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BIOLOGICAL ASSESSMENT FOR THE

GRAND CANYON - PARASHANT NATIONAL MONUMENT,

VERMILION CLIFFS NATIONAL MONUMENT,

AND

ARIZONA STRIP FIELD OFFICE

RESOURCE MANAGEMENT PLANS (RMPs) and EIS

Prepared by the Arizona Strip District,
Bureau of Land Management

1 May 2007

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I. INTRODUCTION

The Arizona Strip District Office (ASDO) of the Bureau of Land Management (BLM) has completed a Proposed Resource Management Plan (RMP) and Final Environmental Impact Statement (FEIS), providing management decisions for three planning areas on the Arizona Strip; Grand Canyon - Parashant National Monument, Vermilion Cliffs National Monument, and the Arizona Strip Field Office. Three separate resource management plans, one each for the two national monuments and one for the Arizona Strip Field Office, are combined in the document and covered under the FEIS. The FEIS identifies one preferred alternative from the draft and analyzes that alternative as the proposed action. The Proposed Plan/FEIS was released for public review and comment on March 2, 2007 with a 30-day protest period.

The original management plan for these areas was completed in 1992, describing management decisions for the Shivwits and Vermilion Resource Areas of the ASDO. In 1995, BLM combined the two resource areas and began managing the planning area as a single District. A significant amendment to the 1992 RMP occurred in 1998, when provisions of the Recovery Plan for Mojave Desert Tortoise were incorporated. In 2000, a Presidential Proclamation established 1,048,293 acres in Mohave County, Arizona as the Grand Canyon - Parashant National Monument (Parashant). The Parashant is cooperatively managed by the BLM ASDO and the National Park Service (NPS), including 808,724 acres administered by the BLM and 208,444 acres administered by the NPS Lake Mead National Recreation Area. The Vermilion Cliffs National Monument (Vermilion) was also established in 2000 by Presidential Proclamation. The Vermilion includes 293,679 acres in Coconino County, Arizona, and is administered solely by the BLM. The remaining BLM lands on the Arizona Strip are now managed as the Arizona Strip Field Office (ASFO), including more than 1.7 million acres in Mohave and Coconino Counties, Arizona.

Designation of the two Monuments required new management direction to ensure protection of sensitive resources (objects) identified by the Proclamations. This shift in management emphasis placed a greater public demand on resource uses and allocations on the ASFO. The need for new management plans was identified for the Monuments, as well as a plan revision for the ASFO. The FEIS includes two new RMPs for the Parashant and Vermilion, as well as the revised RMP for the ASFO. The BLM ASDO is the lead agency in developing the FEIS since most of the planning area involves BLM lands. The NPS is a co-lead on the Parashant RMP. Following incorporation of public comments and completion of this consultation, three separate implementation plans will be produced.

This Biological Assessment (BA) considers the effects of implementing the Proposed Plans on all species that appear on the Service's web-based lists for Mohave and Coconino Counties in Arizona as of on April 23, 2007. Potential impacts from implementation of the RMPs are considered for the endangered species Brady pincushion cactus (*Pediocactus bradyi*), Holmgren milkvetch (*Astragalus holmgreniorum*) and its critical habitat, Southwestern willow flycatcher (*Empidonax traillii extimus*) and its critical habitat, Yuma clapper rail (*Rallus longirostris yumanensis*), California condor (*Gymnogyps californianus*), Virgin River chub (*Gila seminuda*) and its critical habitat, and woundfin minnow (*Plagopterus argentissimus*) and its critical habitat; the threatened species Jone's cycladenia (*Cycladenia humilis* var. *jonesii*), Siler pincushion cactus (*Pediocactus sileri*), Welsh's milkweed (*Asclepias welshii*), desert tortoise (Mohave population) (*Gopherus agassizii*), bald eagle (*Haliaeetus leucocephalus*), and Mexican spotted owl (*Strix occidentalis lucida*); the candidate species Fickeisen plains cactus (*Pediocactus peeblesianus* var. *fickeiseniae*), relict leopard frog (*Rana onca*), yellow-billed cuckoo (*Coccyzus americanus*); and the conservation agreement species Paradine plains cactus (*Pediocactus paradinei*), and Virgin spinedace (*Lepidomeda mollispinis mollispinis*).

Rationales for No Effect determinations are presented to document the BLM review of potential impacts to all listed, proposed and candidate species, including: the endangered Arizona Cliffrose (*Purshia subintegra*), Sentry milk vetch (*Astragalus cremnophylax* var. *cremnophylax*), California Brown Pelican (*Pelecanus occidentalis californicus*), Black-footed Ferret (*Mustela nigripes*), Hualapai Mexican vole (*Microtus mexicanus hualpaiensis*), Bonytail chub (*Gila elegans*), Humpback Chub (*Gila cypha*), Razorback Sucker (*Xyrauchen texanus*), and Kanab ambersnail (*Oxyloma haydeni kanabensis*); the threatened species Navajo Sedge (*Carex specuicola*), San Francisco Peaks Groundsel (*Senecio franciscanus*), Chiricahua Leopard Frog (*Rana chiricahuensis*), Apache Trout (*Oncorhynchus apache*), and Little Colorado Spinedace (*Lepidomeda vittata*); and the conservation agreement species Arizona bugbane (*Cimicifuga arizonica*). Concurrence on No Effect determinations is neither required nor expected.

1. Purpose of the Plans:

The Grand Canyon - Parashant and Vermilion Cliffs National Monument RMPs, and the Arizona Strip Field Office RMP will provide guidance to the Bureau of Land Management in its management of public land in Arizona within the Arizona Strip District. The RMPs/FEIS were prepared under the authority of Sections 102 and 202 of the Federal Land Policy and Management Act and in conformance with the BLM planning regulations, 43 CFR 1600. The RMPs/EIS analyzes the impacts of implementing the BLM's proposed action and alternatives in conformance with the Council on Environmental Quality regulations for implementing the National Environmental Policy Act.

The FEIS focuses on resolving planning issues associated with management of the public lands in the area. These issues were identified through a public scoping process. The planning issues are: transportation and access (i.e., travel management), protecting areas with wilderness characteristics, protecting scientific and historic objects (including special status species), livestock grazing, providing recreational opportunities, and preserving remoteness. In addition, the planning team identified the following management concerns: restoration of degraded ecosystems and consideration of the local communities and human use in the Planning Area. All of these issues center on the larger question of just how much human activity should be allowed, while still providing the mandated level of resource protection.

The RMPs allocate resources and make decisions regarding the management of Travel Management; Paleontological Resources; Cave and Karst Resources; Vegetation Management; Fire Suppression and Management; Soil, Air and Water Resources; Fisheries and Wildlife Management; Special Status Species; Cultural Resources; Visual Resources; Wild Burros; Recreation; Off-Highway Vehicles (OHV); Transportation Network; Invasive Species; Livestock Grazing; Mineral Resources; Special Area Designations including Wilderness, Historic Trails, Areas of Critical Environmental Concern (ACECs), and Wild and Scenic Rivers; Health and Safety; Hazardous Materials; Lands and Realty, Land Tenure Adjustment; Utility and Transportation Corridors and Communication Sites.

2. Broad Description of the Planning Areas:

The Action Area consists of 2,768,176 acres of BLM lands and 208,453 acres of NPS lands within the area known as the "Arizona Strip," in the northern portions of Coconino and Mohave counties, Arizona, north and west of the Colorado River (Map I.1). The Arizona Strip also includes state, local, and private lands that are concentrated mostly around small communities in extreme northern Arizona, including Fredonia, Marble Canyon, Colorado City, Centennial, Littlefield, Beaver Dam, and Scenic. Adjoining communities include Page, Arizona; Kanab, Big Water, Hurricane, Washington, and St. George, Utah; and Mesquite and Bunkerville, Nevada. There is one other large block of mostly uninhabited private land at Mt. Trumbull/Bundyville, about 40 miles south of St. George.

Table I.1. shows land surface ownership for the entire geographic region of the Arizona Strip and the Planning Area portion of the Arizona Strip. All acres and mileage in this Final Plan/FEIS are generated by Geographic Information System (GIS), unless otherwise noted. Map I.2 illustrates the land surface ownership.

Rugged and isolated, the Planning Area is one of the largest, un-fragmented stretches of sparsely developed lands in the contiguous United States. The deep canyons of the Colorado River separate the area from the rest of Arizona. Except for U.S. Highway 89A, which crosses Marble Canyon at the extreme east end of the Planning Area and runs along the southern boundary of Vermilion, ground vehicle access from the south is impossible due to the Grand Canyon. Three highways cross the northern boundary of the Planning Area. No paved roads extend into Parashant or other interior sections of the Planning Area, but a network of unpaved roads of various types and conditions offers access. Only a few higher standard unpaved roads extend from the north into the remote southern regions of the Planning Area.

A number of major tributaries of the Colorado River, including the Paria River, Kanab Creek, and Virgin River, flow through the Planning Area and contribute to a wide variety of scenic and important geological features. A number of springs and potholes are also scattered across the area. However, water is scarce in most places.

TABLE I.1. Land Surface Administration (in Acres) for the Planning Areas*					
Land Ownership	**Arizona Strip Region**	**Planning Area**	**Parashant**	**Vermilion**	**Arizona Strip FO**
BLM, Arizona Strip District Office	2,768,176	2,768,176	808,747	279,568	1,679,861
USFS, North Kaibab Ranger District	655,627	41	--	--	41
NPS, Glen Canyon NRA	41,566	--	--	--	--
NPS, Lake Mead NRA	213,857	208,453	208,453		--
NPS, Grand Canyon National Park	889,239	--	--	--	--
NPS, Pipe Springs National Monument	40	--	--	--	--
Kaibab-Paiute Indian Tribe	120,842	--	--	--	--
State of Arizona	206,888	206,809	23,205	13,438	170,166
Private	151,592	139,612	7,920	683	131,008
Total Acres	5,047,827	3,323,091	1,048,325	293,689	1,981,076

* Planning Area includes the Grand Canyon – Parashant and Vermilion Cliffs National Monuments and the Arizona Strip Field Office.
Source: Arizona Strip District Office files

The Planning Area sits at the junction of two physiographic provinces, the Colorado Plateau and the Basin and Range, which contribute to the diversity of the region. The Colorado Plateau province is rough, ranging in elevation from 2,745 feet above sea level along the lower Hurricane Valley and southern St. George Basin to 8,029 feet above sea level at Mt. Trumbull. West of the lower Grand Wash Cliffs, typical Basin and Range topography dominates, with irregular, elongated valleys bordered by ridges and escarpments. Elevations in this area range from 1,247 feet above sea level within the extreme southwest part of Parashant to 6,758 feet above sea level along the Grand Wash Cliffs. The two highest points in the Planning Area are Mt. Trumbull near the north rim of the Grand Canyon at 8,029 feet and Mt. Bangs in the Virgin Mountains at 8,012 feet.

Much of the Planning Area consists of large expanses of sagebrush and pinyon-juniper communities typical of the Basin and Range and Colorado Plateau provinces. There are also approximately 42,406 acres of ponderosa pine forests in the Mt. Trumbull, Black Rock, and Parashant areas. The western edge of the Planning Area is characterized by Mojave Desert plant communities including species such as blackbrush, creosote bush, and Joshua trees in the lower elevations. Other common vegetation types include grasslands, salt desert shrub, and mountain brush. The Planning Area contains eight "ecological zones," each characterized by specific plant and animal communities. There are also important geological, mineral, archaeological, cultural, historic, wildlife, wilderness, scenic, recreation, and grazing values within the Planning Area.

The generally low quality of motorized access and dirt roads, the remote nature of much of the area, and the low human population are a large part of the Planning Area's appeal for visitors. The rugged environment with countless mesas, canyons, mountains, and plateaus offers visitors a wide array of dispersed and structured recreation opportunities in backcountry and near-community settings. This produces benefits to individuals, households, communities, local economies, and the environment. Visitors enjoy outdoor experiences while engaged in activities such as sightseeing, wilderness backpacking, off-highway vehicle (OHV) travel on designated routes, camping, and hunting.

In addition to tourism and recreation, ranching is also an important industry for local and regional economies. Livestock grazing has been a part of the Arizona Strip since the 1860s. Today, 118 permittees graze cattle on 150 allotments in the Planning Area. Approximately 20,000 cattle and 300 horses are authorized to use about 183,000 Animal Unit Months (AUMs) of forage annually. The Arizona Strip has also been important to local and regional economies by providing natural resources such as sand and gravel, uranium, gypsum, picture stone, vegetation products, and hunting and guiding opportunities.

For a more complete description of the Action Area, see Chapters 1 and 3 of the FEIS.

3. BLM Mission and Management Goals in the Planning Area:

The stated mission of the BLM is to sustain the health, diversity, and productivity of the public lands for the use and enjoyment of present and future generations.

The vision for the Planning Area is to retain, where it currently exists, the present natural and socially remote nature of the Planning Area while still allowing compatible human use to occur within "the place where the West stays wild." Goals for the Planning Areas include:

- The variety of remote natural and social settings will be managed to preserve essentially natural appearing landscapes. Visitors will have the opportunity to experience adventure, beautiful vistas, retreat from the pressures of modern life, and a sense of discovery through a variety of appropriate and sustainable backcountry activities.

- Proclamations for Parashant and Vermilion and their purpose, significance, and mission statements will guide management of these Monuments. The National Monument is the dominant reservation for the public lands within the Monuments.

- The Arizona Strip FO lands will be managed to balance protection of the natural and cultural resources with recreational, community, commercial, scientific, and social interests and needs.

- The BLM and NPS will manage Monument lands for the benefit of local, regional, national, and international publics to provide recreational, scientific, commercial, social, and traditional uses while protecting the objects and context that supports them as required under the Antiquities Act and the proclamations.

- The BLM and NPS will provide long-term protection and sustain the health and diversity of the public lands and resources that they manage for the use and enjoyment of present and future generations.

- The BLM and NPS will work cooperatively with local, regional, state, county, and federal agencies; tribes; communities; user groups; universities; researchers; and the interested public to achieve the above goals.

A. *Parashant Purpose and Mission Statements*

Purpose: To retain, for scientific inquiry, long-term preservation, and public use and enjoyment for present and future generations, well-preserved examples of scientific and historic objects of interest and to protect those objects from unauthorized location or settlement and from unauthorized appropriation, injury, destruction, or removal of any features. Those objects include: the exposed Paleozoic and Mesozoic sedimentary strata on the boundary between two major geologic provinces: the Basin and Range and the Colorado Plateau; the abundant fossil record; the ecological diversity resulting from the junction of two physiographic ecoregions, the Basin and Range and Colorado Plateau, and three floristic provinces, the Mojave Desert, Great Basin, and Colorado Plateau, including a diversity of wildlife; the undisturbed archaeological evidence, displaying the long and rich human history spanning more than 12,000 years; areas of importance to existing Indian tribes; the colorful and engaging scenery, natural splendor, and a setting that provides for rugged recreation opportunities; the historic resources, including evidence of early European exploration, Mormon settlements, historic ranches, sawmills, and old mining sites; and remote and unspoiled landscapes with limited travel corridors.

Mission: Parashant is a model of land management for the BLM and NPS that conserves the natural, scientific, and historic resources and includes ecological restoration and protection in a broad ecosystem context, while honoring the history and living traditions of the people who came before us: "The place where the West stays wild."

B. ***Vermilion Purpose and Mission Statements***

Purpose: The Monument was set aside to retain for scientific inquiry, long-term preservation, and public use and enjoyment for present and future generations, well-preserved examples of scientific and historic objects of interest and to protect those objects from location or settlement and from unauthorized appropriation, injury, destruction, or removal. Those objects include: sandstone slick rock, rolling plateaus, and brilliant cliffs with arches, amphitheaters, and massive walls; archaeological evidence displaying a long and rich human history spanning more than 12,000 years; historic resources, including evidence of early European exploration, ranches, homesteads, mines, and roads; remote and unspoiled landscape with limited travel corridors; cold desert flora and warm desert grassland; wildlife including California condors, bighorn sheep, pronghorn antelope, mountain lions, raptors, and fish; and the Paria River and widely scattered ephemeral water sources and springs.

Mission: Vermilion is a model of land management for conserving natural, scientific, and historic resources within their broader ecological and social contexts.

C. ***Arizona Strip FO Mission and Goals Statements:***

Mission: The goal of Arizona Strip FO management is to sustain the health, diversity, and productivity of the public lands and resources for the use and enjoyment of present and future generations, with multiple uses being the primary emphasis of management. This will be accomplished in a cooperative and cost-effective manner by working jointly with state, county, local and federal agencies; tribes; communities; universities; researchers; and the interested public.

The Arizona Strip FO's "Blueprint for the Future" consists of six goals: 1. Maintain healthy ecosystems, with emphasis on recovery and protection of special status species and preservation of cultural values, providing for economic and social benefits. 2. Serve current and future publics in their use and enjoyment of the Arizona Strip FO. 3. Promote collaboration with agencies, communities, tribes, and groups. 4. Invite and support open dialogue with the public. 5. Inform and educate the public about resources and wise uses of such resources. 6. Assist the public in benefiting from safe, enjoyable experiences and activities on public lands.

4. Brief Summary of the Objectives of the Biological Assessment:

The Bureau has responsibility under section 7(a)(2) of the Act and 50 CFR 402.14(a) to review its actions to determine whether any action may affect a listed species or critical habitat. In the event that such a determination is made, to enter into formal consultation with the Service, if that action has not been the subject of previous consultation.

The need for this consultation is triggered by the proposed implementation of the Grand Canyon - Parashant and Vermilion Cliffs National Monument RMPs, as well as the Arizona Strip Field Office RMP. These plans will guide BLM management of public lands within the action area for a period of 15 to 20 years from the date of the record of decision. This BA was prepared to comply with Section 7 of the Endangered Species Act of 1973, as amended and is based on the preferred alternative in the Draft RMPs/Draft EIS.

The effects of many land uses in the planning area have been evaluated in several consultations or conferences and subsequent biological or conference opinions. Consultations and Conferences within the planning areas include:

02-21-05-F-0778 Biological Opinion for Grazing Permit Renewal for Six Allotments Containing Siler Pincushion Cactus Habitat
02-21-03-F-0210 BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management
02-21-99-F-002 Kane Ranch Allotment Management Plan
02-21-97-F-011 County Road Maintenance Facility NE Beaver Dam
02-21-96-F-443 Pakoon Airstrip Expansion

02-21-96-F-132	Final Mojave Desert Amendment to the Arizona Strip District Resource Management Plan
02-21-96-F-119	12.47 KV Dixie-Escalante Transmission Line Near Scenic, Arizona
02-21-95-F-379	Emergency Fire Suppression Pakoon Basin & Programmatic Fire Suppression
02-21-95-F-278	Littlefield School District Recreation & Public Purposes Lease and Patent
02-21-94-F-531	Beaver Dam Access Project
02-21-94-F-388	Emergency Watershed Program Project Beaver Dam Wash, Littlefield, Arizona
02-21-93-F-414	Marble Canyon Area – Management Plan
02-21-94-F-173	Dixie-Escalante Rural Electric Cooperative Powerline
02-21-92-F-104	Rio Virgin Telephone Right-of-Way
01-21-92-F-021	Rio Virgin Telephone Right-of-Way
02-21-90-F-050	Jacobsen Access Road (A-23200)
02-21-91-F-135	Amendment to Right-of-Way A24943 for Arizona Dept. of Transportation Beaver Dam
02-21-91-F-016	Lease Extension Beaver Dam – Littlefield Landfill
02-21-90-F-275	Mohave County Road Right-of-Way
02-21-90-F-189	Bighole Fence Pakoon Spring Allotment
02-21-88-F-127	Amendment 1: Arizona Strip Resource Management Plan
02-21-90-F-147	Valley Wash Pipeline
02-21-90-F-052	Draft Final Wilderness Management Plan Paiute & Beaver Dam Mountains
02-21-90-F-082	Mesquite Nevada Airport
02-21-88-F-127	Arizona Strip Resource Management Plan
02-21-87-I-103	Siler Pincushion Cactus Habitat Management Plan

Although some of the above consultations/conferences extended over greater areas than this planning effort, this BA addresses only those land use allocations and actions on the BLM-administered lands in the two National Monuments and the Arizona Strip Field Office planning areas. These planning areas described herein constitute the "action area" for the purposes of this BA.

This BA provides an evaluation of the effects of the broad range of decisions in the proposed action in a programmatic way. The majority of land use plan decisions provide a general framework for land managers to determine which uses should be authorized and how to resolve conflicts between overlapping and/or competing resource allocations. As a result, some aspects of the proposed action are not described in detail at the land use plan level. For many proposed decisions, the exact location, size, and timing of specific actions are deferred to activity level plans (such as wildlife habitat management, wilderness management, and allotment management plans). Despite the lack of specificity in many decisions, where possible, this BA includes liberal estimates of the location, timing, and extent site-specific actions that may affect special status species. The ASDO anticipates that these estimates may assist the Service in preparing an incidental take statement. BLM recognizes that project-level consultations will likely be necessary for most actions where site specific detail is not currently available. These include land exchanges or sales, authorizations for rights-of-ways, temporary use permits, leasable and locatable mineral development, and restoration and vegetation treatment projects affecting listed species or their habitats.

Many of the resource allocations, desired future conditions (management objectives) and decisions on the surface may appear to have adverse affects to listed, proposed or candidate species and/or their habitats. However, most such decisions are constrained or tempered by other management objectives and decisions that provide side boards or conditions that limit or eliminate adverse effects and further conservation. Some of the decisions for the Grand Canyon – Parashant and Vermilion Cliffs National Monuments reiterate provisions from their respective proclamations. All decisions pertaining to these monuments must comply with their proclamations. Appendices A and B includes the full text of the Presidential Proclamations for the Grand Canyon – Parashant and Vermilion Cliffs National Monuments respectively. In the remainder of the document, the term "decision" will be used and should be considered as a proposed decision, because any decisions other than those in the Presidential Proclamation for the two monuments would not be in effect until an alternative is selected and a Record of Decision is signed by the BLM State Director.

A. Standard BLM Policy and Guidance for the Implementation of the Endangered Species Act and the National Environmental Policy Act

All activities undertaken or authorized by the BLM are subject to standard policy and guidance for the implementation of the Endangered Species Act and the National Environmental Policy Act. These policies and procedures should be fundamental considerations when evaluating the impacts of management actions and decisions on listed species.

Endangered Species Act: The Endangered Species Act of 1973, as amended (ESA), provides for the protection of threatened, endangered and proposed threatened or endangered species of plants and animals. The following requirements are prescribed in the BLM Manual 6840.

1. The BLM shall conserve T/E species and the ecosystems upon which they depend and shall use existing authority in furtherance of the purposes of the ESA. Specifically the BLM shall:

   a. Determine, to the extent practical, the occurrence and distribution of all T/E species on lands administered by BLM, and evaluate the significance of lands administered by BLM in the conservation of those species.

   b. Identify land administered by BLM that is essential habitat and designated Critical Habitat of T/E species, and prescribe management for the conservation of these habitats in land use plans.

   c. Develop and implement management plans that will ensure the conservation of T/E species and their habitats.

   d. Evaluate ongoing management activities to ensure T/E species conservation objectives are being met.

   e. Ensure that all activities affecting the populations and habitats of T/E species are designed to be consistent with recovery needs and objectives.

2. Ensure that all actions authorized, funded, or carried out by the BLM are in compliance with the ESA. To accomplish this, the BLM shall:

   a. Screen all proposed actions to determine if T/E species or their habitat may be affected. Normally the environmental analysis process is used.

   b. Initiate consultation with the FWS/NMFS, as appropriate, for those actions that may affect T/E species or their habitats.

   c. Until the consultation proceedings are completed and a final decision has been reached, BLM shall not carry out any actions that would cause any irreversible or irretrievable commitment of resources or reduce the future management options for the species involved.

   d. Ensure that no BLM action will adversely affect the likelihood of recovery of any T/E species.

3. Cooperate with the FWS/NMFS in planning and providing for the recovery of T/E species. To accomplish this, the BLM shall:

   a. Participate on recovery teams and in recovery plan preparation, as well as State or regional working teams responsible for T/E species recovery.

   b Review technical and agency review drafts of recovery plans for species affected by BLM

management to ensure that proposed actions assigned to BLM are technically and administratively feasible and consistent with BLM's mission and authority.

c. Ensure that the decisions, terms, and conditions of resource management plans, and more detailed site-specific plans, prepared for lands covered by previously approved recovery plans are consistent with meeting recovery plan objectives.

4. Retain in Federal ownership all habitat essential for the survival or recovery of any T/E species, including habitat used historically by these species.

5. Species proposed for listing as T/E and proposed Critical Habitat shall be managed with the same level of protection provided for T/E species except that formal consultations are not required. The BLM shall confer with the FWS/NMFS on any action that will adversely affect a proposed species or proposed critical habitat.

6. Candidate species will be managed so as not to contribute to the need for them to become listed as threatened or endangered.

National Environmental Policy Act: The National Environmental Policy Act of 1969 (NEPA), establishes a national policy for the protection and enhancement of the environment. On any proposed action affecting public lands or resources under jurisdiction of the BLM, NEPA requires the Bureau to analyze the impacts on all resources that could be affected by the proposal. The impacts of a proposed action on threatened and endangered species is always considered.

Proposed actions fall into one of five categories: (1) actions which are exempt from NEPA; (2) actions which are categorically excluded; (3) actions which are covered by an existing NEPA environmental document; (4) actions which require preparation of an environmental assessment (EA); or (5) actions which require preparation of an environmental impact statement (EIS).

An environmental assessment serves several purposes as follows:

1. The EA provides sufficient evidence and analysis of impacts on the quality of the human environment to support a determination of no significant impacts or a determination to prepare an EIS.

2. The EA serves as a vehicle for an interdisciplinary review of proposed actions and thus promotes consideration of all affected resources.

3. The EA provides a mechanism for identifying and developing appropriate mitigation measures.

4. The EA aids compliance with NEPA. EA's are made available to the public and serve as documentation of NEPA compliance.

When a proposed action, including a proposed policy or legislative recommendation, is projected to have a significant impact on the quality of the human environment, an EIS must be prepared. An EIS is intended to provide decision-makers and the public with a complete and objective evaluation of significant environmental impacts both, beneficial and adverse, resulting from a proposed action and all reasonable alternatives. An EIS is a major vehicle for fulfilling the substantive environmental goals set forth in NEPA.

The EIS process includes: (1) scoping the EIS; (2) conducting an analysis and preparing a draft EIS; (3) issuing a draft EIS; (4) analyzing comments on the draft EIS, and preparing the final EIS; (5) issuing the final EIS; and (6) reaching and recording a decision.

5. Species Addressed in this Biological Assessment.

This BA addresses all listed, proposed, candidate, and conservation agreement species on the Service's lists for Mohave and Coconino Counties wherein the action area lies. Species lists are from the Arizona Ecological Services' webpage as of April 23, 2007. Rationales for which species may be affected and would not be affected occur later in the BA. No Effect determinations and rationales are presented to provide documentation of a complete biological analysis. Concurrence from the Service with these No Effect determinations is not sought. The FEIS covers decisions only for BLM and NPS lands within the Planning Area. However, for the purposes of this biological assessment, any area, regardless of ownership, within the range of the species addressed that is directly or indirectly affected by implementation of the proposed action in the FEIS, is considered part of the action area.

A. Species and Critical Habitat That May Be Affected by the Proposed Action.

Table I.2. includes listed, proposed, candidate, and conservation agreement species found in Mohave or Coconino Counties with documented occurrence in the Planning Area that may be affected by the proposed action. Species whose occurrence within one or more of the Planning Areas has been documented (including historic habitat) are indicated in the last column. Species whose occurrence has not been verified, but for whom suitable, unoccupied habitat has been identified within one or more of the Planning Areas are noted in the table.

TABLE I.2. Listed, Proposed, Candidate, and Conservation Agreement Species found in Mohave or Coconino Counties That May Be Affected By the Proposed Action.

Common Name	Scientific Name	Status	County	Documented Occurrence
Plants				
1. Brady pincushion cactus	*Pediocactus bradyi*	E	Coconino	ASFO
2. Fickeisen plains cactus	*Pediocactus peeblesianus var. fickeiseniae*	C	Mohave, Coconino	ASFO
3. Holmgren (Paradox) milk vetch	*Astragalus holmgreniorum*	E	Mohave	ASFO
4. Jones cycladenia	*Cycladenia humilis var. jonesii*	T	Mohave	ASFO
5. Paradine (Kaibab) plains cactus	*Pediocactus paradinei*	CA	Coconino	ASFO
6. Siler pincushion cactus	*Pediocactus sileri*	T	Mohave, Coconino	ASFO
7. Welsh's milkweed	*Asclepias welshii*	T	Coconino	Vermilion
Reptiles and Amphibians				
8. Desert tortoise, Mohave population	*Gopherus agassizii (Xerobates)*	T (CH)	Mohave	Year round resident – Parashant & ASFO
9. Relict leopard frog	*Rana onca*	C	Mohave	None: Suitable, unoccupied habitat - ASFO
Birds				
10. Southwestern willow flycatcher	*Empidonax traillii extimus*	E (CH)	Mohave, Coconino	Breeding habitat - ASFO
11. Yellow-billed cuckoo	*Coccyzus americanus*	C	Mohave, Coconino	Breeding habitat - ASFO
12. Yuma clapper rail	*Rallus longirostris yumanensis*	E	Mohave	Breeding habitat - ASFO
13. Bald eagle	*Haliaeetus leucocephalus*	T	Mohave, Coconino	Wintering habitat -ASFO
14. California condor	*Gymnogyps californianus*	E (10J)	Mohave, Coconino	Year round resident - All
15. Mexican spotted owl	*Strix occidentalis lucida*	T	Mohave, Coconino	Wintering habitat – All
Fish				
16. Virgin River chub	***Gila seminuda***	E (CH)	Mohave	Year round resident - ASFO
17. Virgin spinedace	***Lepidomeda mollispinis mollispinis***	CA	Mohave	Year round resident - ASFO
18. Woundfin	***Plagopterus argentissimus***	E (CH)	Mohave	Year round resident - ASFO

B. Species Not Affected by the Proposed Action.

Table I.3. includes listed, proposed, candidate, and conservation agreement species found in Mohave or Coconino Counties that have no documented record of occurrence within any of the three Planning Areas, including historic habitat. The likelihood that any of these species would be found within the action area is extremely low. Implementation of the proposed action would not be affected any of these species. Rationales for No Effect determinations are presented in Table III.19. Concurrence from the Service on the No Effect determinations is neither required nor expected.

TABLE I.3. Listed, Proposed, Candidate, and Conservation Agreement Species found in Mohave or Coconino Counties That Would Not Be Affected By the Proposed Action.

Common Name	Scientific Name	Status	County
Plants			
Arizona bugbane	*Cimicifuga arizonica*	CA	Coconino
Arizona cliffrose	*Purshia subintegra*	E	Mohave
Navajo sedge	*Carex specuicola*	T	Coconino
San Francisco Peaks groundsel	*Senecio franciscanus*	T	Coconino
Sentry milk vetch	*Astragalus cremnophylax var. cremnophylax*	E	Coconino
Reptiles and Amphibians			
Chiricahua leopard frog	*Rana chiricahuensis*	T	Coconino
Birds			
California Brown pelican	*Pelecanus occidentalis californicus*	E	Mohave, Coconino
Mammals			
Black-footed ferret	*Mustela nigripes*	E	Coconino
Hualapai Mexican vole	*Microtus mexicanus hualpaiensis*	E	Mohave
Fish			
Apache (Arizona) trout	***Oncorhynchus apache***	T	Coconino
Bonytail chub	***Gila elegans***	E	Mohave
Humpback chub	***Gila cypha***	E	Coconino
Little Colorado spinedace	***Lepidomeda vittata***	T	Coconino
Razorback sucker	***Xyrauchen texanus***	E	Mohave, Coconino
Invertebrates			
Kanab ambersnail	***Oxyloma haydeni kanabensis***	E	Coconino

Definitions Of Status For Species Listed Above:

E = Species listed as Endangered under the Endangered Species Act of 1973, as amended.
T = Species listed as Threatened under the Endangered Species Act of 1973, as amended.
C = Species is a Candidate for listing as Threatened or Endangered under the Endangered Species Act of 1973, as amended.
CA = A valid Conservation Agreement is in place for this species.
CH = Critical Habitat is listed under the Endangered Species Act of 1973, as amended, and occurs in the planning area.

II. DESCRIPTION OF THE "PROPOSED" ACTION

1. THE PROPOSED ACTION

In accordance with the National Environmental Policy Act (NEPA), the FEIS includes several alternatives for managing the Arizona Strip and its associated resources. The proposed action is to implement Alternative E, the Preferred Alternative from the Draft EIS and the Proposed Plan from the Final EIS. This alternative emphasizes minimal human use and influence in the more remote areas of the Arizona Strip, and more human use and influence in the areas adjacent to local communities or in areas presently receiving such use and influence. Through the proposed plan, BLM and NPS are striving to implement recovery action items from approved recovery plans and conservation agreements. In addition, decisions in the Proposed Plan have been designed to protect the remoteness of Arizona Strip and its Monuments, protect Monument objects, while meeting the needs of local communities.

This BA provides an analysis of the effects of implementing the proposed plan as it is currently described in the FEIS. Other alternatives are only referenced where they include conservation measures for affected species that were not incorporated into the proposed plan or where there is a noteworthy change in management between the no action alternative and the proposed plan.

2. TYPES OF DECISIONS

Land use plan decisions represent the desired outcomes and the actions needed to achieve them. Such decisions were attained using the planning process found in 43 CFR 1600 and guide future land management actions and subsequent site-specific implementation decisions. Decision types are described below.

Desired Future Conditions (DFC): DFCs represent the goals and objectives for resources and/or uses. They direct the BLM and NPS actions in most effectively meeting legal mandates; numerous regulatory responsibilities; national policy; state director (BLM) and director (NPS) guidance; and other resource or social needs. DFCs provide managers with long-term, landscape level direction for the management of resources.

Special Area Designations (SD): Special area designations include those that are designated by Congress for special protection, such as wilderness areas or national historic or scenic trails. Such designations are not land use plan decisions; however; recommendations for designation can be made to Congress at the land use plan level. Congress may then act on these recommendations at a later time. Administrative designations, made by the BLM, are also considered special area designations and can be made in the land use plan, and include designating Areas of Critical Environmental Concern (ACECs) or Watchable Wildlife Viewing Sites.

Land Use Allocations (LA): Land use allocations are land use plan decisions which set apart geographic areas for specific resources or uses, such as areas where wildland fire is not desired, grazing is authorized, or where OHV areas are necessary. Allocations have geographic boundaries and are represented on maps in the FEIS. The management of allocated resources is described through the decisions proposed under the alternatives. DFCs and management actions assist managers in resolving issues of overlap with other resource or use allocations.

Management Actions (MA): Management actions set the framework that allows achievement of the DFCs. In the alternative tables, management actions are categorized as either actions to achieve desired outcomes, allowable uses, or restrictions on uses. At the land use plan level, these decisions describe what may or may not be authorized in the planning areas and provide broad scale direction for managers. These decisions are not site-specific. Site specific actions are considered implementation decisions and are typically deferred to activity level planning.

Administrative Actions (AA): Administrative actions are day-to-day activities conducted by BLM that are often required by FLPMA yet do not require NEPA analysis or a written decision by a responsible official to be accomplished. Examples of administrative actions include: mapping, surveying, inventorying, monitoring, collecting information needed such as research and studies, and completed project specific or implementation level plans.

Many land use plan decisions are implemented or become effective upon approval of the management plan. These include DFCs, land use allocation decisions, and all special area designations, such as ACECs. Management actions that require additional site-specific project planning as funding becomes available will require further environmental analysis and ESA consultation. Decisions to implement site-specific projects are subject to administrative review at the time such decisions are made. BLM would continue to involve and collaborate with the Service during implementation of this plan.

Implementation Decisions (IMP): Implementation decisions are management actions that take action to implement land use plan decisions at a specific location. Implementation, or activity level decisions generally constitute BLM's final approval allowing on-the-ground actions to proceed. These types of decisions require appropriate site-specific planning and NEPA analysis. They may be incorporated into implementation plans (activity or project plans) or may exist as stand-alone decisions. The implementation phase of a project is typically the point where section 7 consultation occurs.

3. DESCRIPTION OF THE DECISIONS

All decisions presented in Chapter 2 of the Proposed Plan constitute the proposed action for this BA. A numerical listing of all decisions and a preliminary effects determination for each decision was provided in an earlier draft version of the BA. This appendix has since been removed from the BA at the request of the Service. All of the desired future conditions, special area designations, land use allocations, management actions, administrative actions, and implementation decisions have been reviewed to determine if the action may affect listed, proposed or candidate species and listed or proposed critical habitat. Effects determinations were made for each individual decision. Determinations of effect were necessarily generic in nature because decisions at the land use plan level indicate whether or not specific actions could be authorized. Most DFCs were identified as may affect simply because the desired result of management was to bring about a change in the status of a particular resource. DFCs generally do not specify what actions would occur or where. As a result, we assumed may affect where at least one possible scenario for an action to achieve the desired future condition could lead to an adverse affect. Similarly, most management action decisions authorize or allow specific actions to meet desired future conditions, but often do not specify the methods to be used or locations where they might occur. Such decisions are generally deferred to implementation or activity level plans. In the FEIS, only the implementation decisions are site specific.

Species specific conservation measures were developed for listed, proposed, and candidate species as a part of the BLM Arizona Statewide Land Use Plan Amendment for Fire, Fuels, and Air Quality Management and included within the Biological Opinion (AESO 02-21-03-F-0210). The ASDO incorporated all of these conservation measures (CMs) into the FEIS and, in many cases, expanded measures to provide additional protection for special status species. Appendix 2.E. of this Proposed Plan/FEIS includes a complete list of the Conservation Measures for Special Status Species as they appear in Proposed Plan. These have been edited to distinguish between proactive conservation actions to be moved into Chapter 2, and project or action specific stipulations/mitigation to remain in an Appendix of the Proposed Plan.

4. SUMMARY OF THE PROPOSED ACTION

Due to the length of the proposed plan (288 pages in the FEIS), it is here summarized into a series of program specific statements. For the full text of the proposed plan (as well as a description of each of the other alternatives) refer to Chapter 2 of the Proposed Plan/FEIS.

BLM manages resources, land uses, and allocations by program or discipline. Each program submitted a list of proposed decisions from one or more of the six decision types described above. Because some programs are charged with conservation of resources, while others administer or regulate resource uses, decisions that affect more than one program are repeated (paraphrased) under each discipline affected. For example, the decision to not authorize grazing of sheep or goats within nine miles of desert bighorn sheep habitat appears in both the Livestock Grazing section and the Fish and Wildlife section since the decision restricts land use practices to benefit a resource. For the purposes of this summary, decisions are shown once only, under the program that would benefit from its implementation.

Management Units: Management units are geographic areas with similar resource management goals. The proposed action includes identification of four management units; Community, Corridors, Backroads, and Outback to make consistent land use plan decisions in specific geographic areas with similar landscapes, resources, and resource uses in the Planning Area. The polygons that outline the location of the four management units are identical to those that identify the location of travel management areas (TMAs). TMAs, however, are land use allocations that describe the areas allocated for varying types of access, while management units are not land use allocations or decisions. Because TMAs are land use plan decisions, they are discussed below under Travel Management (see Map II.1). Facilities or projects associated with valid, existing rights and permitted uses could occur in any management unit, though the influence they have on the landscape character may vary greatly. Facilities include, but are not limited to: transmission lines, communications facilities, or kiosks. Projects could include, but are not limited to: corrals, catchments, pipelines, fences, wells, troughs, recreation trails and staging areas.

Community Management Unit: BLM lands within the Community Management Unit would provide room for community growth and development. These lands would also offer the widest variety of recreation opportunities, such as viewing scenery and activities; riding motorcycles/OHVs; vehicle touring; flying aircraft; hiking and walking; bicycling; horseback riding; camping; picnicking; hunting; studying nature; using interpretive services; and attending organized events. These activities, however, would not be to the detriment or exclusion of the protection of resources upon which the natural environment and recreation experiences depend. Lands within the Community Management Unit may also provide resources, such as fuelwood and mineral materials, access to permitted commercial and recreational activities, and scenic backdrops or settings for communities. Moderate to substantial modifications to the landscape character could be allowed, but not to the exclusion of protecting resources.

Corridors Management Unit: Lands within the Corridors Management Unit occur along major travel routes, providing access to the Back Roads and Outback management units. They would offer a variety of recreation opportunities, such as viewing scenery, riding motorcycles/OHVs, vehicle touring, flying aircraft, hiking and walking, bicycling, horseback riding, camping, picnicking, hunting, studying nature, using interpretive services, and participating in compatible organized events. These areas would also provide the most opportunities for short-term or day-use recreation activities related to vehicle touring. Outside the Monuments, these lands may also provide resources, such as fuelwood and mineral materials, and access to permitted commercial and recreational activities. The Corridors Management Unit is characterized by predominantly natural-appearing environments with moderate evidences of the sights and sounds and uses of others. Some modifications to the landscape could occur, but not to the exclusion of the protection of visual, natural, and cultural resources and uses.

Back Roads Management Unit: Lands within the Back Roads Management Unit provide a variety of dispersed recreation opportunities such as viewing scenery, riding motorcycles/OHVs, vehicle touring, flying aircraft, hiking and walking, bicycling, horseback riding, camping, picnicking, hunting, studying nature, using interpretive services, and participating in compatible organized events. These lands may also provide resources such as fuelwood and mineral materials for use on the Arizona Strip FO, and access to permitted commercial activities and to lands in the Outback Management Unit. Back Roads Management Unit would be characterized by predominantly natural or natural-appearing environments of moderate to large size with moderate probabilities of experiencing isolation from the sights and sounds of other people. Some modifications to the landscape could be expected, but would be tempered by the need to protect important resources.

Outback Management Unit: Lands within the Outback Management Unit would provide opportunities for undeveloped, primitive, and self-directed recreation opportunities such as viewing scenery, hiking and walking, horseback riding, backpacking, hunting, studying nature, canyoneering, and rock climbing. The Outback Management Unit would be characterized by predominantly natural or natural-appearing environments of moderate to large size. The lowest level of landscape modifications would be expected compared to the other management units. Remote settings, natural landscapes, solitude, and opportunities for primitive recreation would be minimally impacted by human activity.

Special Area Designations - Wilderness: Currently there are 265,868 acres of BLM designated wilderness, and 188,121 acres of NPS proposed wilderness, with no wilderness study areas (WSAs) on the Arizona Strip. No new wilderness areas are recommended by BLM. DFCs for Congressionally designated wilderness (BLM) and proposed

wilderness (NPS) would include providing for the long-term protection and preservation of the areas' wilderness character under a principle of non-degradation. The natural condition; opportunities for solitude and for primitive and unconfined recreation; as well as any ecological, geological, or other features of scientific, educational, scenic, or historical value would be managed so that they would remain unimpaired. The wilderness resource would be a dominant factor in all management decisions where a choice must be made between preservation of wilderness character and visitor use.

All motorized vehicles, motorized equipment, aircraft landing, and other forms of mechanical transport (including mountain bikes and wheeled game carriers) would be prohibited. Exceptions may be authorized when it is necessary to meet minimum requirements for the administration of the area, required in emergencies involving the health and safety of persons within the areas, or for the exercise of a private existing right or other special provision. A monitoring program would be developed to assess the condition and long-term trends of wilderness resources and provide a basis for future management actions. Existing BLM wilderness management plans would be evaluated and amended where necessary to conform to new management direction where appropriate, such as Monument proclamations, DFCs, or listed species recovery plans. Trail resources (natural, cultural, and historical) would be identified, recorded, and protected on federal land.

Lands within BLM wilderness areas and NPS proposed wilderness could be restored where ecological integrity is outside the range of natural variability and where compatible with wilderness objectives. Restoration plans may be required. The tools, equipment, or structures used in implementing projects would be the ones that least degrade wilderness values temporarily or permanently. The Minimum Requirement Decision Guide would be used, giving greatest weight to accomplishing objectives using natural processes and non-mechanized/non-motorized means. Minimum impact suppression tactics (MIST) would be used for managing fire. Prescribed fire and fire use would be used specific areas classified for their use.

Parashant: NPS proposed wilderness would be as described and delineated in the Lake Mead National Recreation Area 1979 Wilderness Proposal. Proposed wilderness would continue to be managed as designated wilderness, allowing no actions that would diminish its wilderness characteristics until the legislative process of wilderness designation has been completed. Subsurface mineral rights would be acquired from willing sellers on NPS lands where NPS manages the surface estate.

Vermilion: Existing Paria Canyon-Coyote Buttes visitor use management prescriptions for the Paria Canyon-Coyote Buttes permit area could be modified as needed to facilitate changes in visitor use management that may result from the evaluation of monitoring data.

Special Area Designations – Wild and Scenic Rivers: The Paria and Virgin Rivers within the Planning Area have been determined to be eligible and suitable for designation as Wild and Scenic Rivers (W&SR). Implementation of the recommendations for Paria River and Virgin River would continue the protective status (interim management) associated with the eligibility findings defined in the AZ Strip District RMP until Congress makes a decision about W&SR designations. Until Congress acts to designate or release from further consideration rivers determined to be eligible and suitable, the viability of these rivers as wild and scenic candidates would be ensured through implementation of interim management policy. This would include preservation of the stream's free-flowing nature; preservation, protection, and, to the greatest extent practicable, enhancement of identified outstandingly remarkable values; and preservation of characteristics that establish the potential classifications as Wild, Scenic, or Recreational. Should either one or both rivers be released from further consideration by Congress, those lands would be managed by the BLM using the goals, guidance and prescriptions described for the corresponding Management Unit.

The **Paria River**, including the portion through the Glen Canyon Recreation Area to the confluence of the Colorado River, would continue to be tentatively classified as wild and recommended for designation. If Congressional designation occurred, developed campgrounds, interpretive centers, or administrative headquarters within the river corridor would be prohibited. Simple comfort and convenience facilities could be permitted. New transmission lines, natural gas lines, and water lines would not be authorized. Woodcutting would not be permitted except when

needed to clear trails, for visitor safety, or to control fire. Livestock grazing would continue to be managed to protect outstandingly remarkable. Instream flows would continue to be quantified and protected. No new hydroelectric power facilities, flood control or water supply dams, levees, major diversions, or other water works would be permitted. Construction of new roads or trails for motorized travel would continue to be prohibited.

The **Virgin River** would retain its recommendation for designation as a Study River and retain its tentative classification as wild from the Utah state line to the first I-15 bridge; scenic from the I-15 bridge to the Virgin River Campground; and recreational from the campground to the Nevada state line. Potential actions that may affect Virgin River wild and scenic values would be subject to interim protection. Management activities would not be allowed to damage the existing eligibility, classification, or suitability. The free-flowing characteristics of the river segment cannot be modified.

Special Area Designations – National Historic Trails: DFCs for the Old Spanish National Historic Trail (NHT) would include protecting high-potential NHT segments and historic sites from over-use, inappropriate use, and vandalism. The viability of NHT resources for comprehensive planning would be ensured by using the interim provisions of the FEIS until a Comprehensive Management Plan/EIS is completed.

The BLM would develop and provide interpretive and educational materials about the Old Spanish NHT and NHT system to promote education about the trail. Viewsheds from significant trail segments would be maintained. Existing routes that may adversely affect these resources may be limited or closed. A management plan would be developed prior to allowing recreational development of the trail. High-potential sites or high-potential route segments resources on public lands would be identified, recorded, and protected.

Special Area Designations – ACECs: The proposed action adds four new Areas of Critical Environmental Concern (ACECs) to the nine already existing in the Arizona Strip Field Office. This would bring the total acres of ACECs to 150,105 in the Arizona Strip Field Office. ACECs are areas where special management attention is required to protect a particular resource or process, such as sensitive plant or wildlife habitat, cultural sites, etc. Three ACECs from the Parashant, the Pakoon ACEC for protection of desert tortoise and Mojave Desert values, and the Nampaweap and Witch Pool ACECs for protection of cultural resources, would be revoked. These areas are afforded more protective management under the Monument Proclamation than they would under an ACEC designation. There are no existing ACECs in the Vermilion Cliffs National Monument. ACECs would be designated as described in Table II.1. and shown in Map II.2.

The size of each ACECs was designed to protect as much of the sensitive resource as possible without placing unnecessary restrictions on adjacent public lands. Increases in the size of an ACEC were proposed where individuals, populations, or habitat areas of the sensitive resource were not previously included within the ACECs boundary. In addition, buffer areas were added to special status plant ACECs to minimize disturbance from adjacent roaded areas. Decreases in ACEC acreage were due to removal of areas where repeated surveys indicated the sensitive resource was not present.

To be designated as an ACEC, an area must meet the relevance and importance criteria provide in BLM Manual 1613 (1988) and require special management to protect and prevent irreparable damage to resource values. Three ACECs were proposed for protection of special status plants; the Twist Hills and Clayhole ACECs for Fickeisen plains cactus and the Buckskin ACEC for Gierisch mallow. All three met the relevance and importance criteria, but were found not to require special management beyond what was already provided in the RMP. As a result, these ACECs were not brought forward in the proposed action.

TABLE II.1. Proposed Areas of Critical Environmental Concern			
RESOURCE VALUE	**ACEC NAME**	**ORIGINAL SIZE**	**PROPOSED SIZE**
Siler pincushion cactus	Johnson Spring ACEC	2,464 acres	3,444 acres
	Lost Spring Mountain ACEC [1]	8,261 acres	19,248 acres
	Moonshine Ridge ACEC	5,095 acres	9,310 acres
	Fort Pearce ACEC	916 acres	5,724 acres
Brady pincushion cactus	Marble Canyon ACEC	11,011 acres	12,105 acres
Jones cycladenia	Lone Butte ACEC	0 acres	1,762 acres
Holmgren milkvetch	Black Knolls ACEC	0 acres	428 acres
Desert tortoise	Beaver Dam Slope ACEC	51,197 acres	51,984 acres
	Virgin Slope ACEC [1]	39,931 acres	39,514 acres
	Pakoon ACEC	76,014 acres	0 acres
	Virgin River Corridor ACEC [2]	8,075 acres	*
Woundfin Virgin chub	Virgin River Corridor ACEC [2]	8,075 acres	2,065 acres
SW willow flycatcher	Kanab Creek ACEC [1]	0 acres	13,148 acres
Cultural Resources	Little Black Mountain ACEC	241 acres	241 acres
	Johnson Spring ACEC	2,464 acres	2,058 acres
	Lost Spring Mountain ACEC	8,261 acres	19,248 acres
	Moonshine Ridge ACEC	5,095 acres	9,310 acres
	Shinarump ACEC	0 acres	0 acres
	Lone Butte ACEC	0 acres	0 acres
	Nampaweap ACEC	535 ac	0 acres
	Witch Pool ACEC	279 ac	0 acres

[1] Resource values for the Lost Spring, Virgin Slope, and Kanab Creek ACECs include wilderness characteristics.

[2] The boundaries of the Virgin River Corridor ACEC were modified to follow the 100-year floodplain in the Virgin River. As a result, desert tortoise habitat was excluded from this ACEC and incorporated into the Beaver Dam and Virgin Slope ACECs.

Special Area Designations – RCAs: The Planning Area includes three existing Resource Conservation Areas (RCAs) designated with the 1992 RMP. Under the proposed action, two RCAs designations on the Parashant, the Mt. Trumbull (102,307 acres) and Parashant RCAs (39,868 acres), would be revoked because the Monument provides adequate protection of resources. Similarly, the Canyons/Plateaus of the Paria RCA (293,689 acres) designation on the Vermilion would be also be revoked for the same reason.

Air, Water, and Soils: DFCs include meeting applicable air and water quality standards and having functional riparian areas that meet Arizona Standards for Rangeland Health (Standard #2). Management actions include minimizing impacts to air and water quality, filing for water rights on available sources (including instream flows), ensuring availability of water resources, applying stipulations to surface disturbing and reclamation activities, restoring floodplains and wetlands, and increasing management of watersheds in condition class 4. Watersheds considered high priority for assessment, treatments and/or restrictions on use to reduce erosion include: Upper Lang's Run, Black Rock Mountain, and Parashant on the Parashant; all watersheds on the Vermilion; and Upper Lang's Run, Black Rock Mountain, Upper Parashant, Lower Hurricane Valley, Fort Pearce Salinity Area, Clayhole Flood Control Structures Area, and Wild Band Valley on the ASFO.

Paleontological Resources: DFCs include protection of paleontological, geological, and cave and karst resources. Allocations include classification of areas for their potential to contain vertebrate fossils. Management actions include identifying, classifying, and protecting these resources, while mitigating impacts to them. Inventories for paleontological and cave and karst resources would continue.

Fire and Fuels Management: DFCs include maintaining appropriate fire return intervals, maintaining fuels at non-hazardous levels in wildland urban interfaces, and maintaining vegetative communities within the natural range of variation. Allocations include classification of areas suitable for wildland fire use (wild fire managed for resource benefits). Appropriate management response (AMR) would be used for managing wildland fires. Management

actions include authorizing use of minimum impact suppression tactics (MIST), prescribed fire, and fire use in designated and proposed wilderness. Conservation measures for special status species would be used for fire suppression and management within their habitats. Fire suppression tactics would favor minimum impact tools, however, use of heavy equipment could be authorized with BLM District Manager or NPS Park Superintendent approval.

Vegetation Management: DFCs include all watersheds meeting Standards for Rangeland Health, providing a mosaic of native perennial and non-invasive annual vegetative communities, protecting or enhancing ecological processes and functions, controlling or eliminating invasive plants, and maintaining vegetative communities within the natural range of variation. Management actions include authorizing use of minimum tool, prescribed fire, and fire use in designated and proposed wilderness. Restoration and vegetation treatment projects could be authorized to meet DFCs where sensitive resources are protected. Treatment methods and tools could include mechanical, chemical, biological, or fire. Specific treatment areas are not identified in the plan. Use of native species would be emphasized, though non-intrusive, non-native plants could be used to restore degraded areas where criteria for their use are met. No areas would be allocated for sustained yield timber harvest. Gathering of dead and downed wood for campfires would be authorized in areas where campfires are allowed. The sale, collection, or use of vegetative materials would require a permit on the Parashant and ASFO. No vegetative material sales would be authorized on the Vermilion. Collection of listed, proposed, or candidate plant species would not be authorized. Limited harvest of posts/poles could be authorized for on-site administrative purposes on BLM portions of the Monuments. Pinyon pine nuts could be harvested for non-commercial use. Salvage of vegetation that would otherwise be lost to surface disturbing activities could be authorized. Treatment of noxious weed infestations would continue. Certified weed-free feed, mulch, and seed would be required for permitted uses. Ecological site inventories would be completed to determine site potentials and ecological conditions. Site-specific desired plant community (DPC) objectives would continue, consistent with ecological site potential. See Map II.3 for Ecological Zones.

Vegetation Management - Riparian: All riparian communities would be at or moving towards proper functioning condition. Invasive exotics would be reduced or eliminated. Riparian areas would be managed for a mixture of appropriate woody and herbaceous vegetation. Habitat conditions would favor common species such as rush, cottonwood, willow, and yellow-breasted chat, as well as rare species such as SW willow flycatcher, common black hawk, Lucy's warbler, and speckled dace. Floodplain occupancy and development would be avoided and base floodplain (100-year) would be retained or protected.

Non-functional riparian areas and those functioning at risk would receive priority for restoration with an appropriate mixture of woody and herbaceous vegetation. Treatment methods could include wildland fire, fire use, prescribed fire, chemical, mechanical, and biological means. No more than 100 BLM acres and 10 NPS acres in the Parashant, 1,560 acres in the Vermilion, or 5,000 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation up to 37 acres on the ASFO is anticipated, though additional rehabilitation could be implemented. No post-fire rehabilitation is proposed for the Parashant or Vermilion. Treatments would not be authorized in occupied, SW willow flycatcher habitat unless such treatments would provide long-term benefits to the species or their habitat, would reduce fire frequency or intensity, or would provide replacement habitat of a higher quality than that removed. Specific treatment areas are identified below.

The functions and processes of **Pakoon Springs** would be restored to a combination of naturally appearing pond and flowing water habitats. Relict leopard frogs, Grand Wash springsnails, or other special status species would be re-introduced to the area provided suitable habitat exists after restoration.

The historic landscape at **Tassi Ranch and Springs** would be managed so that it maintains historic and ecological integrity. The irrigation system would be maintained, allowing for preservation of Grand Wash Springsnail, an endemic species. Tassi Springs would be considered for use as an introduction site for relict leopard frog. The genetic integrity of cottonwood trees at Tassi Springs would continue to be maintained. The Tassi Ranch cultural landscape would be nominated for listing on the NRHP.

Grazing and all associated facilities in the **Cane Spring** Pasture of the Mud and Cane allotment would be

managed to complement maintenance of riparian wildlife habitat, the historic and pre-historic resources, and future recreation use. A site management plan for the spring, riparian area, and cultural resources would be prepared that would include the development and implementation of interpretation to provide information on the native riparian vegetation and to emphasize the function of Mojave Desert springs for wildlife, indigenous people, and the historic and current ranching activity; interpretive trail and facility development to house the interpretive materials and enhance visitor experience, including picnicking; and adequate protection (barriers, etc.) to ensure restoration efforts and cultural resources are not adversely impacted by visitors.

Non-motorized hand tools would be used to cut invasive plants such as tamarisk and Russian olive along the **Paria River** for the purpose of restoring ecological conditions and functions and reducing fuel hazards. Prescribed fire would be used on large patches of invasive plants, and helicopters could be used. Hand application of herbicides would be used in addition to burning and/or cutting to remove invasive species. Using hand tools, the BLM would construct minimal control lines that would be rehabilitated upon completion of burning. The BLM would hand seed the area as needed.

Mechanical, chemical, and biological treatment methods would be used to remove invasive plants such as tamarisk and Russian olive along the **Virgin River** outside of designated wilderness for the purpose of restoring ecological conditions and functions and reducing fuel hazards. Within the Beaver Dam Wilderness Area, non-motorized hand tools (such as clippers, axes and pulaskis) would be used to cut and remove these invasive plants.

Vegetation Management – Ponderosa Pine: Ponderosa pine forests would include no net loss of habitat, retention of essential habitat components, resilience, and patches of old and/or large trees and snags would be retained. Stands of ponderosa pine would be managed for a balanced mosaic between tree, shrub, and perennial grass cover to support Merriam's turkey, Kaibab squirrel, and mule deer. The mosaics would include stands of old-growth ponderosa; a component of Gambel oak with grass and forb understory; large openings of grasses, forbs, and shrubs; and areas of sparse to dense tree canopy cover with an understory of grasses, forbs, and shrubs. Habitat conditions would favor common endemic plant and animal communities. Restoration and/or vegetation treatments could be conducted to restore fire regimes, increase ground cover of native grasses, forbs and shrubs, and remove invasive non-native species. Treatment methods could include wildland fire, fire use, prescribed fire, chemical, mechanical, and biological means. Minimum impact restoration techniques would be used in designated or proposed wilderness. No more than 13,800 BLM acres and 7,000 NPS acres in the Parashant, and 3,800 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation of up to 3,104 acres on the Parashant, and up to 301 acres on the ASFO is anticipated, though additional rehabilitation could be implemented. Specific treatment areas are not identified in the plan.

Ponderosa pine research treatments would be completed at **Mt. Trumbull**. BLM would use prescribed fire and/or fire use on up to 6,000 acres within the Mt. Trumbull Wilderness over the next 20 years for the purpose of restoring ecological conditions and functions and reducing fuel hazards. Treatment preference would be to use a combination of wildland fire, fire use, prescribed fire, mechanical, or chemical methods and minimum tool requirement. BLM would limit prescribed burning to appropriate conditions in order to decrease the likelihood of crown fires. BLM could use appropriate tools to construct minimal control lines, including the removal of trees and brush, and would rehabilitate control lines. BLM would apply native seed manually and/or aerially. BLM would protect old-growth trees, snags, downed logs, and other important features by raking around their bases, constructing interior control lines, and using minimum tools to fell and buck small-diameter trees and brush that constitute ladder fuels.

Vegetation Management - Sagebrush: Sagebrush stands would include no net loss of habitat; would have a balance between shrubs, native perennial grasses, and forbs; would include small grassy openings and large continuous blocks; and would have shrub canopy cover less than 25%. Habitat conditions would favor sage dependent wildlife species such as vesper, lark, Brewer's, sage, and black-throated sparrows, gray flycatchers, loggerhead shrikes, sage thrashers, long-billed curlews, and burrowing owls. Areas where sagebrush canopy

cover exceeds 20%, perennial grasses and forbs are less than 5%, and bare ground exceeds 40% would receive priority for restoration or treatment. Treatment methods would favor wildland fire, fire use, prescribed fire, and chemical means, though other methods could be used. No more than 25,000 BLM acres in the Parashant, 100,000 acres in the Vermilion, and 200,000 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation of up to 21,000 acres on the Parashant, and up to 19,168 acres on the ASFO is anticipated, though additional rehabilitation could be implemented. Specific treatment areas are not identified in the plan.

Vegetation Management – Pinyon-Juniper: Pinyon-juniper woodlands would be healthy and diverse mosaics of different height and age classes with a thriving understory with a balance between grasses, shrubs, and trees. Ladder fuels and downed woody debris would be limited or absent. Old growth trees would be present. Habitat conditions would favor endemic plants and animals such as pinyon jay, sharp-shinned and northern goshawk, Coopers hawk, American kestrel, red tail hawk, and mule deer. Areas where juniper canopy cover exceeds 40%, perennial grasses and forbs are less than 5%, and bare ground exceeds 50% would receive priority for restoration or treatment. Treatment methods would favor wildland fire, fire use, prescribed fire, mechanical, and chemical means, though other methods could be used. No more than 102,000 BLM acres and 34,00 NPS acres in the Parashant, 50,000 acres in the Vermilion, and 100,000 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation of up to 9,797 acres on the Parashant, up to 34 acres on the Vermilion, and up to 1,421 acres on the ASFO is anticipated, though additional rehabilitation could be implemented. Specific treatment areas are not identified in the plan.

Vegetation Management – Mojave Desert: There would be no net loss of Mojave desert habitat. Habitat conditions would favor endemic plant communities such as black brush, Joshua tree, Mohave yucca, and cacti, as well as endemic wildlife species such as desert tortoise, chuckwalla, and desert bighorn sheep. Areas where desert tortoise habitat has been burned and/or converted to invasive annual grass communities would receive priority for restoration or treatment. Treatment methods would favor chemical means. Prescribed fire and mechanical treatment methods would only be authorize on BLM lands where doing so would benefit desert tortoise or their habitat, reduce invasive plant species, reduce fire frequency, or as a necessary component of research. No more than 70,000 BLM acres in the Parashant, and 10,000 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation of up to 50,000 acres on the Parashant, and up to 3,794 acres on the ASFO is anticipated, though additional rehabilitation could be implemented. Specific treatment areas are not identified in the plan.

Vegetation Management – Mojave-Great Basin Transition: There would be no net loss of this Transition habitat. Habitat conditions would favor endemic plant communities such as black brush, Joshua tree, Mohave yucca, and cacti, as well as endemic wildlife species such as desert tortoise, chuckwalla, and desert bighorn sheep. Areas where desert tortoise habitat has been burned and/or converted to invasive annual grass communities would receive priority for restoration or treatment. Treatment methods would favor chemical means. Prescribed fire and mechanical treatment methods would only be authorize on BLM lands where doing so would benefit desert tortoise or their habitat, reduce invasive plant species, reduce fire frequency, or as a necessary component of research. No more than 150,000 BLM acres in the Parashant, and 30,000 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation of up to 100,000 acres on the Parashant, and up to 3,561 acres on the ASFO is anticipated, though additional rehabilitation could be implemented. Specific treatment areas are not identified in the plan.

Vegetation Management – Colorado Plateau Transition: There would be no net loss of this Transition habitat. Habitat conditions would favor endemic plant communities such as four-wing saltbush, shadscale, and black brush, as well as endemic wildlife species such as House Rock valley chisel-toothed kangaroo rat, peregrine falcon, and desert bighorn sheep. No treatment priority areas were defined. Treatment methods could include wildland fire, fire use, prescribed fire, chemical, mechanical, and biological means. No more than 30,000 acres on the Vermilion, and 30,000 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation of up to 17 acres on the Vermilion, and up to 1 acre on the ASFO is anticipated, though additional

rehabilitation could be implemented. Specific treatment areas are not identified in the plan.

Vegetation Management – Interior Chaparral: Interior chaparral would be healthy and diverse mosaics of different height and age class vegetation, particularly shrubs. There would be no net loss of habitat in this ecological zone. Habitat conditions would favor endemic plants such as manzanita, silk tassel, and live oak, as well as endemic animals such as black-shinned sparrow and mule deer. Treatment objectives would focus on providing openings for shrub regeneration and wildlife access for cover and browse, as well as exclusion of invasive non-native plants. Treatment methods would favor mechanical and chemical means, though other methods could be used. No more than 1,500 BLM acres on the Parashant, and 5,000 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation of up to 877 acres on the Parashant and up to 846 acres on the ASFO is anticipated, though additional rehabilitation could be implemented. Specific treatment areas are not identified in the plan.

Vegetation Management – Plains-Grassland: Plains-Grassland communities would be healthy and diverse mosaics of different height and age classes of vegetation. Habitat conditions would favor endemic plants such as Galleta, sand dropseed, Indian ricegrass, blue and black grama, needle and thread grass, four-wing saltbush, shadscale, winterfat, and Mormon tea, as well as and endemic animals such as Cassin's and Brewer's sparrow, and pronghorn antelope. Habitat would include 50% vegetative cover, species composition of 40-60% grasses, 10-30% forbs, and 5-20% palatable browse for pronghorn. Species diversity would include 5-10 native grass species, 20-40 native forb species, and 5-10 native shrubs. Shrub height would be 15-24" for pronghorn fawning cover. Treatment emphasis would be to reduce the proliferation of non-indigenous annual plants and provide fawning cover for pronghorn antelope. Areas where grasses and forbs are less than 5% and bare ground exceeds 45% would receive priority for restoration or treatment. Treatment methods would favor mechanical, chemical, or biological means, though other methods could be used. No more than 110 BLM acres in the Parashant, 10,000 acres on the Vermilion, and 100,000 acres in the ASFO would be treated over the life of this plan. Post-fire rehabilitation of up to 4,496 acres in the Vermilion, and up to 4,496 acres on the ASFO is anticipated, though additional rehabilitation could be implemented. Specific treatment areas are not identified in the plan.

Fish and Wildlife: Fish and wildlife DFCs include having functional ecological systems within the range of natural variability; diverse, healthy, and self-sustaining populations of native species; sufficient forage, water, and cover to support these diverse populations; safe access to water for wildlife; wildlife passable fencing; habitat connectivity with minimal fragmentation; balanced predator and prey relationships; and priority wildlife species (special status species, migratory birds, game animals and birds, kit fox, gray fox, and long-tailed weasels) would be at or near maximum sustainable population levels. Habitat conditions would be meeting Vegetation Management DFCs. For BLM lands, wildlife decisions and actions would be implemented through the development and implementation of three interdisciplinary wildlife HMPs. On NPS lands, wildlife decisions and actions would be guided by a cooperative planning process focusing on ecosystem management that perpetuates a natural distribution of native wildlife in a mosaic of their associated habitats within a normal range of variability.

Wildlife habitat areas (WHAs) were allocated in the Parashant (Grand Wash Cliffs and Virgin Mountains for desert bighorn sheep and Trumbull-Logan for Kaibab squirrels), the Vermilion (Vermilion Cliffs for desert bighorn sheep), and the ASFO (Virgin Mountains, Hurricane Cliffs, and Lower Kanab Creek for desert bighorn sheep). Priority wildlife species and habitats (all aquatic and riparian areas, ponderosa pine, crucial mule deer winter range, bighorn sheep habitat areas, and House Rock Valley) are identified. Management actions that apply to priority wildlife and habitats include increased emphasis on protection of the species; restoration and vegetation treatments of degraded areas; increased consideration during NEPA; ability to modify, mitigate, or restrict proposed actions to minimize effects to the species; etc. Grazing by other than cattle or horses would not be authorized within 9 miles of bighorn sheep WHAs. See Map II.4.

Game animals would be managed for healthy, self-sustaining populations in accordance with population goals and objectives established in the AGFD Strategic Plan for the species. BLM would identify and map pronghorn fawning

areas in the Planning Area. BLM would implement actions to increase shrub height and density to enhance fawning cover, consistent with site potential. Migratory bird populations would be monitored in cooperation with AGFD. Significant waterfowl habitat sites would be inventoried. Standardized surveys would be used to inventory breeding bird populations and evaluate existing habitat.

Recreational collecting of animal parts would be allowed outside of ecologically sensitive areas (special status species habitats, ACECs, and priority habitats). Reintroductions and augmentations of pronghorn, mule deer, bighorn sheep, turkey, Kaibab squirrel, and special status species could be authorized. Wildlife water developments could be constructed, maintained, and/or modified. Escape ramps would continue to be used at developed waters. Control of exotic wildlife species would continue. Planning Areas would be closed to members of the pig family (Suiidae). The following areas would be managed as watchable wildlife areas: Tassi, Cane, and Pakoon Springs, and Oak Grove in the Parashant; the Condor viewing site in the Vermilion; Black Rock, Beaver Dam Confluence, Lime Kiln Pass, the Buckskin Mountains, and House Rock Valley on the ASFO.

Special Status Species: DFCs include that all special status species (SSS) would be recovered and/or would be at stable, self-sustaining levels. There would be no net loss of habitat. Discretionary activities would not contribute to the need to list species. The Planning Area would continue to serve as a contiguous block of habitat for SSS. Habitat connectivity would be maintained with minimal fragmentation. Instream flows would be sufficient to maintain healthy native fish populations. Species extirpated from the Planning Areas would be reintroduced and recovered. Potential roosting and nesting sites for raptors would be abundant, as would prey populations. Habitat conditions would be meeting Vegetation Management DFCs. Riparian habitats would be in proper functioning condition and would provide suitable habitat for riparian dependent species.

Vegetative habitat areas (VHAs) were allocated on the ASFO (Twist Hills and Clayhole for Fickeisen plains cactus and Buckskin for Gierisch mallow). The Pakoon ACEC would be revoked since the Parashant Monument designation provides additional protection over and above the ACEC management prescriptions. Management actions that apply to WHAs and VHAs include increased emphasis on protection of the species; increased consideration during NEPA; ability to modify, mitigate, postpone, or restrict proposed actions to minimize effects to the species; etc. Species-specific conservation measures would apply to management of these and all other areas of occupied and unoccupied habitat for SSS (Appendix 2.E. in the Proposed Plan/FEIS).

Reintroductions and augmentations of desert tortoise; chuckwalla; banded gila monster; northern, lowland, and/or relict leopard frogs; endemic springsnails; woundfin minnow; Virgin River chub; Virgin spinedace; desert and/or flannelmouth sucker; California condor; Yuma clapper rail; yellow-billed cuckoo; SW willow flycatcher; ferruginous hawk; northern goshawk; burrowing owl; white-faced ibis; and House Rock Valley chisel-toothed kangaroo rat could be authorized. Introductions of non-endemic SSS native to the region could be authorized on BLM lands. BLM and NPS would continue active management programs to inventory, monitor, restore, and maintain listed species and their habitats; control detrimental non-natives; minimize habitat alteration and fragmentation; and re-establish extirpated populations.

Actions authorized, as well as those not specifically authorized or permitted, that lead to adverse affects to listed, proposed, or candidate species, would be reviewed and addressed in a timely manner to minimize adverse affects. Authorized actions would be subject to application of species specific conservation measures (Appendix 2.E. of the FEIS). SSS habitat surveys would continue to be required prior to implementation of actions within their habitats. BLM and NPS may modify, limit, or restrict public land uses that lead to adverse affects to listed, proposed, or candidate species. These apply to fire and vegetation management, livestock grazing, recreational activities, lands and realty actions, and mineral development. Special mitigation would be required in mining plans of operation to avoid impacts to special status species or proposed or designated critical habitat. Education efforts would continue to increase public awareness of SSS issues and concerns. Pre-project surveys and clearances (biological evaluations/assessments) for Federally protected species would be required for each project site before implementation. All applicable Conservation Measures would be applied to areas with unsurveyed suitable habitat for Federally protected species, until a survey has been conducted by qualified personnel to clear the area for the

treatment activity.

Site-specific implementation plans would be prepared for areas with federally protected species habitat, specifying fire management objectives, wildland fire suppression guidance, and addressing special concerns related to these species. In such areas, Minimum Impact (fire) Suppression Tactics (MIST) would be followed. Resource Advisors would be assigned to address special status species concerns, coordinate with the USFWS, and brief firefighters and support personnel about listed species and the importance of minimizing impacts to individuals and their habitats. Permanent road construction would not be permitted during fire suppression activities in habitat occupied by federally protected species. Construction of temporary roads is approved only if necessary for safety or the protection of property or resources. Crew camps, equipment staging areas, and aircraft landing and fueling areas should be located outside of listed species habitats, and preferably in locations that are disturbed. Biologists would be involved in the development of prescribed burn plans and vegetation treatment plans to minimize effects to Federally protected species and their habitats. Use of motorized vehicles during prescribed burns or other fuels treatment activities in suitable or occupied habitat would be restricted, to the extent feasible, to existing roads, trails, washes, and temporary fuel breaks or site-access routes. Fuels treatment activities include prescribed fire and mechanical, chemical, and/or biological vegetation treatments If off-road travel is deemed necessary, any cross-country travel paths would be surveyed prior to use and would be closed and rehabilitated after the prescribed burn or fuels treatment project is completed.

In riparian areas, natural barriers or openings in vegetation would be used where possible as the easiest, safest method to manage a riparian wildfire. Where possible and practical, wet firebreaks in sandy overflow channels would be used rather than constructing firelines by hand or with heavy equipment. Sediment traps or other erosion control methods would be used to reduce or eliminate influx of ash and sediment into aquatic systems. Use of fire retardants or chemical foams would be avoided in riparian habitats or within 300 feet of aquatic habitats. Unused water from fire abatement activities would not be dumped in sites occupied by Federally protected aquatic species to avoid introducing non-native species, diseases, or parasites. Stream water quality and riparian ecosystem health would be monitored to determine effects of wildfire and fire management activities.

The needs of federally listed species would be addressed in rehabilitation actions. Seed from regionally native or sterile alien (non-native) species of grasses and herbaceous vegetation would be used to stabilize soils and prevent erosion. Use of motorized vehicles during rehabilitation or restoration activities in suitable or occupied habitat would be restricted, to the extent feasible, to existing roads, trails, or washes, and to temporary access roads or fuel breaks. All temporary roads, vehicle tracks, skid trails, and off-road vehicle (ORV) trails resulting from fire suppression and the proposed fire management activities would be rehabilitated (water bars, etc.), and be closed to future use. Deferments from grazing may be implemented when deemed necessary to protect resource values in areas where rehabilitation or restoration activities are implemented.

BLM would not transfer out of federal ownership any designated or proposed critical habitat, except where the new owner could protect the species equally well. BLM would not transfer out of federal ownership lands supporting listed or proposed species if doing so would be inconsistent with recovery. BLM would not transfer out of federal ownership lands supporting candidate species if doing so would contribute to the need to list the species. Unauthorized dumpsites in special status species habitat would be given high priority for removal and cleanup.

Following completion of route inventory and evaluation, roads/routes causing or contributing to mortality of individuals of listed species or degradation of their habitat would be identified. Where practical, such roads/routes would be closed and signed. Where closing such roads would not be practical, seasonal restrictions or other mitigation would be developed to minimize adverse effects to special status species. Where necessary, fences, culverts or other physical barriers would be installed to protect special status species. Mineral leasing would include notification to potential lessees of presence or potential for occurrence of special status species within a parcel proposed for leasing. Lessees would also be advised of additional stipulations or other restrictions that would apply at the APD stage. New mineral material sites would not be authorized in listed species ACECs. Existing material sites would be evaluated for retention.

Special Status Species ACEC/DWMA Management: Public ownership in ACECs/DWMAs would be retained. Acquisition of non-federal lands within the ACECs/DWMAs would be a priority. New land use authorizations would only be allowed in listed species habitat when no reasonable alternative exists and impacts to the species can be mitigated. New rights-of-way would be routed away from high-density population areas of listed species. New roads and upgrading of existing roads would be authorized only a temporary basis or when beneficial for resources. Vegetation diversity would be maintained or improved in accordance with ecosite guides. ACECs/DWMAs would be closed to all vegetative product sales. ACECs designated for the protection of plants would be closed to the collection of vegetative materials. Collection of dead and down wood would be allowed for personal campfire use only, subject to fire restrictions. OHV restrictions would apply. Special status plant ACEC's would be closed to OHVs. Motorized and mechanized vehicle use in ACECs with cultural or listed species values would be limited to designated or existing roads or trails.

ACECs would remain open to locatable mineral exploration and development. A Mining Plan of Operation with special mitigation measures would be required. ACECs would remain open to leasable mineral exploration and development with special mitigation. No new mineral material disposal sites would be authorized in ACECs. Material site rights-of-way in ACECs would not be authorized or renewed. These provisions would not apply to the Pakoon DWMA since it is within the Parashant Planning Area.

Special Status Species – Special Status Plants: Use restrictions could be developed to minimize or eliminate trampling and/or crushing of special status plants. Recreational activities that degrade special status plant habitats would be modified or relocated. Use of herbicides could be limited or eliminated in areas where special status plants could be affected. Mechanical vegetation treatment would not be authorized in special status plant habitat, unless doing so would provide benefits to the species.

Four existing ACECs for protection of the threatened Siler pincushion cactus would be modified as follows: **Johnson Spring ACEC** (3,444 acres), **Lost Spring Mountain ACEC** (19,248 acres), **Moonshine Ridge ACEC** (9,310 acres), **Fort Pearce ACEC** (5,724 acres), for a total of 37,726 acres. The Lost Spring Mountain ACEC also includes wilderness characteristics as a resource value. In addition to the standard ACEC management prescriptions, the following apply to these four ACECs: No new corrals or water developments would be authorized or constructed within the ACEC boundary. The feasibility of relocating existing corrals or water developments outside the ACEC boundary would be considered.

The ACEC would be closed to OHV travel. Motorized and mechanized travel would be limited to existing roads and trails until route designation is complete (except that in the Fort Pearce ACEC, some washes and trails where Siler cactus has not been found are open for the Rhino Rally motorcycle race. The Johnson Spring, Lost Spring Mountain, and Moonshine Ridge ACECs would be inventoried for cultural resources.

The **Marble Canyon ACEC** would be maintained for the protection of the endangered Brady pincushion cactus at 12,105 acres in House Rock Valley. In addition to the standard ACEC management prescriptions, the following apply: Motorized and mechanized travel would be limited to existing roads and trails until route designation is complete. Existing material sites would be evaluated for retention. The ACEC plan would be updated to insure that management of Brady pincushion cactus is consistent with the recovery plan. Rock or similar barriers to off-road vehicle travel would be installed in areas where cacti are adjacent to canyon rim overlooks.

The **Lone Butte ACEC** for protection of the threatened Jones cycladenia would be designated as 1,762 acres. In addition to the standard ACEC management prescriptions, the following apply The ACEC would be closed to OHV travel. The Lone Butte ACEC would be inventoried for cultural resources.

The **Black Knolls ACEC** for protection of the endangered Holmgren milkvetch would be designated as 428 acres. In addition to the standard ACEC management prescriptions, the following apply: The ACEC would be closed to OHV travel. In addition to the standard ACEC management prescriptions, the following apply:

Special Status Species – Desert Tortoise: Authorized actions that may result in adverse effects to desert tortoises would require implementation of project stipulations. Mechanical vegetation treatment would not be authorized in desert tortoise habitat, unless doing so would benefit the species. Wild horses and burros would not be authorized on NPS and BLM lands in the Planning Area. Competitive speed events would be prohibited and organized non-speed events would be restricted to designated routes in desert tortoise habitat. Activities that could adversely affect desert tortoise would be limited to the tortoise inactive period (October 15 to March 15). Reclamation would be required for activities that result in alteration or degradation of tortoise habitat. Compensation may be required to mitigate residual impacts from authorized actions in desert tortoise habitat. Utility lines on BLM lands would be designed, located, and constructed so as to avoid attracting desert tortoise predators. No translocations of desert tortoises from private to public lands would occur without discussions with the Service.

The Pakoon ACEC for protection of the threatened desert tortoise and Mojave Desert Ecological Zone values would be revoked. The same 76,014-acre area, plus all designated critical habitat for desert tortoise within the Parashant would be managed for protection of the species as the Pakoon WHA. In addition to the standard ACEC management prescriptions, the following apply: Activities on Lake Mead NRA and on public lands in Nevada managed by the ASDO would be managed in accordance with DWMA prescriptions. Habitat restoration would not include planting or seeding of nonnative plants. Desert tortoise ACECs would be closed to live vegetation harvest, except salvage in areas where surface disturbance has been authorized. All of the Tassi Allotment and portions of the Pakoon, Pakoon Springs, and Mosby-Nay Allotments within the Pakoon DWMA would be unavailable for livestock grazing. Motorized and mechanized travel would be limited to designated roads and trails. New paved roads would not be authorized in the Pakoon DWMA/WHA Temporary upgrading of existing roads and construction of new unpaved roads could be authorized only where beneficial to desert tortoise. Maintenance of existing roads would be authorized, with non-emergency maintenance deferred to the tortoise inactive period. Speed limits for vehicles associated with agency-authorized projects would be at or below 40 mph in tortoise habitat during the active season.

The **Beaver Dam Slope ACEC** and **Virgin Slope ACEC** for protection of threatened desert tortoise and Mojave Desert Ecological Zone values would be enlarged to 51,984 acres and 39,514 acres respectively. The Virgin Slope ACEC also includes wilderness characteristics as a resource value. In addition to the standard ACEC management prescriptions, the following apply: Proposed actions would be evaluated to ensure they do not contribute to the proliferation of natural predators within desert tortoise habitat. Habitat restoration would not include planting or seeding of nonnative plants. Desert tortoise ACECs would be closed to live vegetation harvest, except salvage in areas where surface disturbance has been authorized.

Full fire suppression activities would be initiated in desert habitat, with minimal surface disturbance. Burning out of unburned fingers and islands of desert tortoise habitat would not be permitted. Use of foam or fugitive retardant would be authorized in desert tortoise habitat. Camps, staging areas, and helispots would be surveyed for desert tortoises prior to use whenever feasible and located in previously disturbed areas whenever practicable.

Individual land use authorizations (ROWs, permits, leases, easements) would be evaluated on a case-by-case basis on the ASFO. New land use authorizations would not be allowed in exclusion areas (i.e. wilderness) and would be discouraged within ACECs or lands supporting listed species and allowed in such areas only when no reasonable alternative exists and impacts to these sensitive resources can be mitigated. New ROWs would be routed away from high-density listed species' populations, and along the edges of avoidance areas. The BLM would not authorize any military maneuvers within special status species ACECs.

Seasonal grazing only would be authorized in the Beaver Dam Slope and Virgin Slope ACECs from October 15 - March 15 of each year. Grazing utilization levels would be set at 45% of current year's growth on allotments in desert tortoise habitat.

Desert tortoise ACECs would remain open to fluid mineral leasing subject to seasonal restrictions and a waivable no surface occupancy stipulation (WNSO). Special mitigation would be required in mining plans of operation to avoid impacts to desert tortoise within the desert tortoise ACECs. Non-commercial hand collection of rocks within 100 feet of designated open roads would be permitted in desert tortoise ACECs.

Motorized and mechanized travel would be limited to designated roads and trails. New paved roads would not be authorized in the Pakoon DWMA/WHA, Beaver Dam Slope ACEC, or Virgin Slope ACEC. Temporary upgrading of existing roads and construction of new unpaved roads in these areas could be authorized only on BLM lands where beneficial to desert tortoise. Maintenance of existing roads would be authorized, with non-emergency maintenance deferred to the tortoise inactive period. Speed limits for vehicles associated with agency-authorized projects would be at or below 40 mph in tortoise habitat during the active season. A signing and fencing plan would be developed. Signing and fencing would occur as funding allows.

The BLM would cooperate on a case-by-case basis to relocate tortoises from previously conveyed federal lands within the Planning Area that are slated for development to public lands. No translocations of desert tortoises from private to public lands would occur without completion of a Section 7 consultation or Section 10 (a) habitat conservation plan.

The **Virgin River ACEC** for protection of desert tortoise and Virgin River fishes would be modified to include the 100-year floodplain. This decision eliminates desert tortoise habitat from the ACEC.

Special Status Species – Virgin River Fishes: The **Virgin River Corridor ACEC** would be modified to include only the 100-year floodplain (approx. 2,065 acres). Management of the ACEC would emphasize Virgin River fishes and riparian dependent bird species such as SW willow flycatcher, Yuma clapper rail, and yellow-billed cuckoo. The ACEC would not be managed for desert tortoises as no desert tortoise habitat would be included in the ACEC.

In addition to the standard ACEC management prescriptions, the following apply: Fire and vegetation management within the ACEC would include conservation measures for native fishes and riparian dependent birds. Land exchanges or disposals would be managed so that future developments would not adversely affect flows in the Virgin River. Riparian areas would be maintained in proper functioning condition. Actions that degrade riparian habitat or reduce the potential of the area to support riparian vegetation would be modified, restricted, or prohibited. The ACEC would be closed to OHV travel. Mechanical, chemical, and biological treatment methods would be used to remove invasive plants such as tamarisk and Russian olive for the purpose of restoring ecological conditions and functions and reducing fuel hazards. Within the Beaver Dam Wilderness Area, non-motorized hand tools (such as clippers, axes and pulaskis) would be used to cut and remove these invasive plants. The ACEC would be signed and fenced as funding allows.

BLM would assist in locating and constructing non-native fish barriers and other efforts to reduce or eradicate non-native fish populations. Instream flow water rights would be acquired and protected. BLM would assist the Recovery Team in monitoring efforts for native Virgin River fish populations.

BLM would continue to survey and map habitat for SW willow flycatchers, Yuma clapper rail, and other special status riparian species. Suitable SW willow flycatcher habitat would be managed so that its suitable characteristics are not eliminated or degraded. Potential flycatcher habitat would be managed to allow natural regeneration into suitable habitat as rapidly as possible. Livestock grazing would continue to be limited on pastures with suitable flycatcher habitat. The Beaver Dam Confluence is already closed year round. Suitable habitat within the Lambing and Kanab Creek Allotments would be closed during the growing season (bud break

to leaf drop). Stream bank alteration due to recreational activities and livestock grazing within the Virgin River Corridor ACEC would be limited to 25% annually. Areas where concentrations of brown-headed cowbirds occur on public lands in the Planning Area would be evaluated for ways to reduce cowbird concentration areas found.

Special Status Species – Special Status Raptors: BLM and NPS would continue to identify bald eagle roost locations. Authorized or permitted activities within 0.5 miles of an active bald eagle wintering roost could be deferred or otherwise restricted. Canyons and forests with the potential to support Mexican spotted owl would be managed for maintenance or enhancement of the habitat attributes that make them suitable. Restoration of California condor into historic habitats would continue. The population objective for California condors would be to maintain a self-sustaining population of at least 150 individuals with at least 15 breeding pairs. Sources of condor lead contamination would be identified, reduced, or eliminated where possible. Within the 10(j) area, the BLM would not restrict authorized and/or permitted activities solely for the benefit of California condors. Administrative or other actions implemented by the BLM could be subject to additional stipulations and conservation measures.

Actions that might adversely affect nesting peregrine falcons between March 1 and August 1 could be subject to stipulations, mitigation, or may not be approved. Burrowing owl populations on the ASFO would be augmented in the St. George Basin, Clayhole Valley, Lower Hurricane Valley, and the area east of Kanab Creek. No burrowing owl augmentations would occur on the Parashant due to potential conflicts with desert tortoise. The BLM and NPS would continue to survey and/or monitor potential habitat for special status raptors and cooperate and assist with post-delisting monitoring efforts for peregrine falcon within the Planning Area.

Special Status Species – Riparian Dependent Birds: Suitable flycatcher habitat would be managed so that its suitable characteristics are not eliminated or degraded. Potential flycatcher habitat would be managed to allow natural regeneration into suitable habitat as rapidly as possible. Areas where concentrations of brown-headed cowbirds occur on public lands in the Planning Area would be evaluated for ways to reduce cowbird concentration areas found. The effects of future development on water quality and flows in the Virgin River would be addressed in NEPA documents and ESA consultation prior to exchanges or disposals. Riparian areas would be maintained in proper functioning condition. Actions that degrade riparian habitat or reduce the potential of the area to support riparian vegetation would be modified, restricted, or prohibited. The ACEC would be closed to OHV travel. The BLM and NPS would continue to maintain updated maps of SW willow flycatcher, Yuma clapper rail, and western yellow-billed cuckoo habitat in the Planning Area.

The Kanab Creek ACEC would be designated at 13,148 acres for protection of potential habitat for the endangered SW willow flycatcher, riparian vegetation, wilderness characteristics, and scenic values. An ACEC plan would be developed for management of this species and associated riparian values consistent with the SW Willow Flycatcher Recovery Plan. In addition to the standard ACEC management prescriptions, the following apply: No new corrals or water developments would be authorized or constructed within the ACEC boundary. The feasibility of relocating existing corrals or water developments outside the ACEC boundary would be considered. Livestock grazing would be closed during the growing season (bud break to leaf drop) on the Clearwater portions of the Kanab Creek and Wildband Allotments. Conservative grazing guidelines would be used consistent with the SW willow flycatcher recovery plan. BLM would continue to survey for SW willow flycatchers and maintain updated maps of their habitat in the Kanab Creek ACEC. The Kanab Creek ACEC would be inventoried for cultural resources.

Wild Burros: The herd management level for wild burros on the Parashant would remain at zero. Wild horses and burros would not be authorized on NPS lands.

Cultural Resources: Significant cultural resources would be conserved, protected, stabilized or restored and maintained in good or better condition. Specific information on ancestral and traditional cultural places (TCPs) would be protected and, where appropriate, interpreted. American Indians with cultural and historic ties to the Planning Area

would have access to and use of sites allocated to traditional use. Public information would be provided only for those cultural sites designated for public use. Protective measures would be taken to preserve significant sites, such as monitoring through patrol, signing, fencing, data recovery to mitigate vandalism, and stabilizing undamaged deposits and at risk features. Inventories of cultural resources would continue. Properties eligible for listing on the National Register of Historic Places (NRHP) would be nominated.

Four existing ACECs for protection of cultural resources and other special status plants would be modified as follows: **Johnson Spring ACEC** (3,444 acres), **Lost Spring Mountain ACEC** (19,248 acres), **Moonshine Ridge ACEC** (9,310 acres), **Marble Canyon ACEC** (12,105 acres) to better meet the needs of these sensitive resources. The **Shinarump ACEC** (3,237 acres) and **Lone Butte ACEC** (1,762 acres) would be designated to protect cultural resources. In addition to the standard ACEC management prescriptions described above (See special status species ACECs), the Little Black Mountain, Shinarump, and Lone Butte ACECs would be closed to OHV travel. The existing Nampaweap (535 acres) and Witch Pool (279 acres) ACECs on the Parashant would be revoked since Monument status provides for necessary protection of resources. An easement across state of Arizona lands from Quail Hill Road to **Little Black Mountain ACEC** would be acquired to provide legal access from the west.

Tribes would be consulted to determine limitations for use on sites allocated to Traditional Use areas. Fees would not apply on BLM lands to American Indians for the collection of non-commercial, personal use quantities of herbals, medicines, traditional use items, or items necessary for traditional, religious, or ceremonial purposes. Geocache sites would be prohibited in cultural sites.

Priority geographic and historic areas for new field inventory would include riparian first terrace locations, woodlands, and wilderness areas in all Planning Areas; the Shivwits Plateau on the Parashant; Paria Canyon, Paria Plateau, House Rock Valley, and areas with high concentrations of visitors on the Vermilion; and the vicinity of Johnson Springs, Shinarump Plateau, Lost Spring Mountain, Yellowstone Mesa, House Rock Valley, and current and potential high visitor use areas on the ASFO. The Grand Gulch Mine buildings, the Oak Grove Cabin, the Pine Well Ranch, Lower Kent Ranch, and other historic properties would be mapped, stabilized, signed, and interpreted as they are identified, documented, and evaluated.

The **Waring Ranch** NRHP listing would be broadened to encompass the entire Kelly Point ranching landscape (Waring Ranch to Kelly Point). Condition assessment and stabilization of outlying cultural resources would continue to be conducted. Development of **West Bench Pueblo** Public Use Site would be pursued and would include stabilization or rerouting of the current road through the site, data recovery efforts, construction of a trail, interpretive signs, and a small parking area for day use only. **"The Maze"** Rock art site would be developed with a backcountry access trail and off-site interpretive signing. The **Sun Valley Mine** Public Use Site would be developed for public use, including reconstruction of head frame, construction of a bat gate, and interpretive signing.

Visual Resources: The region's scenic beauty, open space, landscapes, and other high quality visual resources would be maintained with the Planning Area. Existing "footprint" of cultural landscapes would be maintained. Dark night sky conditions that are affected primarily by natural light sources would be maintained. VRM classes would be used as a design tool to support management of the various designations, allocations and scenic or sensitive resources and would be assigned as follows: On the Parashant (BLM and NPS lands): Class I - 291,219 acres; Class II - 592,699 acres; Class III - 164,389 acres; and Class IV - 11 acres. On the Vermilion: Class I - 89,825 acres; Class II - 203,851 acres; Class III - 0 acres; and Class IV - 12 acres. On the ASFO: Class I - 80,760 acres; Class II - 368,032 acres; Class III - 1,459,374 acres; and Class IV - 72,897 acres. (See Map II.5). Any areas designated as Wilderness or classified as "wild" as part of a national wild and scenic river designation during implementation of the plan would be reassigned to VRM Class I. To the extent opportunities are practicable, extreme visual contrast created by past management practices or human activities would be minimized. Ecosystem restoration projects would ensure that visual impacts are minimized in the short term (5 years) and that VRM objectives in the project area are met in the long term when the project would be essential for long term ecosystem health, public safety, or reduction of hazardous fuels buildups and would be expected to be visually prominent. Impacts to night sky would

be prevented or reduced through the application of specific mitigation measures identified in activity level planning and NEPA level review.

Soundscapes: Natural quiet and natural sounds would be preserved or restored, where practicable.

Wilderness Characteristics: Nearly 288,000 acres with wilderness characteristics are identified to maintain existing naturalness and outstanding opportunities for solitude and primitive and unconfined recreation. Areas so identified would be ecologically sustainable and resilient to natural and human-caused disturbances. These lands are currently predominantly roadless areas and would remain so. Management activities would be consistent with maintaining naturalness in these areas.

From a visual resources standpoint within these areas, any changes to the characteristic landscape must be very low on 5,575 acres, low on 180,183 acres, and could be moderate on 2,957 acres on the Parashant; low on 37,566 acres, on the Vermilion; and be low on 34,764 acres and, could be moderate on 178 acres on the ASFO. The BLM would seek to acquire non-Federal lands and interests in lands in areas identified to maintain wilderness characteristics. Restoration, vegetation treatments, and other surface disturbing actions could be authorized in these areas to achieve DFCs. On the Monuments, natural processes would be primarily relied on to restore, over time, locations where human imprints are found. When natural process would not restore areas within a reasonable timeframe or when resource damage would continue, a mix of chemical, biological, mechanical, and fire tools would be used consistent with DFCs. BLM would use minimum impact suppression tactics (MIST) to manage fire in these areas. Motorized vehicle and mechanized transport use would only be allowed on designated routes. Use of non-motorized, wheeled game carriers to retrieve game kills would be allowed. Non-motorized competitive events could be authorized where wilderness characteristics would be maintained. New rights-of-way would be discouraged within these areas, though exceptions could be granted on BLM lands for communication sites necessary for public safety where no other suitable sites are available. Mineral leasing in areas identified to maintain wilderness characteristics would be subject to standard stipulations and mineral material sales would not be authorized. (See Map II.6).

Lands/Realty: The Lands and Realty program would continue to respond to the needs of external and internal customers. All lands and interests in lands would be retained in federal ownership within National Landscape Conservation System (NLCS) units (e.g., Monuments, designated wilderness, national historic trails), administratively designated areas (e.g., Areas of Critical Environmental Concern (ACECs), areas identified to maintain wilderness characteristics, eligible and suitable wild and scenic river segments, Desert Wildlife Management Areas (DWMAs), designated or proposed critical habitat, and important riparian areas. The BLM would seek to acquire non-federal lands and interests in lands within the above-identified areas and legal access to landlocked public land from willing sellers by purchase, exchange, or donation. Exchanges with the State of Arizona to acquire lands within the identified areas would be pursued when the State is provided the authority. Land exchanges may be considered within the monuments where site specific NEPA analysis determines the protective purposes of the monuments would be furthered. BLM would also retain in federal ownership lands supporting listed or proposed species, except specific parcels of Category 3 desert tortoise habitat outside of ACECs that do not possess the primary constituent elements required for survival and recovery of the species (See Map II.7 and Appendix 2.M. in the Proposed Plan/FEIS). Parcels would be surveyed for special status species and other sensitive resources prior to disposal. Approximately 200 acres in addition to those lands specifically identified for disposal would be retained in public ownership unless needed for recreation or public purposes (R&PP). Disposal proposals under the R&PP Act on lands not identified for disposal would be considered on a case-by-case basis. Those R&PP classifications that are no longer necessary would be terminated. The effects of future development on water quality and flows in the Virgin River would be addressed through NEPA documents and ESA consultation prior to disposal. Up to 25,319 acres of public land would be available for exchange, sale, or R&PP lease/sale with NEPA and ESA compliance. This means that BLM could consider disposal of these lands. It does not mean that BLM will dispose of these lands. Most of the lands identified for disposal in the 1992 RMP did not leave federal ownership and were carried forward from previous planning. None of the lands identified for disposal are within known critical habitat of special status species.

Individual land use authorizations (ROWs, permits, leases, easements) would be evaluated on a case-by-case basis on the ASFO. New land use authorizations would not be allowed in exclusion areas (i.e. wilderness) and would be discouraged within avoidance areas (i.e., ACECs, lands supporting listed species, national historic trails, riparian areas and areas identified to maintain wilderness characteristics) and allowed in such areas only when no reasonable alternative exists and impacts to these sensitive resources can be mitigated. New ROWs would be routed away from high-density listed species' populations and cultural sites, and along the edges of avoidance areas.

ROWs requiring new physical facilities at Mt. Logan, Hudson (West Point), Black Rock Mountain, and Fisher Point communication sites would not be allowed. Applications for new communication sites would be considered on a case-by-case basis with NEPA analysis, emphasizing co-location and subleasing of existing facilities. Point-of-Rock, Seegmiller Mountain, and Low Mountain would be designated as multi-user communication sites. Seegmiller Mountain would be the only site allowed for commercial broadcasting above 1,000 watts radiated power.

On the monuments, no new ROWs or ancillary facilities would be authorized, except ROWs pursuant to existing policies and practices and necessary for access to and/or maintenance of private or state inholdings. On BLM land in the monuments, ROWs may be authorized for access, communication site, utility, and maintenance purposes within the boundaries of existing compatible ROWs and where impacts would be negligible.

On BLM lands within the monuments and areas identified to maintain wilderness characteristics, minimum impact permits would be evaluated and authorized on a case-by-case basis. Existing ROWs in BLM wilderness would be evaluated prior to expiration, and if still needed, would be authorized under 43 CFR 2920.

The unoccupied Lime Kiln Utility Corridor (Navajo McCullough power line to Nevada state line) would be terminated. The existing utility corridor beginning at the Glen Canyon Dam and ending at the Arizona/Nevada border as shown on the Western Utility Group priority corridor map would be designated one mile wide. The existing utility corridor shown on the Western Utility Group priority corridor map through Rosy Canyon would be designated beginning at the Utah/Arizona state line and extending to the Navajo McCullough power line, approximately ½ mile wide, confined to the valley bottom. Proposed rights-of-way within these corridors would require completion of site specific NEPA and ESA compliance. Commercial development of renewable energy sources would be encouraged on public land including concentrating solar power, photovoltaics, wind, and biomass resources and technologies with NEPA and ESA compliance. Wind energy development would be in accordance with policies and best management practices in the Final Wind Energy PEIS. Upon termination or expiration of the two Federal Energy Regulatory Commission withdrawals in Ferry Swale, ROWs to authorize the existing power transmission lines would be issued, if still needed.

Existing withdrawals would continue for as long as needed or as statutorily/legislatively established/mandated, including wilderness, monument, game preserve, power site reservation, reclamation, public water reserve, administrative site, and other miscellaneous withdrawals. Land ownership adjustments would not be considered on withdrawn lands unless or until the withdrawal has been modified or lifted. The following scenic and natural area withdrawals would be recommended for revocation/termination: the Vermilion Cliffs Natural Area, Nixon Spring Administrative Site, and hybrid oak withdrawals which are now within monuments; and part of the Virgin River Gorge Recreation Lands that overlaps statutory wilderness.

Public land would be made available for airport expansion at the existing Colorado City Airport in coordination with Colorado City officials, Arizona Department of Transportation (ADOT), and the Federal Aviation Administration (FAA). Authorized airstrips on BLM lands (Colorado City, Cliff Dwellers, a portion of Mesquite, Pakoon, Imlay, and Whitmore-Bar Ten) would continue to be managed.

The BLM would work with ADOT to facilitate continued maintenance of existing drainage structures/areas inside the Vermilion and wilderness areas on the north side of Highway 89A. The BLM would work with the Washington County Water Conservancy District to determine the best route for the proposed water pipeline from Lake Powell to

Sand Hollow Reservoir, Utah, and to authorize use of BLM land for that route and a portion of the proposed flood control reservoir at Fort Pearce in Utah. In Ferry Swale, the paved access road, previously used for access to the now closed Page Landfill, would remain in place. The city of Page would not be required to remove the pavement. Existing agricultural leases to Hafen and Hughes would continue.

BLM would continue to attempt to locate the potentially responsible party to remove/clean up any unauthorized use, restore/rehabilitate the public lands back to their original condition, and pay applicable fees.

Livestock Grazing: Grazing would continue throughout the majority of the Arizona Strip, including both National Monuments, on both BLM and NPS lands. All lands available for grazing would be managed so that they meet or are making significant progress towards meeting Arizona Standards for Rangeland Health (Appendix 2.A. of the FEIS). Livestock use and associated management would be consistent with protection of other resource needs and objectives. Monument values would be maintained, protected, and/or improved. The interdisciplinary allotment evaluation process would continue to be used to provide specific guidance and actions for managing livestock grazing. Existing AMPs and other activity plans would be consistent with achieving the DFCs and standards for rangeland health. The allotment management categorization process would continue to be used to define the level of management needed to properly administer livestock grazing according to management needs, resource conflicts, potential for improvement, and BLM funding/staffing constraints.

On NPS lands, (Parashant, Lake Mead National Recreation Area (LAME), and Glen Canyon National Recreation Area (GCNRA)), areas open to livestock grazing would meet NPS Vital Sign standards. On NPS lands, livestock grazing would be administered within a range of variability which maintains Vital Sign resources in good condition or improving status. On NPS lands, implementation of standards and guides may be modified to ensure compliance with enabling legislation and applicable laws and policies.

On BLM lands, all allotments would continue to be classified as available for grazing by livestock under the principle of multiple use and sustained yield, with the following exceptions:

The BLM portion of the **Parashant Allotment** would continue to be managed as a forage reserve. Under the forage reserve concept, any livestock use would be on a temporary basis. Livestock grazing use would be at BLM's discretion and would be designed to complement management of other resources and to provide rest and deferment on other allotments undergoing restoration treatments, areas with fire damage, or other actions that establish an AMP or livestock grazing system, and help stabilize the livestock industry. The NPS portion of the Parashant Allotment would continue to be unavailable for livestock grazing.

The **Home Ranch Allotment** (NPS) would continue to be unavailable for livestock grazing.

The **Tuweep Allotment** would be authorized for yearlong grazing as a forage reserve allotment. Livestock grazing would be on a temporary basis at BLM's discretion, consistent with achieving DFCs. BLM would assume maintenance of those facilities determined to be necessary for protection and management of resources, including existing water developments to ensure availability for wildlife use.

The **Tassi Allotment** would continue to be unavailable for livestock grazing to protect desert tortoise.

The portion of the **Mosby-Nay Allotment** within the former Pakoon ACEC (See Map II.8) would continue to be unavailable for livestock grazing to protect desert tortoise. Season of use and other management prescriptions would be developed for those portions of the allotment within the Pakoon WHA but outside the former ACEC, consistent with achieving DFCs. Previously, this part of the allotment was open to year round grazing.

The portion of the **Pakoon Springs Allotment** within the former Pakoon ACEC (See Map 8) would continue to be unavailable for grazing to protect desert tortoise. That portion of the allotment which remains available for

grazing would be managed as a forage reserve for livestock grazing use or could be reconfigured to protect priority resource values and/or promote effective management. Season of use and other management prescriptions consistent with achieving DFC's would be established along with a management plan detailing specifics of grazing use. Livestock grazing would be managed to complement desert tortoise habitat needs.

That portion of the **Pakoon Allotment** within the former Pakoon ACEC (Grand Gulch Wash area) (See Map II.8) would be available for grazing use from October 15 through March 15. Grazing management in this portion of the allotment would be facilitated by construction of a fence and seasonal manipulation of waters at Eds' Pond and other sources to ensure success of the seasonal restriction. Season of use and other management prescriptions consistent with DFCs would be established for the remainder of the Pakoon Allotment and detailed in the allotment management plan.

The **Beaver Dam Confluence** area of the Littlefield Community Allotment would continue to be unavailable for grazing.

The **Beaver Dam Slope Allotment** would not be grazed between March 15 and October 15 to protect desert tortoise. No ephemeral extensions would be authorized.

The **Highway Allotment** would not be grazed between March 15 and October 15 to protect desert tortoise. No ephemeral extensions would be authorized.

The **Mormon Well Allotment** would not be grazed between March 15 and October 15 to protect desert tortoise. No ephemeral extensions would be authorized.

The **Littlefield Slope Pasture** of the **Littlefield Community Allotment** would not be grazed between March 15 and October 15 to protect desert tortoise. No ephemeral extensions would be authorized. Season of use and other management prescriptions consistent with achieving DFC's, would be established, along with a management plan detailing specifics of grazing use, on the portions of the allotment outside the Littlefield Slope Pasture.

The **Littlefield Slope Pasture** of the **Mesquite Allotment** would not be grazed between March 15 and October 15 to protect desert tortoise. No ephemeral extensions would be authorized. Season of use and other management prescriptions consistent with achieving DFC's, would be established, along with a management plan detailing specifics of grazing use, on the portions of the allotment outside the Littlefield Slope Pasture.

The **Cedar Wash Allotment** would have a season of livestock grazing use from October 15 to March 15 to protect desert tortoise. Ephemeral extensions to May 15 would be authorized when conditions outlined in Guideline 3-5 of the Arizona Standards for Rangeland Health are met.

The **River Pasture** of the **Lees Ferry Allotment** would be unavailable for livestock grazing to eliminate conflicts between livestock grazing and recreation users.

The **Clearwater portion** of the **Kanab Creek Allotment** would not be grazed during the growing season (bud break to leaf drop). Monitoring would ensure compliance with utilization levels and to determine actual growing season and livestock grazing would not be authorized later than April 15. Conservative grazing guidelines would be used consistent with the SW willow flycatcher recovery plan.

The **Clearwater portion** of the **Wildband Allotment** would not be grazed during the growing season (bud break to leaf drop). Monitoring would be used to ensure compliance with utilization levels and to determine actual growing season. Conservative grazing guidelines would be adopted consistent with the SW willow flycatcher recovery plan.

Changes in kind of livestock to sheep or goats would not be authorized within nine miles of desert bighorn sheep habitat. Sheep and goats would not be authorized as pack stock within nine miles of desert bighorn sheep habitat. Sheep or goats would not be authorized on NPS lands.

Minerals: On the ASFO, new reclamation stipulations for exploration and development plans directed toward maintaining naturalness and unique features and/or remoteness would be developed and would be applied to site-specific proposals. Special mitigation would be required in mining plans of operation to avoid impacts to cultural resources, special status species, and/or other sensitive resources in ACECs. Wilderness and National Monuments are closed to mineral entry NPS.

Minerals – Fluid Mineral Leasing: Oil and gas development would not occur within the Monuments. In the Arizona Strip FO, fluid mineral leasing categories would be designated as follows: Category 1 - 1,690,502 acres, open to lease subject to standard lease terms and conditions and appropriate special stipulations; Category 2 – 145,566 acres, open with special terms and conditions or seasonal restrictions; Category 3 – 64,325 acres, no surface occupancy or other surface disturbance; and, Category 4 - 80,671 acres, withdrawn from minerals leasing (See Map 3.28 in the FEIS). Desert tortoise ACECs would remain open to leasing subject to seasonal restrictions and a waivable no surface occupancy stipulation (WNSO). Surface disturbing activity would be limited to the period from March 15 to October 15. Surface occupancy could be allowed by BLM after consultation with the Service.

Minerals – Locatable Minerals: On the ASFO: 1,534,396 acres would be open to the operation of mining laws; 150,691 acres would be open with restrictions; 145,226 acres would be open with a plan of operation; and 182,699 acres would be withdrawn to mining location subject to valid existing rights (See Map 3.30 in the FEIS).

Minerals – Saleable Minerals: Mineral material removal would continue to be authorized on the ASFO, consistent with protection of sensitive resources and other DFCs. On the ASFO, 1,264,889 acres would be open subject to standard stipulations; 433,457 acres would be open with restrictions; and 282,715 acres would be closed to mineral material disposals. On the Monuments, existing material sites on BLM lands would continue to be used for BLM, NPS, and county road maintenance. New mineral material sites would not be allowed in ACECs. Existing material sites would be evaluated for retention. Noncommercial, hand collection of rock within 100 feet of designated open roads in the Beaver Dam and Virgin Slope ACECs could continue.

Recreation: Recreation and visitor services would be managed to provide both structured and dispersed, unstructured recreation opportunities. Information on the availability of these recreational opportunities would be available to the public. Recreation opportunities in each travel management area (TMA) would be compatible with the protection of sensitive resources values. In general, the plan emphasizes remote, primitive opportunities in the more isolated, rugged areas of the Arizona Strip, while providing more accessible recreation opportunities closer to communities.

The FEIS identifies different types of recreation management areas that vary in the scope and intensity of management proposed. Special Recreation Management Areas (SRMAs), incorporating benefits-based management, target distinct, primary recreation-tourism markets and would be managed accordingly. (See Appendix 2-R of the FEIS for details). Management varies from providing close-to-town sustainable motorized access to remote, challenging, self-directed recreation. Recreation Management Zones (RMZs) are sub-units within SRMAs managed for distinctly different types of recreation niches within the larger targeted SRMA recreation-tourism markets. Areas not identified as SRMAs (1,784,921 acres on the ASFO) are allocated as Extensive Recreation Management Areas (ERMAs) and receive only basic custodial recreation management aimed at visitor health and safety, user conflicts, or resource protection issues. RMAs (both Special and Extensive) and the RMZs that accompany each SRMA and NPS SMA include:

Parashant SRMA/NPS SMA: The Parashant SRMA/SMA (wholly within the Parashant) would be a combination of the BLM SRMA (839,237 acres) and the NPS SMA – (209,084 acres). The primary strategy

for this SRMA/SMA would be to target a demonstrated undeveloped recreation tourism market demand from local community and regional/national visitors for trophy hunting opportunities, guided back country tours, hiking, viewing and appreciating wildland landscapes and cultural sites, canyoneering and motorized/mechanized/non-mechanized exploring.. Two RMZs are included. The **Shivwits Frontier RMZ** (559,622 acres) would be managed for sustainable access for scenic, natural, open-space appreciation, and exploration recreation adventure somewhat close to nearby communities., emphasizing vehicle exploring (limited to designated roads and trails), camping, hunting, hiking, and viewing scenery activities. The **Parashant Wildlands RMZ** (488,655 acres) would be managed for extreme, world class, deep wildlands exploration in remote and rugged settings, emphasizing hiking, backpacking, hunting, canyoneering, and vehicle exploring activities.

Gateways SRMA: The Gateways SRMA (814 acres) is located on the Vermilion and includes two RMZs. The primary strategy for this SRMA would be to target the destination recreation-tourism market demand from regional, national and international visitors for viewing spectacular geology, driving an Arizona State Scenic Road, viewing natural/cultural sites and exhibits, viewing California Condors, and hiking.. The **Vermilion Cliffs RMZ** (269 acres) would be managed for old scenic highway driving and roadside access to interpretation. Activities emphasized would include viewing scenic vistas, historic sites, and interpretive exhibits, driving for pleasure.. The **House Rock RMZ** (545 acres) would be managed for scenic backroads driving with access to interpretation, wildlife viewing, and hiking. Activities emphasized would include visiting scenic vistas, historic sites, interpretive exhibits, and wildlife, including California Condors, driving for pleasure, and hiking.

Sand Hills SRMA: The Sand Hills SRMA (265,109 acres) is located on the Vermilion and includes two RMZs. The primary strategy for this SRMA would be to target a demonstrated undeveloped recreation-tourism market demand from local community and regional/national visitors for hunting opportunities, guided back country tours, hiking, viewing and appreciating wildland landscapes, and motorized/mechanized/non-mechanized exploring. The **Uplands RMZ** (197,031 acres) would be managed for self-directed motorized recreation with access to non-motorized opportunities. Activities emphasized would include off-highway (limited to designated roads) adventure driving and exploring. The **Cliffs and Rims RMZ** (68,078 acres) would be managed for self-directed, non-motorized access for remote, primitive adventure. Activities emphasized would include Hiking, scrambling, hunting, and rock climbing.

Paria SRMA: The Paria SRMA (27,741 acres) is also located on the Vermilion and includes two RMZs. The primary strategy for this SRMA would be to target a demonstrated destination recreation-tourism market demand from community resident, regional, national, and international visitors for viewing unique geology and enjoying world class slot canyon backpacking and hiking. The **Coyote Buttes RMZ** (14,576 acres) would be managed for international adventure tourism. Activities emphasized would include hiking and scrambling; viewing and photographing scenic vistas. The **Paria Canyon RMZ** (13,165 acres) would be managed for world-class wilderness trekking. Activities emphasized would include hiking, backpacking, viewing scenic vistas.

St. George Basin SRMA: The St. George Basin SRMA (141,024 acres) is located on the ASFO and includes two RMZs. The primary strategy for this SRMA would be to target a demonstrated community recreation-tourism market demand from primarily local communities (dependent on public lands recreation and/or related tourism use, growth, and/or development), as well as some other seasonal regional visitors, for motorized/mechanized/non-mechanized exploring, technical sports, fitness activities, guided tours, sightseeing, equestrian, hiking, competitive and organized events, viewing and appreciating natural landscapes and cultural sites. The **St. George Basin Rural Park RMZ** (104,113 acres) would be managed for quick, easy access from town to sustainable day-use adventure, challenge, exercise, social, and outdoor recreation. Activities emphasized would include exploring activities (*i.e., OHV driving, ATV and motorcycle riding, equestrian, hiking*); personal challenge activities (*i.e., rock climbing, rock crawling, mountain biking, competitive events*); social activities (*i.e., organized group/family events*); and fitness activities (*i.e., walking, running, hiking*). The **Canyons and Mesas RMZ** (36,911acres) would be managed for self-directed, primitive, adventure in a natural

setting close to town. Activities emphasized would include hiking, equestrian, hunting, viewing nature.

Virgin River SRMA: The Virgin River SRMA (4,955 acres) is located on the ASFO and includes three RMZs. The primary strategy for this SRMA would be to target a demonstrated destination recreation-tourism market demand from mainly local community residents and regional visitors for day-use and overnight hiking, family outings, rock climbing, school group field outings, and white water activities. Similarly, there is market demand from local, regional, and national visitors for sightseeing, appreciation of geologic resources, rest from travel and escaping the cold winter weather of other locations. The **Virgin River RMZ** (2,110 acres) would be managed for group-oriented white-water and climbing adventures amidst rugged and stunning geologic features. Activities emphasized would include kayaking, river floating, water play, viewing wildlife, geology, rock climbing, hiking. The **Virgin River Gorge Scenic Gateway RMZ** (135 acres) would be managed for Self-sustaining, recreation gateway between the Colorado Plateau and Basin and Range regions, nestled within a 'Grand Canyon-like' landscape. Activities emphasized would include camping, picnicking, nature study, viewing geology, hiking, walking, viewing education presentations, group events. The **Motorways RMZ** (2,710 acres) would be managed for interpretive respites for travel ers at pull-out sites along primary highways. Activities emphasized would include viewing geology, viewing wildlife, viewing nature, viewing roadside exhibits.

Virgin Ridge SRMA: The Virgin Ridge SRMA (23,033 acres) is located on the ASFO and also includes two RMZs. The primary strategy for this SRMA would be to target a demonstrated community recreation-tourism market demand from primarily local communities (dependent on public lands recreation and/or related tourism use, growth, and/or development), as well as some other regional visitors, for motorized/mechanized/non-mechanized exploring, world-class rock climbing, and guided touring in close-to-town natural settings. The **Lime Kiln Cliffs RMZ** (1,746 acres) would be managed for for close-to-town world class rock climbing in a natural setting. Activities emphasized would include rock climbing (sport climbing on bolted routes). The **Virgin Ridge RMZ** (13,604 acres) would be managed for self-directed, rugged, adventure in a natural setting close to town with opportunities for scenic, natural and historic appreciation. Activities emphasized would include Hiking, scrambling, equestrian, hunting, OHV exploring, mountain bike riding.

Fredonia SRMA: The Fredonia SRMA (14,969 acres) is located on the ASFO and includes three RMZs. The primary strategy for this SRMA would be to target a demonstrated community recreation-tourism market demand from primarily local communities (dependent on public lands recreation and/or related tourism use, growth, and/or development), as well as some regional visitors, for motorized/mechanized/non-mechanized exploring, managed target shooting, fitness activities, sightseeing, equestrian, hiking, competitive and organized events, viewing and appreciating natural landscapes and cultural sites. The **Fredonia Rural Park RMZ** (6,816 acres) would be managed for quick, easy access from town to sustainable day-use adventure, challenge, exercise, social, and outdoor recreation. Activities emphasized would include exploring activities (*i.e., OHV driving, ATV and motorcycle riding, equestrian, hiking*); personal challenge activities (*i.e.,rock climbing, rock crawling, mountain biking, BMX riding, target shooting, competitive events*); social activities (*i.e.,organized group/family events*); and fitness activities (*i.e., walking, running, hiking*). The **Shinarump Cliffs RMZ** (3,965 acres) would be managed for close-to-home, self-directed motorized/mechanized adventure for scenic, natural and historic appreciation. Activities emphasized would include off-highway adventure driving and exploring, mountain bike riding. The **Badlands RMZ** (5,151 acres) would be managed for self-directed, primitive, adventure, challenge, exploration in a natural setting close to town. Activities emphasized would include hiking, equestrian, viewing nature.

Vegetation treatments could be used restore and/or maintain the natural or "remote" settings in Backroads and Outback Management Units using a combination of projects and natural processes. Management Units are discussed in detail at the beginning of this summary of the proposed action.

Visitor limits, regulations, or restrictions could be instituted and/or adjusted when monitoring of resource and social conditions indicate a trend toward unacceptable resource and social changes. Visitor limits, supplemental rules, or

restrictions would be based on a Limits of Acceptable Change (LAC) framework. Visitor carrying capacities may be established as wilderness management plans and activity plans are completed. Sensitive areas where increased visitation could create unacceptable changes or impacts to natural or cultural resources would not be publicly promoted.

Special recreation permits (SRPs) would continue to be required for all commercial/competitive events/activities and vending. In addition, special area use and organized group events/activities may require an SRP at BLM's discretion. Recreation activities requiring use authorization could be limited in listed species and other sensitive habitats. Commercial services in designated or proposed wilderness should meet guidelines for commercial activities within wilderness. Commercial operations may be permitted on the Parashant Monument in compliance with management objectives and other plan provisions. The current special area permit and fee requirements for Paria Canyon, Buckskin Gulch, Wire Pass, and Coyote Buttes would continue, subject to adaptive management decisions deemed necessary through monitoring and evaluation of resource and social conditions. Commercial SRPs would be considered on a case-by-case basis in Coyote Buttes North. Current recreation use permit and fee program required for use in the Virgin Gorge Recreation Area would continue, where consistent with meeting desired resource and social objectives.

No competitive events would be authorized in wilderness or NPS proposed wilderness. No motorized speed events would be authorized in the Monuments. Motorized speed events would only be authorized in the motorized speed event area in the St. George Basin and would be limited to 300 entrants.

Major visitor facilities (e.g. visitor center or contact stations) could be built within nearby communities, with the exception of a small contact facility within the Virgin River SRMA on the ASFO. Facility development and maintenance would be limited in listed species and other sensitive habitats. Facilities would be appropriate to management unit goals. Minor new facilities (i.e. toilets, information kiosks, directional signs, fire pits) could be developed where resources and values would be protected. Sign material and design would be unobtrusive to blend with local landscape settings and retain the natural and/or historic integrity of the site. Generally, signing in the ERMA would be the minimum necessary to provide for public safety and information or when minimum necessary to control unauthorized use. The major emphasis areas for signing and/or recreation facility placement in the Arizona Strip FO would be in the Rural and Backways Travel Management Areas (TMAs). A sign plan for each Planning Area that addresses present and future needs involving road information, interpretation, and public safety would be written.

Camping on BLM lands is limited to no more than 14 consecutive days in any 28-day period. Extensions could be authorized for permitted uses on a case-by-case basis. Persons occupying a regular campsite within the Virgin River Canyon Recreation Area are exempt from this rule. Camping areas may be closed to occupancy to protect resources, for public safety, or for other administrative purposes. Camping could be limited or restricted to protect cultural resources, special status species and their habitats, and/or other natural resources. On the Monuments, vehicle camping along designated routes would be allowed only at existing sites where previous camping use is evident. However, existing sites that overlie or are causing significant impacts to sensitive resources would be closed and new sites could be made available in locations where resource impacts are lessened. Non-motorized, dispersed camping on the Monuments would be allowed, except in the Coyote Buttes Fee Area. The current group sizes and visitor use limits required for use in Paria Canyon, Buckskin Gulch, Wire Pass, and Coyote Buttes could continue, subject to adaptive management decisions deemed necessary through monitoring and evaluation of resource and social conditions. On the ASFO dispersed camping would be allowed, though in developed campgrounds, camping is limited to designated campsites only.

On the Monuments, recreational collecting of resources, such as rocks, mineral specimens, petrified wood, fossils, or plants would be prohibited. Collection of dead and down wood for campfires would be allowed, subject to fire restrictions. On BLM lands, collection of antlers or other unregulated animal parts would be allowed. Recreational shooting would be allowed on BLM lands throughout the Planning Area, except where public health and safety is jeopardized and subject to state and local laws. On the ASFO, collecting petrified wood for personal use is allowed,

up to 25 pounds per person per day (plus one piece of petrified wood) up to a total of 250 pounds per person per year. The recreational collecting of plants and dead and down firewood would be allowed.

All recreational and commercial horseback riding and pack stock use would continue to be prohibited in Coyote Buttes. Commercial use of horses and pack stock would continue to be prohibited in Paria Canyon upstream from Bush Head Canyon. Certified weed-free feed would be required for all recreation stock use. Recreational stock use could be limited in listed species and other sensitive habitats or in the vicinity of cultural properties. Annual training would be provided to outfitters and guides concerning appropriate use ethics.

Geocache sites would be prohibited in archeological sites, alcoves, rock shelters, threatened and endangered species habitat, and raptor nesting sites or where identified Monument objects would be at risk. Geocache sites may be relocated if determined that important resources would be at risk. Where geocaches are allowed, they could remain so long as acceptable resource and social conditions would be maintained. On-the-ground placement of geocaches would be prohibited in designated and NPS proposed wilderness areas.

Outreach efforts would be established, such as field institutes or elder hostels to focus on interpretive and environmental educational niches not previously addressed. Visitors would be provided with environmental educational opportunities that are appropriate for each RMZ or for the ERMAs, allowing them to enjoy the variety of challenges that are pres ented when visiting these areas. A comprehensive interpretive plan (CIP) that meets the needs of the BLM and NPS would be completed, creating a long-range vision and basis for decision-making related to interpretation and education of the Monuments.

Travel Management: Compatible traditional, current, and future use of the land would be sustained by establishing a transportation system that contributes to protection of sensitive resource, promotes dispersed recreation, and minimizes user conflicts. Travel management decisions include identification of areas that are open, limited, or closed to motorized and mechanized vehicle use, and individual routes (roads and trails). Both Monuments underwent an extensive route evaluation process that identified which routes would remain open, which would be limited to only administrative uses, and which would be recommended to be closed. In most cases, routes that provide access to existing facilities and improvement projects would remain open or would be limited to authorized users. Protection of special status species and/or their habitats, cultural resources, or elimination of route redundancy were primary considerations in proposing routes for closure or applying use restrictions. Within the ASFO, where the route evaluation was deferred until after completion, of the planning process, vehicles would be required to stay on existing routes. The exceptions are the existing BLM Designated Wilderness Areas and NPS Proposed Wilderness, which are closed to vehicle travel.

All Planning Areas: The State of Arizona motor vehicle registration requirement would not apply on lands under BLM jurisdiction to all-terrain vehicles or an off-road recreational motor vehicle operating on a dirt road in unincorporated areas of the State. Motorized, mechanized, or non-motorized/non-mechanized use of routes that are potentially designated as "limited" would be restricted to the specific users, seasons, or vehicle types as identified on a route-by-route evaluation and designation. Use of administrative routes would be subject to the terms of an appropriate authorization, such as ROW, permit, lease, maintenance agreement, or transportation plan that specifies the authorized administrative user, routes, destinations, potential frequencies, and acceptable levels and types of route maintenance. Motorized or mechanized use of administrative routes in "closed" areas would be the minimum necessary for the administration of the area or the exercise of the right or permitted use. Installations/structures (e.g., unobtrusive barriers, gates, signs) on or along routes would be allowed when they would be the minimum necessary to control unauthorized use and when consistent with TMA objectives. Roads causing resource damage or with safety concerns could be rerouted and/or reclaimed. Rehabilitation of closed routes would only occur after completion of NEPA, ESA, and Section 106. Newly constructed temporary access (i.e. routes intended to serve a short-term purpose only), would be reclaimed after termination of the specific need. No new roads would be allowed in BLM designated wilderness areas (265,869 acres) or on NPS lands (188,121 acres). Roads authorized for administrative motorized use only may be designated as trails for non-motorized public use.

A travel management plan would be developed and maintained that supports resource protection and uses identified in this Plan A route inventory database would be maintained using standard collection and information storage methods. The areas would be monitored to detect unauthorized route creation. Routes created by unauthorized use would be immediately obscured and rehabilitated.

Monuments: All vehicular travel in the Monuments would be allowed only on designated routes. No areas would be authorized for cross-country, off-road vehicular use except for authorized administrative and emergency purposes. In areas designated as ACECs and areas allocated as "limited" in the Monuments and along national trails, motorized use would keep within the designated route with reasonable use of the shoulder and immediate roadside. An emergency closure could be implemented, at management discretion, to protect Monument objects. Use of non-motorized, wheeled game carriers to retrieve game kills would be allowed in all areas of the Monument except designated and NPS proposed wilderness. On NPS lands, designated routes would be cherry-stemmed thru proposed wilderness. Routes identified for administrative use only would allow only the minimum motorized or mechanized use necessary for the administration of the area or the exercise of the right or permitted use. On roads adjacent to NPS proposed wilderness and within the wilderness boundary setback, visitors could park only on the road shoulder and immediate roadside, allowing for vehicle passage and emergency stopping, unless otherwise posted. New routes on BLM lands, once constructed, would become part of the designated transportation system; closed routes would be removed from the transportation plan.

Existing material sites on BLM lands would continue to be used for BLM, NPS, and county road maintenance. New material sites would not be authorized on BLM and NPS lands in Monuments. Route maintenance would occur within standard widths based on route type. Widening, passing lanes, realignments, or travel surface upgrades could occur consistent with Appendix 2.S. of the FEIS if: protection and/or enhancement of Monument objects would be ensured, they would be needed to achieve route standards, and/or they would be needed for public safety. Trail construction (non-motorized) would occur to support protection and/or enhancement of Monument objects, RMZ objectives or to resolve issues of public safety, user conflicts, or resource protection.

Parashant: On BLM and NPS lands, 285,629 acres would be closed to motorized and mechanized vehicle use (including BLM designated wilderness and NPS proposed wilderness), motorized and mechanized vehicle use would be limited to designated roads on 762,688 acres. No open areas would be designated in the Monument. The following individual route designations were proposed: 1,404 miles of roads would remain open, 167 miles would be open for administrative use only, and 188 miles would be closed. See Map II.9.

Existing roads would be closed and rehabilitated where public or administrative needs cease to exist or where there would be unacceptable impacts to resources/Monument objects. New permanent roads would not be constructed adjacent to or within designated wilderness or NPS proposed wilderness. On NPS lands, travel corridors would be restricted to existing roads established according to the Lake Mead NRA GMP (1986). New permanent motorized road construction on BLM lands would be the minimum necessary to achieve Plan provisions and to produce targeted recreation opportunities and benefits in RMZs if protection and/or enhancement of Monument objects would be ensured. However, new permanent roads would not be constructed on 215,345 acres of areas managed to maintain wilderness characteristics. On NPS lands, roads would be maintained only within the existing disturbed travel surface. If needed for resource protection and/or visitor safety, minor modifications outside of existing corridors may occur with appropriate documentation and compliance.

Vermilion: On the Vermilion, 89,828 acres would be closed to motorized and mechanized vehicle use (including designated wilderness), motorized and mechanized vehicle use would be limited to designated roads on 203,859 acres. No open areas would be designated in the Monument. The following individual route designations were proposed: 377 miles would remain open, 67 miles would be open for administrative use only, and 113 miles would be closed. See Map II.10.

New permanent motorized road construction would be the minimum necessary to achieve plan provisions and to enhance recreation opportunities and benefits if protection and/or enhancement of Monument objects would be

ensured.

ASFO: On the ASFO, 80,829 acres would be closed to motorized and mechanized vehicle use (including designated wilderness and the Marble Canyon ACEC), and 1,899,260 acres would be limited to designated roads and trails. Motorized and mechanized vehicle use would be open on 976 acres of BLM land following appropriate clearances. In these areas vehicles would be allowed to travel off-route. This would include one larger area south of St. George and one small area east of Fredonia (See Map II.11). No sensitive resources were identified in these areas. Route inventories for the ASFO would be completed. Prior to completion, a preliminary or interim route network would be based on existing routes in the Littlefield, St. George Basin, Colorado City, Main Street, Uinkaret, Yellowstone Mesa, Kanab Plateau, Grama Canyon, Buckskin, White Sage, House Rock sub-regions, as documented by the combination by 2002 aerial photography. Following completion of the route inventory, the preliminary route network would be based on the completed inventory until route designations for the sub-regions are complete. Existing locations, types, and maintenance intensities of the preliminary route network would be maintained until formal route designations are complete.

All cross-country motorized or mechanized travel would be prohibited, with the following exceptions: any designated open OHV areas, minimum necessary for administration of the area, for emergency purposes, and/or minimum necessary for the exercise of a valid existing right or authorized use. New routes and any associated rights-of-way (ROWs), once authorized, would become part of the designated transportation system; closed routes would be removed from the transportation plan. Use of non-motorized, mechanized vehicles (including bicycles) would be prohibited off the transportation system in ACECs designated for cultural or listed species values and in designated wilderness. In ACECs, some rerouting of existing roads may occur, criteria must be met for modifications to existing roads, establishment of new permanent roads and/or upgrades may be restricted, speed limits may apply. In areas allocated as "limited," motorized-vehicles may be allowed to pull off a designated route 100 feet either side of centerline. New permanent motorized route construction on BLM lands would be the minimum necessary to achieve plan provisions and to produce targeted recreation opportunities and benefits in RMZs.. Route maintenance would occur within standard widths based on route type. Widening, passing lanes, realignments, or travel surface upgrades could occur if needed to achieve route standards consistent with Appendix 2.S. of FEIS, TMAs, or for public safety. Trail construction (non-motorized) could occur to support RMZ objectives or to resolve issues of public safety, user conflicts, or resource protection in ERMAs..

The FEIS identifies travel management areas (TMAs) as a tool that addresses comprehensive travel management planning for all resource use aspects (such as recreational, traditional, casual, agricultural, commercial, and educational) and the accompanying acceptable modes and conditions of travel on the public lands. The four TMAs range from Primitive, which includes large areas with no public motorized routes and areas with low densities of tertiary (primitive) administrative roads, to Rural, which provides for the widest variety of motorized and non-motorized access. Combined with other tools such as VRM, managers would use TMA guidance in determining the types and appearance of new facilities, as well as where and how the building of new roads, or altering or upgrading of existing roads, would be authorized. TMAs are described as follows:

The **Rural TMA** would provide for the widest variety of motorized, non-motorized, and mechanical travel modes to serve existing and future needs adjacent to communities, but not to the detriment or exclusion of the protection of resources. It would also facilitate linking existing and future regional travel corridors to local communities. Settings would be maintained within the Rural TMA that typically provide for community growth and development and widest variety of recreation opportunities in near-urban, moderately developed areas with motorized and mechanized use.

The **Backways TMA** would provide for a variety of motorized, non-motorized, and mechanical travel modes to serve existing and future needs, but not to the detriment or exclusion of the protection of resources. It would also supply the primary travel system that would provide public entry from communities to the more remote and semi-primitive TMAs. Settings would be maintained within the Backways TMA that typically provide entry to more remote areas, interpretive developments, and administrative facilities in mostly natural-appearing areas with

motorized and mechanized use.

The **Specialized TMA** would provide for a variety of motorized, non-motorized, and mechanical travel modes to serve existing and future access needs in remote, rustic settings, but not to the detriment or exclusion of the protection of resources. It would be characterized by low to moderate densities of improved roads and primitive roads that would provide public entry portals from Backways corridors to the more remote Primitive TMAs. Settings would be maintained within the Specialized TMA that typically provide for motorized and mechanized entry to the most remote areas on lower standard, primitive roads with few and widely scattered, rustic developments in mostly natural-appearing areas. Rudimentary facilities could be present when necessary to protect resources or educate visitors.

The **Primitive TMA** would provide adequate, but limited motorized travel to serve existing and future access needs and non-motorized, non-mechanized public access to serve existing and future recreational access needs in the most remote, rustic settings, for the enhancement and protection of important resource values. It would range from large areas containing no routes to areas characterized by low densities of primitive roads that would provide administrative entry to authorized management facilities. Settings would be maintained within the Primitive TMA that provide for limited motorized entry for administrative users on a small number of primitive roads in the most remote areas. Few and widely scattered, rustic management facilities could be present in mostly natural-appearing areas where they would be necessary to protect and/or administer important resources. Remote settings, natural landscapes, solitude, and opportunities for primitive recreation would be minimally impacted by human activity.

Travel Management Areas (TMAs) would be identified as follows: on the Parashant: Backways - 90,948 acres (9%), Specialized - 257,354 acres (24%), and Primitive - 700,015 acres (67%); on the Vermilion: Rural - 27 acres (>1%), Backways - 5,829 acres (2%), Specialized - 90,142 acres (31%), and Primitive - 191,689 acres (65%); and on the ASFO: Rural - 226,542 acres (11%), Backways - 275,608 acres (14%), Specialized - 805,008 acres (41%), and Primitive - 673,906 acres (34%).

Public Health and Safety: Hazardous sites or locations that affect or could affect public health or safety would be inventoried and monitored. Areas known to have hazardous materials, hazardous wastes, or solid wastes, including abandoned mine lands, would be cleaned up, restored, or corrected. Public access to abandoned mine and well sites would be controlled by providing warning signage and barriers. On BLM lands, recreational shooting would be allowed within the context of the law. Recreational shooting would not be authorized on NPS lands.

Scientific Research: Permits would be required for approved scientific research to insure compatibility and reporting of results. The collection of any objects in the Monuments would not be authorized except by permit for scientific research or use.

III. SPECIES BY SPECIES ANALYSIS

A. Generalized Discussion of Effects

What follows is a summary of those decisions within the proposed action that the ASDO feels could lead to adverse affects to listed, proposed, or candidate species or their habitats or modification of designated or proposed critical habitat. This discussion of effects is general in nature and scope. More specific details about the effects of these actions on individual species are described below under the discussion of each species.

***Vegetation Management - Restoration and Vegetation Treatments*:** Impacts from restoration and vegetation treatments would vary by the method used to accomplish the treatment. No treatments would be conducted in sensitive habitat areas unless benefits to the species were a primary goal. Mechanical and chemical treatment methods could result in localized, short-term impacts to air quality, including fugitive dust, emission/exhaust from equipment, and chemical fumes. Temporary reduction in air quality could lead to reduced fitness, increased susceptibility to predation, or mortality among wildlife species. The ASDO would consult with the Service on all such actions that may affect listed or proposed species or their habitats.

During restoration treatments, effects to special status species and their habitats could include disturbance of breeding, feeding, and sheltering activities; temporary or permanent alteration of habitat or components; increased habitat fragmentation; increased susceptibility to predation; forced emigration; and/or direct injury or mortality.

Following vegetation treatment increased invasion of noxious weeds and other exotic weed species, decreased water availability, and long term changes in habitat and species composition could occur. The duration of these effects would vary by treatment method, habitat and community type, availability of appropriate seed, and amount and timing of precipitation. Temporary or permanent reductions in water quantity, quality or access could lead to the same anticipated effects.

Reclamation actions such as re-contouring, ripping compacted areas, replacing topsoil, seeding, planting, etc. could injure or kill individuals. The magnitude of anticipated impacts would vary by the treatment method used, but would generally vary from minor to moderate, particularly for plants or animals with low mobility. Use of non-native seeds could increase the effects of competition for light and moisture on native species and could lead to long-term changes in plant community structure and dynamics. Short term minor direct impacts would include reestablishment of native vegetation. Long term minor direct impacts would include reestablishment of vegetation structure. Short term minor indirect impacts would include reduced erosion and compaction, and increased infiltration. Long term minor indirect impacts could include increased vegetation productivity.

Using desired resource conditions (DRCs) and desired plant community (DPC) objectives to make decisions would enhance protection of sensitive resources and benefit uses by emphasizing consideration of those uses in planning. Employing seasonal restrictions on uses would also benefit special status species. Identifying ecological zones with unique DRCs, DPCs, and vegetation management actions would increase management capabilities.

***Watershed Restoration Projects*:** Generally, watershed restoration projects would not be proposed within special status species habitats unless the project was considered essential for providing long-term benefits to one or more special status species. However, the plan does not include prohibitions on such actions in special status species habitats. Construction of dams, dikes, and other water retention structures would have short term impacts on vegetation resources similar to those described for vegetation treatments. The area of disturbance would vary by the action proposed, but generally would average less than five acres per structure.

***Vegetation Management - Vegetation Products Use/Sale*:** Post cutting, collection of dead and downed wood for campfires, Christmas tree harvest, and collection of pinyon nuts would have negligible to moderate direct and indirect effects on some special status species. Direct effects include disturbance of individuals at breeding, feeding, or sheltering sites; loss of cover or similar habitat features; injury or death; increased risk of fire; increased risk of predation; and nest

abandonment. Indirect effects to species would include loss of forage or cover species, increased soil surface temperatures, and short or long-term changes in species composition and/or community structure. Impacts resulting from fuelwood harvest associated with restoration projects could lead to nest abandonment among special status bird species. Salvage of vegetation that would be destroyed through surface disturbing activities would have similar affects on special status species.

Vegetation Management - Noxious Weeds: Management of noxious weeds may cause temporary negligible to moderate impacts to non-target plant species depending upon the method used. Assuming proper application of approved herbicides, noxious weed management would be expected to have minor to moderate impacts to special status plants and negligible to minor effects on special status animals. Treatments designed to decrease or eliminate noxious weeds would benefit native vegetative communities by reducing or eliminating competition with noxious weeds, increasing forage and cover values, and restoring native vegetative communities, though such benefits would be long-term.

***Fire Suppression, Use, and Management*:** Effects of fire on special status species depend upon the severity of the fire and the methods and intensity of suppression efforts. Direct effects of wildfire, prescribed fire, and fire suppression activities include injury or death of individuals or local populations; disturbance/displacement from breeding, feeding, and/or sheltering activities; and increased risk of predation. Wildfires may leave the surrounding soil and accumulated ash vulnerable to erosion and remove shading streamside vegetation, increasing sedimentation and water temperature. Indirect effects could include reduction in plant vigor or animal health, alteration or loss of plant communities, loss of seed-dispersal mechanisms, increased light penetration and temperatures, loss of cover, etc. Chemical retardants in the water may have adverse affects on vegetation and/or wildlife that forage upon them. Direct and indirect impacts from most suppression techniques would be short-term, temporary, and localized, particularly if sensitive habitats are mitigated or avoided.

***Livestock Grazing*:** Impacts to special status species could result from livestock stepping on special status animals or plants. Trampling is generally considered a negligible affect for sensitive animal species because of the mobility of the animals, though desert tortoise are an exception. Effects of trampling are minor to moderate for sensitive plant species. Livestock herbivory of sensitive plant species would result in minor to moderate adverse affects, though none of the sensitive plants within the Planning Areas are considered suitable livestock forage. Excessive grazing may lead to soil compaction and reduction or elimination of biotic crusts. Excessive grazing may also lead to changes in vegetation composition, structure, and diversity. Such changes may lead to loss of forage or alteration of habitat for special status species or their prey. Shifts in plant communities may render the habitat unusable to special status species and, in some cases, has led to an increase in exotic plant species and altered fire regimes.

***Minerals*:** Impacts to special status species from minerals management actions could result from locatable mineral development, oil and gas development, and mineral material disposals. Impacts associated with these actions would include disturbance, injury, or mortality of individuals, particularly species with little or no mobility. Vehicles associated with mineral development activities could strike or run over listed species, or their breeding, feeding, or sheltering sites. Habitat could be degraded or otherwise modified, resulting in reduced fitness for the species. Such operations may also increase trash and debris at the site, encouraging predators of listed species.

***Land Sales and Exchanges*:** Impacts to special status species could result from land tenure adjustments such as acquisition or disposal and issuance of rights-of-way. The proposed action includes land exchanges or sales of up to 1,828 acres of Bureau lands in the Virgin River corridor. Because none of the land exchanges involve riparian habitat, there will be no direct alteration of riparian habitat, however there could be interrelated effects from subsequent uses of the land, particularly those involving use of local groundwater.

***Issuance of Rights-of-Way*:** Impacts to special status species could result from issuance of rights-of-way necessary for access and/or maintenance needs to private or state in holdings, rights-of-way within the boundaries of existing rights-of-way or designated corridors, and where site-specific NEPA analysis determines that impacts to Monument objects or values would be negligible.

***Wildlife Management*:** Impacts to special status species may result from initial or supplemental transplants of big game species, restoration and other vegetation treatment projects, construction and maintenance of wildlife waters, and use of aircraft in wildlife management activities. Providing access to public lands for the hunting and wildlife viewing would maintain routes through the habitat. Identification of priority wildlife species would benefit these species by increasing consideration for these animals in project design and implementation. The addition of new watchable wildlife areas would increase visitation in sensitive habitats.

***Travel Management – Use of Roads*:** Since all transportation is limited to either designated roads (Monuments) or designated roads and trails(ASFO), collisions and other direct effects would be limited to the routes in the transportation system. Roads impact special status species by fragmenting habitat; reducing available habitat for breeding and foraging activities; providing access corridors for weed invasion, hunting, pollution, wildfires, and habitat-altering projects; increasing erosion; and increasing opportunities for collisions and variety of other disturbances that change wildlife movement and habitat use. However, road miles are not all equal in their effects on wildlife resources due to variables such as road widths, location, traffic type, speed, and volume (average daily traffic). In general, the lower the speed and volume of traffic, the lower the likelihood of collision. Most scientific literature concerning the effects of transportation systems on wildlife species are based on paved roads with high traffic volumes, traveling at high rates of speed. However, there are very few roads within the Planning Areas that are currently paved. The vast majority of roads within the action area are unpaved, dirt roads with average travel speeds less than 35 mph. There are no plans to pave or authorize paving of any roads in the planning area through the life of the FEIS. The highest probability for direct effects from collisions would occur in habitats of species with low mobility, such as desert tortoise and special status plants. With few exception, most special status plants do not grow in roadways. However, direct effects have been documented from vehicles pulling off roadways to park or turn around. In addition, all terrain vehicle (ATV) use is increasing throughout the action area, increasing the potential for un-authorized off-road use.

Minor, short-term indirect effects to special status species could result from noise, dust, and disturbance associated with traffic within the action area. Increased access into special status species habitats could lead to an increase in foot traffic, risk of man-caused fire, and recreational activities that degrade habitat.

***Recreation*:** A wide variety of recreational activities occur all across the Arizona Strip. Commercial activities and organized non-commercial events of more than 50 participants would generally be authorized with a special recreation permit (SRP). Permits of this type typically allow for vehicular events such as motorcycle races or OHV or horseback tours, guided hiking or hunting trips, research oriented field schools, or orienteering events such as geo-caching. Foot traffic through sensitive areas could trample, injure, or kill special status plants. Camping increases the likelihood of such affects. Collection of dead and down wood for firewood would increase the extent and severity of impacts to vegetation and increases the risk of man-caused fire. Use restrictions on these types of activities help reduce or eliminate adverse affects to special status plants.

B. Species That May Be Affected by the Proposed Action

What follows is a species by species summary of the environmental baseline within the action area; a list of specific decisions that may affect the species; a discussion of the nature, scope, and extent of all direct and indirect affects of those decisions, including any interrelated or interdependent actions by program; a discussion of cumulative effects; and a determination of the overall effect to the species from implementation of the proposed action. Brief life history and other background information is provided where necessary for clarification of effects. In addition, a list is included of specific of recovery actions implemented or allowed by the FEIS. Appendix D provides a species specific list of all decisions in the proposed action that could have some affect on that species.