## **AIR QUALITY**

#### **Program Emphasis**

## **Class I Area (Weminuche Wilderness Area)**

Maintaining pristine Class I Area air-quality conditions within the Weminuche Wilderness Area is the highest priority for managing air quality on the SJPL. Pristine conditions are measured directly through air quality monitoring; they are measured indirectly using air quality related values (AQRVs). AQRVs for the Weminuche Wilderness Class I Area are lake chemistry, soil chemistry, flora and fauna assemblages, atmospheric deposition and chemistry, snow and snowmelt chemistry, and visibility. Monitoring commitments will continue long-term, as stated in the Weminuche Wilderness Monitoring Plan (USFS 1991) and through agreements made with the EPA and the State of Colorado.

## **Smoke Management**

Prescribed burns and wildland fire use have the potential to produce smoke that may affect the public. Receptors (including nursing homes, hospitals, and schools) that are sensitive to temporary air pollution will continue to be an important consideration for smoke management. In addition, the impact of smoke on the highly valued scenic vistas within the planning area will continue to be a concern. Smoke will be managed in conjunction with the State of Colorado, through burning permits, and will address local concerns as well. Tradeoffs between short-term air quality impacts and long-term forest health are recognized.

## **Other Air Pollutants**

Several air pollutants have become major concerns on the SJPL. These include mercury, nitrogen, sulfur, carbon dioxide, and ozone. Most of these pollutants originate from outside of the planning area. SJPL managers will actively pursue actions designed to reduce the impacts of pollutants from sources both within and outside of the public lands. These measures will include active membership in the Four Corners Air Quality Task Force Prevention of Serious Deterioration (PSD) Permit Review, and monitoring commitments.

## **Program Objectives - Air**

- A.1 Improve flora and fauna AQRVs that are at risk (including lichens, amphibians, and aquatic organisms) to a level that is within the limits of acceptable change (compared to natural conditions) by the next planning period.
- A.2 Over the implementation-life of the LMP, prevent or reduce visibility impairment and allow no more than a 5% change in contrast; a 5% change in extinction and visual range; or a change in color difference index ≥2, as compared to natural conditions for the Weminuche Wilderness Class 1 Area.
- A.3 Over the implementation-life of the LMP, prevent or reduce acidic deposition and allow no more than a 10% change from established baseline for lakes with an acid neutralizing capacity (ANC)  $\geq$ 25  $\mu$ eq/L, and no change for lakes with an ANC<25  $\mu$ eq/L.
- A.4 Over the implementation-life of the LMP, prevent or reduce airborne nutrient and mercury deposition impairment of sensitive high-elevation lakes in the Weminuche Wilderness Class I Area; allow no mercury concentrations, no more than 2  $\mu$ eq/L of ammonium, and no late summer nitrate.

# SOILS

## **Program Emphasis**

Under the direction of the LMP, the soils program will emphasize ecosystem sustainability and the protection of ecological integrity, biological diversity, and watersheds within the planning area. It will focus on acquiring the best available science relative to soil resources, as well as on ensuring that soils data, issues, and opportunities are adequately recognized and considered in all plans, projects, and management actions. The program will focus on maintaining or enhancing soil productivity by preventing or minimizing management-induced soil compaction, displacement, erosion, puddling, and severe burning. This will be accomplished by protecting ground-cover, soil organic matter, and soil nutrients, and by rehabilitating soils that have been detrimentally altered.

The emphasis of the soils program will provide project-level, site-specific soils information for projects where ground disturbance may occur. It will also provide soil resource inventories that describe soil resources spatially and descriptively, thereby providing important tools for predicting management impacts on soils and watersheds at a programmatic level.

## **Program Objectives - Soils**

- B.1 Within 10 years, restore or improve soil productivity on 20 miles of road that will be closed or decommissioned.
- B.2 Within 5 years, improve the soil productivity in two middle-elevation Kentucky bluegrass-dominated mountain grasslands by decreasing the amount of bare soil, erosion, and soil compaction, as well as by increasing the amount of Arizona fescue and other desirable native plant species.

## WATER

#### **Program Emphasis**

## **Protect or Improve Water Quality**

Project design, BMPs, and mitigation measures guide the protection of water quality within the planning area. Many management measures and design criteria are contained in Forest Service Handbook 2509.25, Rocky Mountain Region Soil and Water Conservation Practices Handbook (which is relevant for BLM- as well as for USFS-administered lands in the planning area). Implementation of projects designed to improve water quality in areas where existing water quality is poor, (e.g., the abandoned mine lands reclamation program) will be an important step toward improving water quality. Benefits to pollutant reduction on State 303(d) listed streams (a list of impaired waters that do not meet State water quality standards), saline soil watersheds, and/or watersheds identified as having the highest level of cumulative impacts to aquatic systems (based on the Aquatic/Riparian/ Wetands Assessment (USFS 2006)) will be priorities of the SJPL watershed restoration program.

In order to contribute to watershed protection efforts on the upper Colorado River, saline soil watersheds will use stream-enhancement and/or stream-protection measures in order to minimize saline contributions. Monitoring of protection measure implementation and effectiveness will be a key component of meeting the intent of the Clean Water Act throughout the planning area.

## Maintain or Improve Watershed Condition and the Function of Streams and Floodplains

As a result of the cumulative impacts of management activities, many watersheds throughout the planning area exhibit poor watershed conditions (USFS 2006) (see Appendix I, Volume 3). Watersheds with the most impaired watershed conditions, or those possessing the highest sensitivity to land management actions, will be given priority consideration for rehabilitation. This will be especially true if a watershed contains a water body on the State 303(d) List or a Total Maximum Daily Load (TMDL) has been developed (see Appendix J, Volume 3, Watersheds on USFS Lands Most Sensitive to Disturbance; Watersheds on USFS Lands with the Highest Levels of Anthropogenic Disturbance; see also Appendix K, Volume 3, Watersheds on the San Juan Public Lands with Salinity Concerns).

Maintaining healthy stream channel function will be of central importance on the SJPL, so that streams could effectively transport discharge and sediment and periodic flooding, provide aquatic and riparian habitat, and provide a broad spectrum of recreational opportunities. Initiation of this long-term approach over the next decade will benefit from the establishment of reference conditions for one or more unaltered streams within the planning area. A database of reference streams will be developed for comparison purposes, as well as for the documentation of stream health.

## **Manage Water Uses**

Maintaining supplies of clean water and protecting watersheds were central motivations in the historic decision to reserve forests and rangelands as public domain. Watersheds within the planning area supply water for a variety of multiple uses (including consumptive and non-consumptive uses). As a result of the current drought, as well as the rapidly increasing populations in southwestern Colorado, the human need for new water developments has increased greatly. Under appropriate conditions, existing non-Federal water uses and proposed new uses on the SJPL will be authorized pursuant to applicable Federal authorities, current agency policies and directives (with additional consider given to any applicable interagency MOUs and agreements).

Where water is necessary for the uses within the planning area, water rights will be obtained. SJPL managers will obtain State appropriative or, where appropriate, Federal reserved water rights for historic, current, and future Federal purposes (Federal purposes typically include use for terrestrial and aquatic wildlife, livestock, recreation, aesthetics, facilities, pond and evaporation, irrigation, augmentation and exchanges, administrative sites, firefighting purposes, etc.) Funding to acquire these rights will come from multiple program areas (including from range, recreation, and watershed). USFS and BLM water uses databases will be maintained each year in order to accurately account for Federal water uses, as well as to prioritize acquisition of new water rights.

Successful management of water uses requires extra attention to administrative process and details. One important task will be a monthly review of water rights resumes for new water rights applications, change applications, or reassertion of conditional water rights, as well as for filing objections on all cases that may injure SJPL water rights (or potentially impact water-related resources within the planning area). Water-development authorizations (including groundwater), both new and re-issuances, will contain the necessary terms and conditions relating to the authorization and maintenance of these facilities in order to meet terrestrial, aquatic, and/or other resource management desired conditions and objectives in a manner that minimizes potential negative impacts to the environment. Finally, for evaluating priorities for in-stream flow, streams supporting federally listed species or SJPL Highlight Species, streams that have a high level of recreational use(s), and perennial streams that are currently undeveloped (no existing water developments) will be emphasized.

## **Program Objectives - Water Quality Protection**

- C.1 Annually, rehabilitate or restore 20 or more acres of disturbed land on saline soils in order to reduce salt delivery to the upper Colorado River Basin.
- C.2 Annually, rehabilitate or restore 10 or more acres in State 303(d) listed water body watersheds or watersheds with Total Maximum Daily Load (TMDL) plans in order to reduce pollutant delivery if the pollution is related to non-point source activities.
- C.3 Over the implementation-life of the LMP, actively participate in the development of 100% of the TMDL determinations and/or other appropriate options for the restoration of State 303(d) listed impaired water bodies within the planning area.

## Program Objectives - Maintain or Improve Watershed Condition and Stream/Floodplain Function

- C.4 Annually, treat approximately 20 acres of priority restoration watersheds in order to improve watershed conditions so that they move from the category of most highly impacted watersheds (80th percentile, most impacted) to a lower category (as determined by the San Juan Aquatic Assessment (USFS 2006) or other priority watershed ranking methodology).
- C.5 Within 10 years, for BLM lands, bi-annually submit one or more high-priority streams for inclusion in the Colorado Water Conservation Board in-stream flow protection program.
- C.6 Annually, decommission 6 linear miles of unneeded routes that may consist of roads and trail. Watersheds listed in the following appendices could be considered priority for decommissioning efforts: Appendix I, Watersheds on USFS Lands with the Highest Levels of Anthropogenic Disturbance on the SJPL (authorized and unauthorized road/trail densities); Appendix J, Watersheds on National Forest Lands Most Sensitive to Anthropogenic Disturbances; Appendix K, Watersheds on the San Juan Public Lands with Potential Salinity Issues.

## **Program Objectives - Managing Water Uses**

- C.7 Annually, acquire new State appropriative water rights for 30 water uses in the highest-priority areas (including water rights for livestock, recreation, fisheries, and irrigation) within the planning area.
- C.8 Over the implementation-life of the LMP, all water rights are put to beneficial use and that use can be documented.
- C.9 Monthly, enter into any water court case necessary in order to protect SJPL water rights and water uses/water resources.

#### AQUATIC ECOSYSTEMS AND AQUATIC SPECIES

## **Program Emphasis**

The aquatics program strives to provide ecological conditions in the vast majority of stream, river, and lake systems sufficient to support a diversity of native and desired non-native fish species and/or other aquatic biota over the long term. Proactive management of aquatic habitats and populations is critical to reversing downward population trends. In order to best maintain and protect native and desired non-native fish species, USFS Management Indicator Species (MIS), and USFS and BLM Sensitive Fish Species, the design of land management activities in the planning area will accomplish objectives and meet desired conditions for fisheries. BMPs will be used, and mitigation measures will be implemented, in order to minimize any adverse impacts of management activities on populations and habitats of fish and other aquatic species.

Plan implementation and consistent monitoring of outcomes for fisheries and aquatic habitat will provide the impetus toward achieving desired conditions. Periodic inventories and surveys of streams, stream segments, and lakes are needed in order to determine the natural range and frequency of aquatic habitat conditions, the specific habitat quality, the species population levels, and stream/lake health. Habitat improvement projects should be prioritized where specific assessments have identified habitat-related constraints to fish populations. Monitoring will provide the information necessary to help identify needs for possible LMP amendments or other changes in management practices. Scientific efforts to track changing conditions in key areas and for specific species is an important step in accomplishing objectives and achieving desired conditions for the fisheries program. In general, water developments and other special uses should contain terms and conditions necessary in order to achieve LMP objectives and desired conditions.

LMP implementation involves close coordination with the CDOW and the USFWS. Although cooperation with the CDOW and the USFWS is critical, partnerships with other State and Federal agencies, as well as with interested individuals and organizations, are also an important means to achieve desired conditions and accomplish multiple objectives (and could yield much needed funding for fish habitat management activities).

## **Program Objectives - Aquatic Ecosystems and Aquatic Species**

- D.1 Annually, enhance or restore 5 to 15 miles of stream habitat in order to maintain or restore structure, composition, and function of physical habitat for USFS and BLM Sensitive Species.
- D.2 Over the implementation-life of the LMP, connect 10 to 15 miles of fragmented stream habitat in order to provide for aquatic species migration and for the establishment of aquatic metapopulations, especially for Colorado cutthroat trout (USFS and BLM Sensitive Species), and for other BLM and USFS Sensitive Species.
- D.3 Over the implementation-life of the LMP, establish 5 new populations of Colorado River cutthroat trout (USFS and BLM Sensitive Species) in cooperation with CDOW.

#### **RIPARIAN AREAS AND WETLAND ECOSYSTEMS**

## **Program Emphasis**

Riparian areas and wetland ecosystems are complex ecosystems affected by the SJPL ecology, water, soils, and fisheries programs. The overall program focuses on acquiring information related to riparian areas and wetland ecosystems, and ensuring that ecological data, issues, and opportunities associated with those ecosystems are adequately recognized and considered in all plans, projects, and management actions. The goal is to sustain riparian areas and wetland ecosystems, and to protect the ecological integrity and biological diversity associated with them.

Program emphasis includes maintaining good vegetation cover and soil productivity in upland terrestrial ecosystems in order to prevent erosion and runoff, and to prevent sediment from reaching streams. Proper livestock management is emphasized in order to prevent adverse impacts to both uplands and riparian areas and wetland ecosystem sites. Project design, BMPs, and mitigation measures guide the protection of riparian areas and wetland ecosystems when projects are planned and implemented within these areas.

Program emphasis also includes determining the condition of riparian areas and wetland ecosystems using the BLM Technical Reference titled "Process for Assessing Proper Functioning Condition." Restoration will be implemented on sites where non-functional or functional-at risk conditions exist.

## **Program Objectives - Riparian and Wetlands Ecosystems**

- E.1 Within 5 years, initiate restoration in 2 forest or shrubland riparian areas and wetland ecosystem types that currently are in a non-functional or functional-at risk condition by increasing the amount of native woody riparian vegetation in them.
- E.2 Within 10 years, determine the functional condition of 100 miles of riparian areas and wetland ecosystems.
- E.3 Within 15 years, restore ecological conditions on 5 damaged fens.
- E.4 Within 5 years, eradicate tamarisk and Russian olive on 2 stream reaches or 2 seeps/springs.

#### TERRESTRIAL ECOSYSTEMS AND PLANT SPECIES

#### **Program Emphasis**

The SJPL ecology program emphasizes ecosystem sustainability and the protection of the ecological integrity and biological diversity of the planning area. It focuses on acquiring the best available science relative to terrestrial ecosystems found within the planning area, and ensuring that ecosystem data, issues, and opportunities are adequately recognized and considered in all plans, projects, and management actions. Acquiring the best available scientific information includes conducting inventories (in relation to vegetation types, rare plants, soils, ecological types, etc.), producing ecological assessments, developing vegetation classification systems, identifying plants and vegetation communities, conducting biological evaluations, monitoring, establishing Research Natural Areas and reference sites, using predictive models, and identifying research needs. The program emphasizes ecosystem management, with the guiding principle being that protecting the composition, structure, and function of the ecosystems of the SJPL (including terrestrial, riparian and wetland, and aquatic ecosystems) will sustain those ecosystems, sustain the vegetation communities within those ecosystems, and preserve and sustain a broad array of species representing a majority of the native flora and fauna found within those ecosystems. Managing ecosystems includes the protection of abiotic (non-living chemical and physical factors found in the environment) features and ecosystem processes (including soil productivity, disturbance regimes, succession, and hydrologic processes).

The ecology program also focuses on plant species in order to preserve biological diversity and to meet the specific needs of individual plants (including rare species that may not be adequately covered by the ecosystem management approach). Rare species include federally listed species, SJPL Highlight Species, USFS Sensitive Species, and BLM Sensitive Species. Acquiring current information about plants species, including their habitat requirements and how they respond to management activities, will be critical to their protection and sustainability.

Ecology program emphasis includes ecological restoration (defined here as the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed). Ecological restoration is an intentional activity that initiates or accelerates the recovery of an ecosystem with respect to its integrity and sustainability (SER 2002).

SJPL timber, fire, fuels, and ecology programs will manage insects and diseases within the planning area through inventory and monitoring of insect and disease risk relative to current and desired vegetation conditions. Identifying areas where epidemic risks are high, and developing strategies for reducing those risks, will be the primary program objectives. Major vegetation types that display compositions, structures, and disturbance regimes that are similar to those found during the reference period (HRV conditions) tend to have lower risks of insects and diseases compared to those that are dissimilar to HRV conditions.

## **Program Objectives - Terrestrial Ecosystems and Plant Species**

- F.1 Within 20 years, increase the amount of young spruce-fir forests and young cool-moist mixed-conifer forests from 1.5% to 15% primarily by allowing wildland fire use (including stand replacement fires) and, to a much lesser extent, timber harvesting in mature spruce-fir and mature cool-moist mixed-conifer forests.
- F.2 Within 20 years, increase the amount of young aspen forests throughout the planning area from their current status of 1% to 25% by clear-cutting mature aspen forests, and by allowing wildland fire use to occur in the mature development stage of aspen, spruce-fir, and cool-moist mixed-conifer forests. In order to increase the patch size of young aspen forests and to better mimic the large aspen patches that were common during the reference period (HRV conditions), timber harvesting occurs primarily adjacent to aspen clear-cuts that were conducted within the last 20 years.
- F.3 Within 20 years, increase the amount of ponderosa pine forests that have open canopies by changing 20,000 to 40,000 acres of ponderosa pine forests (excluding old-growth forests) from development stage mature-closed to development stage mature-open using timber harvesting treatments (including thinning and restoration), and by allowing wildland fire use to occur. An additional outcome from this objective is to increase the canopy cover of Arizona fescue by 10% in the treated ponderosa pine stands within 10 years of the implementation of the LMP.

- F.4 Within 20 years, increase the amount of warm-dry mixed-conifer forests that have open canopies by changing 10,000 acres of warm-dry mixed-conifer forests (excluding old-growth forests) from development stage mature-closed to development stage mature-open by using restoration improvement harvesting treatments that target white fir for removal, and by allowing wildland fire use to occur. An additional outcome from this objective is to decrease the amount of white fir in the treated warm-dry mixed-conifer forest stands by 20% within 20 years.
- F.5 Within 15 years, use low-intensity prescribed burns or wildland fire use on 30,000 acres of ponderosa pine or warm-dry mixed-conifer forests that have been without fire for decades in order to improve the composition, structure, and function of those forests.
- F.6 Over the next 15 years, use timber harvesting or low-intensity prescribed burns in order to improve the stand structure in some mature ponderosa pine and warm-dry mixed-conifer forests and to enhance old-growth attributes.
- F.7 Increase the amount of old-growth ponderosa pine and old-growth warm-dry mixed-conifer forests by 400% and 100%, respectively. This is a long-range objective that can only occur over decades, as current ponderosa pine and old-growth warm-dry mixed-conifer forests need time in order to succeed from their current condition to the old-growth condition.
- F.8 Within 5 years, initiate restoration in 2 middle-elevation Kentucky bluegrass-dominated mountain grasslands by increasing the amount of Arizona fescue and other desirable native plant species, by decreasing the amount of exotic and undesirable native plant species, and by decreasing the amount of bare soil, erosion, and soil compaction.
- F.9 Within 15 years, increase the abundance and distribution of perennial native warm- and cool-season bunchgrasses and biological soil crusts on 3,000 acres of semi-desert shrublands or semi-desert grasslands within the Dolores geographical area.
- F.10 Within 15 years, increase the abundance and distribution of perennial native warm- and cool-season bunchgrasses and biological soil crusts on 2,000 acres of sagebrush shrublands within the Dolores geographic area.
- F.11 Within 5 years, collect seeds from R2 Regional Forester's Sensitive Plant Species and BLM Sensitive Plant Species in order to provide local genetic material for reintroduction efforts in the event existing occurrences of these species have declined or are extirpated.
- F.12 Within 5 years, collect seeds from native graminoid species in order to provide local genetic material for revegetation efforts.

## FIRE AND FUELS MANAGEMENT

#### **Program Emphasis**

The use of wildland fire, along with mechanical and other fuels management strategies, should create forest conditions that meet desired conditions for the vegetation types within the planning area. Providing appropriate management response to all wildfires and allowing fire to perform its natural role in the ecosystem, as much as possible, will be an integral part of the program emphasis. Recognizing that effective fire management spans jurisdictional boundaries, the fire and fuels program will also continue to partner with, and assist, local jurisdictions and communities in order to develop community wildfire protection plans designed to reduce the risk of wildfires.

## **Program Objectives - Fire and Fuels Management**

- G.1 Annually, for the next 10 years, complete an average of 8,000 acres of hazardous fuels reduction in the WUI.
- G.2 Annually, for the next 10 years, complete an average of 5,000 acres of fuels reduction and resource enhancement.
- G.3 Annually, manage from 1 to 30,000 acres of wildland fire use (WFU) within the planning area, either from 1 or multiple WFUs. (WFU is used as a resource management tool whenever the opportunity of natural wildland fire ignitions arises.)
- G.4 Aggressive initial attack is undertaken on all wildland fires. The appropriate management response is evaluated immediately and suppression, management, or a combination of both actions is taken. Within the planning area, 98% of all wildfires are suppressed when they are less than 1 acre.

# WILDLIFE

## **Program Emphasis**

The emphasis of the SJPL wildlife program is to provide ecological conditions that support all native and desired non-native terrestrial wildlife species over the long term, and to promote recovery of federally listed species. The planning area provides for the range of habitat requirements for species by managing for the broad level ecosystem desired conditions. This strategy will involve a two-tiered approach:

- *First*: The structure, composition, and disturbance processes of ecosystems that maintain habitat are managed for attainable and sustainable desired conditions that meet a variety of management objectives. The program emphasis described under Terrestrial Ecosystems serves as the foundation for habitat conditions throughout the planning area. HRV conditions are used for comparison and guidance (rather than as desired conditions) in order to manage for suitable habitat that sustain wildlife species found within the planning area. Changes in land use within the planning area, as well as on adjacent lands (including private, public, and Native American tribal lands) often preclude the SJPL from mimicking historic conditions found during indigenous settlement (dating from the 1500s to the late 1800s).
- **Second**: Looking at more specific issues, species with conservation concerns are evaluated in order to determine limiting habitats, population influences, and special habitat needs not provided through ecosystem-level management. Species identified may need additional protection, as specified in conservation strategies for individual species or groups of species. Incorporating design components found in the desired conditions and guidelines detailed in this DLMP, species conservation strategies and recovery plans, or species assessments based on the best available science, will maintain or enhance key habitat and habitat effectiveness in order to provide diversity components and maintain wildlife sustainability. Species identified in the second tier of the two-tiered approach are listed in one of the following categories: threatened, endangered, and proposed species; SJPL Highlight Species; BLM Sensitive Species; and USFS Sensitive Species.

Sections of the DLMP will contribute toward recovery and delisting of threatened, endangered, and proposed species. This guidance will also contribute to preventing BLM and USFS Sensitive Species trending toward being listed. The SJPL Highlight Species that more specific analysis has indicated may need additional protection are listed in the guidelines component of the DLMP. All selected SJPL Highlight Species are addressed in the DLMP/DEIS documents.

LMP implementation and consistent monitoring of outcomes for habitat and species will provide the impetus toward the desired conditions. Monitoring will provide the data necessary to enable an evaluation of the two-tiered approach and will help identify needs for possible LMP amendments and/or other changes in management practices. Scientific efforts to track changing conditions in key areas and for specific species is important step in accomplishing objectives and achieving desired conditions for the wildlife program.

LMP implementation will involve close coordination with the CDOW and the USFWS. Although cooperation with CDOW is critical, partnerships with other State and Federal agencies; as well as with tribal governments and other interested organizations and individuals; will help the SJPLC better manage for wildlife, and will serve as an important way to achieve desired conditions and to accomplish multiple objectives.

The following objectives are based on expected budgets and on available resources. Objectives for other coordinated SJPL resource programs will also help to maintain and/or improve habitat conditions (as described under Ecosystem Diversity) in order to help the SJPLC achieve identified terrestrial wildlife desired conditions (see Appendix M, Table 3). For example, ponderosa pine restoration objectives achieved under fuels treatments will be guided by DLMP direction; with the goal being restoration of conditions and habitat characteristics (within the pine type) that benefit wildlife species. Benefits of these restoration objectives will extend to BLM Special-Status Species (including flammulated owl and northern goshawk) to demand species (including turkey and mule deer).

## **Program Objectives - Wildlife Program Objectives**

- H.1 Annually, provide a minimum of 500 acres of habitat improvement through restoration and other management for the duration of the LMP in order to provide diversity components that support sustainable populations of terrestrial wildlife throughout the planning area.
- H.2 **Southwestern willow flycatcher (T)**: Over a 10-year period, 3 breeding territories recover from capable to suitable condition through improved resource management within the riparian zone.
- H.3 **Gunnison Sage-grouse (H, BLM SS)**: Over a 10-year period, use mechanical and/or prescribed burn treatments in order to remove pinyon-juniper invasion in 3 locations consisting of 900 acres of capable Sage-grouse habitat.
- H.4 **Nokomis fritillary butterfly (H, USFS SS)**: Over a 10-year period, restore the hydrologic conditions and plant communities at 2 springs or seeps capable of supporting Nokomis fritillary while, at the same time, retaining the water development for livestock or other uses.

- H.5 *Mule deer (H)*: Within the first 5 years of the planning cycle, improve winter range through mechanical and prescribed burn treatments on at least 1,000 acres within the planning area.
- H.6 Bat group (Allen's big-eared bat (H, BLM SS), big free-tailed bat (H, BLM SS), fringed myotis (H, BLM SS, USFS SS), spotted bat (H, BLM SS, USFS SS), Townsend's big-eared bat (H, BLM SS, USFS SS), and yuma myotis (H, BLM SS)): Over the implementation-life of the LMP, all mine closures at sites supporting bat populations include structures designed in order to provide for continued use as bat habitat.

H = Highlight Species BLM SS = BLM Sensitive Species USFS SS = FS Sensitive Species T = Federally Threatened Species

## MANAGEMENT INDICATOR SPECIES

## **Program Emphasis**

The MIS program emphasizes ecosystem sustainability and the protection of the ecological integrity and biological diversity of the planning area. It focuses on acquiring the best available science relative to terrestrial ecosystems and the MIS found within the planning area, and ensuring that ecosystem and MIS data, issues, and opportunities are adequately recognized and considered in all plans, projects, and management actions.

The program emphasizes ecosystem management and the guiding principle that protecting the composition, structure, and function of the ecosystems of the SJPL (including terrestrial, riparian and wetland, and aquatic ecosystems) will sustain those ecosystems, sustain the vegetation communities within those ecosystems, and preserve and sustain a broad array of species representing a majority of the native flora and fauna found within those ecosystems (including MIS). The Historical Range of Variation (HRV) is used as an important concept for protecting MIS and sustaining the ecosystems they are associated with.

The MIS program also focuses on the specific needs of MIS on SJPL. Acquiring current information about these species, including their habitat requirements and how they respond to management activities, is critical to their protection and sustainability.

Desired conditions, objectives, and standards and guidelines for MIS are designed within the concepts described above. Forest level program monitoring connected with MIS is intended to help evaluate the effectiveness of Plan implementation. This information is used to assist in facilitating the identification of need for adjustment to Plan implementation in meeting the described Plan objectives and desired conditions.

- I.1 Annually, provide a minimum of 500 acres of habitat improvement through restoration and other management for the duration of the LMP in order to provide diversity components that support sustainable populations of terrestrial wildlife (including MIS) throughout the planning area.
- I.2 **Trout**: Annually, enhance or restore 5 to 15 miles of stream habitat in order to maintain or restore structure, composition, and function of physical habitat for trout MIS Species.
- I.3 **Trout**: Over the implementation-life of the LMP, connect 10 to 15 miles of fragmented stream habitat in order to provide for trout MIS migration and for the establishment of trout MIS metapopulations, especially for Colorado cutthroat trout.
- I.4 *Trout*: Over the implementation-life of the LMP, establish 5 new populations of Colorado River cutthroat trout in cooperation with CDOW.
- I.5 **Abert's squirrel**: Within the first 5 years of the planning cycle, restore ponderosa pine in order to improve habitat quality, as defined in the regional Abert's squirrel assessment, on at least 1,000 acres within the planning area.
- I.6 **Elk**: Within the first 5 years of the planning cycle, improve elk winter range through mechanical and prescribed burn treatments on at least 1,000 acres within the planning area.
- I.7 *Mountain Bluebird*: Over a 10-year period, harvest and regenerate 5,000 acres of aspen in order to provide for a diversity of age classes in the aspen type and in order to provide for future mature aspen nesting habitat (thereby reducing the extent of Sudden Aspen Decline).
- I.8 *American marten*: Over a 10-year period, harvest 500 acres of spruce-fir forest and 1,250 acres of cool-moist mixed-conifer forest producing stands of uneven size/age class trees within the spruce-fir and cool-moist mixed-conifer types in order to perpetuate effective marten habitat over time.

# **INVASIVE SPECIES**

# **Program Emphasis**

Within the planning area, invasive weeds are currently managed in accordance with an invasive species action plan. The plan lists prevention practices, early detection, rapid response strategies, and priority inventory and treatment areas. It covers a 3-year timeframe. Under the direction of the LMP, all SJPL resource programs will participate in invasive species management.

Invasive species move across jurisdictional boundaries and property lines; therefore, LMP implementation will involve close coordination and partnerships with local, State, and tribal governments; as well as with interested organizations and individuals. Partners and contractors will be considered when implementing invasive treatment activities.

# **Program Objectives - Invasive Species**

- J.1 Within 15 years, eradicate spotted knapweed, diffuse knapweed, Dalmatian toadflax, scentless chamomile, scotch thistle, and leafy spurge on San Juan Public Lands.
- J.2 Within 15 years, increase annual treated acres of noxious weeds to 25% of known acres infested.
- J.3 Within 15 years, annual backcountry treatment (including Wilderness Areas and WSAs) is 25% of the total annual noxious weed treatment target.

## ACCESS AND TRAVEL MANAGEMENT

## **Program Emphasis**

Access and opportunity to experience areas through both motorized and non-motorized travel is a key component of recreation, as well as a primary management emphasis for the SJPL. Efforts will focus on the designation of effective motorized and non-motorized travel routes over the long-term, consistent with desired conditions. Signing, enforcement, public information, and route maintenance and restoration will take place, as appropriate.

The transportation system program will emphasize a minimum transportation system that provides safe and efficient public and agency access to the public lands. Travel analysis will be the tool used to identify management opportunities for ensuring that this system is efficiently maintained, environmentally compatible, and responsive to agency and public needs. SJPL managers will work towards aligning the total miles of roads and trails on the SJPL with fiscal constraints. Opportunities will be sought to shift road management to the appropriate public road authority when it is determined that a specific road is primarily used for purposes other than SJPL access, is used for mail delivery, school bus routes, or some other local governmental purpose, or is used for year-round residential access to private property within or adjacent to SJPL. Opportunities will be sought to decommission those roads identified through travel analysis as unneeded. Reconstruction and maintenance activities will focus on diminishing impacts to resources, particularly water resources and aquatic ecosystems, and improving roadway safety while reducing the backlog of deferred maintenance.

Travel management planning during Land Management Plan implementation will result in the designation of a system of roads, trails and areas for motorized use by vehicle class and season of use. The principal goal of travel management planning is to reduce the development of unauthorized roads and trails and the associated impacts to water resources and aquatic ecosystems, wildlife conflicts impacts and user conflicts. The travel management planning process will aim to provide a variety of road and trail access for recreation, special uses, other forest resource management, and fire protection activities. Planning, design, and operation will seek to maximize user experience while addressing safety and resource protection needs. Routes not included in the transportation system will be prioritized for decommissioning based on resource protection needs.

## **Program Objectives - Access and Travel Management**

- K.1 Transfer five miles of road jurisdiction to other entities within 10 years of Plan implementation.
- K.2 Perform maintenance activities on 75 percent of roads maintained for passenger vehicles (maintenance level 3, 4, and 5 roads) each year.
- K.3 Decommission 100 linear miles of unneeded routes, which may consist of roads and trails, within 15 years of Plan implementation.
- K.4 Perform condition surveys and monitoring of each designated route once every five years.

## RECREATION

## **Program Emphasis**

The primary recreation management goal is to ensure the continued availability of resource-dependant outdoor recreation experiences that the public seek, that are suitable for the landscape, and that are not readily available from other public or private entities. The SJPL recreation program will emphasize the extraordinary natural, cultural, and scenic resource values of the planning area. It will also emphasize the relationship of these assets to the high public demand, as well as to the appreciation for public land recreation, the proximity of the planning area to growing communities, and the critical need for public understanding related to, and stewardship of, the SJPL.

The SJPLC will provide place-based recreation management by focusing on activities and unique settings for which an area is best suited. Recreation suitability (derived through the ROS) will guide the direction of recreation management within the planning area. In combination with desired conditions of each MA, this suitability will guide recreation management with regard to access, intensity of visitor management, social encounters, naturalness, built environment, and carrying capacity.

## **Dispersed Recreation Experiences and Freedom of Choice**

Dispersed recreation will continue to be an important benefit offered within the planning area. Dispersed recreation includes both day and overnight use and provides important recreational benefits (including the opportunity to enjoy natural landscapes, escape from crowds, engage in physical exercise, and/or recreate with family and friends). The management of these benefits will seek to balance the strong desire people have for freedom of choice (in terms of their recreation activity) with adequate protection of cultural and natural resources and the need to manage conflicting recreation uses. In spite of the large expanse of undeveloped area available for dispersed recreation use (both motorized and non-motorized), every acre is not suitable for every use. The challenge for visitors and managers is to protect multiple-use opportunities and to minimize conflicting uses while, at the same time, maintaining freedom of choice to the greatest extent possible.

#### **Recreation Facilities**

SJPL managers will continue to assess the future of SJPL recreation facilities in order to establish a program that is balanced, sustainable, realistic, and responsive to public needs. Services will be provided with allocated funds, revenues, and partnerships. SJPL managers will also seek other creative methods in order to maximize public benefits. Facilities will be redesigned, as necessary, in order to benefit a larger and more diverse audience, address demographic changes, and accommodate a broader spectrum and longer season of appropriate uses. New large-scale facilities are not anticipated during this planning cycle. A greater emphasis will be placed on stabilization of resource issues in dispersed recreation areas.

#### **Communities and Partners**

Local communities and partners have strong ties with the SJPL. These communities and partners have become ever more critical in helping the SJPL managers address complex resource management situations, declining recreation budgets, and the demands of growing communities seeking to benefit economically and socially from recreation and tourism on SJPL. Efforts in this area will focus on building existing partnerships with communities keenly interested in protecting and enhancing public land recreation access, as well as the use of the planning area for economic, scenic, and recreation benefits (including use of scenic byways, as well as in relation to heritage tourism).

## **Travel Corridors**

Three scenic and historic byways (San Juan Skyway, Alpine Loop, and Trail of the Ancients) and numerous lesser known routes provide adventure and exploration unsurpassed in the nation. In particular, historic mining, ranching and views of rugged wilderness are easily enjoyed by thousands each year. These routes provide an important and effective interface between visitors and the public lands. Recreation management will protect and enhance opportunities for viewing scenery and cultural resources along these travel corridors. Most visitor service development will occur along these corridors. These travel corridors will serve as "information gateways" and facilitate access to more remote areas of SJPL. Partnerships and grants will be a primary method for achieving objectives related to these travel corridors. See Special Areas Plan Component in Part 2 of the DLMP for additional information on byways.

# **Structured Recreation Management Areas (SRMAs)**

There are 4 Structured Recreation Management Areas (SRMAs). These areas demand attention because of their identified recreation markets, location, special resources and high public demand. The recreation program on BLM lands will concentrate management, marketing, monitoring and administration in the SRMAs. SRMAs have identifiable niches, management objectives and social, physical and administrative settings. SRMAs include the following places:

- The Silverton SRMA is a destination for OHV touring, extreme skiing and heritage tourism.
- The Durango and Cortez SRMAs are geared toward community accessible recreation, including mountain biking, rock climbing, hiking and nature viewing.
- The Dolores River Canyon SRMA includes opportunities for recreational and scenic floating, OHV use, and mountain bikes, and wild/remote river canyon recreation.

The SRMAs have desired condition statements under their respective Geographic Area (see Part 1, Vision) and more detailed descriptions in Appendix E, Volume 3. Recreation-related desired condition statements for some specific areas on USFS lands are also included under each Geographic Area, but these are not elaborated on in Appendix E.

## **Remote areas and Wilderness**

This program area primarily focuses on monitoring and addressing activities that have the potential to degrade values related to Wildernesses Areas, WSAs, and other remote areas within the planning area. Protection and restoration of natural conditions will continue to be important within these areas (see Special Areas Plan Component in Part 2 of the DLMP for additional Wilderness Area information). Wilderness management direction contained in the 1998 Forest Plan Amendment (Number 21), is incorporated by reference into this DLMP, and will continue to be in effect.

## Marketing

A cornerstone of successful management will be developing and providing effective public information about recreation opportunities and settings on the SJPL. Targeted marketing efforts can boost the likelihood that people could more easily find and participate in their desired recreation activity and setting. Marketing will also help to increase appropriate uses in underused areas while, at the same time, relieving conflicts and impacts on overused places. Marketing venues will be varied and will include the use of maps, guidebooks, the internet, information signs, brochures, and other marketing tools.

- L.1 Over the implementation-life of the LMP, reduce deferred maintenance costs to under \$500,000.
- L.2 Within 5 years, all motorized and mechanized recreation travel is on designated routes and/or in designated areas.
- L.3 Over the implementation-life of the LMP, complete minimum elements required in order to achieve desired conditions for all Wilderness Areas consistent with management direction provided within the 1998 Wilderness Management Direction.
- L.4 Over the implementation-life of the LMP, complete the Recreation Activity Management Plans (RAMPs) for the SRMAs.

## HERITAGE AND CULTURAL RESOURCES

#### **Program Emphasis**

Under the direction of the LMP, the SJPLC heritage and cultural resources program emphasis will be focused on three main areas of cultural resource management:

- **Protecting Archeological, Historical, Cultural, and Traditional Resources**: This includes both proactive and reactive efforts, as well as offering support to other resource programs. Efforts and support activities include: Section 106 of the National Historic Preservation Act (NHPA) support, inventories, identification, documentation, evaluation, monitoring, consultation, nomination, preservation, stabilization, and/or restoration of heritage and cultural resources. Existing site monitoring plans (including the Anasazi National Register District Monitoring Plan) will be implemented and new site monitoring plans for the Lost Canyon National Register District, the Spring Creek National Register District, and the Mesa Verde Escarpment will be developed and implemented. Heritage and Cultural Resource databases will be managed for efficient and accurate management and research, in cooperation with the Colorado Office of Archaeology and Historic Preservation. Restrictions, through the use of permits and/or visitation controls, will be implemented, when necessary, in order to protect sites from physical damage and excessive "wear and tear" from visitation.
- **Providing Research, Education, and Interpretive Opportunities**: Support research by qualified permitted individuals, organizations, colleges and universities. Provide on-site and off-site educational and interpretive opportunities through a wide variety of materials and media (including signage, brochures, publications, presentations, DVDs, and websites)
- Working Collaboratively with Partners: This includes site stewards; volunteers; State and other Federal agencies; local and tribal governments; schools and universities; and non-profit groups. It includes funding organizations in order to provide site protection, research, educational, and interpretive opportunities.

The SJPL has an active heritage and cultural resource program that focuses on identifying, preserving, interpreting, and providing research opportunities for the most significant resources. This program will inventory and evaluate existing and potential National Register Sites and Districts (including Spring Creek, Armstrong-Ritter Canyon, Sauls Creek, Turkey Creek, Animas Forks, Sound Democrat, and Gold Prince), and list these on the National Register, if appropriate.

Additional public participation and partnerships in heritage and cultural resources management will be established in order to conduct proactive preservation, research, education, and interpretive projects.

## **Program Objectives - Heritage and Cultural Resources**

- M.1 Over the implementation-life of the LMP, protect/preserve/stabilize at least 15 eligible heritage/ cultural resources.
- M.2 Annually, post protective signage on at least 2 heritage and cultural resources.
- M.3 Over the implementation-life of the LMP, list 6 sites/Districts on the National Register of Historic Places (NRHP).

# SCENERY, VISUAL RESOURCES, AND THE BUILT ENVIRONMENT

## **Program Emphasis**

This SJPL program emphasizes careful development and design guidelines so that high scenic integrity may be conserved and sustained in order to meet public expectations. Demand for facilities on public land (including access roads, utility corridors, and cell phone relay towers) and energy development may result in scenic impacts. Ecological conditions may result in impacts to scenery as well. Large stands of ponderosa and warm-dry mixed-conifer are at risk of losing scenic value as a result of fire exclusion (which, in turn, has lead to dense stands, increased mortality from insects and disease, as well as risk of catastrophic fire). As a result of the lack of disturbance and competition from conifers, the scenic value of aspen is also declining. The highest priority for protection of scenic quality will be given to the areas of heavy public use (including scenic byways and scenic travel corridors, nationally designated trails, developed recreation sites, administrative sites, and backdrops for cities and towns).

This program also focuses on identifying and conserving the elements that make up the SJPL "niche, and appropriately integrating them into resource management activities, as well as into facility and site development. This includes maintaining the integrity of the expansive, unencumbered landscapes and traditional cultural features distinctive to the planning area. As residential development and populations grow, large tracts of undeveloped lands are becoming scarce and more valued in southwestern Colorado. Valued natural and cultural viewsheds are being lost incrementally as lands are developed and special features are removed or destroyed. The SJPL will continue to participate with partners in feasible efforts to secure scenic easements and to acquire lands in order to protect outstanding cultural and natural viewsheds along scenic and backcountry byways and along national scenic and recreation trails.

Another important strategy for managing scenery is to identify elements of the landscape that deserve management attention. As opportunities arise, scenic condition inventories will be conducted for valued landscapes (including the Dolores River Canyon and the Wild Horse Herd Management Area). In addition, a schedule of vegetation treatment locations and activities will be developed in order to address scenic quality related rehabilitation, enhancement and maintenance. The Scenery Management System and Visual Resource Management inventory for the SJPL will be validated and updated as a part of on-going site-specific project and programmatic analysis.

In order to continue to make scenery available for residents and visitors, efforts will also be made to ensure that scenic pullouts, vista points, waysides and access, and interpretive venues adequately support scenic viewing as a primary visitor activity.

## Program Objectives - Scenery, Visual Resources, and the Built Environment

- N.1 Annually, assess 1 project from each resource area (vegetation management, fuels reduction, oil and gas, utilities, wildlife, recreation) in order to conduct effectiveness and implementation monitoring.
- N.2 Within 10 years, rehabilitate 50% of areas identified that currently do not meet scenic integrity objectives.

## INTERPRETATION AND CONSERVATION EDUCATION

## **Program Emphasis**

The interpretive and conservation education program plays a critical role in effective resource management and public appreciation of natural and cultural resources. A very dynamic interpretive and conservation/education program will offer a venue designed to create emotional and intellectual connections between people and the nature and culture of the San Juan Public Lands.

Strategies under this program should be designed to ensure consistent, coherent, and effective communication between the public and program managers through a variety of venues. Communication topics and themes will be identified that are of interest to the public, as well as those that will effectively convey important agency information and portray a quality image. Communication venues will target a diverse public. Important program outcomes will include increased public understanding of natural and cultural resources and their management, increased agency understanding of public viewpoints, increased cooperation in public land management, increased public understanding and compliance with public land regulations, and increased stewardship of public lands.

In order to achieve effective communication, both internally and externally, SJPL managers will work to develop a forest-wide framework for interpretive services development and delivery. The integration of interpretive services with public affairs and other staff areas will be fostered. Local, regional, and national partnerships with tourism and outdoor recreation providers and educators are critical in helping meet stewardship and visitor experience goals and expectations.

## TIMBER AND OTHER FOREST PRODUCTS

## **Program Emphasis**

The timber program emphasizes the use of vegetation management as a tool to help the manage forested vegetation types in order to achieve desired ecological conditions, and to balance social and economic desired conditions and objectives. There are many opportunities for vegetation management; however, the feasibility of these opportunities depends on future program levels and on forest products industry capacity and market demand. The timber program emphasis will focus on:

- landscapes in the WUI that have altered fire regimes and/or have areas with high fuel loadings;
- landscapes at high risk for developing epidemic levels of insect and/or disease infestation;
- areas where vegetation management could most effectively move age classes, size classes, density, and species closer to desired conditions; and
- areas treated previously in order to maintain sustainable conditions and to improve scenic integrity.

Changing vegetation composition and structure in order to achieve ecological desired conditions in forested areas is partially dependent upon the capacity of the timber industry. Strategies include:

- providing small-diameter and biomass products from thinning, and fuels treatments in order to support emerging biomass markets;
- utilizing trees killed by fire, insects, disease, and wind throw (where such harvests can be accomplished within acceptable limits of risk to other resource objectives);
- providing an appropriate balance of forest product quantity, size, species and quality in order to maintain forest products industry capacity at current or higher levels;
- integrating the timber and fuels programs in order to minimize unit cost, and undesired effects to other resources while, at the same time, maximizing product utilization; and
- using a combination of legal authorities and partnerships in order to make forest products available to forest users, provide cost-effective vegetative treatments, and maximize utilization of forest resources.

## **Program Objectives - Timber and Other Forest Products**

- P.1 The TSPQ (an estimated annual average output of timber from the planning area during the first decade under this DLMP) provides a stable, predictable, and sustainable supply of wood that will contribute to a stable, sustainable, and diverse forest products industry. (The TSPQ is a combined program of timber management treatments from lands designated as Lands Suitable for Timber Production and other lands. Table 8 presents the volumes to be harvested, summarized by conifer and aspen. See Appendix B for additional information regarding TSPQ, and the relationship of TSPQ to Long-Term Sustained-Yield Capacity or LTSYC.)
- P.2 The planning area has a program of vegetation management in which timber sales are offered within the LTSYC. (LTSYC is defined as the highest uniform wood yield that may be sustained under specified management intensities consistent with multiple-use objectives after stands have reached desired conditions. The LTSYC for both Lands Suitable for Timber Production and other lands are displayed in Table 9. See Appendix B for additional information regarding the methods used to determine LTSYC.)

# Table 8 - Estimated Volume Produced by Timber Sale Program Quantity (TSPQ)(Annual Average in the First Decade)

	Lands Suitable for Timber Production				Other Lands				Total	
	Sawtimber		Products other than Logs		Sawtimber		Products other than Logs			
TSPQ	MMCF	MMBF	MMCF	MMBF	MMCF	MMBF	MMCF	MMBF	MMCF	MMBF
Aspen			1.13	5.65			.13	.65	1.26	6.3
Conifer	1.06	5.3			.08	.4			1.14	5.7
Total									2.4	12.0

# Table 9 - Estimated Annual Long-Term-Sustained-Yield Capacity (LTSYC) (Annual Average)

	Lands Suitable for	Timber Production	Other Lands		
Long-Term Sustained-Yield Capacity	MMCF/Year	MMBF/Year	MMCF/Year	MMBF/Year	
(LTSYC)	8.6	35.8	2	7.7	
Allowable Sale Quantity (ASQ)	4.8	24			

- P.3 Timber harvest will be used as a tool to manipulate vegetation in order to achieve a variety of resource desired conditions and management objectives, and to provide a source of products that contribute to local, regional, and national economies. Most common applications will include:
  - P.3.1 Over the implementation-life of the LMP, utilize restoration and thinning harvests in the ponderosa pine and warm-dry mixed-conifer vegetation types in order to reduce stand densities, improve stand composition and structure, and develop fuel profiles that achieve or maintain stand conditions more resilient to disturbance while, at the same time, providing forest products to local industry on approximately 30,000 to 40,000 acres.
  - P.3.2 Within 20 years, emphasize selective harvests in cool-moist mixed-conifer and Spruce-fir vegetation types in order to maintain or achieve desired stand conditions, reduce hazardous fuels, and provide forest products to local industry, on approximately 5,000 to 10,000 acres.
  - P.3.3 Within 20 years, utilize coppice harvest (clear-cuts with regeneration by sprouting) in aspen vegetation types on approximately 8,000 to 10,000 acres in order to maintain or develop desired age class diversity and patch size, regenerate declining aspen stands, and provide forest products to local industry.

#### LIVESTOCK AND RANGELAND MANAGEMENT

## **Program Emphasis**

#### **Rangeland Planning**

In order to meet national direction, NEPA analyses are slated for completion for all active grazing allotments by the end of FY 2009 for the BLM and FY 2010 for the USFS. NEPA decisions identify grazing actions, the need for rangeland improvements required to implement a proposed action, appropriate mitigation measures, and necessary monitoring activities so that outcomes trend towards desired conditions. Adaptive management tools should be used to improve on-the-ground management flexibility and extend the useful life of NEPA decisions. NEPA decisions may result in the modification and/or development of new Allotment Management Plans. Vacant allotments not initially analyzed under Rescissions Act planning or permit-issuance NEPA will be evaluated over the implementation-life of the LMP in order to determine their value for re-stocking, altering management, or closure and dedication to other uses or values.

## **Rangeland Monitoring**

Implementation monitoring, or annual short-term monitoring, determines whether or not guidelines and management practices are implemented. This will include, but is not limited to, annual allotment monitoring in order to determine if utilization guidelines have been achieved, range improvements have been constructed and/ or maintained to standards, actual use has been reported by grazing permittees, and pasture rotations have been followed (per Annual Operating Instructions). Effectiveness monitoring will help managers evaluate whether or not desired conditions are being achieved. Validation monitoring will help managers evaluate whether or not the information upon which guidelines and objectives are based is valid and correct (USFS 1996). On-the-ground indicators identified in Colorado State Public Land Health Standards (BLM 1997) are a frame of reference for determining whether or not management changes are necessary on public lands. Grazing allotments undergoing NEPA analysis and effectiveness monitoring on grazing allotments with a current NEPA decision will be monitoring priorities.

#### **Range Improvements**

Range improvement projects (including fences, water developments, noxious weed treatments, etc.), will be implemented, as necessary, in order to move the program toward satisfactory condition of rangelands and/or address other resource concerns. These projects would be described in site-specific NEPA documents.

## **Program Objectives - Livestock and Rangeland Management**

- Q.1 By the end of FY 2009 and FY 2010, complete NEPA on all active BLM and USFS allotments (as guided by BLM permit renewal schedules and the USFS Rescissions Act of 1995). Conduct periodic reviews of analyses and decisions in order to ensure that NEPA-based decisions stay current and sustainable for all permitted livestock grazing.
- Q.2 Annually, conduct prescribed monitoring activities on at least 10% of active allotments. Use the information to make adaptive changes to management. Implement adaptive management principles through allotment management planning decisions.
- Q.3 Within 15 years, all suitable rangelands within the planning area experience satisfactory rangeland conditions.

#### MINERALS AND ENERGY

## **Program Emphasis**

The minerals and energy program emphasizes the orderly and timely development of mineral and energy resources of the public lands in order to benefit the nation while, at the same time, protecting other resources. The potential for occurrence of mineral and energy resources within the planning area has been assessed, and this information is available to the public, government agencies, and industry. SJPL managers will respond to proposals from industry, and from the public, for exploration and development of mineral and energy resources in a timely manner. SJPL managers will foster the development of mineral and energy resources on the public lands in compliance with all applicable laws and policies, and with consideration for ecosystem health and sustainability.

Federally owned mineral resources are managed under three categories with differing sets of laws and regulations:

- Locatable Minerals: These are subject to claim under the Mining Law of 1872, as amended;
- Mineral Materials/Common Variety: These are disposable by discretionary direct sale or free use; and
- Leasable Minerals: These are subject to lease under the Mineral Leasing Act of 1920, as amended.

Locatable minerals (including precious and base metals), mineral materials (including sand, gravel, and construction stone), and some leasable minerals (including coal, uranium and phosphate) are extracted by mining methods. Due to the similarity in development techniques and environmental effects, these minerals are discussed below as Solid Minerals. The leasable non-solid or "fluid" minerals category includes oil, gas and geothermal energy. Due to the differing methods and effects of development for these minerals, these minerals are discussed below as Oil and Gas Geothermal Energy.

The DLMP meets direction for the Federal oil and gas leasing program contained in the Federal Onshore Oil and Gas Leasing Reform Act of 1987. This Act and its implementing regulations require analysis and disclosure in the DLMP/DEIS of public lands available for oil and gas leasing, and the identification of specific lease stipulations to be applied to leases. It also gives authorization to the BLM for offering of USFS lands for oil and gas leasing. The DLMP does not approve the issuance of, or authorization for, surface-disturbing exploration or development of oil and gas leases. It will also implement the policies of the Energy Policy Act of 2005.

## **Solid Minerals**

This part of the minerals and energy program emphasizes exploration, development, production, and reclamation activities for deposits of precious and base metals, as well as for certain valuable types of stone and rock. These minerals are "locatable," that is, they are subject to claim under the Mining Law of 1872, as amended. Unless withdrawn by law or administrative order, the SJPL are open to entry for exploration and development of locatable minerals. Those SJPL containing valuable deposits of these minerals will be subject to purchase (patent). The public has a statutory right to explore for, and develop, this mineral resource. The surface management agency regulates locatable mineral exploration and development activity. SJPL managers will process all Notices of Intent to Operate, and Operating Plans, within statutory time limits; resolve all non-compliant surface uses of mining claims under applicable law and policy; process applications for mineral entry where other resource values or uses are determined to be incompatible with, and of higher public need than, locatable mineral exploration and development.

Deposits of sand, gravel, and bulk stone are known as common varieties of mineral materials. These are considered to be part of the surface estate, disposable by sale or free use at the sole discretion of the SJPL managers.

Coal and some uranium deposits are subject to disposal by lease under the Mineral Leasing Act of 1920, as amended. Mineral leases for federally owned minerals will be issued by the BLM, in consultation with the USFS for NFS lands. Pubic lands within the planning area may not be leased or developed until the appropriate analysis under NEPA had been completed.

# Oil and Gas

This SJPLC program emphasizes the orderly and environmentally responsible development of oil and gas (natural gas and carbon dioxide) deposits. These minerals are subject to disposal by lease under the Mineral Leasing Act of 1920, as amended. Mineral leases for federally owned minerals are issued by the BLM, with consultation with the USFS for NFS lands. This LMP implements direction (under the Energy Policy Act of 2005 and the Federal Onshore Oil and Gas Leasing Reform Act of 1987) for leasing of public lands. USFS- and BLM-administered lands may not be offered for lease until the appropriate analysis under NEPA had been completed.

The DLMP/DEIS discloses the availability of public lands within the planning area for oil and gas leases, along with appropriate protective stipulations to be attached to leases (and under consent for BLM to offer USFS lands for lease). It does not issue leases or authorize surface disturbance. Those stages will require future NEPA analysis and decision.

## **Geothermal Energy**

This SJPL program emphasizes the orderly and environmentally responsible development of geothermal steam as an energy source. Geothermal energy is subject to lease under the Mineral Leasing Act of 1920, as amended. Mineral leases for federally owned geothermal energy will be issued by the BLM, in consultation with the USFS for NFS lands. Public lands within the planning area may not be leased or developed until the appropriate analysis under NEPA had been completed.

#### DESIGNATED ENERGY CORRIDORS AND LINEAR ENERGY TRANSMISSION AUTHORIZATIONS

#### **Program Emphasis**

Energy corridors have been incorporated into the DLMP as areas that are suitable in the West-Wide Energy Corridor (WWEC) Programmatic EIS for designation (under the Section 368 of the Energy Policy Act of 2005). These corridors are defined by a centerline and by a stated width that can be used for energy transmission projects. Within these areas, energy transmission projects would be an appropriate (suitable) use of land allocated to energy corridors. Project applicants would not be constrained to use an approved energy corridor, but would be encouraged to do so in order to streamline the regulatory process and/or reduce the timeframes that would be required in order to develop alternative alignment site proposals. Designating an energy corridor with a defined corridor centerline and width does not approve any specific project in the planning area. Specific energy projects will require a formal, agency-approved project right-of-way that will contain site-specific requirements. A ROW would occupy a smaller portion of any designated energy corridor, and the granting of a ROW will require site-specific environmental and engineering information.

## Program Objectives - Designated Energy Corridors and Linear Energy Transmission Authorizations

- R.1 Upon completion of the WWEC Programmatic EIS and ROD, designate a 1,320-foot wide corridor (as directed under Section 368 of the Energy Policy Act of 2005) with the centerline of the Trans-Colorado Natural Gas Pipeline.
- R.2 Designate a 2,600-foot wide corridor (as directed under Section 368 of the Energy Policy Act of 2005) with a centerline following the Montrose/San Miguel County Line from the Tri-State Gas and Electric Nucla-Cahone 245 KV Electric Transmission line to the Trans-Colorado Natural Gas Pipeline Corridor upon completion of the WWEC Programmatic EIS and ROD (corridor is for electric transmission only).

## ABANDONED MINE LANDS AND HAZARDOUS MATERIALS

## **Program Emphasis**

The SJPLC will continue to update the inventory of abandoned mine sites within the planning area in order to identify, prioritize, and track reclamation needs and progress. Reclamation of abandoned mine lands will be prioritized based on the degree of threat to human health, the environment (especially to water quality), and public safety. Known physical hazards at abandoned mine land (AML) sites will be remediated, with the highest priority given to sites near high visitor use areas (including developed campgrounds and recreation areas), sites located near residences on adjacent private property, sites impacting water quality, and sites close to frequently traveled roads on the SJPL.

All mine reclamation and emergency response actions for releases of hazardous substances will be conducted in accordance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). Closure actions related to physical hazards will be conducted under NEPA. Precautionary measures will be taken in order to guard against releases and/or spills into the environment for all authorized USFS-and BLM-authorized management activities that involve hazardous materials or their use. Hazardous materials and waste management policies and controls will be integrated into all SJPL programs.

## **Program Objectives - Abandoned Mine Lands and Hazardous Materials**

- S.1 Annually, stabilize, rehabilitate, or restore 5 acres or more of abandoned mine lands on priority sites (as determined by SJPL managers and local stakeholders groups) in order to reduce heavy metals and other pollutants to area streams.
- S.2 Annually, close or mitigate 1 or more abandoned mine site(s) that pose a high safety hazard to the visiting public and/or to employees.

#### LANDS AND SPECIAL USES

#### **Program Emphasis**

The lands program emphasizes several related activities, including land ownership adjustments, land use and access, and land withdrawals. Program emphasis includes:

- facilitation of the efficient and effective management of the public lands;
- ensuring that the wide and growing variety of demands by the public; commercial interests; State and other Federal agencies; and tribal and local governments are compatible with environmental protection;
- managing the legitimate needs for access to public and private lands, and
- meeting legal requirements for specific resource protection.

#### **Program Objectives - Lands and Special Uses**

- T.1 Annually, survey and post 5 miles of boundary of special areas (including designated Wilderness Area lands).
- T.2 Annually, survey and post 5 miles of property line adjacent to private land and boundaries, where trespass or encroachment is most likely.
- T.3 Annually, acquire 2 new road and trail ROWs for high-priority access or to fill gaps in existing access to public lands.
- T.4 Over the implementation-life of the LMP, review 100% of existing withdrawals by non-SJPL agencies and resolve all resulting need to continue, modification, or revocation withdrawals.
- T.5 Within 5 years, cooperate in improvement of (and convey to appropriate county jurisdiction) 1 highpriority road within the planning identified as dominantly non-SJPL access use.