a river outside of its jurisdiction.

Table A7-1 identifies 57 of the 61 bodies of water reviewed within the Dixie Resource Area, which were determined free-flowing and their reason for initial consideration. Table A7-2 summarizes the review for outstandingly remarkable river-related values on each of the 61 bodies of water. Table A7-3 identifies the tentative classifications given to the 9 eligible rivers, or portions thereof, and the reasons for each tentative classification.

Documentation of Eligibility: Criteria for Determining Outstandingly Remarkable Values

1. **Scenic.** The landscape elements of landform, vegetation, water, color, and related factors must result in notable or exemplary river-related visual features and/or attractions within the geographic region. The BLM Visual Resource Inventory Handbook, H-8410-1, may be used in assessing visual quality and in evaluating the extent of development upon scenic values. The rating area must be scenic quality "A" as defined in the Handbook. However, scenic quality "A" does not, by itself, constitute an outstandingly remarkable value. When analyzing scenic values, additional factors such as seasonal variations in vegetation, scale of cultural modifications, and length of time negative intrusions are viewed may be considered. Scenery and visual attractions may be highly diverse over the majority of the river segment length and not common to other rivers in the geographic region.

2. **Recreational.** Recreational opportunities are or have the potential to be unusual enough to attract visitors to the geographic region. Visitors are willing to travel long distances to use the river resources for recreational pur-

poses. River-related recreation opportunities could include, but not be limited to: sightseeing, wildlife observation, camping, photography, hiking, fishing, hunting, and boating. Interpretive opportunities may be exceptional and attract or have the potential to attract visitors from outside the geographic area. The river may provide or have the potential to provide settings for national or regional commercial usage or competitive events. In addition, the river may be eligible if it is determined to provide a critically important regional recreation opportunity or be a significant component of a regional recreation opportunity spectrum setting.

3. **Geologic.** The river or the area within the river corridor contains an example(s) of a geologic feature, process, or phenomenon that is rare, unusual, or unique to the geographic region. The feature(s) may be in an unusually active stage of development, represent a textbook example, and/or represent a unique or rare combination of geologic features (erosional, volcanic, glacial, and other geologic structures).

4. **Fish.** Fish values may be judged on the relative merits of either fish populations or habitat, or a combination of these river-related conditions.

   a. *Populations.* The river is nationally or regionally one of the top producers of resident, indigenous, and/or anadromous fish species. Of particular significance may be the presence of wild or unique stocks, or populations of State, federally listed, or candidate threatened and endangered species.

   b. *Habitat.* The river provides exceptionally high-quality habitat for fish species indigenous to the region. Of particular significance is habitat for state, federally listed, or candidate threatened and endangered species.

5. **Wildlife.** Wildlife values may be judged on the relative merits of either river-related wildlife populations or habitat, or a combination of these conditions.

   a. *Populations.* The river or area within the river corridor contains nationally or regionally important populations of resident or indigenous wildlife species dependent on the river environment. Of particular significance may be species considered to be unique or populations of state, federally listed, or candidate threatened and endangered species.

   b. *Habitat.* The river or area within the river corridor provides exceptionally high-quality habitat for wildlife of national or regional significance, or may provide unique habitat or a critical link in habitat conditions for state, federally listed, or candidate threatened and endangered species. Contiguous habitat conditions are such that the biological needs of the species are met.

6. **Cultural.** The river or area within the river corridor contains a site(s) where there is evidence of river-related occupation or use by Native Americans. Sites must be rare, have unusual characteristics, or exceptional human interest value(s). Sites may have national or regional importance for interpreting prehistory, may represent an area where a culture or cultural period was first identified and described, may have been used concurrently by two or more cultural groups, or may have been used by cultural groups for rare or sacred purposes.

7. **Historic.** The river or area within the river corridor contains a site(s) or feature(s) associated with a significant river-related event, an important person, or a cultural activity of the past that was rare or unusual in the region. A historic site(s) and/or feature(s) in most cases is 50 years old or older. Sites or features listed in, or eligible for inclusion in, the National Register of Historic Places, may be of particular significance.

8. **Other Similar Values.** While no specific evaluation guidelines have been developed for this category, additional values deemed relevant to the eligibility of the river segment include, but are not limited to, hydrologic, ecologic/biologic diversity, paleontologic, botanic, and scientific study opportunities. They should be considered in a manner consistent with the foregoing guidance.

TABLE A7-1 • Documentation of Eligibility: Free-Flowing Rivers Considered

RIVER NAME[1]	REASON FOR CONSIDERATION[2]	SEGMENT DESCRIPTION[3] (PUBLIC LANDS)	BLM FREE-FLOWING RIVER MILES
Ash Creek	c	Publc lands from source to Virgin River	6.54
Bear Canyon	c	Public lands from source to LaVerkin Creek	0.53
Beartrap Canyon	c	Public lands from source to LaVerkin Creek	0.09
Beaver Dam Wash	c	Entire length: **Segment A**: Nevada state line to confluence with East Fork Beaver Dam Wash at Motoqua **Segment B**: East Fork Beaver Dam Wash at Motoqua to above Lytle Ranch **Segment C**: Above Lytle Ranch to Below Lytle Ranch **Segment D**: Below Lytle Ranch to Arizona state line	27.91 12.47 8.98 0.60 5.86
Beaver Dam Wash-East Fork	c	Forest Service boundary to Goldstrike	9.06
Birch Creek	c	From source to Short Creek	3.00
Black Canyon	c	From source to East Fork Beaver Dam Wash	6.88
Bull Canyon	c	Forest Service boundary to East Fork Beaver Dam Wash	1.78
Bunker Peak Wash	c	Nevada state line to West Fork Beaver Dam Wash	4.13
Coal Pits Wash	c	From source to Virgin River	0.25
Cottonwood Spring Wash	c	From source to Jackson Wash	1.0
Cottonwood Creek	c	From source to Quail Creek Reservoir	8.09
Cottonwood Wash	c	From source to Moody Wash	2.46
Cougar Canyon	c	From source to Beaver Dam Wash	3.91
Deep Creek/ Crystal Creek	a,b,c	Entire Length: **Crystal Creek:** BLM portions of Crystal Creek to Deep Creek Confluence **Deep Creek:** From Dixie Resource Area boundary to Zion National Park Boundary	11.38 4.01 7.37
Docs Pass Canyon	c	West Fork Beaver Dam Wash to near Nevada state line	2.10
Dry Creek	c	From source to North Creek	6.99
Dry Wash	c	From source to Ash Creek	0.03
Ep Creek	c	From source to Little Creek Wash	4.21
Fort Pearce Wash	c	Utah public land portions from source to Virgin River, including ephemeral and perennial segments	6.28
Goose Creek	c	Source to North Fork Virgin River	0.40
Gould Wash	c	From source to Virgin River	9.44
Grapevine Spring Wash	c	Grapevine Spring to Grapevine Wash	0.87

TABLE A7-1 (continued) • Documentation of Eligibility: Free-Flowing Rivers Considered

RIVER NAME[1]	REASON FOR CONSIDERATION[2]	SEGMENT DESCRIPTION[3] (PUBLIC LANDS)	BLM FREE-FLOWING RIVER MILES
Grapevine Wash	c	From FS boundary to private land and from private land to Virgin River	2.50
Graveyard Wash	c	From source to Santa Clara River	0.56
Horse Valley Wash	c	Source to confluence with Virgin River	4.58
Jackson Spring Wash	c	Source to Jackson Wash	1.10
Jackson Wash	c	Source to Beaver Dam Wash	13.03
Jans Canyon	c	Source to Maxwell Canyon	1.90
LaVerkin Creek/ Smith Creek	c	Entire Length:	14.14
		Smith: Publc lands from source to confluence with LaVerkin Creek	1.25
		LaVerkin: BLM portions north of Zion National Park and BLM portions north of Toquerville	12.89
Leap Creek	c	From source to Ash Creek	1.96
Leeds Creek	c	USFS boundary to confluence with Quail Creek	2.91
Little Creek	c	From source to Gould Wash	4.86
Magotsu Creek	c	USFS boundary to confluence with Santa Clara River	0.92
Maxwell Canyon	c	From source to Short Creek	1.64
Moody Wash	c	**Segment A:** BLM lands from its source within Dixie National Forest to the first private land parcel south of forest boundary	0.36
		Segment B: BLM lands from a point west of Veyo on private lands to confluence with Santa Clara River	0.25
North Fork Virgin River	a,b,c	BLM lands from where North Fork Virgin River enters Dixie Resource Area to Virgin River	0.74
North Ash Creek	c	Ash Creek to source	0.92
North Creek	c	Source to Virgin River	0.75
Oak Creek/ Kolob Creek	c	Entire Length:	3.63
		Oak Creek: BLM portions to Kolob Creek	0.98
		Kolob Creek: BLM lands East of Kolob Narrows to North boundary of Zion National Park	2.65
Pine Park Canyon	c	Source to Nevada border	0.82
Quail Creek	c	Source to Quail Creek Reservoir	1.29
Sand Cove Wash	c	From source to Santa Clara River	9.43
Santa Clara River	c	**Segment A** from below Baker Dam to Gunlock Reservoir	2.32
		Segment B from east of Paiute Indian Reservation to south of Santa Clara	2.00

TABLE A7-1 (continued) • Documentation of Eligibility: Free-Flowing Rivers Considered

RIVER NAME[1]	REASON FOR CONSIDERATION[2]	SEGMENT DESCRIPTION[3] (PUBLIC LANDS)	BLM FREE-FLOWING RIVER MILES
Second Creek	c	Source to Shunes Creek	3.26
Sheep Canyon	c	Source to Beaver Dam Wash	1.62
Sheep Corral Canyon	c	Source to Pine Park Canyon	4.62
Short Creek	c	Source to near confluence with Water Canyon	4.07
Shunes Creek	c	Source to East Fork of Virgin River, ephemeral and perennial segments	2.69
South Creek	c	Source to South Creek Reservoir	6.02
Squirrel Canyon	c	Source to Short Creek	0.96
Tobin Wash	c	Source to Grapevine Wash	5.65
Virgin River	a,b,c	Segment A: Public lands from near Springdale to Washington Fields Diversion Dam	10.07
		Segment B: Public lands from River Road Bridge to the Arizona state line	6.48
Water Canyon	c	Source to Short Creek	2.70
West Fork O'Neal Gulch	c	Source to Deep Creek Reservoir	0.83
Wet Sandy Creek	c	From source to Ash Creek	1.17
Willis Creek	c	From source to LaVerkin Creek	0.32

[1] Other water bodies considered but not meeting free-flowing criteria on public lands: City Creek, Dry Sandy Creek, Harrisburg Wash, Mill Creek. Refer to Table B for further details.

[2] a - Nationwide Rivers Inventory List
b - American Rivers Outstanding Rivers List
c - Cedar City District Stream/Riparian/Drainage List

[3] Segment descriptions apply only to portions of the river that are associated with public lands under BLM jurisdiction. BLM has no authority to make determinations outside its jurisdiction. River segment lengths are approximate and include public lands only.

TABLE A7-2 • Documentation of Eligibility: Outstandingly Remarkable Values

RIVER NAME	DESCRIPTION OF VALUES PRESENT
Ash Creek	**No outstandingly remarkable river-related values were identified.** Although bald eagles use occurs in the winter months, habitat is typical of the region. Archeological sites occur, but are comparable with other sites throughout this region.
Bear Canyon	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, similar quality can be found over much of the Kolob terrace and throughout the region. Remote recreational opportunities on public land portions are enhanced within the segment due to its proximity to Zion National Park, but determined comparable within the region. Mexican spotted owl and other sensitive wildlife species can be found in adjacent Park lands, but have not documented within BLM administered habitat.
Beartrap Canyon	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found over much of the Kolob area and throughout the region. The geologic features are interesting, but common in the region.
Beaver Dam Wash	**Segments A and C contain outstandingly remarkable river-related values. Segment A possesses recreation, historic, and riparian values, which are considered outstandingly remarkable in a regional context. Segment C contains hydrologic, riparian, wildlife, fisheries, and recreational values which are exemplary within the Mojave Region.** The Beaver Dam Wash is a destination point for those wanting to experience solitude, primitive camping, hiking, birdwatching, and trout fishing in a natural setting. A historic steam road constructed about 1890 to transport milled ore from the Santa Clara copper mill to the railhead in Panaca, Nevada, adds historic interest to upper segments of the river corridor. Portions of this river have well-developed riparian, wildlife, and fisheries resources and the flows are generally clear. Within Segment C, significant populations of sensitive Virgin spinedace occur near Lytle Ranch,in addition to high numbers of diverse and uncommon bird species. Quail hunting opportunities exist but are comparable to opportunities throughout the region. Desert tortoise occur within the corridor of the Beaver Dam Wash. However, the species is not river dependent, and the habitat is not considered outstanding when compared with other locations in the region. Beaver Dam Wash contains several values considered exemplary in the context of the Great Basin and Mojave Regions. Segments B and D contained no outstandingly remarkable values.
Beaver Dam Wash-East Fork	**No outstandingly remarkable river-related values were identified.**
Birch Creek	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found in much of the region. It is one of several areas associated with Canaan Mountain that provide excellent hiking opportunities. The wilderness study area as a whole rather than this river segment is regionally important from a recreational perspective. The geologic features are interesting but common in the region.
Black Canyon	**No outstandingly remarkable river-related values were identified.** Scenic, recreation, wildlife, and archaeological values are typical of the region.
Bull Canyon	**No outstandingly remarkable river-related values were identified.**
Bunker Peak Wash	**No outstandingly remarkable river-related values were identified.**
City Creek	**Determined non-free-flowing with no outstandingly remarkable river-related values.** Segment is artificially created. None of the values supported by artificial well releases within the segment are found to be outstandingly remarkable.
Coal Pits Wash	**No outstandingly remarkable river-related values were identified.** Although Virgin spinedace occur here, their populations are low in comparison to other populations in the Virgin River Basin. The character of the Coal Pits Wash on BLM land is substantially different from that on the adjacent NPS land.
Cottonwood Creek	**No outstandingly remarkable river-related values were identified.** Although scenic quality is excellent, many similar opportunities exist within the basin. Recreational, wildlife, riparian, archeological, and historic values are typical of the region.
Cottonwood Spring Wash	**No outstandingly remarkable river-related values were identified.** Archeological sites exist but are typical of those in the region.
Cottonwood Wash	**No outstandingly remarkable river-related values were identified.**

TABLE A7-2 (continued) • Documentation of Eligibility: Outstandingly Remarkable Values

RIVER NAME	DESCRIPTION OF VALUES PRESENT
Cougar Canyon	**No outstandingly remarkable river-related values were identified.** Scenic quality, recreational opportunities, riparian and wildlife resources, and archeological values are typical. Potential occurrence of the Nevada willow-herb (Epilobium nevadensis) is found in other locations within the region and not associated with river-resources.
Deep Creek/Crystal Creek	**Scenic and recreational opportunities, the fishery, and the hydrologic features in this river segment are outstandingly remarkable when compared with other rivers in the Colorado Plateau region.** The river segment is comprised of "A" quality scenery; Crystal Creek has an open aspect and Deep Creek is more deeply entrenched, with steep sandstone walls. The river segment provides a significant part of a regional recreation opportunity since it is a destination area in its own right as well as a major gateway to the Zion Narrows Trail. The river canyons provide diverse habitat that supports a great variety of bird and animal species which enhances the recreation opportunities associated with the river. The segment has reproducing populations of brown, brook, and rainbow trout, and provides habitat for the flannel-mouth sucker (candidate species), peregrine falcon and Mexican spotted owl (both T&E species), and the Goshawk (candidate species). This segment provides an exemplary illustration of the hydrologic transition from headwaters to a deeply incised canyon, all within the course of a few miles.
Docs Pass Canyon	**No outstandingly remarkable river-related values were identified.** Docs Pass drainage provides excellent recreational hiking opportunities, although similar to others in the region. Interesting geological features associated with this segment are common in the region.
Dry Creek	**No outstandingly remarkable river-related values were identified.** Scenic, recreational, wildlife, riparian, and archaeological resources are common to the region. The Virgin oil field established in 1907 exists in nearby areas of North Creek. Geologic resources associated with the segment are common and oil field resources are of low quality and economically marginal.
Dry Sandy Creek	**Determined non-free-flowing with no outstandingly remarkable river-related values.** Does not meet free-flowing criteria due to insufficient volume of flow to maintain any outstandingly remarkable river-related values.
Dry Wash	**No outstandingly remarkable river-related values were identified.** Scenic, recreational, riparian, wildlife, archeological, and historic values are typical within the region.
Ep Creek	**No outstandingly remarkable river-related values were identified.**
Fort Pearce Wash	**Wildlife and historical values are outstandingly remarkable within the perennial Segment B when compared with other river areas in the Mojave Region.** The riparian and hydrologic resources within the perennial wash provide high quality habitat for the spotted bat (candidate species). The site is well-suited to the scientific study of the spotted bat as the animal can be consistently captured in the area. Fifty feet from the wash are the stabilized ruins of Fort Pearce, an army fort constructed "on the water" during the Black Hawk Indian conflict. It is a National Register Property. In addition, the historic Honeymoon Trail follows the wash for a short distance. The wash was a historic source of water for travellers coming from Pipe Springs. Ephemeral Segments A and C contain no outstandingly remarkable values.
Goose Creek	**No outstandingly remarkable river-related values were identified.** Goose Creek provides habitat for the Mexican spotted owl (threatened species), and the Goshawk (candidate species), although the habitat of these species is typical of the region, and Goose Creek is not known as a nesting area. Although the scenery is excellent, it is similar to that found over much of the Kolob area and throughout the region. The geology is also interesting, but typical of the region. The area attracts visitors because it is adjacent to Zion National Park. The NPS portion is larger and has greater recreational, scenic, and wildlife values.
Gould Wash	**No outstandingly remarkable river-related values were identified.** Although much of the scenery around Gould Wash is considered "Class A", it is more because of its association with the Virgin River than Gould Wash. This type of scenery is typical of the region.
Grapevine Wash	**No outstandingly remarkable river-related values were identified.** High quality scenic values associated with Grapevine Wash are typical of this region.

TABLE A7-2 (continued) • Documentation of Eligibility: Outstandingly Remarkable Values

RIVER NAME	DESCRIPTION OF VALUES PRESENT
Grapevine Spring Wash	**No outstandingly remarkable river-related values were identified.** The segment does flow through an area rich in Archaic and Southern Paiute sites typical for this region.
Graveyard Wash	**No outstandingly remarkable river-related values were identified.** Scenic quality, riparian, wildlife, and recreation values are common to the region. Archeological resources are rich within the area, and well represented at other nearby sites. Several historic routes have been documented along the nearby Santa Clara River in other locations within the basin.
Harrisburg Wash	**Determined non-free-flowing with no outstandingly remarkable river-related values.** Does not meet free-flowing criteria due to its lack of river-related values associated with its natural condition and characteristics. None of the values supported by artificial irrigation releases within the segment are found to be outstandingly remarkable.
Horse Valley Wash	**No outstandingly remarkable river-related values were identified.** Although much of the scenery around Horse Valley Wash is considered "Class A", the best views are vistas of Zion National Park, not the scenery on the segment itself, which is similar to scenery found over much of the region. Day hiking is a recreational opportunity found here, but the opportunity is typical of other hikes within the region. The Horse Valley Wash is habitat for the endangered peregrine falcon. However, there are a number of peregrine falcon nests along the Virgin River and its tributaries, and the habitat provided here is therefore typical when compared to other areas in the region.
Jackson Spring Wash	**No outstandingly remarkable river-related values were identified.** Scenic, recreational, riparian, and wildlife resources are typical of the region. Archeological sites located in the vicinity indicate favorable conditions for relatively large and important prehistoric use and occupation. Although cultural sites may be significant, the stream segment is not central to the importance of cultural values.
Jackson Wash	**No outstandingly remarkable river-related values were identified.** Scenic, recreational, riparian, and wildlife resources are typical of the region. Archeological sites located in the= vicinity indicate favorable conditions for relatively large and important prehistoric use and occupation. Although cultural sites may be significant, the stream segment is not central to the importance of cultural values.
Jans Canyon	**No outstandingly remarkable river-related values were identified.** Although scenic quality is excellent, it is typical to that found in much of the region. This is one of several areas associated with Canaan Mountain that provides similar scenic and recreational opportunities.
LaVerkin Creek/ Smith Creek	**The scenic, recreational, riparian, and hydrologic values associated with this river are considered outstandingly remarkable within the Colorado Plateau and Mojave regions.** The area surrounding the confluence of LaVerkin Creek and Smith Creek is an integral part of the high quality scenery found within the Kolob section of Zion National Park. The scenic vistas are exceptional. In addition, the natural transition in form and character between two regions is visible, creating an outstanding visual contrast not typical of either region. Visitors are willing to travel long distances to view and hike the LaVerkiN Creek drainage, both within Zion National Park and the adjacent sections of public land. This drainage provides hiking access into Zion National Park and to Kolob Arch. The river segment illustrates the hydrologic transition from headwaters, to a deeply incised canyon, and out into broad alluvial valleys, all within the course of a few miles. Fish, wildlife, and cultural values were also identified but not considered outstandingly remarkable when compared to other areas within the region.
Leap Creek	**No outstandingly remarkable river-related values were identified.** Scenic, recreational, riparian, wildlife, and archeological resources are typical of the region. Leap Creek is a National Register site named for a historic location along the stream referred to as "Peter's Leap". Pioneers explored a route at this location, where wagons were lowered by rope over ledges. Although of local interest, historic values are not considered regionally significant. The location of the segment allows for potential use by the Dominguez-Escalante Expedition (1776), but historic values are not unique to the basin. Sensitive Virgin spinedace and Bonneville cutthroat trout survive in perennial portions of Leap Creek within FS lands, and may be temporarily present within BLM-administered public lands due to the seasonal/ ephemeral nature of the stream segment.

TABLE A7-2 (continued) • Documentation of Eligibility: Outstandingly Remarkable Values

RIVER NAME	DESCRIPTION OF VALUES PRESENT
Leeds Creek	**No outstandingly remarkable river-related values were identified.** Although scenic, historical, and archeological values exist, they are comparable with other sites throughout the region.
Little Creek	**No outstandingly remarkable river-related values were identified.** Scenic quality associated with this segment can be excellent when associated with the dramatic rim which is prominent throughout upper portions of the basin. Recreational, riparian, and wildlife values are typical within the region. Archeological resources located on Little Creek Mesa are of high value and significance, however, sites are not concentrated along the stream corridor or river-related.
Magotsu Creek	**No outstandingly remarkable river-related values were identified.** Virgin spinedace occur in the creek, but populations are low compared to other areas in the Virgin River Basin, and the habitat is considered typical on a regional basis.
Maxwell Canyon	**No outstandingly remarkable river-related values were identified.** Although scenic quality is excellent, it is typical to that found in much of the region. This is one of several areas associated with Canaan Mountain that provides similar scenic and recreational opportunities.
Mill Creek	**Determined non-free-flowing with no outstandingly remarkable river-related values.** Does not meet free-flowing criteria due to insufficient volume of flow to maintain any outstandingly remarkable river-related values.
Moody Wash	**Fisheries were identified as an outstandingly remarkable river-related value for segment B.** There is a medium to high population rating for Virgin spinedace (candidate species) within this river segment. This rating is substantially higher than that given for spinedace populations elsewhere in the region. When comparing spinedace occurrence on a regional basis, the habitat on this segment is considered to be outstandingly remarkable. Virgin spinedace exist at lower levels within Segment A, and were not considered outstandingly remarkable.
North Fork Virgin River	**Scenic and recreational opportunities associated with this river are outstandingly remarkable, particularly in light of the associated cultural resources compared to those on other rivers in the Colorado Plateau region.** Views along the river are exemplary and showcase sheer, water-eroded, narrow, red sandstone cliffs. This segment is a significant component of the internationally known Zion Narrows hike, which is one of the main entries into Zion National Park from the north. Thousands of visitors travel long distances each year to complete this hike. A number of large sites associated with the riverine adaptation of the Virgin River Anasazi culture are found in the area. The Virgin spinedace and flannel-mouth sucker (both candidate species) exist in the river, but populations are low compared to other populations within the Virgin River Basin.
North Ash Creek	**No outstandingly remarkable river-related values were identified.** Bald eagle (endangered species) habitat along North Ash Creek is typical for the region.
North Creek	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent and the geological features interesting, both are common in the region. The river provides habitat for both the Virgin spinedace and flannel mouth sucker (candidate species), but populations are low to medium when compared to other populations within the Virgin River Basin. Virgin Anasazi structural sites on this segment are fairly typical of others in the region.
Oak/Kolob Creek	**When compared to other rivers in the Colorado Plateau region, the Oak/Kolob segment has outstandingly remarkable scenic, recreational, and wildlife values.** The segment forms deeply incised canyons with hanging gardens, falls, and deep plunge pools. The "A quality" scenery is exemplary in a regional context, and is not common. Canyons formed by this river segment provide the most challenging access to the canyon complex of Zion National Park. Visitors are willing to travel long distances to visit this area for the spectacular beauty and physical challenge the canyons provide. The area provides excellent habitat for the endangered peregrine falcon, Mexican spotted owl (endangered), and Northern Goshawk (candidate species). This variety of raptors indicates the high quality of this habitat.

TABLE A7-2 (continued) • Documentation of Eligibility: Outstandingly Remarkable Values

RIVER NAME	DESCRIPTION OF VALUES PRESENT
Pine Park Canyon	**No outstandingly remarkable river-related values were identified.** Geologic features are interesting but common in the region. An introduced trout population is reproducing, but due to the terrain and dense vegetation, a limited fishing opportunity exists.
Quail Creek	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found over much of the Colorado Plateau region. A small, developed campground, picnic area, and hiking trail provide a recreational opportunity mostly used by county residents. Geologic features are interesting but common in the region. Quail Creek provides habitat for the endangered peregrine falcon, but it is not considered exceptional considering the region. The many Virgin River Anasazi sites are fairly typical of those found in the region.
Sand Cove Wash	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, similar opportunities exist throughout the region. Recreational, riparian, wildlife, and historic values are typical in the basin. Archeological resources are rich within the area, but comparable to other sites along the Santa Clara and Virgin Rivers.
Santa Clara River	**When compared to other rivers in the Great Basin and Mojave regions, Segment B has outstandingly remarkable cultural values.** Segment B has 35 to 40 Anasazi cultural sites, a few Southern Paiute sites, and a large number of rock art panels. Many of the sites are suitable for National Register listing, probably as Districts. This is one of the finest sites for rock art in the region. Although Segment A also has some Anasazi sites, they are not considered outstandingly remarkable on a regional basis. Both Segments A and B provide recreational opportunities which are mostly utilized by residents of Washington County. Populations of Virgin spinedace are low when compared with other populations within the Virgin River Basin. Portions of the Santa Clara River include non-free-flowing segments above Baker Dam and below Gunlock Reservoir which contain no outstandingly remar able values.
Second Creek	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found over much of the region. Although Second Creek provides habitat for the endangered peregrine falcon, it is mainly hunting habitat.
Sheep Canyon	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found over much of the region. Although the stream provides a reproducing population of introduced trout, the segment is isolated and difficult to access. The wilderness study area as a whole, rather than this segment, constitutes a significant component of a primitive regional recreation opportunity.
Sheep Corral Canyon	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found over much of the region. Although the stream provides a reproducing population of introduced trout, the segment is isolated and difficult to access. The wilderness study area as a whole, rather than this segment, constitutes a significant component of a primitive regional recreational opportunity.
Short Creek-Utah	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found in much of the region. The segment provides an excellent hiking opportunity similar to many others in the region. The geological features are interesting but common in the region.
Shunes Creek	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found in much of the region. It provides local historical significance in that at one time, Shunes Creek was part of a horse route utilized to transport mail from Kanab to the Cedar City and St. George areas. The Creek provides hunting habitat for the endangered peregrine falcon, with no nesting sites known to occur within the segment. Some recreational use in this area occurs because the segment is a lesser extension of portions within Zion National Park. Sensitive Virgin spinedace occur in perennial portions of the BLM administered segment, but populations and habitat are common to the basin.

TABLE A7-2 (continued) • Documentation of Eligibility: Outstandingly Remarkable Values

RIVER NAME	DESCRIPTION OF VALUES PRESENT
South Creek	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found in much of the region. It is one of several areas associated with Canaan Mountain that provide excellent hiking opportunities. The wilderness study area as a whole rather than this river segment is regionally important from a recreational perspective. The Creek provides only hunting habitat for the endangered peregrine falcon. The geological features are interesting but common in the region. The Virgin Anasazi sites are fairly typical of such sites in the Virgin River basin.
Squirrel Canyon	**No outstandingly remarkable river-related values were identified.** Although the scenery is excellent, it is similar to that found in much of the region. It is one of several areas associated with Canaan Mountain that provide excellent hiking opportunities. The wilderness study area as a whole rather than this river segment is regionally important from a recreational perspective. The geologic features are interesting but common in the region.
Tobin Wash	**No outstandingly remarkable river-related values were identified.** Although the segment flows through an area rich in Archaic and Southern Paiute sites, these types of sites are fairly common in the Great Basin region.
Virgin River	**Both Segments A and B have outstandingly remarkable scenic, recreational, wildlife, fishery, and cultural values.** The "A quality" scenery within Segment A results from the well developed riparian zone and the contrast from red rocks to black lava cliffs. Segment B includes upper portions of the visually striking Virgin River Gorge. In both segments, boating the river and hiking along its banks are a significant component of the recreational opportunities to be found in southern Utah. Both segments provide exceptionally high quality habitat for migratory bird species. The Virgin River is a migratory corridor which connects the northerN migratory habitats to the Colorado River system, and in that context it is a critical link. Both segments provide habitat for a variety of threatened and endangered and candidate species including the Bald Eagle, peregrine falcon, Southwestern willow flycatcher, ferruginous hawk, flannel-mouth sucker, woundfin, Virgin River chub, and the Virgin spinedace. Segment B is one of the largest stretches of native fish habitat in public ownership in the Virgin River Basin, and is therefore of particular significance. Some of the largest and best Virgin Anasazi sites are historically located on these segments of the Virgin River. These sites are significant on a regional basis. They hold significant data potential to be considered as National Register Properties, and clusters would be suitable for District designations. Segment A includes a 1-mile portion of non-free-flowing river upstream of the Quail Creek diversion which impedes flows, backing up water through private lands.
Water Canyon	**No outstandingly remarkable river-related values were identified.** Scenic values are excellent but similar to those found within much of the region. Water Canyon has one of several hiking trails used to access the top of Canaan Mountain. However, the majority of use is by residents of nearby communities. Geologic features are interesting but similar to others in the region.
West Fork O'Neal Gulch	**No outstandingly remarkable river-related values were identified.** The scenery is excellent but typical of rivers in the Colorado Plateau region.
Wet Sandy Creek	**No outstandingly remarkable river-related values were identified.** Scenic quality, recreational opportunities, wildlife, riparian, historic, and archeological values are common to the region.
Willis Creek	**No outstandingly remarkable river-related values were identified.** Although scenic quality is excellent, it is similar to that found over much of the Kolob area and throughout the region. The geologic features are interesting, but common in the region. The segment is a natural extension of lands within Zion National Park and scenic and recreational opportunities are enhanced by its proximity.

TABLE A7-3 • Documentation of Eligibility: Tentative Classification

ELIGIBLE RIVER SEGMENT	TENTATIVE CLASSIFICATION[1]	DESCRIPTION OF CLASSIFIED SECTION	BLM FREE-FLOWING RIVER MILES	REASON FOR CLASSIFICATION
Beaver Dam Wash (Segments A and C)	Recreational	BLM-managed portion of Segment A, bottom lands near Nevada state line	0.90	Near ranch developments
	Wild	Segment A, the Narrows from the middle ridge area to near Holts cabin	5.45	Essentially primitive
	Recreational	BLM-managed portion of Segment A, near Holts cabin south to the East Fork of Beaver Dam Wash near Motoqua	6.12	Accessible by road
	Recreational	BLM-managed portion of Segment C, above and below Lytle Ranch	.60	Roads and associated developments
Deep Creek/ Crystal Creek	Wild	BLM-managed portions of Crystal Creek to confluence with Deep Creek, and Deep Creek as enters DRA to the north boundary of Zion N.P.	11.38	Essentially primitive
Fort Pearce Wash (Utah)	Scenic	Perennial segment near Fort Pearce, then west approximately 0.5 miles	0.50	Existence of fort
LaVerkin Creek/ Smith Creek	Recreational	One mile of BLM land on LaVerkin Creek between two private parcels north of Toquerville	1.00	Accessible by road
	Wild	BLM lands: source of Smith Creek to confluence with LaVerkin Creek., and remainder of public land portions of LaVerkin Creek	13.14	Essentially primitive
Moody Wash	Recreational	BLM-managed portion of Segment B from west of Veyo on private lands to confluence with Santa Clara River	0.25	Accessible by road
North Fork Virgin River	Wild	BLM-managed portion north of Zion N.P.	0.74	Essentially primitive
	Recreational	BLM-managed portion south of Zion N.P.	0.16	Accessible by road
Oak Creek/ Kolob Creek	Wild	BLM lands within Oak Creek, and Public Lands on Kolob Creek east of Kolob Narrows to north boundary of Zion NP	3.63	Essentially primitive
Santa Clara River	Recreational	All BLM-managed portions of Segment B	2.00	Road access in this area

TABLE A7-3 (continued) • Documentation of Eligibility: Tentative Classification

ELIGIBLE RIVER SEGMENT	TENTATIVE CLASSIFICATION[1]	DESCRIPTION OF CLASSIFIED SECTION	BLM FREE-FLOWING RIVER MILES	REASON FOR CLASSIFICATION
Virgin River (Segments A and B)	Recreational	All BLM lands of Segment A from Springdale to Washington fields diversion	10.07	Road access and other developments in this area
	Scenic	All BLM lands within Segment B from River Road Bridge to the Navajo- McCullough power line	4.46	Accessible by secondary roads
	Recreational	Segment B, portion of river adjacent to the Navajo McCullough power line	0.68	Power line
	Wild	Remainder of BLM-managed portion on Segment B (Virgin River Gorge)	1.34	Essentially primitive
			Total: 62.42 miles eligible	

[1] Tentative classifications apply only to portions of the river that are associated with lands under BLM jurisdiction. BLM has no authority to make such determinations outside of its jurisdiction. River segment lengths are approximate and include public lands only.

BLM Would Collaborate With Zion National Park Managers

Zion National Park is an important economic and ecologic asset within Washington County and draws up to 2.5 million visitors a year. BLM would continue to work with park managers and local communities in developing collaborative programs to minimize impacts to park resources from overutilization and lack of management presence at remote park boundaries while meeting community needs for economic health. Cooperative management agreements with the park would be employed where needed to implement programs to benefit management of both public lands and park lands and to promote the use of shared resources and cost savings.

APPENDIX 8
Dixie Resource Area Wild and Scenic Rivers Suitability Evaluation Report

Based on extensive public and agency comments submitted on the 1995 Draft RMP, BLM has refined its preliminary suitability determinations and made appropriate changes to this Appendix. Of the 11 river segments found eligible in the Dixie Resource Area, all or portions of 5 river segments have been found suitable for designation under the Wild and Scenic Rivers Act. BLM considered the following factors in arriving at its decision to recommend or not recommend the segments as suitable:

- The characteristics which do or do not make the area a worthy addition to the National Wild and Scenic Rivers System.
- Current status of land ownership and human use of the area.
- The reasonably foreseeable potential uses of land and water which would be enhanced, foreclosed, or curtailed if the river were designated; also includes values which could be lost or diminished if the area is not protected as part of the system.
- Interest from local, state, or federal agencies, Indian tribes, and other publics in designation or nondesignation of the river; also the extent to which river administration, including costs thereof, may be shared by state and local agencies or other potential partners.
- The estimated cost to the government of land acquisition and administration if the river is designated.
- The ability of BLM to manage and protect the river segment as a Wild and Scenic River, and alternatives identified to protect values other than through designation under the Wild and Scenic Rivers Act.
- Other issues identified during the planning process including takings, which may entitle owners to just compensation, or existing rights, which may be adversely affected because of designation.

BLM recognizes that the near absence of state and local government and community support outside of conservation groups for wild and scenic river designations in Washington County presents a dilemma in deciding whether to recommend eligible segments as suitable. Without extensive local partnerships and public support, the human and financial resources currently and prospectively available to the Dixie Resource Area are inadequate to implement and enforce the higher level of management required of public land segments placed into the National Wild and Scenic River System. Wild and scenic river designations work well when there is widespread support for and ownership of the process of evaluating and managing affected river segments. This is obviously the case where private lands dominate the ownership along the river stretches. It is equally true for those river segments within solidly blocked public lands in the western United States where communities are used to and, in many cases, very much dependent upon full access to and use of river corridors and associated resources in proximity to those communities.

In southern Utah, conflicting interests and lack of trust have impeded the formulation of broad-based consensus and substantial progress in settling disputes related to wild and scenic river studies and other issues including wilderness designation and access across public lands. In the midst of this contention, however, excellent results are being realized by grass-roots initiatives to protect important resources along the Virgin River and major tributaries in the urban corridors of Washington County. These include effective partnerships in which communities have teamed with local conservation groups, land trusts, interested state and federal agencies, Indian tribes, and private citizens and organizations to provide open space, protect floodplains, restore historic structures and degraded environments, provide linked greenbelts, trail systems, and recreation opportunities, protect wildlife

species at risk, and improve public safety in specific locations or along the entire river system. Such efforts include the Three Rivers Trail Initiative, the Grafton Heritage Partnership, the Virgin River Management Plan, the Virgin River Basin Integrated Resource Management and Recovery Program, the Virgin River Focus Area Plan, the Santa Clara River Reserve, and the Virgin Falls Park Cooperative Management Agreement. Other significant community-based initiatives involving public and nonpublic lands near the Virgin River corridor include the development of the Snow Canyon State Park Resource Management Plan and the Washington County Habitat Conservation Plan and associated Red Cliffs Desert Reserve.

As these examples are demonstrating, tremendous gains can be made from bottom-up initiatives when a broad spectrum of interests, including local governments, is involved from the start. The Dixie Resource Area is a contributing partner in all of the above examples and fully supports additional efforts to preserve natural assets and the high quality of environment and human life prevalent throughout the county. If allowed to mature to fruition, these efforts have the potential of leading to community recognition that the entire river system could be managed with shared control in a spirit of trust, harmony, and mutual interest without imposed mandates that might, otherwise, reek havoc on local culture, economics, and long-standing community infrastructure. Wild and scenic river designation could then be viewed by local and state officials and the public-at-large in light of what it could do for the community and how it could sustain and complement present initiatives and benefit economic interests as well as ecologic objectives. The Wild and Scenic Rivers Act envisions and encourages just such an approach to river management.

In light of the above, BLM would proceed to recommend as suitable those eligible river segments in solidly-blocked public land areas where it generally finds that a) designation would not require significantly elevated costs and management intensity above that needed to implement management prescriptions proposed in other sections of this plan, b) designation would not substantially foreclose the community's ability to plan for and manage the appropriate conservation and development of water resources to support reasonable current and anticipated needs within the community, c) resources available to BLM internally and through other interested agencies and partnerships would be adequate to provide the level of management required, d) designation would conform to recommendations of other federal offices and land management agencies on adjacent segments of the same rivers, and e) the free-flowing character and outstandingly remarkable values of the segments are deemed to represent a worthy addition to the national system.

BLM recognizes that other river studies within the Virgin River Basin could be authorized that might complement or supersede the study completed in this proposed plan. Such could include a) a basinwide study as directed by Congress in accordance with the Assistant Secretary's request of April 16, 1997, or b) an interagency study under the statewide MOU of November 1997, or c) a state-initiated study under Section 2(a)(ii) of the Wild and Scenic Rivers Act which provides for participation of local and state agencies under the direction of the Utah Governor.

Where not previously constrained by Congressional or Secretarial action, BLM would also give consideration to reassessing its suitability determinations during major revisions of this proposed plan based on changes that may have occurred which impact on manageability, cost of administration, land use constraints, availability of interested partners, state and local government support, and other applicable factors. Where suitability determinations for river segments on adjacent lands managed by other federal agencies or BLM units are not consistent with the determinations of this Plan for any given river, BLM would promote a joint reconsideration and could alter its determinations accordingly as to eligibility, tentative classification, values to be protected, or suitability.

At such time as a revision of the Land and Resource Management Plan is prepared for the Dixie National Forest, BLM would consider entering into an agreement with the Forest Supervisor to assess those streams crossing both National Forest Lands and public lands to reach

joint agency determinations of eligibility and suitability. Such determinations would either affirm or amend the determinations made on affected streams in this Proposed Plan, taking into consideration outstandingly remarkable values for entire stream segments across all involved federal lands. BLM has already entered into such an agreement with National Park Service officials for certain isolated public land tracts adjacent to Zion National Park.

It is also anticipated that prior to submitting joint recommendations for designation to the Secretary of the Interior and Congress, BLM would carefully examine issues related to manageability and total costs of its cumulative recommendations. Despite factoring cost and manageability issues into the analysis for each river segment evaluated in this Plan, total costs above current levels for all segments found suitable amount to $700,000 for minimum recommended land acquisition, $183,000 for initial implementation, and $23,000 for yearly administration thereafter. These costs represent a significant increase above funding levels traditionally available to BLM in the Dixie Resource Area and would be in addition to costs incurred as a result of river studies in other BLM field offices in Utah and adjoining states. Full implementation would require a long-term commitment from Congress for adequate yearly appropriations or a corresponding diversion of funding and personnel from other, ongoing resource management programs.

The following evaluations provide documentation of the analysis used to reach suitability recommendations for eligible rivers addressed in this Plan:

Beaver Dam Wash - Segments A and C (Utah)

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

These segments contain stretches which provide excellent opportunities for outdoor recreation including hiking, trout fishing, sightseeing, occasional solitude, and primitive camping. The riparian values are exemplary through the Narrows portion on the West Fork and portions of Segment C and support a diversity of plants and animals that reflect elements of both the Great Basin and Mojave physiographic provinces. Scattered remnants of an old steam road add historic interest along the northern reaches of the Wash.

The lower portions of segment A and portions of segment C contain populations of Virgin spinedace, a sensitive species which is the subject of a countywide conservation plan. Water flows in segment C can vary considerably from year to year based on upstream precipitation and water depletions. Large portions of the wash below Motoqua dry up during periods of the year due to naturally low flows or upstream diversions.

Human developments and land use impacts on private lands at the very northern end of segment A and on the flatter areas above Motoqua detract from the natural qualities and recreation experience found in the more rugged, primitive stretches.

2. Landownership Status and Land Use

From the Nevada State Line to the Arizona State Line, the Beaver Dam Wash is about 42 miles in length. River segment A is nearly 18 miles, with 13 miles of shoreline managed by BLM. About 75 percent of the land adjacent to the stream segment is in public ownership. A remote ranching headquarters lies at the very north end on the Nevada state line, which remains inaccessible to the public. Road crossings and numerous hunting camps near this site detract from the natural qualities of the drainage for a distance of nearly a mile. Private lands associated with the remote community of Motoqua are heavily impacted by homesites, outbuildings, storage yards, abandoned vehicles, and rudimentary cultivation which are not highly compatible with designation along those stretches.

Human use on public lands above the northernmost private parcel south of the Narrows is predominantly recreational. Because the area is remote and access is limited and difficult, recreational use is relatively light except during the fall hunting season. Mineral exploration has

occurred in the past and some unpatented mining claims remain active in the area. Two privately built cabins exist on unpatented claims on the east side of the stream about 2 miles above the last private parcel. A county-maintained road provides access along the entire segment A from Motoqua to a point about 0.25 miles south of the bottom of the Narrows section. The road crosses the stream a total of 14 times and washes out in numerous places during heavy floods. Attempts to maintain pipelines along the channel for irrigation purposes have also been thwarted by frequent flooding.

Segment C is about 4.3 miles in length. Only 0.6 miles is in public ownership. The balance is privately owned. Although 86 percent of the river channel is privately owned, nearly 25 percent of the land within the half-mile corridor is administered by BLM. Some of this, however, is outside the riparian zone and lacks river-related values. The public land is used primarily for livestock grazing and dispersed, outdoor recreation. The private lands support a desert/agricultural research and educational station administered by Brigham Young University, some agricultural operations, and privately managed recreation. The area is generally accessible by county and privately maintained roads.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

Inclusion of the Utah portion of the Beaver Dam Wash in the National Wild and Scenic Rivers System (NWSRS) could dramatically impact potential uses of the waters in the entire Beaver Dam Wash drainage. Because the Wash passes through portions of three states, uncertainty over the nature of impacts is caused by inconsistency in the way water management is addressed in the respective state statutes. No interstate compact exists for water use emanating from the drainage. Diversions of water from the drainage have been proposed separately by private or municipal entities in all three states including the communities of Las Vegas and Mesquite in Nevada and Littlefield in Arizona as well as numerous entities in Washington County, Utah. Interested federal agencies are also assessing how much flow is necessary within their jurisdictions to meet minimum resource needs. BLM has filed for instream flow water rights on public lands within the Arizona portions of the drainage. Impoundments or diversions made by entities in one state could impact uses or opportunities by entities in the others. Thus, it is difficult to predict with precision what uses would be enhanced, foreclosed, or curtailed by designation.

In Utah, several municipalities and the Washington County Water Conservancy District (WCWCD) have maintained strong interest in acquiring and developing water rights along portions of the West Fork to meet anticipated water needs for municipal and industrial purposes. The WCWCD has an application on file with BLM for a 25,800 acre foot reservoir right-of-way north of the Narrows to meet this need. Interest has also been shown in a prospective well-field along portions of the segment. Either option could be used in helping to settle water right claims being pursued by the Shivwits band of Indians for use on their reservation. Inclusion into the NWSRS could preclude such developments along affected stretches of the stream and, where wild classifications are used, could impede construction of pipelines and access roads needed for project implementation.

Designation would be compatible with BLM proposals to maintain riparian values, protect the watershed and high quality of water, implement the Virgin spinedace conservation agreement, protect potential habitat for the Southwestern willow flycatcher, and designate surrounding public lands as Areas of Critical Environmental Concern.

Nondesignation would leave open the possibility of future water developments that could alter the free-flowing nature of the stream, thus diminishing natural values within public lands in Utah and Arizona and limiting options for habitat enhancements. Land use prescriptions in the Proposed Dixie RMP have been designed to avoid such impacts, however.

4. Interest in Designation or Nondesignation and Opportunities for Sharing of Costs and Administration

No state, tribal, or local government has expressed support for inclusion of the river in

the NWSRS. Local and state agencies, water users, and municipalities have opposed designation due to foreclosed opportunities for water development and other prospective economic activity in the drainage. BLM in Nevada has no current plans to address wild and scenic issues on those segments of the Beaver Dam Wash within its jurisdiction. BLM previously determined that the segment of the wash on public lands in Arizona was not eligible. Thus, no opportunities currently exist to share costs or administration of the area should designation occur.

5. Cost of Land Acquisition and Administration

BLM would recommend that none of the private lands along the wash be acquired due to budget constraints and higher acquisition priorities throughout the resource area. Initial costs of administration for the first three years including management plan preparation and implementation are estimated to be $78,000. Yearly administration thereafter is estimated to cost $15,000 above present levels and does not include additional studies, monitoring, and investigations.

6. Ability to Manage and Protect the River if Designated and Other Means Available to Protect Values Identified

BLM currently has little or no ground presence on these river segments. Despite the excellent values that exist within portions of the corridor, the lack of resource and enforcement personnel and insufficient funding presents a significant challenge to BLM in considering how to effectively integrate wild and scenic river management in this particular area. To date, remoteness and difficult access have kept visitation light throughout a significant portion of the year. The majority of visitors reflect local residents in Utah and Nevada who are acquainted with the stream's amenities and who have learned how and when to navigate the sometimes impassable roads to the perennially flowing sections. Inclusion into the NWSRS would, without question, bring additional attention to the segments and potentially draw a larger number of visitors from a wider geographic base. Resources along these segments of the wash are fragile and cannot take a substantial increase in human activity without suffering degradation of the very resources that designation would be intended to protect. BLM would have no option but to impose use limits which immediately escalates the level of management and resources needed to protect natural features at risk. The issue is made all the more difficult by the absence of committed partners who could bring on-the-ground resources to help in day-to-day management.

As an alternative to designation, land use prescriptions in the Proposed Dixie RMP would designate public lands encompassing both segments as Areas of Critical Environmental Concern and impose land use controls to protect riparian systems, the watershed, water quality, and habitats for sensitive and listed fish and wildlife species. The plan would place limits on off-road motorized travel, mining and mineral leasing, and rights-of-way development and thus protect the values identified in the study. Without attracting additional visitors, significant new costs would not be incurred to implement the recommendations.

With or without wild and scenic designation, the entire Beaver Dam Wash from its confluence with the Virgin River in Arizona to its headwaters on the Dixie National Forest genuinely warrants consideration for basinwide management that would holistically consider entire natural systems, special habitats, existing and proposed water developments, and other human uses. Private interests, as well as affected state, local, tribal, and federal agencies from Utah, Nevada, and Arizona would need to work collaboratively to reach decisions on how key resources would be used and managed for the benefit of the whole. A new community partnership would be needed similar to those recently formed to assess and plan for critical resources along a significant portion of the Virgin River in Washington County. Such a partnership would be vigorously endorsed by BLM in Utah and would be supported by the recommendations of the Proposed Dixie RMP.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Rights

BLM has completed no drainagewide study of the rights held by owners, applicants, or claimants to the waters of the Beaver Dam Wash

that might be affected by designation. Numerous water rights and applications are known to exist on and upstream of Segments A and C. Generally, the affects of the McCarren amendment are to subordinate the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, any federal reserved water right created by congressional action would be junior to existing water rights at the time legislation was enacted. BLM would not disturb existing water rights or developments unless negotiated agreements or purchases were made with willing owners. In the event of designation, BLM would work with upstream water users and affected agencies to ensure that subsequently proposed impoundments or depletions did not reduce water flow below that needed to satisfy the purposes of the designation. Language contained in the implementing legislation passed by Congress could further direct the extent to which non-federal rights along the river would be protected.

8. Suitability Determination

Segments A and C of the Beaver Dam Wash are found unsuitable for designation as a component of the NWSRS. Factors leading to this determination include:

- Other opportunities exist including proposed ACEC designations and planning prescriptions in the Dixie Resource Management Plan to protect the values associated with the river segment at lower costs to the federal government.

- Higher priorities and present commitments for resource management and protection exist throughout the resource area which would fully employ human and material resources likely to be available to BLM in this location.

- Willing and capable partners have not been identified for sharing of long-term costs and administration.

- Designation may not be desirable in that it could sharply increase visitation that would degrade the fragile resources in portions of the river intended for protection.

- Support from local and state agencies is absent, and numerous municipalities, Washington County, the local water conservancy district, and the multicounty association of governments have opposed designation because of potential impacts to proposals for water developments needed to sustain proposed municipal and industrial purposes.

- Total impacts throughout the entire drainage across three states are not fully understood; moreover, a need exists to look at water and resource management holistically across agency and state jurisdictions with affected interests to achieve an honest and complete assessment of ecologic and economic issues and desirable strategies.

Deep Creek/Crystal Creek

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

Public land sections along Deep Creek and Crystal Creek possess “A” quality scenery. Crystal Creek has an open aspect which makes it visually unique from many of the stream channels on the Kolob Terrace. Deep Creek is more deeply entrenched, with steep sandstone walls. Although similar to others found in the Colorado Plateau region, the scenic values associated with Deep Creek, particularly below the confluence with Crystal Creek, are outstanding in comparison.

Both Creeks are located on the Kolob Terrace, an area with regionally significant recreation opportunities. Zion National Park is the largest and best known part of this recreational array. Crystal Creek has a falls area that attracts many visitors. Deep Creek provides excellent fishing in a remote setting. Deep Creek is also one of

the main hiking entries into Zion National Park from the north. The public lands provide a significant part of the regional recreation opportunity since they are an integral part of the hike and serve as an alternate gateway to the internationally renowned Zion Narrows Trail. People are willing to travel long distances to utilize the recreational opportunities along these river segments as indicated by high visitation levels despite lengthy and difficult access.

Crystal Creek below the falls and Deep Creek both have reproducing populations of brown, brook, and rainbow trout. The habitat in Deep Creek is superior and is considered to be of exceptionally high quality. Deep Creek also supports populations of flannel-mouth suckers. Inventories show these populations to be low, however, when compared to other populations within the Virgin River Basin.

The river canyons provide diverse habitats that support a great variety of bird and animal species. These include the peregrine falcon and the Mexican spotted owl (both federally-listed) and the goshawk, a sensitive species. Habitat quality for these three species, however, is not considered to be outstanding in comparison to that in adjacent areas within the region.

The river segments are free-flowing in character and free of impoundments and other intrusions. One trail crossing adjacent to Volcano Knoll is occasionally used by ATVs. The segments provide an exemplary illustration of the hydrologic transition from headwaters to a deeply incised canyon, all within the course of a few miles. The dramatic changes associated with the transition are visible from several vantage points along the canyon rim as well as while hiking through the canyon.

2. Landownership Status and Land Use

The river segment is approximately 15 miles in length. Of that, about 11.5 miles are public lands administered by BLM and the balance is privately-owned. A small segment of land owned by the State of Utah exists on Crystal Creek within the half-mile wide corridor. Approximately 50 percent of the land adjacent to the rivers is in public ownership. Fragmentation of ownership occurs at and above the confluence of the two creeks. The southern 4.5 miles of Deep Creek cross solidly blocked public lands before flowing into Zion National Park. Land use on privately owned tracts includes rural home/vacation sites, livestock grazing, and privately managed hunting. Public lands support livestock grazing and dispersed activity including hiking, fishing, hunting, sightseeing, and primitive recreation.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

All public lands within the half-mile corridor adjacent to the river segments have been classified as primitive recreation lands and are contained within the recommended Deep Creek Special Recreation Management Area. The lower portion of the Deep Creek drainage crosses lands recommended for wilderness designation. Designation under the Wild and Scenic Rivers Act would complement the management of natural systems, resources, and primitive recreation opportunities that prompted such classifications and proposed designations. Failure to include the lands in the NWSRS would not necessarily diminish the values for which the rivers were determined eligible inasmuch as land use prescriptions within the Proposed Dixie RMP were developed to preserve and enhance such values. Designation under the Act would also complement management goals for adjacent federal lands in Zion National Park.

As a result of the Zion National Park Water Rights Settlement Agreement of December 4, 1996, federal reserved water rights were recognized for Zion National Park sufficient to meet the purposes for which the Park was established. BLM has concluded that the water rights quantification established for Zion National Park in the agreement is sufficient to satisfy flow requirements needed to maintain river-related values on public lands above the Park in Washington County. No additional flows would thus be required as a result of designation under the Wild and Scenic Rivers Act. Potential developments and water diversions upstream or up gradient from Zion National Park completed in

accordance with the terms of the agreement would not be jeopardized or foreclosed.

Development of private or state lands within the half-mile wide corridor where a federal nexus exists as a result of required permits, approvals, or funding would be subject to appropriate environmental analysis and mitigation of potential impacts to river-related values associated with a wild and scenic river designation. No applications or proposals are known to exist for any such development. Rugged topography, remote location, and prospective land use in the area make most nonconforming land uses impractical and unlikely.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this river segment in the NWSRS. Execution of the Water Rights Agreement for Zion National Park has reduced much of the outright opposition from local agencies and water users, but concern and uncertainty still exist over perceived impacts to existing and unperfected private water rights and future developments on affected private lands. Some private citizens and regional and national conservation groups have promoted designation as a means of preserving the free-flowing character of the segment. An opportunity exists to jointly share management and administration with Zion National Park under a cooperative management agreement should the river segment be designated including that stretch within the park boundary.

5. Cost of Land Acquisition and Administration

Acquisition of 480 acres of private shoreline at the confluence of Deep and Crystal Creeks and along portions of Deep Creek to the Washington County line through purchase or exchange would block up ownership and greatly facilitate management of the river segment. The estimated equivalent value would range from $100,000 to $150,000 in 1997 dollars. Initial costs of administration for the first 3 years including management plan preparation and implementation are estimated to be $54,000. Yearly administration thereafter is estimated to be $11,000 above present levels and does not include additional studies, monitoring, and investigations.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

Designation would slightly raise the level of management needed for wild and scenic river purposes above that already called for in the Proposed Dixie RMP for other resource values. Working with Zion National Park officials, a comprehensive management plan could be prepared that addresses the entire river segment on federally administered portions and joint actions taken under a cooperative management agreement to manage visitor use and natural resources. With adequate funding support for law enforcement and minimum interpretive facilities for visitor enjoyment, BLM should have the capability to manage the public land segments. All identified outstandingly remarkable values would be effectively managed under land use prescriptions in the Proposed Dixie RMP should designation not occur.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Rights

Numerous entities hold water rights upstream or up gradient within the basin from Zion National Park and would be protected by the terms of the Zion National Park Water Rights Settlement Agreement. Additionally, the effects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts from the effects of designation and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, BLM would not disturb existing water rights or planned developments. Future developments, if any, would be subject to appropriate environmental analysis where federal lands, resources, or approvals are required.

8. Suitability Determination

Public land segments of Deep Creek/Crystal Creek are found suitable for designation as com-

ponents of the NWSRS. Factors leading to this determination include:

- Scenic, recreational, fishery, and hydrologic values within the river corridor are of sufficient quality to warrant inclusion into the NWSRS.
- Designation of these segments would not significantly elevate management costs above current levels nor require substantial increases in appropriations or diversion of resources from critical ongoing programs.
- Acquisition of private lands on the segments and management for wild and scenic purposes are within the capability of BLM in the Dixie Resource Area.
- Designation would be consistent with management goals for river-related resources on the Deep Creek drainage on adjacent lands within Zion National Park.
- Zion National Park would provide a willing and capable partner in sharing administrative and management responsibility in concert with management of the contiguous segment within its own jurisdiction.
- Potential impacts to private lands and interests are significantly reduced by the terms of the Zion National Park Water Rights Agreement of December 4, 1996.
- Designation would promote national and public recognition of the values associated with this river segment and further the goals and policy established by Congress in the Wild and Scenic Rivers Act.

Fort Pearce Wash

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

This segment on the Fort Pearce Wash is only 0.5 miles in length. Flows from the wash augment flows in the lower Virgin River and occur most frequently during spring runoff and during flood events. Larger floods within the wash have adversely impacted residential areas and associated developments in the community of Bloomington Hills. Normal flows originate from seeps or springs and typically disappear into the porous stream bed after half a mile and can fluctuate on a daily basis. The flows are sufficient to maintain a healthy riparian system over the half-mile length of the segment.

This portion of the wash is excellent habitat for the spotted bat, a state and federal sensitive species. The site is well-suited to and frequently used for scientific study of the bat, and is particularly valuable because it is one of three sites where the animal can be consistently captured for study.

The narrow canyon through which the wash flows contains several historic signatures carved by early white settlers. Within 50 feet of the wash are the stabilized ruins of Fort Pearce, an army fort constructed near the water during the Black Hawk Indian Conflict. It is listed on the National Register of Historic Places. In addition, the historic Honeymoon Trail follows the wash for a short distance where travellers could obtain water on their way to the Saint George Temple for wedding ceremonies.

2. Landownership Status and Land Use

The river segment is 0.5 miles in length and is wholly contained within public lands. Human use of the area includes livestock grazing, historic appreciation, and various forms of recreation including hunting, sightseeing, horseback riding, motorized touring, and undeveloped camping.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

Lands within this segment have been identified as a potential reservoir site but eliminated from further consideration due to resource impacts. Flood control structures have also been considered for the site to reduce the impacts of large flooding events on Bloomington Hills. No proposals have been submitted to date. Designation as a component of the NWSRS could curtail or foreclose further consideration of such structures, depending on the project design.

However, no potential uses on or upstream of the wash would likely be foreclosed because of designation that are not already curtailed or foreclosed by law or regulation associated with the historic and wildlife values of the segment.

Resource protection for all listed values would be afforded under land use prescriptions in the Proposed Dixie RMP including those for the proposed Warner Ridge/Fort Pearce Area of Critical Environmental Concern. Consequently, failure to designate this segment as a component of the NWSRS would result in no diminution of those values.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this segment of the river in the NWSRS. Local and state agencies and some municipalities have generally opposed designation. Some private citizens and conservation groups have endorsed designation as a means of preserving the free-flowing character of the segment and precluding further diversions, impoundments, or other developments. Presently, no opportunities exist for sharing of costs or administration for wild and scenic river purposes should designation occur.

5. Cost of Land Acquisition and Administration

No land acquisition would be needed to manage the segment if designated under the Wild and Scenic Rivers Act. Initial costs of administration for the first 3 years including management plan preparation and implementation are estimated to be $80,000. Yearly administration thereafter is estimated to be $8,000 above present levels and does not include additional studies, monitoring, and investigations.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

BLM would likely have the resources necessary to manage this segment if designated. Resource protection for all listed values would be afforded under land use prescriptions in the Proposed Dixie RMP including those for the proposed Warner Ridge/Fort Pearce Area of Critical Environmental Concern.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Water Rights

BLM has not identified any non-federal water rights on this segment and has not conducted a study to determine the number and extent of upstream rights that may presently exist. Several are known to exist on upstream tributaries. Generally, the affects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, any federal reserved water right created by congressional action would be junior to existing water rights at the time legislation was enacted. BLM would not disturb existing water rights or developments unless negotiated agreements or purchases were made with willing owners. BLM would work with private owners and affected local, state, and federal agencies to reach agreement on flows needed to sustain critical resource needs and then pursue the joint development of innovative strategies and voluntary agreements with water users under state law to address those needs. Future developments, if any, would be subject to appropriate environmental analysis where federal lands, resources, or approvals are required.

8. Suitability Determination

The Fort Pearce Wash is found not suitable for designation as a component of the NWSRS. Factors leading to this determination include:

- River-related values on this segment have limited potential for a significant contribution to the NWSRS.
- The exceptionally small size of the segment does not lend itself to a meaningful application of the goals, objectives, and procedures associated with the Wild and Scenic Rivers Act.

- Local and state agencies oppose designation; widespread public support is lacking.
- Willing and capable partners do not exist to share in permanent costs and administration.
- Funds and personnel needed to implement and maintain this segment as a component of the NWSRS would have to be diverted from higher priority resource management programs elsewhere in the BLM organization.
- Adequate protection for all listed values would be afforded under land use prescriptions in the Proposed Dixie RMP including those for the proposed Warner Ridge/Fort Pearce Area of Critical Environmental Concern.

La Verkin Creek/Smith Creek

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

Public land sections along La Verkin Creek and Smith Creek possess "A" quality scenery. The area surrounding the confluence of La Verkin Creek and Smith Creek constitutes an integral part of the exceptional visual attractions associated with the Kolob section of Zion National Park. The natural transition in form and character between the Colorado Plateau and the Mohave regions is visible, creating an outstanding contrast not typical of the region. The upper sections of the river above the Park are characterized by steep cliffs and deep, narrow canyons, while the lower portions broaden into distinct alluvial valleys. Occasional riffles and low waterfalls add to the visual interest.

La Verkin and Smith Creeks offer outstanding opportunities for solitude and unconfined recreation, including hiking and primitive camping. The transition between the Colorado Plateau and Mohave regions creates a diverse, unique, and exceptional setting for such activities. The La Verkin Creek canyon also complements recreational activities in Zion National Park by providing hiking access into the Park and the renowned Kolob Arch. The upper reaches of both La Verkin Creek and Smith Creek have been recommended for wilderness designation. Together, the creeks provide a significant component of the regional recreational opportunity spectrum.

The river segment contains outstanding hydrologic features. The segment illustrates the hydrologic transition from headwaters, to a deeply incised canyon, to a well-defined alluvial valley, all within the course of a few miles. The transition is visible from vantage points along the canyon rim as well as while walking through the canyon. Flows are generally clear except during major storm events. The channel varies between braided areas, narrow canyons, and sections with deep pools and large boulders. The steep canyon portion of the drainage cuts through the resistant Navajo sandstone, and the valley broadens as the river erodes through the less resistant Kayenta and Moenave formations. According to Addley and Hardy (Utah DNR, 1993), a large percentage of the base flow for La Verkin Creek originates from Smith Creek, thus linking their hydrologic significance.

The river has a well-developed riparian resource which extends through the transition area and provides a significant component of the available wildlife habitat. It is characterized by the presence of many native species, and it is exemplary when compared on a regional basis.

Resources at or below the privately owned lands on the lower reaches of La Verkin Creek are frequently degraded due to water diversions and where easy access for motorized vehicles allows human-caused impacts.

2. Landownership Status and Land Use

Not counting the river frontage within Zion National Park, the river segment is approximately 20 miles in length. Of that, nearly 13 miles cross public lands administered by BLM, 0.35 miles is owned by the State of Utah, and the balance is privately owned. Approximately 70 percent of the land within the half-mile-wide corridor is public land, 27 percent is private, 2 percent is state, and 1 percent is managed by the National Park Service. Land use on privately owned tracts includes livestock grazing, forage production, mineral extraction, privately man-

aged hunting and recreation, residences, and subdivision development, some of which is not conducive to management of wild and scenic river resources. A total of three diversions occur on the lowest reach of La Verkin Creek above the confluence with the Virgin River. In some years, these diversions have dry-dammed portions of this reach except for minimal flows created by occasional seeps and springs. Public lands support livestock grazing, hiking, hunting, sightseeing, and undeveloped camping. One diversion occurs on public lands near the upper La Verkin potential reservoir site. Some oil and gas exploration and drilling has taken place in the lower reaches of La Verkin Creek. For many years, uncontrolled camping, partying, and motorized recreation adjacent to La Verkin (Twin) Falls has degraded resources, left extensive litter and trash, and created public safety problems. Community efforts to curtail the causes of such degradation have been largely unsuccessful. Land use on the state land includes livestock grazing and various forms of dispersed recreation. Park lands are used solely for primitive recreation.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

All public lands within the half-mile wide corridor along the river segment have been classified as primitive or semiprimitive motorized recreation lands. All but the segments above Zion National Park are contained within the La Verkin Creek/Black Ridge Special Recreation Management Area. The upper reach of Smith Creek and that portion of La Verkin Creek above Zion National Park cross lands that have been recommended for wilderness designation. Designation under the Wild and Scenic Rivers Act would generally complement the management of natural systems, resources, and primitive recreation opportunities that prompted such classifications and proposed designations. Designation under the Act would also complement management goals for adjacent federal lands in Zion National Park.

As a result of the Zion National Park Water Rights Settlement Agreement of December 4, 1996, federal reserved water rights were recognized for Zion National Park sufficient to meet the purposes for which the Park was established. BLM has concluded that the water rights quantification established for Zion National Park in the agreement is sufficient to satisfy flow requirements needed to maintain river-related values on public lands above the Park in Washington County. Existing and potential developments, reservoirs, and water diversions upstream or up gradient from Zion National Park completed in accordance with the terms of the agreement would not be jeopardized or foreclosed as a result of designation under the Wild and Scenic Rivers Act. Two potential reservoir sites have been identified on the lower reach of La Verkin Creek below Zion National Park. Designation under the Act would likely foreclose future reservoir construction at either of these locations. Should designation not occur, the free-flowing character of a 4-mile stretch of the segment would be compromised if both reservoirs were constructed. Otherwise, failure to include the lands in the NWSRS would not necessarily diminish the values for which the rivers were determined eligible on public lands above the potential reservoir sites inasmuch as land use prescriptions within the Proposed Dixie RMP were developed to preserve and enhance such values.

Development of private lands within the half-mile wide corridor where a federal nexus exists as a result of required permits, approvals, or funding would be subject to appropriate environmental analysis and mitigation of potential impacts to river-related values associated with a wild and scenic river designation.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this river segment in the NWSRS. Although execution of the water rights agreement for Zion National Park has reduced some of the outright opposition from local agencies and water users, much concern and uncertainty still exist over potential impacts of designation on private water rights and future developments on affected private lands below the Park boundary. Some private citizens and regional and national conservation groups have promoted designation as a means

of preserving the free-flowing character of the segment. An opportunity exists to share management and administration under a cooperative management agreement with Zion National Park should river segments adjacent to and inside the Park be designated.

5. Cost of Land Acquisition and Administration

Acquisition of private lands along the southern 5 miles of La Verkin Creek would be neither practical nor desired due to excessive costs and the extent of present development. For effective management of the remaining river corridor, 200 acres would need to be acquired above Zion National Park, 160 acres on Smith Creek, and 360 acres on lower La Verkin Creek through purchase or exchange. The estimated equivalent value involved would range from $770,000 to $1,200,000 in 1997 dollars. Initial costs of administration for the first 3 years including management plan preparation and implementation are estimated to be $98,000. Yearly administration thereafter is estimated to be $19,000 above present levels and does not include the costs of studies, monitoring, and investigations. Considerable savings in total costs would be generated if designation were to be limited to the upper portions of La Verkin Creek above the first privately owned segment south of Zion National Park.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

Designation at and below the private lands on La Verkin Creek south of the Park would raise the level of total costs and management needed beyond that called for in the Proposed Dixie RMP for other resource values. No significant increase in proposed management would be needed above that point. Working with Zion National Park officials, a comprehensive management plan could be prepared that addresses the river segments adjacent to and inside Zion National Park and joint actions taken under a cooperative management agreement to manage visitor use and natural resources. With adequate funding for law enforcement and minimum interpretive facilities for visitor enjoyment, BLM should have the capability to manage the public land portions of the northern segments above the private lands. Management below that point would require increased appropriations and/or the diversion of resources from other, more critical management commitments. BLM would have no authority or ability to manage the solidly blocked private lands in the corridor along lower La Verkin Creek. Should no designation occur, identified outstandingly remarkable values would be effectively managed under land use prescriptions in the Proposed Dixie RMP. Reservoir construction on either of the two potential sites on La Verkin Creek would be unlikely due to adverse geologic conditions.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Rights

According to the Virgin River Management Plan (January 1988), there are at least four surface water rights, one diversion, and one storage reservoir on La Verkin Creek above public lands on this segment. These and any other existing or future water rights and developments upstream or up gradient within the basin from Zion National Park would be protected by the terms of the Zion National Park Water Rights Settlement Agreement to the extent they are managed in accordance with the terms of the agreement. A total of 4 diversions and 17 surface water rights are known to exist on La Verkin Creek below the Park, most occurring on private lands. The effects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts from the effects of designation and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, BLM would not disturb existing water rights or developments. Future developments on or above public land segments south of the Park would be subject to appropriate environmental analysis where federal permits, approvals, or funding would be involved.

8. Suitability Determination

Public land segments of Smith Creek and La Verkin Creek above the privately owned parcels

on La Verkin Creek are found suitable for designation as components of the NWSRS. Factors leading to this determination include:

- Scenic, recreational, hydrologic, and riparian values within the river corridor on this portion of the segment are of sufficient quality to warrant inclusion into the NWSRS.
- Designation of these segments would not significantly elevate management costs above planned levels or require substantial increases in appropriations or diversion of resources from critical ongoing programs.
- Acquisition of state and private lands on these segments and management for wild and scenic purposes are within the capability of BLM in the Dixie Resource Area.
- Designation would be consistent with management goals for river-related resources on the Smith and La Verkin Creek drainages on adjacent lands within Zion National Park.
- Zion National Park would provide a willing and capable partner in sharing administrative and management responsibility in concert with management of the contiguous segments within its own jurisdiction.
- Potential impacts to private lands and interests above ion National Park are significantly reduced by the terms of the Zion National Park Water Rights Settlement Agreement of December 4, 1996.
- Designation would promote national and public recognition of the values associated with this river segment and further the goals and policy established by Congress in the Wild and Scenic Rivers Act.

Public land segments of lower La Verkin Creek below the first private lands south of Zion National Park are found unsuitable for inclusion into the NWSRS. Factors leading to this determination include:

- Exclusion of the lower portion of La Verkin Creek would significantly reduce costs to the federal government for land acquisition and long-term management; if designated, additional appropriations would be required above present levels, or human and material resources would have to be diverted from other critical resource management commitments.
- Willing and capable partners have not been identified for sharing of long-term costs and administration of this portion of the river which is well-removed from Zion National Park.
- Support from local and state agencies is absent, and considerable opposition still remains from local municipalities, agencies, water users, and private landowners concerned about potential impacts to private lands and interests if this portion were designated.
- From the northern tract of private land to the confluence with the Virgin River, land ownership is fragmented with only 4 miles out of 11 in public ownership, compromising BLM's ability to manage for wild and scenic river purposes along this stretch; some current developments on adjacent private lands are not fully compatible with such purposes; the free-flowing character on private lands on the lowest section is compromised by water depletions which cannot be controlled by BLM.
- Public land values along this stretch would be effectively protected and managed under land use prescriptions for riparian areas, water resources, wildlife habitats, and the La Verkin Creek/Black Ridge Special Recreation Management Area called for in the Proposed Dixie RMP.

Moody Wash - Segment B

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

The Virgin spinedace, a sensitive fish species, is found on the 1.5 mile section of the wash near

its confluence with the Santa Clara River. The population level was rated medium to high in studies completed by Addley and Hardy (1992) who determined that this segment contains the highest number of spinedace within the Virgin River Basin. Compared to spinedace occurrences elsewhere in the region, the populations and habitat are considered outstanding over the short course of the segment.

Naturally intermittent flows and diversions sometimes dewater the wash above and below this segment. Flows are unpredictable and are maintained through this segment by springs below the confluence with Magotsu Creek. One diversion on the southern end of the segment reduces flow but does not dewater the channel.

2. Landownership Status and Land Use

The river segment is approximately 1.5 miles in length. Of that, only 0.25 miles crosses lands administered by BLM. The remainder is privately owned. About 12 percent of the lands within the half-mile corridor along the wash is in public ownership. Private lands are used almost exclusively for agricultural purposes, much of it irrigated. Graded county roads run adjacent to and cross the wash throughout this segment. Public lands are used primarily for grazing and outdoor recreation.

3. Potential Land Use and Values That would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

Water within this river segment is fully allocated. Without support from and the direct involvement of affected communities, landowners, and local and state agencies, inclusion of Segment B of Moody Wash into the National Wild and Scenic Rivers System could have an unsettling effect on citizens, communities, and water users in the immediate area. Where a federal nexus is established, uncertainty would exist on the nature and extent of modifications that could be made from time to time on existing water diversions to modernize, upgrade facilities, change diversion points, or to wheel water flows in a manner to achieve conservation and savings. Current and prospective agricultural or residential developments within or above the river area could feel constrained in their ability to develop, expand, or be supported by new infrastructure that impacts on lands or river-related values in the half-mile corridor along the river.

Current efforts by local, state, and federal agencies to maintain spinedace populations and improve related habitats are guided by the Virgin Spinedace Conservation Agreement and Strategy of 1995. Resource protection for all associated values on public lands in the segment would be afforded under the Proposed Dixie RMP. Consequently, failure to designate this segment as a recreational component of the NWSRS would result in little or no diminution of those values.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this segment of the river in the NWSRS. Local and state agencies and some municipalities have opposed designation due to potential impacts to existing and future water use on the river and the uncertainty over potential impacts to long-term land use on the non-federal lands in and upstream of the corridor. Some private citizens and conservation groups have endorsed designation as a means of preserving and eventually enhancing the remaining free-flowing character of the river and precluding further diversions or impoundments. Presently, no opportunities exist for sharing of costs or administration for wild and scenic river purposes should designation occur.

5. Cost of Land Acquisition and Administration

Acquisition of a minimum of 200 acres of private lands through purchase or exchange would be necessary for effective management of the river segment. The estimated equivalent value would range from $100,000 to $200,000 in 1997 dollars. Because of long-term community goals for land use in the area, federal acquisition could be difficult if not impossible. Initial costs of administration for the first 3 years including management plan preparation and implementation are estimated to be $30,500. Yearly administration thereafter is estimated to

be $5,500 above present levels and does not include additional studies, monitoring, and investigations.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

Several factors make it impractical for BLM to manage Segment B of Moody Wash as a component of the NWSRS without support and assistance from local, state, and private entities. The limited extent of public lands, land acquisition needs and costs, incompatible community goals for use and development of private lands, widespread opposition to designation, and existing BLM commitments to development and enhancement of special management areas for critical resource protection in other sectors make it unlikely that BLM could implement a successful Wild and Scenic River management program on this segment.

Should designation not occur, multiagency actions defined in the spinedace conservation agreement and prescriptions in the Proposed Dixie RMP associated with riparian resources and special status wildlife species management would provide the protection needed for the identified values on public lands within this segment.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Water Rights

Several non-federal water rights exist on and upstream of this segment. Generally, the affects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, any federal reserved water right created by congressional action would be junior to existing water rights at the time legislation was enacted. BLM would not disturb existing water rights or developments unless negotiated agreements or purchases were made with willing owners. BLM would work with private owners, and affected local, state, and federal agencies to reach agreement on flows needed to sustain critical resource needs and then pursue the joint development of innovative strategies and voluntary agreements with water users under state law, to address those needs. Future developments, if any, would be subject to appropriate environmental analysis where federal lands, resources, or approvals are required.

8. Suitability Determination

Segment B of Moody Wash is found not suitable for designation as a component of the NWSRS. Factors leading to this determination include:

- Only 0.25 miles of public lands are crossed by the river segment; manageability for wild and scenic river purposes is thus severely limited.
- The free-flowing character of the segment is compromised by existing diversions within and upstream of the corridor; little opportunity exists to enhance this character.
- Acquisition of adjacent private lands would be difficult and would divert limited resources from existing management commitments and higher priority resource programs.
- Most affected landowners, water users, and local and state agencies oppose designation due to potential impacts to the use and development of private lands and interests in and above the river corridor.
- Willing and capable partners do not presently exist to share in permanent costs and administration for wild and scenic river management.
- Planned actions in the Virgin Spinedace Conservation Agreement and Strategy and land use prescriptions in the Proposed Dixie RMP would provide the desired level of protection for identified river-related values without designation and at a lower cost to the federal government.

North Fork of the Virgin River

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

The North Fork of the Virgin River possesses "A" quality scenery. Views along the river are exemplary when compared to other scenic resources within the Colorado Plateau region and are highlighted by deep, narrow, water-eroded, red sandstone canyons. This reach of the river flows into Zion National Park and is an integral part of the internationally renowned Zion Narrows hike. It is one of the main hiking access points to the Park from the north. Thousands of visitors travel long distances each year to complete this hike which ends downstream at the main stem of Zion Canyon. Because of this relationship, the river segment north of Zion National Park provides a significant component of the regional recreation opportunity.

Low to medium populations of Virgin spinedace and flannel-mouth suckers exist on the small, public land segment of the North Fork below the Park. Large sites associated with the riverine adaptation of the Virgin River Anasazi culture are located on the public lands adjacent to this segment. The small (0.16 miles), isolated nature of this lower segment renders it impractical for management under the Wild and Scenic Rivers Act.

2. Landownership Status and Land Use

North of Zion National Park, this segment crosses about 0.6 miles of public land and 1 mile of private land within Washington County and the Dixie Resource Area. Below the Park, the segment crosses nearly 4 miles of private land and 0.16 miles of public land before its confluence with the main stem of the Virgin River. Approximately 18 miles of the segment are contained within Zion National Park which are not addressed in this study. Percentages of ownership within the half-mile corridor along the river approximate those associated with the linear mileages. Private lands north of the Park are used for livestock grazing, outdoor recreation, and prospective summer home/vacation sites. Public lands in that area are used for livestock grazing, hunting, hiking, and primitive camping. Below the Park, private lands within the half-mile corridor are used for residential, commercial, and agricultural purposes within the community of Springdale and are generally unsuited for management under the Wild and Scenic Rivers Act. The public land parcel is isolated on the river and used for road access, open space, and a limited amount of outdoor recreation.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

All public lands within the half-mile corridor adjacent to the river segment north of Zion National Park have been classified as primitive recreation lands and are contained within the recommended Deep Creek Special Recreation Management Area. The same lands have been recommended for wilderness designation. Designation under the Wild and Scenic Rivers Act would complement the management of natural systems, resources, and primitive recreation opportunities that prompted such classifications and proposed designations. Failure to include the lands in the NWSRS would not necessarily diminish the values for which the rivers were determined eligible inasmuch as land use prescriptions within the Proposed Dixie RMP were developed to preserve and enhance such values. Designation under the Act would also complement management goals for adjacent federal lands in Zion National Park.

As a result of the Zion National Park Water Rights Settlement Agreement of December 4, 1996, federal reserved water rights were recognized for Zion National Park sufficient to meet the purposes for which the Park was established. BLM has concluded that the water rights quantification established for Zion National Park in the agreement is sufficient to satisfy flow requirements needed to maintain river-related values on public lands above the Park in Washington County. No additional flows would thus be required as a result of designation under the Wild and Scenic Rivers Act. Potential developments and water diversions upstream or up gradient from Zion National Park completed in

accordance with the terms of the agreement would not be jeopardized or foreclosed.

Development of private lands within the half-mile wide corridor on this portion where a federal nexus exists as a result of required permits, approvals, or funding would be subject to appropriate environmental analysis and mitigation of potential impacts to river-related values associated with a wild and scenic river designation. No applications or proposals are known to exist for any such development. Rugged topography, remote location, and prospective land use in the canyon make most nonconforming land uses impractical and unlikely.

Below the park, 96 percent of the river segment is on private lands in the community of Springdale. Acquisition of private lands within this corridor and management for Wild and Scenic River purposes is not feasible due to exorbitant costs and extensive conflicts with current and prospective land use in the developed areas.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this river segment in the NWSRS. Execution of the Water Rights Agreement for Zion National Park has reduced much of the outright opposition from local agencies and water users, but concern and uncertainty still exist over perceived impacts to existing and unperfected private water rights and future developments on affected private lands. Some private citizens and regional and national conservation groups have promoted designation as a means of preserving the free-flowing character of the segment. An opportunity exists to jointly share management and administration with Zion National Park under a cooperative management agreement should the river segment be designated including that stretch within the park boundary.

5. Cost of Land Acquisition and Administration

Acquisition of 320 acres of private shoreline on the north boundary of Zion National Park at the Washington County line through purchase or exchange would block up ownership and greatly facilitate management of the river segment. The estimated equivalent value would range from $65,000 to $95,000 in 1997 dollars. Initial costs of administration for the first 3 years including management plan preparation and implementation are estimated to be $19,000. Yearly administration thereafter is estimated to be $5,000 above present levels and does not include additional studies, monitoring, and investigations.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

Designation of that segment north of the Park would not significantly raise the level of management needed for wild and scenic river purposes above that already called for in the Proposed Dixie RMP for other resource values. Working with Zion National Park officials, a comprehensive management plan could be prepared that addresses the entire river segment on federally administered portions and joint actions taken under a cooperative management agreement to manage visitor use and natural resources. BLM should have the capability to manage the public land segment. All identified outstandingly remarkable values would be effectively managed under land use prescriptions in the Proposed Dixie RMP should designation not occur.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Rights

Numerous entities hold water rights upstream or up gradient within the basin from Zion National Park and would be protected by the terms of the Zion National Park Water Rights Settlement Agreement. Additionally, the effects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts from the effects of designation and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, BLM would not disturb existing water rights or planned developments.

8. Suitability Determination

The public land segment of the North Fork of the Virgin River north of Zion National Park and within Washington County is found suitable for designation as a component of the NWSRS. Factors leading to this determination include:

- Scenic and recreational values within the river corridor are of sufficient quality to warrant inclusion into the NWSRS.
- Designation of this segment would not significantly elevate management costs above current or planned levels nor require substantial increases in appropriations or diversion of resources from critical ongoing programs.
- Acquisition of private lands on the segment and management for wild and scenic purposes are within the capability of BLM in the Dixie Resource Area.
- Designation would be consistent with management goals for river-related resources on the North Fork on adjacent lands within Zion National Park.
- Zion National Park would provide a willing and capable partner in sharing administrative and management responsibility in concert with management of the contiguous segment within its own jurisdiction.
- Potential impacts to private lands and interests are significantly reduced by the terms of the Zion National Park Water Rights Agreement of December 4, 1996.
- Designation would promote national and public recognition of the values associated with this river segment and further the goals and policy established by Congress in the Wild and Scenic Rivers Act.

Oak Creek/Kolob Creek

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

Public land sections along Oak Creek and Kolob Creek possess "A" quality scenery. Both creeks form deeply incised canyons with hanging gardens, falls, and deep plunge pools. The scenic values are exemplary in a regional context and are not common in the Colorado Plateau region.

Visitors are willing to travel long distances to hike along these creeks despite difficult and remote access. Hiking through the canyons is dangerous, and rock climbing skills and special equipment are required in several places. These canyons are a unique and integral part of the canyon system in the area and provide the most challenging access to the canyon complex of Zion National Park. The canyons also provide outstanding opportunities for solitude and high-quality primitive recreation. They are a significant component of the regional recreational opportunity.

Kolob Creek and Oak Creek provide excellent habitat for the peregrine falcon, the Mexican spotted owl, and the northern goshawk. The high quality habitat is due in part to such features as the deep, steep-walled canyons, the proximity to spruce-fir stands, the aspect, and the availability of a prey base.

Flows through Kolob Creek are regulated, in part, as a result of releases from Kolob Reservoir several miles upstream. At times, water management requirements at the reservoir result in exceptionally high flows which are potentially dangerous to hikers in the canyon. To minimize such danger, the Washington County Water Conservancy District has adopted a policy of scheduling major releases during seasons when recreation use in the canyon is low to nonexistent. Natural flood events from heavy precipitation or excessive snowmelt can create serious danger at any time of the year, however.

2. Landownership Status and Land Use

The river segment is approximately 4.7 miles in length. Of that, about 3.6 miles cross public lands administered by BLM and the balance is privately owned. Approximately 70 percent of the land within the half-mile wide corridor along the river is public land, 25 percent is private, and 5 percent is administered by Zion National Park. Land use on privately owned tracts includes rural home/vacation sites, live-

stock grazing, and private hunting. Public lands support livestock grazing, some motorized touring, and dispersed activities including hiking, fishing, hunting, sightseeing, and primitive camping. Human use in the Park is limited to various forms of primitive recreation.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation of Nondesignation

All public lands within the half-mile corridor adjacent to the river segments have been classified as primitive or semiprimitive motorized recreation lands and are contained within the Deep Creek Special Recreation Management Area. The southern half-mile of Kolob Creek crosses lands recommended for wilderness designation. Designation under the Wild and Scenic Rivers Act would generally complement the management of natural systems, resources, and primitive recreation opportunities that prompted such classifications and proposed designations. Failure to include the lands in the NWSRS would not necessarily diminish the values for which the rivers were determined eligible inasmuch as land use prescriptions within the Proposed Dixie RMP were developed to preserve and enhance such values. Designation under the Act would also complement management goals for adjacent federal lands in Zion National Park.

As a result of the Zion National Park Water Rights Settlement Agreement of December 4, 1996, federal reserved water rights were recognized for Zion National Park sufficient to meet the purposes for which the Park was established. BLM has concluded that the water rights quantification established for Zion National Park in the agreement is sufficient to satisfy flow requirements needed to maintain river-related values on public lands above the Park in Washington County. No additional flows would thus be required as a result of designation under the Wild and Scenic Rivers Act. Potential developments and water diversions upstream or up gradient from Zion National Park completed in accordance with the terms of the agreement would not be jeopardized or foreclosed.

Development of private lands within the half-mile wide corridor where a federal nexus exists as a result of required permits, approvals, or funding would be subject to appropriate environmental analysis and mitigation of potential impacts to river-related values associated with a wild and scenic river designation. No applications or current proposals are known to exist for any such development.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this river segment in the NWSRS. Execution of the water rights agreement for Zion National Park has reduced much of the outright opposition from local agencies and water users, but concern and uncertainty still exist over perceived impacts to existing and unperfected private water rights and future developments on affected private lands. Some private citizens and regional and national conservation groups have promoted designation as a means of preserving the free-flowing character of the segment. An opportunity exists to share management and administration with Zion National Park under a cooperative management agreement should portions of the river be designated adjacent to and within the Park.

5. Cost of Land Acquisition and Administration

For effective management of the river corridor, a minimum of 360 acres would need to be acquired on lower Kolob Creek through purchase or exchange at an estimated equivalent value ranging from $75,000 to $110,000 in 1997 dollars. Initial costs of administration for the first 3 years, including management plan preparation and implementation, are estimated to be $52,000. Yearly administration thereafter is estimated to be $5,500 above present levels and does not include the costs of studies, monitoring, and investigations.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

Designation would slightly raise the level of management needed for wild and scenic river purposes above that already called for in the

Proposed Dixie RMP for other resource values. Working with Zion National Park officials, a comprehensive management plan could be prepared that addresses the entire river segment on federally administered portions and joint actions taken under a cooperative management agreement to manage visitor use and natural resources. With adequate funding support for law enforcement and minimum interpretive facilities for visitor enjoyment, BLM should have the capability to manage the public land segments. All identified outstandingly remarkable values would be effectively managed under land use prescriptions in the Proposed Dixie RMP should designation not occur.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Rights

Several entities hold water rights upstream or up gradient within the basin from Zion National Park and would be protected by the terms of the Zion National Park Water Rights Settlement Agreement. Additionally, the effects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts from the effects of designation and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, BLM would not disturb existing water rights or planned developments. Future developments, if any, would be subject to appropriate environmental analysis where federal lands, resources, or approvals are required.

8. Suitability Determination

Public land segments of Oak Creek/Kolob Creek are found suitable for designation as components of the NWSRS. Factors leading to this determination include:

- Scenic, recreational, and wildlife values within the river corridor are of sufficient quality to warrant inclusion into the NWSRS.
- Designation of these segments would not significantly elevate management costs above planned levels nor require substantial increases in appropriations or diversion of resources from critical ongoing programs.
- Acquisition of private lands on the segments and management for wild and scenic purposes are within the capability of BLM in the Dixie Resource Area.
- Designation would be consistent with management goals for river-related resources on the Kolob Creek drainage on adjacent lands within Zion National Park.
- Zion National Park would provide a willing and capable partner in sharing administrative and management responsibility in concert with management of the contiguous segment within its own jurisdiction.
- Potential impacts to private lands and interests are significantly reduced by the terms of the Zion National Park Water Rights Agreement of December 4, 1996.
- Designation would promote national and public recognition of the values associated with this river segment and further the goals and policy established by Congress in the Wild and Scenic Rivers Act.

Santa Clara River - Segment B

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

Lands immediately adjacent to this segment of the Santa Clara River contain nearly 40 known Anasazi cultural sites, a few Southern Paiute sites, and a large number of exceptional petroglyphs. The latter is one of the finest sites in the region. The Anasazi sites are representative of the Virgin River riparian adaptation and are some of the last remaining sites in public ownership available for study. The sites are eligible for listing on the National Register of Historic Places. By comparison to river-related cultural resources on other rivers in the Mojave and Great Basin regions, these resources are outstanding in their nature and value.

Bald eagles occasionally use the river corridor in winter months, but are found primarily at nearby reservoirs. The segment also constitutes historic habitat for the Virgin spinedace. Because instream flows have ceased during summer months for many years due to upstream impoundments and diversions, viable populations of this fish are no longer found in this location.

The river area is used extensively for recreation by local residents, with some regional visitors drawn by the exceptional rock art panels. Three water diversions and several road crossings occur on the segment. Three reservoirs and 10 additional diversions upstream on the main stem control most of the flows. The diversions result in complete dewatering of the river during certain times of the year. Occasional floods, however, still scour the channel due to heavy snowmelt or prolonged periods of rain in the upper reaches of the drainage. Existing and planned developments on private lands within the river area compromise the value and manageability of the segment for wild and scenic river purposes.

2. Landownership Status and Land Use

The river segment is approximately 5 miles in length. Of that, about 2 miles cross public lands administered by BLM, 0.5 miles is owned by the State of Utah, and the balance is privately owned. Approximately 50 percent of the land adjacent to the river is in public ownership. The public lands are fragmented by a single private inholding of about 200 acres. Private and state lands are used for mineral extraction, livestock grazing, agriculture, residential use, and various out-buildings. Public lands are used for grazing, hunting, bird watching, community gatherings, sightseeing, petroglyph viewing, and various forms of outdoor recreation including undeveloped camping, hiking, jogging, paintballing, horseback riding, and motorized touring. The communities of Ivins and Santa Clara have proposed that public lands in the area be jointly managed as a reserve to protect the petroglyphs and archeology from further vandalism and to provide future open space and dispersed recreation opportunities.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

Water within this river segment is fully allocated. Without support from and the direct involvement of affected communities and local and state agencies, inclusion of Segment B into the National Wild and Scenic Rivers System could have an unsettling effect on municipalities and water users throughout and above this segment. Where a federal nexus is established, uncertainty would exist on the nature and extent of modifications that could be made from time to time on existing water diversions to modernize, upgrade facilities, change diversion points, or to wheel water flows in a manner to achieve conservation and savings. Current residential, commercial, and industrial developments within or above the river area could feel constrained in their ability to expand or to be supported by new infrastructure that impacts on lands or river-related values in the half-mile corridor along the river.

Proposals being considered by local, state, and federal partners in the Virgin River Management Plan to pipe and conserve irrigation water experiencing loss to seepage and evaporation so as to leave year-round flows sufficient to restore Virgin spinedace populations could be curtailed or entirely foreclosed. If approved, the proposals would eliminate the need for most or all existing on-stream diversions below the Gunlock Reservoir. One potential reservoir site and one potential reservoir enlargement have also been identified upstream of the segment on the Shivwits Indian Reservation and on state lands at Gunlock. Although no proposal is currently in place for development of these sites, designation of Segment B could impede or foreclose such development in the future. Actual impacts to potential uses would depend, in large part, on specific provisions of the enacting legislation and constraints already in place on the river as a result of other laws, regulations, and agreements. One other potential reservoir site has been identified on this segment but eliminated from further consideration due to resource impacts.

Current efforts by local, state, and federal agencies, municipalities, and citizen organizations to

manage important resources along the river include the Virgin River Management Plan, the Virgin River Basin Integrated Resource Management and Recovery Program, the Virgin River Focus Area Plan, the Three Rivers Trail Project, the Virgin Spinedace Conservation Agreement and Strategy, and the proposed Santa Clara River Reserve. Some level of floodplain development protection has been implemented by both of the communities traversed by the river. Resource protection for all listed values on public land parcels would be afforded under the Proposed Dixie RMP. Consequently, failure to designate this segment as a recreational component of the NWSRS would result in little or no diminution of those values. Designation of the river could be used as an additional tool, however, to accomplish many of the objectives being pursued by some of the interagency and community-based planning initiatives.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this segment of the river in the NWSRS. Local and state agencies and some municipalities have actively opposed designation due to potential impacts to existing and future water management programs on the river and the uncertainty over potential impacts to long-term land use on the non-federal lands in and upstream of the corridor. Some private citizens and regional and national conservation groups have endorsed designation as a means of preserving and eventually enhancing the remaining free-flowing character of the river and precluding further diversions and impoundments. Presently, no opportunities exist for sharing of costs or administration for wild and scenic river purposes should designation occur.

5. Cost of Land Acquisition and Administration

Acquisition of nearly 200 acres of private lands through purchase or exchange would consolidate public ownership and greatly facilitate management of the river segment. The estimated equivalent value would range from $1,000,000 to $2,000,000 in 1997 dollars. Initial costs of administration for the first 3 years, including management plan preparation and implementation, are estimated to be $53,000. Yearly administration thereafter is estimated to be $9,000 above present levels and does not include additional studies, monitoring, and investigations.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

Several factors make it impractical for BLM to manage segment B as a component of the NWSRS without the support and assistance of local, state, and tribal entities. The limited size and fragmented nature of the public lands, high costs of land acquisition, incompatible developments on private lands, widespread opposition to designation, and existing BLM commitments to development and enhancement of special management areas for critical resource protection in other sectors make it unlikely that BLM could implement a successful Wild and Scenic River management program on this segment. Existing diversions sometimes dewater the river during periods of the year which compromises the free-flowing character of the river. BLM would have no legal, administrative, or financial means to remove the effects of these diversions.

Community-based initiatives affecting management of land and resources along this river segment are currently underway and show excellent promise for achieving objectives related to protection of the river, its floodplains, and many of the unique cultural, ecologic, and recreational values that lie within the corridor. The initiatives would address issues pertinent to both private and federal lands. Because grass-roots support exists in each case, there is a spectrum of interests and resources being made available to accomplish the work. In every instance, planned actions would complement BLM goals for resource protection on or near the river. Where authority or resources are not adequate or far reaching enough to address all issues, prescriptions in the Proposed Dixie RMP associated with the Land Hill Area of Critical Environmental Concern would provide the protection needed for the identified values on public lands within this segment.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Water Rights

According to the Virgin River Management Plan (January 1998), there are 26 water rights on the main stem upstream to Pine Valley in the Dixie National Forest. Other non-federal water rights are known to exist on several tributaries. Generally, the affects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, any federal reserved water right created by congressional action would be junior to existing water rights at the time legislation was enacted. BLM would not disturb existing water rights or developments unless negotiated agreements or purchases were made with willing owners. BLM would work with private owners, the Paiute Indian Tribe, and affected local, state, and federal agencies to reach agreement on flows needed to sustain critical resource needs and then pursue the joint development of innovative strategies and voluntary agreements with water users under state law to address those needs. Future developments, if any, would be subject to appropriate environmental analysis where federal lands, resources, or approvals are required.

8. Suitability Determination

Segment B of the Santa Clara River is found not suitable for designation as a component of the NWSRS. Factors leading to this determination include:

- Only 2 miles of public lands are crossed by the river segment and these are fragmented by private inholdings; manageability for wild and scenic river purposes is thus severely limited. Moreover, extensive private lands, urbanization, incompatible developments, and multiagency jurisdictions on adjacent segments render long-term opportunities for comprehensive river management under the Wild and Scenic Rivers Act impractical and unlikely.
- The free-flowing character of the segment is compromised by existing diversions, developments, and upstream impoundments; little opportunity exists to enhance this character.
- Acquisition costs of private inholdings are disproportionately high and would divert limited resources from existing management commitments and higher priority resource programs.
- Most affected landowners, water users, and local and state agencies oppose designation due to potential impacts to the use and development of private lands and interests in and above the river corridor.
- Willing and capable partners do not presently exist to share in permanent costs and administration for wild and scenic river management.
- Community-based planning initiatives and land use prescriptions in the Proposed Dixie RMP would provide the desired level of protection for identified river-related values without designation and at a lower cost to the federal government.

Virgin River - Segment A (Utah)

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

Portions of this segment of the main stem of the Virgin River are scenic and support well-developed riparian zones in a desert environment. The river area provides habitat for a variety of listed and special status wildlife species including the bald eagle, peregrine falcon, Southwestern willow fly catcher, and ferruginous hawks. Populations of the Virgin spinedace, flannel-mouth suckers, and the endangered woundfin minnow and Virgin River chub inhabit several reaches within the segment. Recreational opportunities abound along the river and include hiking, camping, sightseeing, tubing, swimming, bird watching, and photography, among others. That portion from La Verkin to Springdale along State Scenic Route 9 in the Zion corridor is viewed by over two mil-

lion visitors a year travelling to and from Zion National Park. Cultural and historic features are found along the river corridor on private and public lands. These include some significant site clusters of the riparian adaptation of the Virgin Anasazi.

A total of five diversions are currently found along the segment. Most of the structures are relatively small in size and do not, by themselves, wholly compromise the free-flowing character of the river. Some of the diversions are on public lands. The Quail Creek Reservoir diversion is considered a major structure and backs up the river for nearly a mile onto private lands at that point. This section is determined to be non-free-flowing. Historically, portions of the river have been dewatered during seasons of the year as a result of the diversions which provide water for agricultural and municipal purposes. Numerous road crossings, fence crossings, and developments on private lands within the floodplain also detract from the natural character of the river corridor. A limited amount of channel modification and riprapping exists in places to protect private developments and portions of the State Route 9 highway.

2. Landownership Status and Land Use

The river segment is approximately 49 miles in length. Of that, about 10 miles are on public lands administered by BLM, 0.5 miles is owned by Utah's School and Institutional Trust Lands Administration, and the balance is privately owned. Approximately 20 percent of the land adjacent to the river is in public ownership. The public land segments are highly fragmented, the longest of which is less than 2 miles in length. Up to one mile of privately owned shoreline between Hurricane and the Quail Creek Reservoir is being acquired by BLM as part of the Washington County Habitat Conservation Plan for protection of the desert tortoise and other components of the desert ecosystem. Land use within the corridor is diverse and varies considerably with ownership. Public lands support livestock grazing, rights-of-way, mineral extraction, and a host of undeveloped recreation opportunities. Dramatic increases in area visitation and housing costs in recent years has increased camping within public land riparian zones to the point where resource degradation is occurring, requiring consideration of seasonal closures. Land use on the private lands includes residential and commercial development, crop production, livestock grazing, one hot springs resort, golf courses, sand and gravel extraction, a small power plant, transportation developments including roads and bridges, and an increasing amount of urbanization in and around six incorporated communities. Several community-based planning efforts along the river are underway to preserve recreational, historic, and natural features associated with the river. Combined, the efforts would protect floodplains and provide a greenbelt and trail system along the entire river corridor from west of St. George to Springdale.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

Without support from and the direct involvement of affected communities and local and state agencies, inclusion of Segment A into the National Wild and Scenic Rivers System could have an unsettling effect on municipalities and water users throughout this 49-mile segment. Where a federal nexus is established, uncertainty would exist on the nature and extent of modifications that could be made from time to time on existing water diversions to modernize, upgrade facilities, change diversion points, or to wheel water flows in a manner to achieve conservation and savings. Current residential, commercial, and industrial developments within the river area could feel constrained in their ability to expand or to be supported by new infrastructure that impacts on lands or river-related values in the half-mile corridor along the river. Proposals now being considered by local, state, and federal partners in the Virgin River Management Plan to remedy the effects of warm, highly saline waters at La Verkin Springs could be curtailed or entirely foreclosed. Actual impacts to potential uses would depend, in large part, on specific provisions of the enacting legislation and constraints already in place on the river as a result of other laws or regulations such as the Endangered Species Act.

Water within this river segment is fully allocated. No new impoundments are proposed on the segment. The number of diversion points

has decreased in the past few years as improvements in delivery systems have been installed. Current efforts by local, state, and federal agencies, municipalities, and citizen organizations to manage important resources along the river include the Virgin River Management Plan, the Virgin River Basin Integrated Resource Management and Recovery Program, the Virgin River Focus Area Plan, the Three Rivers Trail Project, the Grafton Heritage Partnership, and the Virgin Falls Park Cooperative Agreement. Some level of floodplain development protection has been implemented or is being considered by each of the communities traversed by the river. Resource protection for all listed values on public land parcels would be afforded under the Proposed Dixie RMP. Consequently, failure to designate this segment as a recreational component of the NWSRS would result in little or no diminution of those values. Designation of the river could be used as an additional tool, however, to accomplish many of the objectives being pursued by some of the interagency and community-based planning initiatives.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this segment of the river in the NWSRS. Local and state agencies and some municipalities have actively opposed designation due to potential impacts to existing and future water management programs on the river and the uncertainty over potential impacts to long-term land use on the non-federal lands in the corridor. Some private citizens and regional and national conservation groups have endorsed designation as a means of preserving and eventually enhancing the remaining free-flowing character of the river and of precluding further diversions and impoundments. Presently, no opportunities exist for sharing of costs or administration throughout the entire segment should designation occur.

5. Cost of Land Acquisition and Administration

Countless developments and recent escalation of land values throughout Washington County, particularly in incorporated communities and near Zion National Park, would make acquisition of a significant amount of non-federal lands and interests in lands within the river corridor impractical. Based on recent acquisitions elsewhere on the river, total costs to achieve 50 percent federal control would exceed $120 million (1997 dollars). Without committed partners, increased visitation and public expectations would also drive administrative costs beyond BLM's traditional levels of funding for this resource area. Initial costs of administration for the first 3 years, including management plan preparation and implementation, are conservatively estimated to be $140,000. Yearly administration thereafter is estimated to be $43,000 above present levels and does not include construction of major visitor facilities or additional studies, monitoring, and investigations.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

Numerous factors make it difficult or impractical for BLM to manage this segment as a component of the NWSRS without extensive assistance from local communities and state or other federal agencies. Public land fragmentation, lack of legal and physical access, high acquisition and management costs, lack of sufficient resource and law enforcement personnel, strident opposition from landowners and local governments, and ongoing commitments to critical resource protection and programs in other sectors make it unlikely that BLM could implement a successful wild and scenic river management program on this segment.

Several community-based initiatives affecting management of lands and resources along this river segment are already underway and show excellent promise for achieving objectives related to protection of the river, its floodplains, and many of the unique historic, cultural, ecologic, and recreational values that lie within the corridor. The initiatives would address issues pertinent to both private and federal lands. Because grass-roots support exists in each case, there is a spectrum of interests and resources being made available to accomplish the work. In every instance, planned actions would complement BLM goals for resource protection on or near the river. Where authority or resources are not

adequate or far reaching enough to address all issues, prescriptions in the Proposed Dixie RMP would provide the protection needed for the associated values on public lands within this segment.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Rights

According to the Virgin River Management Plan (January 1998), there are 21 individual water rights on this segment of the Virgin River and 7 perfected rights downstream before the Arizona state line. Eight other rights exist upstream on the North and East Forks in or below Zion National Park. A substantial number of entities hold water rights upstream or up-gradient from the Park but are protected by the terms of the Zion National Park Water Rights Agreement signed December 4, 1996. Generally, the effects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts from the effects of designation and specifies that such may not be terminated without consent of the affected non-federal parties. If designation of this segment were to occur, any federal reserved water right created by congressional action would be junior to existing water rights at the time legislation was enacted. BLM would not disturb existing water rights or developments unless negotiated agreements or purchases were made with willing owners. BLM would work with private owners and affected local, state, and federal agencies to reach agreement on flows needed to sustain critical resource needs and then pursue the joint development of innovative strategies and voluntary agreements with water users, under state law, to address those needs. Future developments, if any, including presently unperfected water rights below Zion National Park, would be subject to appropriate environmental analysis where federal lands, resources, or approvals are required.

8. Suitability Determination

Segment A of the Virgin River is found unsuitable for designation as a component of the NWSRS. Factors leading to this determination include:

- Public land segments are highly fragmented and constitute only 20 percent of the ownership along the river corridor.
- The free-flowing character of the river is already compromised in numerous places; limited opportunities exist to enhance such value.
- Land and easement acquisition and long-term administration is impractical and would involve exceptionally high costs.
- Affected municipalities, local and state agencies, water users, and adjacent land owners oppose wild and scenic designation.
- Willing and capable partners to share in permanent costs and administration do not presently exist.
- Given historic funding levels and other critical management priorities, there is no reasonable expectation that sufficient agency personnel and resources would be made available to plan for, implement, and administer the designated segment.
- Community-based planning initiatives and land use prescriptions in the Proposed Dixie RMP would achieve the desired level of protection without designation and at a lower cost to the federal government.

Virgin River - Segment B (Utah)

1. Characteristics Which Do or Do Not Make the Area a Worthy Addition to the National Wild and Scenic Rivers System

A portion of this segment of the Virgin River runs through the deeply incised gorge of the Beaver Dam Mountains Wilderness Area and sustains a high degree of scenic quality and natural splendor. During favorable years, private and commercial boaters access the river near Bloomington and Atkinville and float the river, some continuing through the wilderness area. The quality of the boating experience is dependent on the nature of unpredictable surface flows which, historically, have dwindled and

ceased by late summer and fall. In unusually wet years, spring floods and high flows can make boating dangerous. The natural setting and diverse wildlife within the well-developed riparian zones create an excellent environment for dispersed hiking and bird watching. During moderate flows, the river is enjoyed by recreationists engaged in wading, tubing, and swimming. The City of St. George maintains a popular, well-developed trail system along the river near Bloomington.

This segment supports populations of Virgin spinedace, flannel-mouth suckers, and the endangered woundfin minnow and Virgin River chub. It comprises one of the largest stretches of native fish habitat in public ownership in the Virgin River Basin, and is therefore of particular significance. The corridor provides habitat for a variety of listed and sensitive species including the bald eagle, peregrine falcon, Southwestern willow flycatcher, and ferruginous hawks.

The river corridor also provides high quality migratory or wintering habitat for waterfowl, shore-birds, and other nongame species. Because the corridor connects northern migratory habitats to the Colorado River system, it serves as a critical link in this arid region.

The river corridor supports concentrations of Virgin Anasazi sites including numerous, complex site clusters. These constitute some of the best sites within the Virgin River Basin, are considered eligible for the National Register of Historic Places, and are significant on a regional basis.

During low flow periods, flows within the river are maintained by irrigation returns and the discharge of up to 6 million gallons of effluent a day from the sewage treatment plant above Atkinville. A low dam structure or fish barrier is maintained on the public land segment near the Navajo-McCullough powerline corridor to deter upstream migration of red shiners and improve habitats for protected fish species. Other small dams and structures exist on the river within the privately owned section between Atkinville and the River Road Bridge.

2. Landownership Status and Land Use

The river segment is approximately 13 miles in length. Of that, about 6.5 miles are public lands administered by BLM, 0.5 miles is owned by the State of Utah, and the balance is privately owned. Nearly 2 miles of the river is contained within the Beaver Dam Mountains Wilderness Area on the Utah side of the border with Arizona. Approximately 42 percent of the land adjacent to the river is in public ownership. Land use on the state and public lands includes primitive recreation within the wilderness area, livestock grazing, one major powerline corridor, hunting, back country touring, and other forms of dispersed recreation. Land use on the private section is essentially urban in character and consists of commercial and residential development, golf courses, developed trails, and one crossing by Interstate Highway 15. Community-based planning efforts, including the Virgin River Management Plan, the Three Rivers Trail Initiative, the Virgin River Area Focus Plan, and the Virgin River Basin Integrated Resource Management and Recovery Program, are underway to preserve recreational and natural features associated with the river. The efforts would protect floodplains from incompatible use and development, restore habitats, protect endangered fish and other species at risk, and promote sound recreation use and trail systems.

3. Potential Land Use and Values That Would Be Enhanced, Foreclosed, or Curtailed by Designation or Nondesignation

Without support from and the direct involvement of affected communities and local and state agencies, inclusion of Segment B into the National Wild and Scenic River System could have an unsettling effect on municipalities and water users within this 13-mile segment and upstream to Zion National Park. With the establishment of a federal nexus, uncertainty would exist on the nature and extent of modifications that could be made from time to time on existing water diversions that could alter flows in this segment. To the degree private lands below the River Road Bridge were included, residential and commercial developments within the river area could feel constrained in their ability to expand or to be supported by new infrastructure that impacts on lands or river-related values in the half-mile corridor along the river. Proposals now being considered by local, state, and federal partners in the Virgin River Management Plan

to recycle treated sewage effluent currently discharged into the Virgin River above Atkinville by the Regional Water Reclamation Facility could be severely curtailed. Actual impacts to this project and other potential uses would depend, in large part, on specific provisions of the enacting legislation and constraints already in place on the river as a result of other laws or regulations such as the Endangered Species Act.

Water within the river has been fully allocated. No new impoundments are proposed on the segment. Resource protection for all listed values on public land parcels would be afforded under the Proposed Dixie RMP and Beaver Dam Mountains Wilderness Management Plan. Enhancement of many of those same values would occur with implementation of portions of local planning proposals. Consequently, failure to designate this segment as a component of the NWSRS would result in little or no diminution of those values. Designation of all or a portion of the segment could be used as an additional tool, however, to help accomplish many of the objectives being pursued by some of the interagency and community-based river planning initiatives.

4. Interest in Designation or Nondesignation and Opportunities for Sharing Costs and Administration

No state, tribal, or local government has expressed support for inclusion of this segment of the river in the NWSRS. Local and state agencies, water users, citizen groups, and some municipalities have actively opposed designation due to potential impacts to existing and future water management programs on the river and the uncertainty over potential impacts to long-term land use on the non-federal lands in and upstream of the corridor. Some private citizens and regional and national conservation groups have endorsed designation as a means of preserving and eventually enhancing the free-flowing character of the river and precluding further diversions and impoundments. River studies conducted by the BLM in Arizona led to a suitable determination for that part of the Virgin River that runs through the Virgin River Gorge and the Beaver Dam Mountains Wilderness Area on the Arizona side of the state line. BLM's Arizona Strip Field Office would be a logical and willing partner to share costs and administration of the river through the designated wilderness area in Utah. No other opportunities presently exist for sharing of costs or administration throughout the remainder of the segment should designation occur.

5. Cost of Land Acquisition and Administration

Acquisition of private lands between the River Road Bridge and Atkinville would be impractical and prohibitively expensive. Escalated land values in St. George would drive such costs into the hundreds of millions of dollars. As a practical matter, BLM would acquire through exchange all 448 acres of state land in Section 36 which is fully enclosed within the Beaver Dam Mountains Wilderness Area. The equivalent value would range from an estimated $90,000 to $135,000 in 1997 dollars. Beyond preparation of the management plan, increased costs of administration within the wilderness area would be low because of land use prescriptions already in place as a result of wilderness designation. Without committed partners, increased visitation and public expectations for recreation management and facility construction on public lands within the balance of the segment could drive administrative costs beyond traditional levels of funding for this resource area. Initial costs of administration for the first 3 years, including management plan preparation and implementation, are estimated to be $109,000. Yearly administration thereafter is estimated to be $22,000 above present levels and does not include additional studies, monitoring, and investigations.

6. Ability to Manage and Protect the River If Designated and Other Means Available to Protect Values Identified

Several factors make it impractical for BLM to manage the entire segment as a component of the NWSRS without assistance from local, state, and other federal entities. Insufficient resource and law enforcement personnel, strident opposition from landowners and local governments, and BLM's ongoing commitments to development and enhancement of special management areas for critical resource protection in other sectors make it unlikely that BLM could implement a successful wild and scenic river management program on this segment.

Effective management of river-related values within the wilderness gorge is ensured by the wilderness designation and associated management plan. Community-based initiatives affecting management of land and resources along the balance of this river segment are currently underway and show excellent promise for achieving objectives related to protection of the river, its floodplains, and many of the unique cultural, ecologic, and recreational values that lie within the corridor. The initiatives would address issues pertinent to both private and federal lands. Because grass-roots support exists in each case, there is a spectrum of interests and resources being made available to accomplish the work. In every instance, planned actions would complement BLM goals for resource protection on or near the river. Where authority or resources are not adequate or far reaching enough to address all issues, prescriptions in the Proposed Dixie RMP associated with the Lower Virgin River Area of Critical Environmental Concern would provide the protection needed for the identified values on public lands within this segment.

7. Other Issues Including Takings or Adverse Affects of Designation on Existing Water Rights

According to the Virgin River Management Plan (January 1998), there is one perfected and one unperfected water right on this segment and up to 36 additional water rights upstream on the main stem through Zion National Park. A substantial number of entities hold water rights upstream or up-gradient from the Park but are protected by the terms of the Zion National Park Water Rights Agreement signed December 4, 1996. Generally, the affects of the McCarren Amendment (43 U.S.C. 666) are to subject the federal reserved water right created by Section 13 of the Wild and Scenic Rivers Act to applicable state water law. Section 12 of the same Act is written so as to protect existing rights, privileges, and contracts and specifies that such may not be terminated without consent of the affected non-federal parties. If designation were to occur, any federal reserved water right created by congressional action would be junior to existing water rights at the time legislation was enacted. BLM would not disturb existing water rights or developments unless negotiated agreements or purchases were made with willing owners. BLM would work with private owners and affected local, state, and federal agencies to reach agreement on flows needed to sustain critical resource needs and then pursue the joint development of innovative strategies and voluntary agreements with water users under state law, to address those needs. Future developments, if any, involving presently unperfected water rights below Zion National Park would be subject to appropriate environmental analysis where federal lands, resources, or approvals are required.

8. Suitability Determination

That portion of Segment B of the Virgin River within the Beaver Dam Mountains Wilderness Area is found suitable for designation as a component of the NWSRS. Factors leading to this determination include:

- Scenic, recreational, and fishery values within the wilderness gorge are of sufficient quality to warrant inclusion into the NWSRS.
- Designation of this section would not significantly elevate management costs above current levels nor require increased appropriations or diversion of substantial resources from critical ongoing programs.
- Acquisition of non-federal lands on the section and management for wild and scenic purposes are within the capability of BLM in the Dixie Resource Area.
- Designation would be consistent with the previous recommendations of BLM in Arizona for management of the river in the wilderness gorge on the Arizona side of the state line.
- BLM's Arizona Strip Field Office would provide a willing and capable partner in sharing administrative, financial, and management responsibility in concert with management of the contiguous segment within its own jurisdiction.
- Potential for adverse impacts to private lands and interests are significantly reduced by confining designation to this portion of the river segment.

- Designation would promote national and public recognition of the values associated with this river segment and further the goals and policy established by Congress in the Wild and Scenic Rivers Act.

That portion of Segment B from the River Road Bridge to the boundary of the Beaver Dam Mountains Wilderness Area is found not suitable for designation as a component of the NWSRS. Factors leading to this determination include:

- Land acquisition within the privately owned section is not feasible due to prohibitive costs and the nature of the existing urban development.

- Direct impacts to private and municipal development within the half-mile corridor along the river could be extensive.

- Most affected landowners, water users, and local and state agencies stridently oppose designation of this or any other downstream segment that could jeopardize existing, planned, or potential actions related to the use, development, or conservation of privately owned water or property upstream in the Virgin River Basin.

- Willing and capable partners do not presently exist to share in permanent costs and administration.

- Given historic funding levels available to the Dixie Resource Area and other critical, ongoing management commitments, there is no reasonable expectation that sufficient agency personnel and resources would be made available to plan for, implement, and administer the designated segment.

- Community-based planning initiatives and land use prescriptions in the Proposed Dixie RMP would provide the desired level of protection for identified river values without designation and at a lower cost to the federal government.

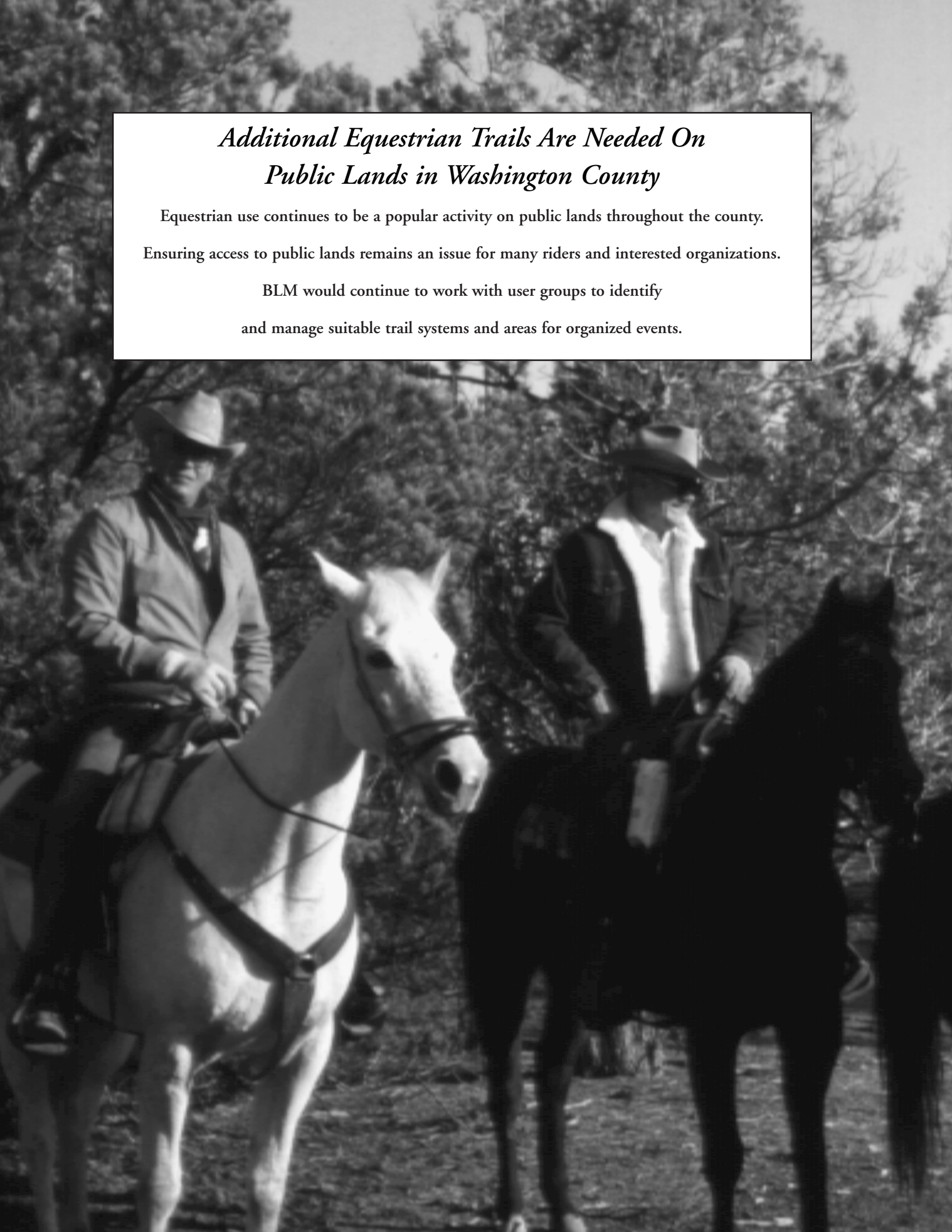
TABLE A8-1 • Suitable Wild and Scenic Rivers

SUITABLE RIVER SEGMENT (PUBLIC LANDS[1])	LOCATION	TENTATIVE CLASSIFICATION	BLM FREE-FLOWING RIVER MILES
Deep Creek/Crystal Creek	**Crystal Creek:** Public land portion to confluence with Deep Creek	Wild	4.01
	Deep Creek: Public land from DRA boundary to the north boundary of Zion National Park	Wild	7.37
LaVerkin Creek/Smith Creek	**Smith:** Public land from source to Smith Creek's confluence with LaVerkin Creek	Wild	1.25
	LaVerkin: Public land north of Zion National Park to northernmost private land parcel south of Zion National Park	Wild	7.38
North Fork Virgin River	BLM-managed portion north of Zion National Park	Wild	0.74
Oak Creek/Kolob Creek	**Oak Creek:** Public land portion to Kolob Creek confluence	Wild	0.98
	Kolob Creek: Public Land east of Kolob Narrows to north boundary of Zion National Park	Wild	2.65
Virgin River	Portion of Segment B within the Beaver Dam Mtn Wilderness Area	Wild	1.34
			TOTAL: 25.72 MILES SUITABLE

[1] Suitability recommendations apply only to portions of the river that are associated with lands under BLM jurisdiction. BLM has no authority to make such determinations outside of its jurisdiction. River segment lengths are approximate and include public lands only.

Big Game Restoration Depends on Public Lands

BLM would continue to work with the Utah DWR and volunteer groups to maintain quality habitat and viable populations of big game and other wildlife species. The photo above shows a prior release of desert bighorn sheep onto public lands in the Beaver Dam Mountains. A small herd has been successfully reestablished in historic habitat.



Additional Equestrian Trails Are Needed On Public Lands in Washington County

Equestrian use continues to be a popular activity on public lands throughout the county.

Ensuring access to public lands remains an issue for many riders and interested organizations.

BLM would continue to work with user groups to identify

and manage suitable trail systems and areas for organized events.

APPENDIX 9
Management of Designated Wild and Scenic Rivers

In accordance with Section .51 of BLM Manual 8351 (May 19, 1992, updated December 22, 1993), Wild and Scenic Rivers - Policy and Program Direction for Identification, Evaluation, and Management, the following information describes the management of designated wild and scenic rivers. This section is interpreted by the Secretaries of the Interior and Agriculture as the nondegradation and enhancement policy for all designated river areas, regardless of classification.

Wild River Areas

Wild river areas are defined by the WSRA to include:

"Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America."

1. Management Objective for Wild River Areas.

Management of wild river areas should give primary emphasis to protecting the values which make it outstandingly remarkable while providing river-related outdoor recreation opportunities in a primitive setting.

2. Management Standards for Wild River Areas.

Allowable management practices might include construction of minor structures for such purposes as: improvement of fish and game habitat; grazing protection from fire, insects, or disease; and rehabilitation or stabilization of damaged resources, provided the area will remain natural appearing and the practices or structures are compatible and in harmony with the environment. Developments such as trail bridges, occasional fencing, natural-appearing water diversions, ditches, flow measurement or other water management devices, and similar facilities may be permitted if they are unobtrusive and do not have a significant direct and adverse effect on the natural character of the river area. The following program management standards apply:

a. Forestry Practices.

Cutting of trees shall not be permitted except when needed in association with a primitive recreation experience (such as clearing for trails and for visitor safety or to protect the environment (such as control of fire). Timber outside the boundary, but within the visual corridors should, where feasible, be managed and harvested in a manner to provide special emphasis to visual quality.

b. Water Quality.

Water quality shall be maintained or improved to meet Federal criteria or federally approved State standards. (River management plans shall prescribe a process for monitoring water quality on a continuing basis.)

c. Hydroelectric Power and Water Resource Development.

No development of hydroelectric power facilities would be permitted. No new flood control dams, levees, or other works allowed in the channel or river corridor. All water supply dams and major diversions are prohibited. The natural appearance and essentially primitive character of the river area must be maintained. Federal agency groundwater development for range, wildlife, recreation or administrative facilities may be permitted if there are no adverse affects on outstandingly remarkable river related values.

d. Mining.

New mining claims and mineral leases are prohibited on Federal lands constituting the river bed or bank or located within 1/4 mile (_ mile for designated rivers and 2 miles for study rivers in Alaska) from the ordinary high water mark on both sides of the river. Valid existing claims

would not be abrogated and, subject to existing regulations (e.g., 43 CFR 3809) and any future regulations that the Secretary of the Interior may prescribe to protect the rivers included in the National System, existing mining activity would be allowed to continue. All mineral activity on federally administered land must be conducted in a manner that minimizes surface disturbance, water sedimentation, pollution, and visual impairment. Reasonable mining claim and mineral lease access shall be permitted. Mining claims, subject to valid existing rights, within the wild river area boundary can be patented only as to the mineral estate and not the surface estate (subject to proof of discovery prior to the effective date of designation).

e. Road and Trail Construction.

No construction of new roads, trails, or other provisions for overland motorized travel would be permitted within the river corridor. A few inconspicuous roads or unobtrusive trail bridges leading to the boundary of the river area may be permitted.

f. Agricultural Practices and Livestock Grazing.

Agricultural use is restricted to a limited amount of domestic livestock grazing and hay production to the extent practiced prior to designation. Row crops are prohibited.

g. Recreation Facilities.

Major public use areas, such as campgrounds, interpretive centers, or administrative headquarters are located outside wild river areas. Simple comfort and convenience facilities, such as toilets, tables, fireplaces, shelters, and refuse containers may be provided as necessary within the river area. These should harmonize with the surroundings. Unobtrusive hiking and horseback riding trail bridges could be allowed on tributaries, but would not normally cross the designated river.

h. Public Use and Access.

Recreation use including, but not limited to, hiking, fishing, and boating is encouraged in wild river areas to the extent consistent with the protection of the river environment. Public use and access may be regulated and distributed where necessary to protect and enhance wild river values.

i. Rights-of-Way.

New transmission lines, natural gas lines, water lines, etc., are discouraged unless specifically authorized by other plans, orders, or laws. Where no reasonable alternate location exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way are unavoidable, locations and construction techniques shall be selected to minimized adverse effects on wild river area related values and fully evaluated during the site selection process.

j. Motorized Travel.

Motorized travel on land or water could be permitted but it is generally not compatible with this river classification. Normally, motorized use will be prohibited in a wild river area. Prescriptions for management of motorized use may allow for search and rescue and other emergency situations.

k. Instream Flow Assessment.

To the extent practical and consistent with resource management objectives, instream flows sufficient to meet the purposes of the designated WSR river should be protected and enhanced if possible. Based on the results of an instream flow assessment, implement flow protection strategies and actions that incorporate legal, technical, and administrative aspects in order to secure instream flow protection for applicable river segments. Protection strategies should be addressed and incorporated in river management plans.

Scenic River Areas

Scenic river areas are defined by the WSRA to include:

"Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads."

1. Management Objective for Scenic River Areas.

Management of scenic river areas should maintain and provide outdoor recreation opportunities in a near-natural setting. The basic distinctions between a "wild" and a "scenic" river area are the degree of development, types of land use, and road accessibility. In general, a wide range of agricultural, water management, silvicultural, and other practices or structures could be compatible with scenic river values, providing such practices or structures are carried on in such a way that there is no substantial adverse effect on the river and its immediate environment.

2. Management Standards for Scenic River Areas.

The same considerations set forth for wild river areas should be considered, except that motorized vehicle use may, in some cases, be appropriate and that development of larger scale public-use facilities within the river area, such as moderate-sized campgrounds, interpretive centers, or administrative headquarters would be compatible if such facilities were screened from the river. The following program management standards apply:

a. Forest Practices.

Silvicultural practices including timber harvesting could be allowed provided that such practices are carried on in such a way that there is no substantial adverse effect on the river and its immediate environment. The river area should be maintained in its near-natural condition. Timber outside the boundary, but within the visually seen area, should be managed and harvested in a manner which provides special emphasis on visual quality. Preferably, reestablishment of tree cover would be through natural revegetation. Cutting of dead and down materials for fuelwood should be limited. Where necessary, restrictions on use of wood for fuel may be prescribed.

b. Water Quality.

Water quality shall be maintained or improved to meet Federal criteria or federally approved State standards. (River management plans shall prescribe a process for monitoring water quality on continuing basis.)

c. Hydroelectric Power and Water Resource Development.

No development of hydroelectric power facilities would be permitted. Flood control dams and levees would be prohibited. All water supply dams and major diversions are prohibited. Maintenance of existing facilities and construction of some new structures would be permitted provided that the area remains natural in appearance and the practices or structures harmonize with the surrounding environment.

d. Mining.

Subject to existing regulations (e.g., 43 CFR 3809) and any future regulations that the Secretary of the Interior may prescribe to protect the values of rivers included in the National System, new mining claims, and mineral leases can be allowed. All mineral activity on federally administered land must be conducted in a manner that minimizes surface disturbance, water sedimentation and pollution, and visual impairment. Reasonable mining claim and mineral lease access shall be permitted. Mining claims, subject to valid existing rights, within the scenic river area boundary can be patented only as to the mineral estate and not the surface estate (subject to proof of discovery prior to the effective date of designation).

e. Road and Trail Construction.

Roads or trails may occasionally bridge the river area and short stretches of conspicuous or long stretches of inconspicuous and well-screened roads could be allowed. Maintenance of existing roads and trails, and any new roads or trails, shall be based on the type of use for which the roads/trails are constructed and the type of use that will occur in the river area.

f. Agricultural Practices and Livestock Grazing.

In comparison to wild river areas, a wider range of agricultural and livestock grazing uses is permitted to the extent currently practiced. Row crops are not considered as an intrusion of the "largely primitive" nature of scenic corridors as

long as there is not a substantial adverse effect on the natural-like appearance of the river area.

g. Recreation Facilities.

Larger-scale public use facilities, such as moderate-sized campgrounds, interpretive centers, or administrative headquarters are allowed if such facilities are screened from the river.

h. Public Use and Access.

Recreation use including, but not limited to: hiking, fishing, hunting, and boating is encouraged in scenic river areas to the extent consistent with the protection of the river environment. Public use and access may be regulated and distributed where necessary to protect and enhance scenic river values.

i. Rights-of-Way.

New transmission lines, natural gas lines, etc., are discouraged unless specifically authorized by other plans, orders, or laws. Where no reasonable alternate location exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way are unavoidable, locations and construction techniques shall be selected to minimize adverse effects on scenic river area related values and fully evaluated during the site selection process.

j. Motorized Travel.

Motorized travel on land or water may be permitted, prohibited, or restricted to protect river values. Prescriptions for management of motorized use may allow for search and rescue and other emergency situations.

k. Instream Flow Assessment.

To the extent practical, consistent with resource management objectives, quantify instream flow and protection requirements related to outstandingly remarkable and other resource values identified through the RMP process. Where possible, conduct a comprehensive, interdisciplinary, resource value-based assessment in order to delineate resource values, relate flows to resource conditions, and formulate flow protection strategies which incorporate legal, technical, and administrative aspects in order to secure instream flows which address values associated with the scenic river segment.

Recreational River Areas

Recreational river areas are defined by the WSRA to include:

"Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past."

1. Management Objective for Recreational River Areas.

Management of recreational river areas should give primary emphasis to protecting the values which make it outstandingly remarkable while providing river-related outdoor recreation opportunities in a recreational setting. Recreational classification is a determination of the level of development and does not prescribe or assume recreation development or enhancement. Management of recreational river areas can and should maintain and provide outdoor recreation opportunities. The basic distinctions between a "scenic" and a "recreational" river area are the degree of access, extent of shoreline development, historical impoundment or diversion, and types of land use. In general, a variety of agricultural, water management, silvicultural, recreational, and other practices or structures are compatible with recreational river values, providing such practices or structures are carried on in such a way that there is no substantial adverse effect on the river and its immediate environment.

2. Management Standards for Recreational River Areas.

Recreation facilities may be established in proximity to the river, although recreational river classification does not require extensive recreational development. Recreational facilities may still be kept to a minimum, with visitor services provided outside the river area. Future construction of impoundments, diversions, straightening, riprapping, and other modification of the waterway or adjacent lands would not be permitted

except in instances where such developments would not have a direct and adverse effect on the river and its immediate environment. The following program management standards apply:

a. Forestry Practices.

Forestry practices including timber harvesting would be allowed under standard restrictions to avoid adverse effects on the river environment and its associated values.

b. Water Quality.

Water quality shall be maintained or improved to meet Federal criteria or federally approved State standards. (River management plans shall prescribe a process for monitoring water quality on a continuing basis.)

c. Hydroelectric Power and Water Resource Development.

No development of hydroelectric power facilities would be permitted. Existing low dams, diversion works, riprap, and other minor structures may be maintained provided the waterway remains generally natural in appearance. New structures may be allowed provided that the area remains generally natural in appearance and the structures harmonize with the surrounding environment.

d. Mining.

Subject to existing regulations (e.g., 43 CFR 3809) and any future regulations that the Secretary of the Interior may prescribe to protect values of rivers included in the National System, new mining claims are allowed and existing operations are allowed to continue. All mineral activity on federally administered land must be conducted in a manner that minimizes surface disturbance, water sedimentation and pollution, and visual impairment. Reasonable mining claim and mineral lease access shall be permitted. Mining claims, subject to valid existing rights, within the recreational river area boundary can be patented only as to the mineral estate and not the surface estate (subject to proof of discovery prior to the effective date of designation).

e. Road and Trail Construction.

Existing parallel roads can be maintained on one or both river banks. There can be several bridge crossings and numerous river access points. Roads, trails, and visitor areas must conform to construction and maintenance standards and be free of recognized hazards.

f. Agricultural Practices and Livestock Grazing.

In comparison to scenic river areas, lands may be managed for a full range of agriculture and livestock grazing uses, consistent with current practices.

g. Recreation Facilities.

Interpretive centers, administrative headquarters, campgrounds, and picnic areas may be established in proximity to the river. However, recreational classification does not require extensive recreation development.

h. Public Use and Access.

Recreation use including, but not limited to, hiking, fishing, hunting, and boating is encouraged in recreational river areas to the extent consistent with the protection of the river environment. Public use and access may be regulated and distributed where necessary to protect and enhance recreational river values. Any new structures must meet established safety and health standards or in their absence be free of any recognized hazard.

i. Rights-of-Way.

New transmission lines, natural gas lines, water lines, etc., are discouraged unless specifically authorized by other plans, orders, or laws. Where no reasonable alternate location exists, additional or new facilities should be restricted to existing rights-of-way. Where new rights-of-way are unavoidable, locations and construction techniques shall be selected to minimize adverse effects on recreational river area related values and fully evaluated during the site selection process.

j. Motorized Travel.

Motorized travel on land shall generally be permitted on existing roads. Controls shall usually

be similar to that of surrounding lands. Motorized travel on water shall be in accordance with existing regulations or restrictions.

k. Instream Flow Assessment.

To the extent practical, consistent with resource management objectives, quantify instream flow and protection requirements related to outstandingly remarkable and other resource values identified through the RMP process. Where possible, conduct a comprehensive, interdisciplinary, resource value-based assessment in order to delineate resource values, relate flows to resource conditions, and formulate flow protection strategies which incorporate legal, technical, and administrative aspects in order to secure instream flows which address values associated with the recreational river segment.

Management Objectives Common to Wild, Scenic, and Recreational River Areas

1. Wilderness and Wilderness Study Areas.

Management of WSRA rivers which overlap designated wilderness areas or wilderness study areas will meet whichever standard is highest. If an area is released from wilderness study status and the associated Wilderness Interim Management Policy, the applicable WSR river classification guidelines and standards would then apply.

2. Fire Protection and Suppression.

Management and suppression of fires within a designated WSR river area will be carried out in a manner compatible with contiguous Federal lands. On wildfires, suppression methods will be used that minimize long-term impacts on the river and river area. Presuppression and prevention activities will be conducted in a manner which reflects management objectives for the specific river segment. Prescribed fire may be used to maintain or restore ecological condition or meet objectives of the river management plan.

3. Insects, Diseases, and Noxious Weeds.

The control of forest and rangeland pests, diseases, and noxious weed infestations shall be carried out in a manner compatible with the intent of the WSRA and management objectives of contiguous Federal lands.

4. Cultural Resources.

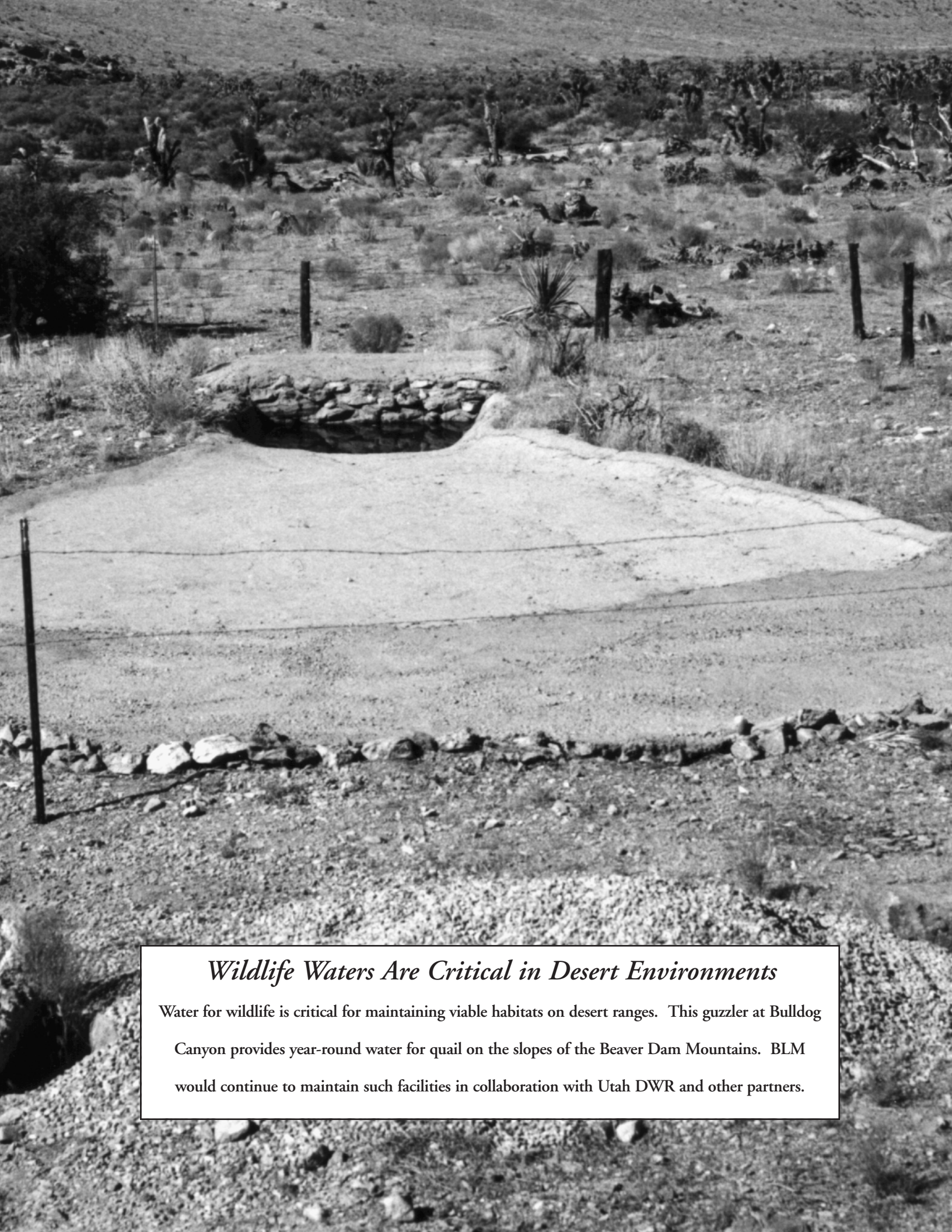
Historic prehistoric resource sites shall be identified, evaluated and protected in a manner compatible with the management objectives of the river and in accordance with applicable regulations and policies. Where appropriate, historic or prehistoric sites shall be stabilized, enhanced, and interpreted.

5. Fish and Wildlife Habitat Improvement.

The construction and maintenance of minor structures for the protection, conservation, rehabilitation or enhancement of fish and wildlife habitat are acceptable provided they do not affect the free-flowing characteristics of the WSR river, are compatible with the river's classification, that the area remains natural in appearance, and the practices or structures harmonize with the surrounding environment.

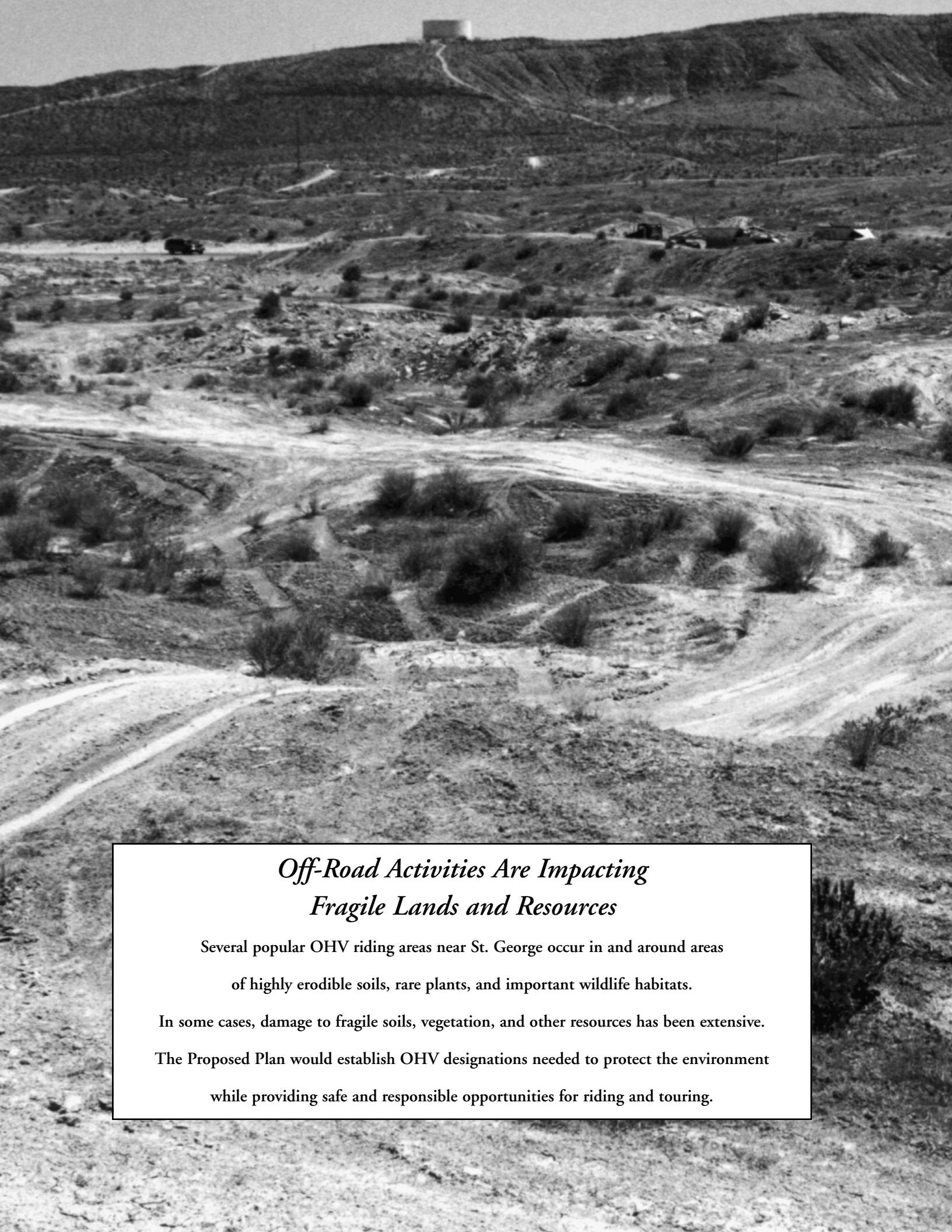
6. Water Rights.

In the process of evaluating river segments, authorizing officials are held to established principles of law with respect to water rights. Under provisions of Section 13 of the WSRA, as well as other statutes, river studies shall not interfere (except for licenses under Section 7(b) of the WSRA, pertaining to Section 5(a) WSR river studies) with existing rights, including the right of access, with respect to the beds of navigable streams, tributaries, or river segments. In addition, under the Federal Land Policy and Management Act and the Federal Power Act, the BLM has conditioning authority to control any proposed projects which would be incompatible or potentially degrading to river and/or other identified resource values.



Wildlife Waters Are Critical in Desert Environments

Water for wildlife is critical for maintaining viable habitats on desert ranges. This guzzler at Bulldog Canyon provides year-round water for quail on the slopes of the Beaver Dam Mountains. BLM would continue to maintain such facilities in collaboration with Utah DWR and other partners.



Off-Road Activities Are Impacting Fragile Lands and Resources

Several popular OHV riding areas near St. George occur in and around areas of highly erodible soils, rare plants, and important wildlife habitats. In some cases, damage to fragile soils, vegetation, and other resources has been extensive. The Proposed Plan would establish OHV designations needed to protect the environment while providing safe and responsible opportunities for riding and touring.

PROPOSED PLAN REFERENCES

In addition to references cited in the Draft Dixie RMP/EIS, the following references have been used in the Proposed Plan:

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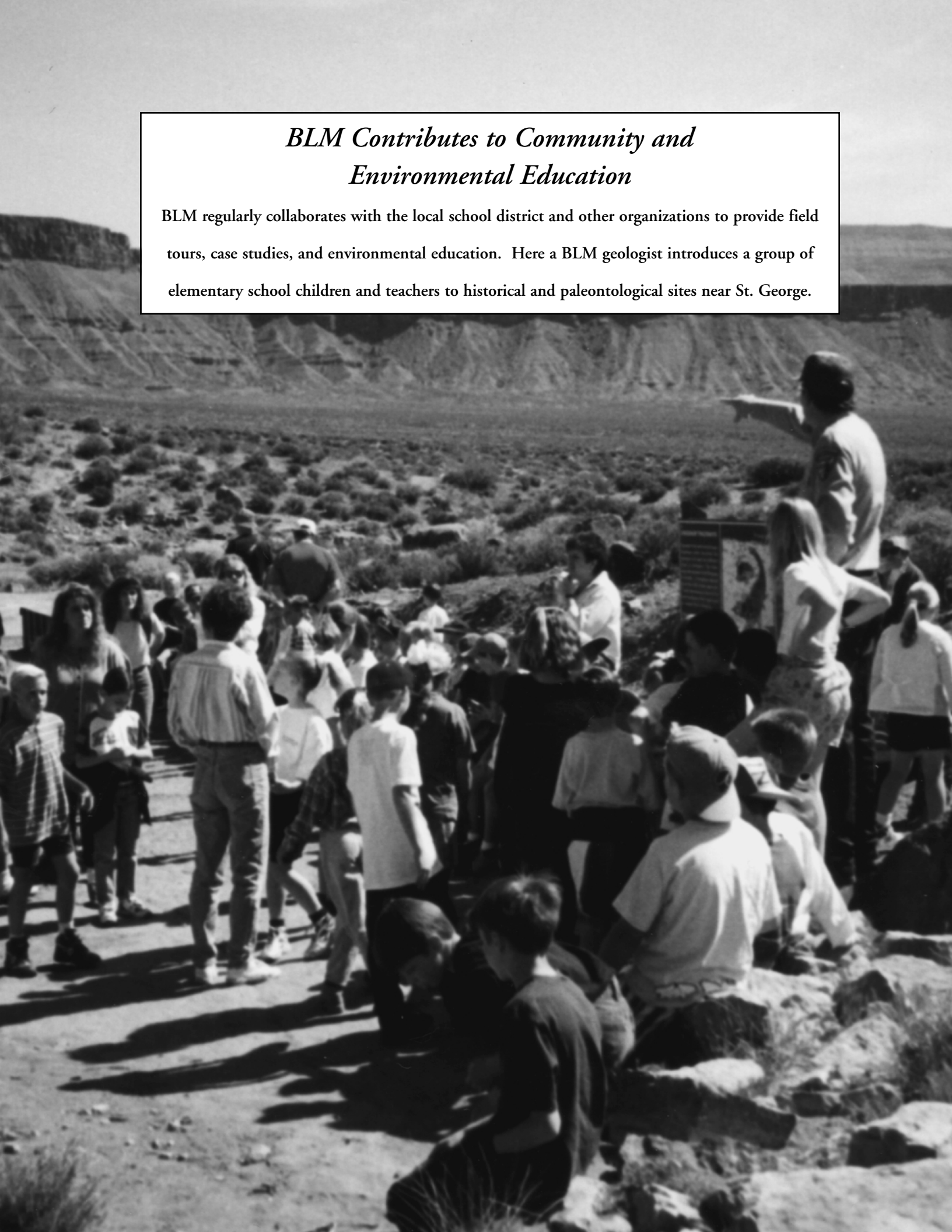
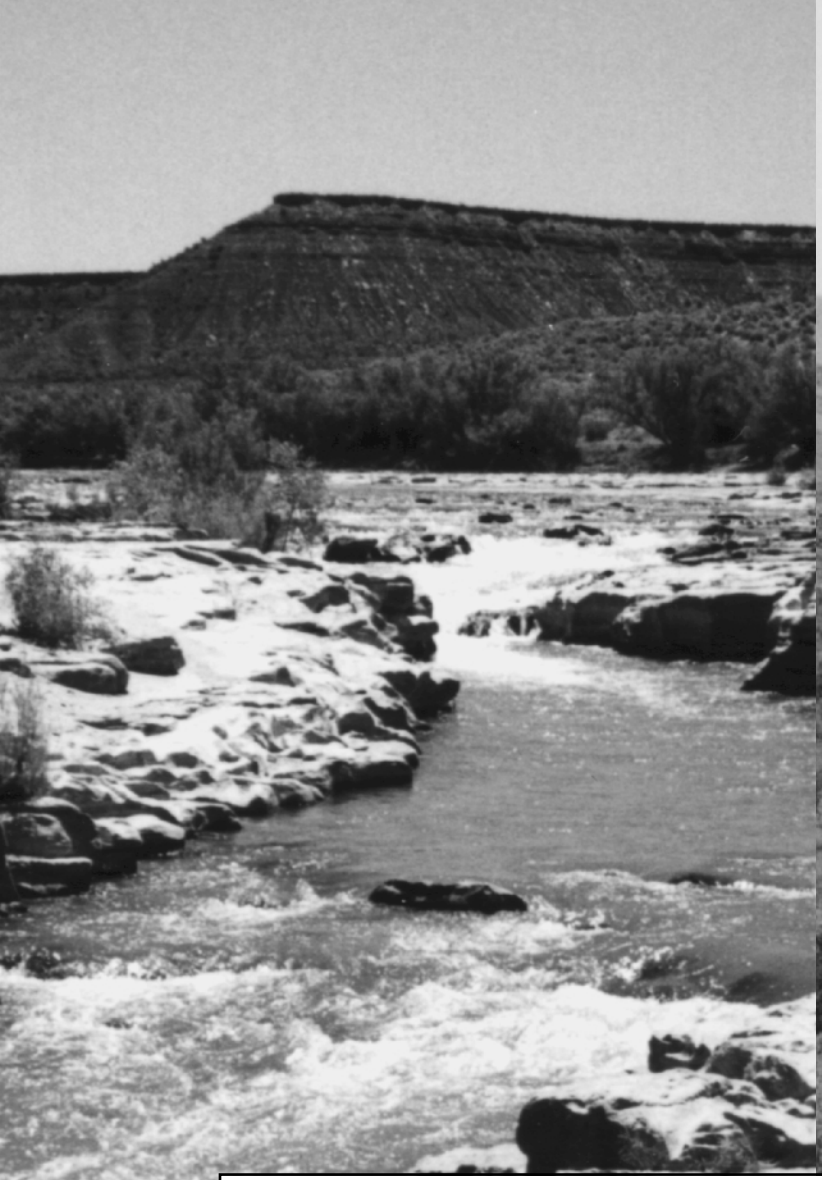


BLM Contributes to Community and Environmental Education

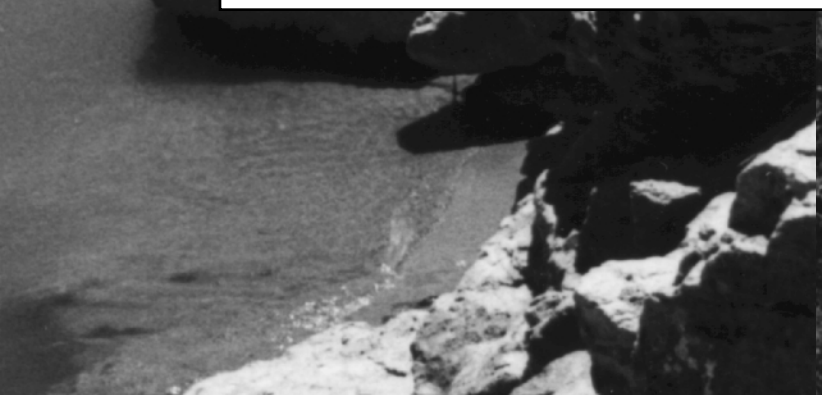
BLM regularly collaborates with the local school district and other organizations to provide field tours, case studies, and environmental education. Here a BLM geologist introduces a group of elementary school children and teachers to historical and paleontological sites near St. George.



BLM Collaborates With Local Communities to Provide Recreation and Restore River-Related Values

This stretch of the Virgin River in the Town of Virgin has been degraded through the effects of flooding and human abuse. BLM would continue working with town officials and volunteer groups under a cooperative management agreement to eliminate destructive activity, improve riparian vegetation, and restore a safe recreational environment for people to enjoy.

This stretch of the Santa Clara River contains key riparian resources, cultural resources, and existing, historical, and potential habitat for a number of sensitive wildlife species. BLM is working with the adjacent communities of Ivins and Santa Clara to preserve these and other important features under a cooperative management agreement and to establish an open-space reserve that would provide for appropriate recreational, interpretive, and educational opportunities.



ERRATA PERTAINING TO THE DRAFT RMP/EIS

Chapter 1

Page 1.6, 1st column, Water: Delete the paragraph and insert the following: "The plan will provide management objectives for important watersheds and define measures to protect water quality and floodplains. Approved plans of local and state agencies will be identified and used, where appropriate, to help establish goals, identify needed actions, and evaluate results. Stream segments needing flow determinations will be identified as will local and state partners necessary to develop implementation strategies. The plan will identify potential water storage sites."

Page 1.7, 1st column, Wilderness Study Areas: Add the following sentence to the end of the paragraph: "This approach is taken to ensure that land use prescriptions are in place in the event that any or all of the lands in study area status are released from review."

Page 1.7, 2nd column, Scoping of the Alternatives: Correct the definition of Alternative A to say, "No Action (Continuation of Present Management)."

Chapter 2

Pages 2.1 & 2.2: Replace the Fire Management strategies with the discussion of the new Department of Interior fire protocol in the Fire Management section of the Proposed Plan.

Page 2.5, Alternative A (No Action Alternative): Revise the entire first paragraph to read as follows: "Alternative A represents the continuation of present management throughout the Dixie Resource Area. Decisions of the 1981 Virgin River Management Framework Plan, as amended, and as further modified by new laws, regulations, or final agency decisions and policies would be carried forward. Resource inventories completed since approval of the MFP, including those pertaining to visual resources, wild and scenic rivers, and other resource values on public lands in Washington County, would also be brought forward. Wilderness study areas would continue to be managed under interim management guidelines."

Page 2.5, Lands: Replace 1st paragraph with the following: "A land use plan amendment for the Lands section of the Virgin River Management Framework Plan was approved on March 12, 1996. This amendment added five new land exchange criteria described in the following paragraphs to the Management Framework Plan. In addition to the disposal lands identified on Map 2.1 and listed in Appendix 2, new lands that meet one or more of the disposal criteria could be considered for exchange."

Page 2.6, 1st column, last paragraph: Delete whole paragraph and replace with: "Rights-of-way would be granted on a case-by-case basis where important and sensitive resources are not impacted by a surface disturbing action. Areas that could impose restrictions to rights-of-way, totaling 156,770 acres, are listed in Table 2-1 and shown on Map 2A.2. These are areas where rights-of-way would normally not be granted unless no other alternative is available."

Page 2.6, 2nd column, Table 2-1: Change table name to read: "Rights-of-Way Areas with Resource Restrictions"

Page 2.6, 2nd column, 1st pragraph after Table 2-1: Replace with the following paragraph: "Rights-of-way would not be allowed within Wilderness Study Areas in accordance with the Interim Management Policy and Guidelines for Lands Under Wilderness Review. In addition, the Beaver Dam Mountains Wilderness Area is closed to rights-of-way through wilderness designation. Overall, 91,715 acres of land within the resource area would not allow for rights-of-way. These areas are depicted on Map 2A.2.

Page 2.6, 2nd column: Delete Table 2A-2.

Page 2.8, Water: Change the 1st sentence to read, "Surface waters and potential dam sites are shown on Map 3.8 in Chapter 3."

Page 2.8, Water: Add the following sentence to the end of the 2nd paragraph: "Reservoir proposals would be reviewed on a case-by-case basis and evaluated under National Environmental Policy Act requirements and for plan conformance. Plan amendments could be prepared,

where necessary, in responding to applications." Page 2.12, Wild and Scenic Rivers: The paragraph is revised to read, "Under this alternative, a suitability determination would not be made. Under authority of Section 302 of the Federal Land Policy and Management Act, BLM would protect those values for which 11 river segments on 64 miles of streams on public lands were found eligible. Protective measures applied would be subject to valid existing rights including water rights established on or upstream of affected river segments. Proposed actions falling within BLM's jurisdiction would be evaluated and, where necessary, mitigated on a case-by-case basis to ensure that wild and scenic river eligibility and tentative classification would not be adversely affected."

Page 2.17, Table 2B-2: Add: "Blackrock to Hildale Corridor." The corridor is shown on Map 2B.2 and referenced in the text, but inadvertently omitted from the table.

Page 2.32, Table 2C-2: Add the following corridors shown on Map 3C.2, or referenced in the text, but not reflected in the table:

- Springdale to La Verkin following the route of the existing UP&L line.
- I-15 from below Harrisburg Junction to Ash Creek Reservoir.
- Motoqua to Shivwits Indian Reservation following the existing road.
- Existing Navajo-McCullough Corridor.

Page 2.51: Insert as a bulleted item under Warner Ridge/Fort Pearce Proposed ACEC: “No camping would be authorized within 1 mile of the designated Fort Pearce Historic Site area.”

Page 2.86, Table 2-1: Change Alternative A, under Lands in the 3rd and 4th rows to read: “156,770 acres of restricted rights-of-way areas; 91,715 acres of closed rights-of-way areas”.

Map 2A.2: Change title of map to read “Rights-of-Way Areas with Resource Restrictions”. The black areas should be titled “Wilderness Study Areas (no rights-of-way allowed under the Interim Management Policy)” and Designated Wilderness, and the gray areas should be titled “Resource Conflict Areas (Desert Tortoise Critical Habitat, T&E and Candidate Plant Habitat, Riparian Areas, Cultural Sites, VRM Class II Areas, OHV Closed Areas, and OHV Areas Limited to Designated Roads and Trails).

Maps 2C.3 and 2D.3: Change the Joshua Tree Instant Study Area from a right-of-way exclusion area to a right-of-way avoidance area. As the Instant Study Area is within the Beaver Dam Slope ACEC, all of the ACEC would be a right-of-way avoidance area and not an exclusion area.

Map 2C.5: S_ of section 22, T. 43. S., R. 18 W. should be classified as Category 3 (No Surface Occupancy) under Fluid Mineral leasing because it is part of the Beaver Dam Slope ACEC.

Map 2C.10: Map should be corrected to show area between State Road 18 and the Recreation Opportunity Spectrum Primitive Area on Red Mountain as open for use on existing roads and trails. The OHV map in the Proposed Plan depicts the correction.

Chapter 3

Page 3.5, Fluid Minerals, Oil and Gas: Replace last sentence of 1st paragraph with: “High potential for oil and gas occurs on 6,801 acres, moderate potential on 71,105 acres, and the remaining 551,099 acres have low potential.”

Page 3.10, Water: Replace 3rd sentence in 2nd paragraph with: “The USGS, in their 1994 Water Resource Data for Utah, showed the annual flow at the Bloomington Gaging Station from 1978-1994 to be 178,000 acre feet. The State's Kanab Creek/Virgin River Basin study, in August 1993, showed an annual flow of 185,691 acre feet for the 1978-1990 period. The average annual flow of the 1941-1990 period was estimated to be 138,518 acre feet.”

Page 3.10, Water: Replace the 4th and 5th sentences in the 4th paragraph with the following: "In 1995, the Washington County Water Conservancy District estimated the total developed water rights available for municipal use in Washington County to be 46,907 acre feet per year plus an additional 16,000 acre feet from the Quail Creek Reservoir (WCWCD, 1995b). This amounts to about 63,000 acre feet. Water needs for the year 2010 were predicted at 59,059 acre feet for municipal and industrial use and 123,768 acre feet for agricultural use, for a total of 182,827 acres feet. For the year 2020, it is estimated as being 89,325 acres feet for municipal and industrial and 142,363 acres feet for agricultural use, for a total of 231,688 acre feet. The same report concludes that with conservation measures, shortages for munici-

pal and industrial demands in the year 2020 would range from 12,500 to 55,800 acre feet per year based on low growth and medium growth projections, respectively. Lower projections were made by the Utah Division of Water Resources and the Five County Association of Governments."

Page 3.12, Add as a 3rd sentence in the 2nd paragraph: "The state feels that the 155,000 acre feet number, as an estimate of total annual groundwater recharge, is not well defined. The estimate of annual groundwater recharge may change with ongoing studies by the USGS and Utah Division of Water Rights."

Page 3.12, Riparian: Change the 3rd sentence of the 1st paragraph to read: "The DRA has a total of 199 miles or approximately 6,770 acres of riparian habitat."

Page 3.17, 2nd column, top of page: Add to the end of the paragraph on the Southwestern willow flycatcher the following statement: "No critical habitat for the Southwestern willow flycatcher has been designated in Utah and a recovery plan has not been developed. Habitat inventories along most streams in the resource area have not been completed. The Utah DWR has completed some surveys within the basin and a number of sightings have recently occurred along the Virgin River. Historic sightings have been documented on the Beaver Dam Wash, Santa Clara River, North Creek, and the Virgin River. No verified nest sites have been identified on public lands to date. Southwestern willow flycatcher habitat is not directly related to the health of a riparian system. Flycatchers have been found in riparian areas of pure tamarisk stands as well as diverse healthy riparian habitats."

Page 3.18, 1st column, 3rd paragraph: Change the paragraph in its entirety to read: "A Habitat Conservation Plan (HCP) was prepared by Washington County with cooperation from other local, state, and federal agencies. The HCP was required as part of an application for an incidental take permit under Section 10(a) of the Endangered Species Act and was designed to provide a comprehensive approach to preserving and enhancing Mojave desert tortoise habitat in the Upper Virgin River Recovery Unit adjacent to the city of St. George. An Implementation Agreement was signed on February 23, 1996, after publication of a final environmental impact statement which is incorporated into this RMP/EIS by reference. The HCP and Agreement address numerous actions that would affect public land management."

Pages 3.20 - 3.25: Table 3-6: Replace the Grazing Summary 1993 Table with the updated Grazing Summary 1998 Table in Appendix 5 of this Proposed Plan.

Page 3.35, Wild and Scenic Rivers, 3rd paragraph: Delete the last part of the first sentence that reads, "...that was completed for the DRA in 1994." The statement refers to the river eligibility evaluation which was not completed until the publication of this Proposed Plan.

Page 3.35, Wild and Scenic Rivers, 4th paragraph: In relation to the Proposed Plan, the following change would be made to this portion of the Affected Environment: Replace this paragraph with: "As a result of additional inventory review and in response to comments on the Draft RMP, BLM revised its preliminary findings and determined that portions of nine rivers on approximately 62.4 miles of public lands were eligible for designation under the Wild and Scenic Rivers Act. Eligible river segments and their tentative classifications are listed in Appendix 7 of the Proposed Plan and shown on Map 2.16 of the Proposed Plan. Changes in the inventory made since publication of the Draft RMP are also described in Appendix 7 of the Proposed Plan."

Page 3.35, Wild and Scenic Rivers, 5th paragraph: In relation to the Proposed Plan, the following change would be made to this portion of the Affected Environment: Replace this paragraph with: "These nine rivers, or portions thereof, are being considered further in this Proposed Plan to determine if they are suitable for congressional designation or if they are better suited for other uses. Appendix 8 in the Proposed Plan addresses, for each eligible segment, the eight factors for suitability consideration identified in the BLM Manual 8351."

Page 3.36, Table 3-9: In relation to the Proposed Plan, the following change would be made to this table in the Affected Environment: The West Fork of the Beaver Dam Wash is now designated as Segment A Beaver Dam Wash and its classification is modified to contain 5.45 miles wild and 7.02 miles recreational with total public land miles of 12.47. Segment C Beaver Dam Wash

immediately above and below Lytle Ranch is added as an eligible segment consisting of 0.60 miles on public land with a classification of recreational. Other minor changes are reflected in the updated Tables A7-1, A7-2, and A7-3 in Appendix 7 of the Proposed Plan. The minor changes to river miles have resulted from upgraded GIS capabilities.

Map 3.2: Include the Navajo-McCullough right-of-way as a mile-wide utility corridor north of the Beaver Dam Mountains Wilderness Area. The Navajo-McCullough Corridor was discussed in Chapter 3 and inadvertently left off the map for Alterative A.

Chapter 4

Page 4.1, 2nd column, last paragraph and 1st full paragraph on page 4.2: Delete in their entirety. Replace with the following: "Activities on public lands in Washington County affect a large number of individuals, businesses, organizations, and agencies. While the economic impacts of BLM decisions from any of the alternatives do not exceed a 5 percent threshold in any given economic sector, BLM recognizes that the individual decisions can have important positive and negative impacts on individual users, groups, or communities. Mitigation has been applied or built in to planned actions to mitigate adverse effects wherever practical."

Page 4.2: Item #6: Replace the wording of this statement with: "All lands disposed of will be subject to valid existing rights and other applicable federal laws. The processing of any land transfers must meet all applicable requirements of the National Historic Preservation Act and Archeological Resources Protection Act.."

Page 4.6, 1st column, last paragraph: Delete the 2nd sentence and replace it with the following: "At this time, an incomplete application is on file with BLM from the Washington County Water Conservancy District for a 355-acre reservoir on the West Fork of the Beaver Dam Wash that would store up to 25,800 acre feet of water. No other applications are pending." Add to the last sentence: "...if found in conformance with the land use plan."

Page 4.10, 1st column, 2nd paragraph: Replace 1st part of sentence with the following, "The 91,715 acres within the Beaver Dam Mountains Wilderness Area and the 11 wilderness study areas would be closed to rights-of-way placement. Rights-of-way would...."

Page 4.10, 1st column, 3rd paragraph: Replace all reference to "ROW avoidance areas" with "ROW restricted areas".

Page 4.10, 2nd column, 1st paragraph: Replace paragraph with the following, "Reservoir proposals would be reviewed on a case-by-case basis and evaluated under National Environmental Policy Act requirements and for plan conformance. Plan amendments could be prepared, where necessary, in responding to applications."

Page 4.14, 1st column, 2nd paragraph: Replace all references to "ROW exclusion areas" with "ROW closed areas", and "ROW avoidance areas" with "ROW restricted areas".

Page 4.20, 1st column, 4th full paragraph: Replace whole paragraph with the following, "Reservoir proposals would be reviewed on a case-by-case basis and evaluated under National Environmental Policy Act requirements and for plan conformance. Plan amendments could be prepared, where necessary, in responding to applications."

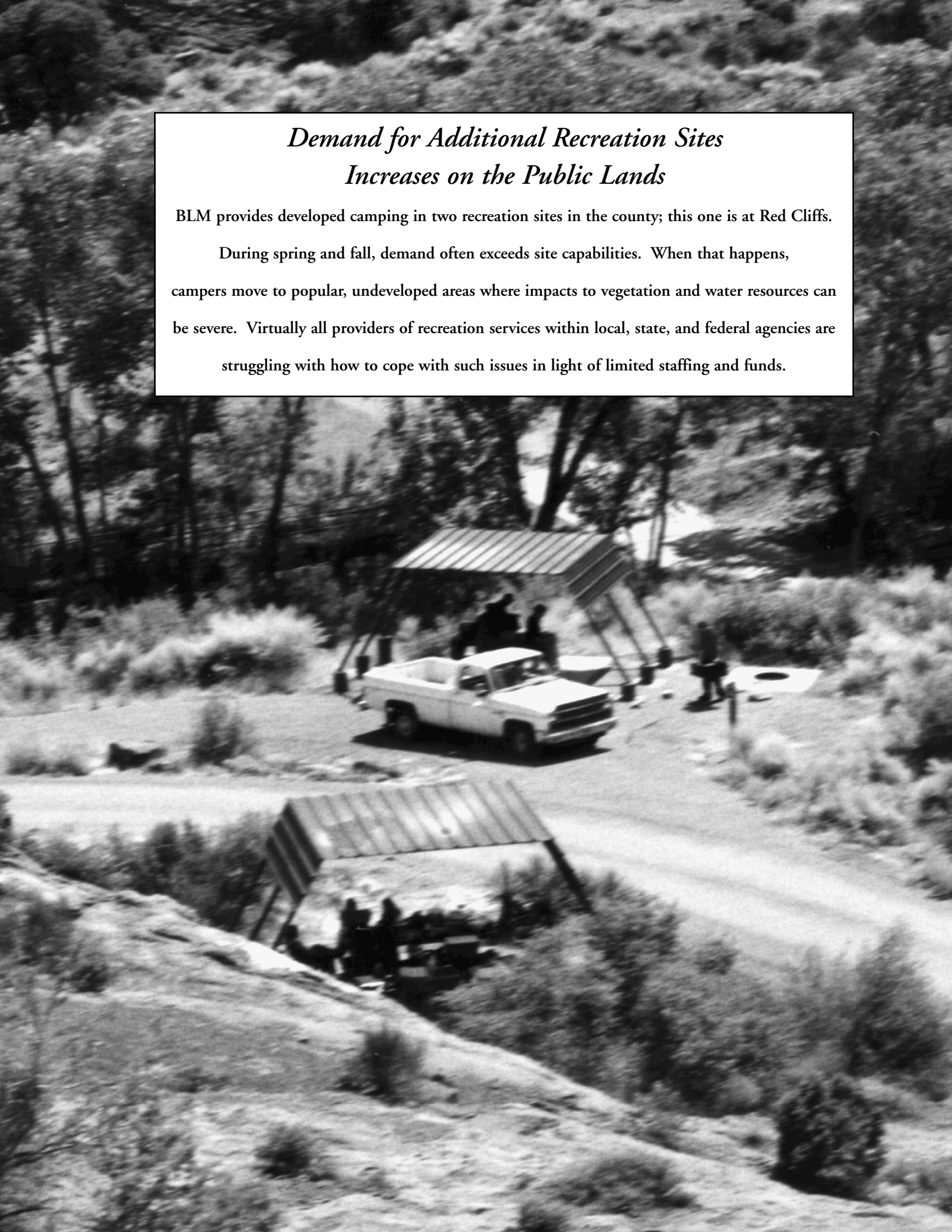
Page 4.29, 2nd column, 1st paragraph: Delete the last three sentences of the paragraph.

Page 4.31, 2nd column, 2nd paragraph: Delete the reference to the spinedace and the flannelmouth sucker in the second sentence. These species are not on the federally listed threatened or endangered species list, and therefore do not require a Section 7 consultation with the FWS.

Page 4.46, 2nd column, 1st full paragraph: Delete the last three sentences of the paragraph.

Page 4.48: 2nd column, 2nd paragraph: Delete the reference to the spinedace and the flannelmouth sucker in the second sentence. These species are not on the federally listed threatened or endangered species list, and therefore do not require a Section 7 consultation with the FWS.

Page 4.70: 1st column, 2nd paragraph: Delete second sentence from this paragraph. There is no prescription in the Little Creek Mountain ACEC that requires rights-of-way to be placed underground.



Demand for Additional Recreation Sites Increases on the Public Lands

BLM provides developed camping in two recreation sites in the county; this one is at Red Cliffs. During spring and fall, demand often exceeds site capabilities. When that happens, campers move to popular, undeveloped areas where impacts to vegetation and water resources can be severe. Virtually all providers of recreation services within local, state, and federal agencies are struggling with how to cope with such issues in light of limited staffing and funds.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Dixie Resource Area
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St. George, Utah 84790

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