April 20, 2018

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Sent via email

Re: Manti-La Sal National Forest Needs for Change and Desired Conditions

Dear Tami and Forest Planning Team,

Below, the undersigned nine organizations offer our proposed Needs for Change and Desired Conditions as a contribution under the 2012 Planning Rule's broad commitment to engaging the public throughout the plan revision process. As we have noted to the Forest Planning Team since the July/August 2016 Open Houses, and in a 2016 meeting with Forest Supervisor Mark Pentecost, we will be submitting a comprehensive alternative for consideration within the EIS process for the plan revision.

In June 2017, the Planning Team released its Preliminary Needs for Change, but has not yet issued proposed Desired Conditions. The Objectives, Standards, and Guidelines we will be proposing within our alternative will be designed to address the Needs for Change and to achieve the Desired Conditions we list below. These Needs for Change and Desired Conditions address each of the 13 themes that the Forest has indicated the forest plan revision will address.

As the Planning Team develops Draft Desired Conditions, we hope you will consider those we propose in the document below. We would very much appreciate your thoughts on the changes that we suggest are needed from the 1986 Manti-La Sal forest plan, and the proposed Desired Conditions.

Sincerely,

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Proposed Needs for Change and Desired Conditions
Manti-La Sal National Forest Plan

Grand Canyon Trust • Great Old Broads for Wilderness
Southern Utah Wilderness Alliance • Utah Chapter Sierra Club
Western Resource Advocates • Western Watersheds Project
WildEarth Guardians • Wild Utah Project • Wildlands Network

April 20, 2018

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Access and Transportation

I. Needs for Change - Access and Transportation

There is a need to:

- Create appropriate and sustainable frameworks for site-specific decision making, public involvement, and implementation of the upcoming Travel Management Planning process.

- Implement creative new approaches for managing roads and trails, given the reality of limited maintenance funds combined with the public's desire for access - both non-motorized and motorized – to and throughout the forest;

- Recognize the holistic nature of the Forest plan and overcome artificial segmentation between issues by planning for the strong nexus between access and transportation infrastructure and recreation, including non-motorized transportation infrastructure;

- Provide guidance for establishing limits on user groups' ever-expanding desire for additional trails infrastructure for their specific uses, including mountain bikes and OHVs;

- Avoid adding illegally constructed trails to the transportation system;

- Include new methods and strategies to enforce violations, both by type of use (UTVs vs. ATVs), and illegal use off designated routes, and incursion on closed roads and trails;

- Provide strong plan guidance, coupled with community education, peer enforcement mechanisms, and an enhanced fine structure for willful violators;

- Identify and achieve the minimum road system;

- Create a planning framework to remove unneeded roads (as determined by the TAR) and remove unauthorized roads to enhance the forest's ability to adapt to climate change, and eliminate the greatest conduit for invasive plant species;

- Create a planning framework to identify roads-associated impairment of watersheds, especially those identified by the roads and trails indicator under the Watershed Condition Framework and for 303(d) impaired listed streams;

- Adopt road and route density standards (that include system roads and motorized trails) to ensure environmentally sustainable road system;

- Provide for fish passage;

- Address climate change, with more precipitation falling as rain rather than snow, and how that can change road impacts; and

- Identify a planning framework to implement the most ecologically, economically and socially sustainable road system in terms of access for recreation, research and other land management activities. (Subpart A of the Travel Mgmt Rule, 36 CFR 212.1 et seq.).

One 1986 plan component that should not change is a goal to "[r]educe total road miles while emphasizing improvement on remaining miles."

II. Desired Conditions – Access and Transportation

Roadless Areas

Human impacts from roads and motorized access/recreation are minimal or non-existent. Biological strongholds are increased because natural disturbance regimes are minimally impeded, and key habitats are unfragmented by roads.

Roadless Areas serve vital roles by providing:
- undeveloped lands;
- biological strongholds for many species, from wide-ranging large carnivores down to tiny invertebrates and endemic species with narrow and specific habitat requirements;
- large, remote areas where vital natural disturbance regimes (fire, insect infestation, etc) are less impeded;
- important plant and animal habitat unfragmented by roads;
- movement corridors for wildlife;
- reduced harassment of wildlife;
- reduced vandalism and unintentional degradation of cultural resources;
- near-elimination of creation of user-created routes and roads impacts;
- connections with roadless or protected areas in adjacent BLM, USFWS, UDWR, NPS and other public lands;
- a heightened chance for sustaining biodiversity within historical range of variability;
- a reference comparison to roaded areas;
- reduced introduction of exotic and invasive species;
- heightened protection of Forest watersheds, including culinary watersheds;
- opportunities for solitude and primitive types of recreation;
- undeveloped and natural or natural appearing landscapes;

- undeveloped buffers for the primitive outdoor laboratories of Research Natural Areas; and
- reduced construction, maintenance, and management costs.

Transportation

Travel management planning, though separate from Forest Planning, creates a travel and recreation system that provides appropriate access to public lands and contributes as needed to the regional transportation system while also ensuring that biodiversity, wildlife habitat condition, a diverse range of recreational opportunities, and overall landscape condition and function are maintained or improved. A comprehensive and responsible travel management plan considers a full range of cumulative factors at the local and landscape scale.

- The "minimum road system" necessary to meet the need for safe and efficient travel and for administration, utilization, and protection of Forest lands and resources is achieved.

- The system of roads, routes, trails and designated undeveloped dispersed campsites, is safe and environmentally sound; responsive to public preferences; and efficient and affordable to manage.

- The system provides public access for recreation, special and permitted uses, and fire protection activities and supports other Desired Conditions.

- The system is well maintained. Unnecessary and unauthorized roads, routes, trails, and inappropriate dispersed campsites are actively removed and restored, and the surrounding landscape is restored passively, or if necessary, with active intervention, to restore natural hydrologic conditions.

- The wild character of all roadless areas (including citizen inventoried roadless areas) and primitive and semi-primitive non-motorized areas) is preserved.

- No net new permanent roads are constructed.

- Dead-end motorized routes that invite unauthorized route creation, are reduced or eliminated.

- An environmentally sustainable, integrated system of backcountry, and frontcountry urban, and rural nonmotorized trails is maintained.

- Emphasis for maintenance is placed in the frontcountry, where users desire and more frequently use motorized and non-motorized trails.

- The system accommodates a range of experience in high-quality settings, and is managed to minimize conflicts while providing opportunities for partnerships, learning, stewardship and mental and physical renewal for a diverse visitor population.

- Day use "loop" trail opportunities in frontcountry settings are increased where they can be sustainable.

- Motorized travel occurs only on system roads, routes, and trails.

- Off-road vehicle trail systems provide a range of recreation opportunities and experiences for ORV enthusiasts through an integrated system of primitive routes, motorized trails, and operation and maintenance level 2 roads.

- Only those roads and routes are designated that the Forest has the personnel and resources to monitor, maintain, and enforce use restrictions.

- Wildlife species and other natural and cultural resources are protected by a scientifically-informed and sustainable travel system, minimizing damage to important natural and irreplaceable cultural resources.

- No new motorized trails are constructed unless replacing and eliminating less ecologically sound motorized trails.

- All temporary roads are removed and the lands and waters on which they were located are restored to natural conditions within one year of the completion of the purpose for which they were established.

- Summer and winter motorized cross-country travel for recreational purposes is not permitted. Recreational use of off-road and over-snow vehicles is limited to designated roads.

- Categorical exclusion authority is used to expedite the removal of unneeded roads.

- Unauthorized routes and unneeded roads that are posing a risk to water quality are prioritized for decommissioning.

III. MLNF 2017 Preliminary Need for Change – Access and Transportation

There is a need for new approaches for managing infrastructure—roads and trails—given the reality of limited maintenance funds combined with the public's desire for access to the forest. This may include considering expanding partnerships for road and trail maintenance, establishing priorities for maintenance to minimize or mitigate

resource damage, and promoting public safety. This could involve reducing service levels on low-use roads, or decommissioning them, while maintaining access for non-motorized uses.

IV. MLNF 1986 Forest Management Plan

- *The transportation system would be safe, functional, economical, and environmentally acceptable. Road construction, reconstruction, surfacing, operation and maintenance for coal, gas, oil and uranium exploration, development and production would be coordinated with other resource activities.*

- *The basic arterial and collector, as well as the local system serving major rural recreation sites, would be constructed, reconditioned, and/or surfaced, and then maintained to carry passenger traffic at level 3 or higher maintenance for the intended season of use. This reconstruction and 20 percent of the surfacing placement should occur in the first 10 years. The remainder of the surfacing should be placed in the second 10 years.*

- *The remainder of the local system would be evaluated and substandard roads rebuilt to standard or abandoned as determined in the road management program. Management of local roads would include intermittent restrictions of road use, vehicle type or loading restrictions, and weather restrictions as necessary to maximize access while minimizing maintenance costs, roadway damage, and environmental damage. Local unrestricted roads would be travelable by high clearance vehicles at level 2 for the intended season of use. Reconstruction of the local system would occur during the second 10-year period, except where required for timber or mineral access. This could occur in the first 10-year period.*

- *After the first 20 years, road construction would consist of that necessary for support of timber and some mineral activities, mostly temporary roads. In conjunction with maintenance activities, an ongoing surface replacement program of 29 miles per year would be required.*

Areas of Tribal Importance

I. Needs for Change - Areas of Tribal Importance

This plan revision process represents an outstanding opportunity for the Forest to develop real government-to-government relationships with Tribes, to the mutual benefit of both people and the resource.

There is a need to:

- Engage with sovereign Native Nations to the same degree that the Forest has engaged with the State of Utah, and to a greater degree than with individual counties. The states, the federal government, and Tribes are all sovereigns under the U.S. Constitution, and the planning process must better recognize and proceed in keeping with Tribal sovereignty.
- Articulate a framework for development of solid contacts and real working relationships between the Forest and Tribal Natural Resource, Cultural, and Historic Preservation Offices.
    - The MLNF must establish working relationships with both elected leaders (which rotate) and Tribal Historic Preservation Office (THPO) staff (which can be more permanent.)
- Notify and regularly update Tribal political and cultural leaders.
- Make enquiries with Tribes and THPOs regarding the suitability of the involvement of elders and cultural and spiritual leaders in planning in order to fully divine the spiritual and traditional importance of the cultural sites and cultural landscapes found on MLNF.
- Meet with the Bears Ears Tribal Commission (established by the Bears Ears National Monument Proclamation of December 26, 2016)
- Reach out to Native Nations separately for plan revision, including the Ute Tribes (Ute Indian Tribe, Ute Mountain Ute Tribe, and Southern Ute Tribe), Paiute Tribes, Apache Tribes, Navajo Nation, Hopi Tribe, Pueblo of Zuni, and other Rio Grande Pueblos.

II. Desired Conditions – Areas of Tribal Importance

- Sovereign Native Nations are engaged by the MLNF to the same or a greater degree as engagement with the State of Utah.
- Solid working relationships exist between the Forest and Tribal Natural Resource, Cultural, and Historic Preservation Offices.
- The Forest meets with the Bears Ears Commission of Tribes at times requested by the Commission, and at times requested by the MLNF.
- Relationships are established and meaningful and thoughtful consultation is occurring with elected and cultural leaders from many Native Nations, including, but not necessarily limited to: the Ute Tribes (Ute Indian Tribe, Ute Mountain Ute Tribe, and Southern Ute Tribe), Paiute Tribes, Apache Tribes, Navajo Nation,

Hopi Tribe, Pueblo of Zuni, and other Rio Grande Pueblos regarding protection and management of areas of tribal importance.

- Forest staff members are trained in historical, legal, and cultural perspectives of Native American Tribes.
- Cultural, historic, and spiritual values are respected and integrated into Forest decisions and actions. These values are sustained so that they may be enjoyed by and serve as educational opportunities for future generations.
- Sacred sites are revered and protected in keeping with the American Indian world view that while all elements of the landscape are endowed with spirit and meaning, certain sites hold particular sacredness.
- The sacred roles of certain geologic features, springs and streams, plants, and wildlife are facilitated and protected by the Forest.
- The Forest recognizes the validity of tribal invocation of traditional sacred ecological stances toward their ancestral lands and cultural patrimony within the Forest.
- Cultural continuity, and ultimately, tribal wellness are promoted by preserving and restoring land, wildlife, and natural resources as a sanctuary for spiritual and cultural renewal.

III. MLNF 2017 Preliminary Need for Change – Areas of Tribal Importance

There is a need for management approaches that integrate forest restoration and tribal needs, for working across boundaries in partnership with tribes to manage landscapes, and to address threats to tribal resources to meet common objectives

IV. MLNF 1986 Forest Management Plan

[Areas of Tribal Importance was not a topic within the 1986 Forest Plan]

Climate

I. Needs for Change - Climate

There is no more urgent need than to adjust management to support the species, ecosystems, and natural functions of MLNF as they face the increased heat, drought, and the associated cascade of impacts associated with climate change.

There is a need to:

- Manage first and foremost for adaptation to new conditions by promoting natural resistance to change, and resilience in the face of change and prioritizing response options that facilitate the transition of forests to new and more resilient conditions.
- Rethink the management of multiple uses that, together with climate change, have cumulative impact on natural resources values and implement measures to reduce these additive consequences.
- Design management actions as experiments in order to determine which management actions are accomplishing desired conditions, because climate is unpredictable.
- Develop criteria to distinguish between conditions that warrant management intervention to support resilience, and novel conditions that are being established under a warmer climate or post-disturbance in a warmer climate.
- Consider assisted migration and determine if and when the MLNF should move lower elevation sensitive species to higher elevation.
- Encourage scientists to study how climate change is influencing the MLNF, separately and in concert with multiple uses.
- Thin overcrowded forests and utilize prescribed fires to restore natural fire regimes.
- Manage MLNF for carbon sequestration, including reducing the occurrence of catastrophic wildfire and limiting fossil fuel extraction.

II. Desired Conditions – Climate

- Management focused on restoration and maintenance of natural processes is creating and maintaining ecosystem conditions that are more resilient to the effects of global warming. As a result, ecosystems and species are responding as naturally as possible to climate change.

- The MLNF has identified biological and functional values most at risk to the effects of increased heat, reduced water, and increased fire, and is implementing corresponding mitigation measures.

- Multiple use management is being adjusted in light of diminished resource availability due to a warming climate, and heightened resource vulnerability to drought and heat.

III. MLNF 2017 Preliminary Need for Change – Climate

There is a need to consider how management guidance, emphases, and monitoring dovetail with various aspects of the climate, including the effects on types and frequency of wildfire and management methods to adapt to climate dynamics.

IV. MLNF 1986 Forest Management Plan

[Climate change was not a topic within the 1986 Forest Plan]

Cultural and Historic Resources

I. Needs for Change - Cultural and Historic Resources

There is a need to:

- Update plan direction to stabilize, preserve, interpret, and protect historic and sensitive properties (e.g., archaeological sites, historic structures, and traditional cultural properties)
- Incorporate into cultural site management the reality that Native American sites may involve landscape features beyond a specific human artifact.
- Develop closer, deeper, and more substantial relationships with Native Nations with regard to management of sensitive and irreplaceable resources.
- Identify sites that may be appropriately stabilized, interpreted, and managed for visitor use with minimal impact, while managing other sites may not be suitable for visitation appropriately
- Establish and maintain close relationships with Native Nations whose members identify with these resources to guide plan strategies for cultural resource management.
- Include guidance and a timeline for the completion of cultural and historic resource inventories, in close consultation with Tribes and Native archaeologists where appropriate.

II. Desired Conditions – Cultural and Historic Resources

- Cultural and historical resources remain intact and offer scientific, recreational, as well as spiritual opportunities to the public.
- Cultural site management utilizes the understanding that Native American sites may involve landscape features beyond a specific human artifact
- The condition of cultural and historical sites and the intensity of disturbance to sites are known. Illegal disturbances are rare.
- The opportunity exists for a sense of discovery when visitors encounter remote cultural resource sites on the forest and find neither evidence of recent looting or vandalism, nor evidence of illegal motor vehicle trespass.
- Alterations of surrounding environment or setting caused by livestock grazing and vegetation manipulation are limited.
- Remote sites remain accessible only by foot or horseback.
- While cultural resources are available for scientific study, these studies are benign and do not alter a site significantly.
- Protection of cultural sites takes precedence over resource-consumptive activities, and includes a volunteer monitoring program.
- Visitors see no evidence of recent looting, vandalism, motor vehicle trespass, or livestock grazing. Soil and vegetation surrounding sites remain intact and not compacted.

- To the extent that education is consistent with protection, significant pioneer sites are protected and maintained in their historic settings for public education about human presence and impacts to the extent that education is consistent with protection.
- Recreational visitation occurs where cultural and historic resources are maintained or stabilized sufficiently to preclude further damage.
- Unstable sites are not publicized and rarely found by visitors.
- Ethical site stewardship awareness is widespread among visitors, and visitors take responsibility for the preservation of cultural and historical resources on public lands.
- The Forest is implementing Heritage Stewardship Partnerships with Tribal governments, the State Historic Preservation Office and State Archaeologist, with other State and Federal agencies, and with private stewardship organizations to conduct educational efforts promoting understanding of issues related to the Forest and its unique cultural and historical heritage.
- Partnerships promote minimal impact research and preservation techniques, and maintain and/or reclaim sites and areas of concern.
- Partnerships assure that cultural, historic, and spiritual values are respected and integrated into decisions and actions, and are sustained for the enjoyment and educational opportunities for future generations.
- Partnerships enable the Forest to have a firm understanding of the cultural resources that exist within their jurisdiction, and acknowledge that Native American sites, places, and resources are a living part of Native American tradition and culture, not static pieces of the past; and that Native American sites may involve landscape features beyond a specific human artifact.
- Forest users are provided with opportunities to learn about the ecological, biological, cultural, physical, geographical, and historical stories that constitute the unique life of the Forest. Forest users learn more about their relationship to the Forest each time they visit.
- The rights of Native Americans to gather foods for consumption and sacred materials for ceremonies are protected where and when so doing is compatible with long-term sustainability of the Forest's full complement of native species and food webs.
- Both recreational and commercial vegetation/food gathering are allowed within limits imposed by resource sustainability requirements.
- Permitted harvesting diminishes neither the productivity of Forest vegetation nor sustainable reproduction of the harvested species.
- Sacred sites are revered and protected in keeping with the American Indian world view that while all elements of the landscape are endowed with spirit and meaning, certain sites hold particular sacredness.
- The sacred roles of certain plants and wildlife are facilitated and protected by the Forest.

III. MLNF 2017 Preliminary Need for Change – Cultural and Historic Resources

There is a need for updating plan direction to stabilize, preserve, interpret, and protect historic and sensitive properties (e.g., archaeological sites, historic structures, and traditional cultural properties).

IV. MLNF 1986 Forest Management Plan Desired Conditions - Cultural and Historic Resources

Cultural, historical, and paleontological resources would be protected from resource disturbing activities and vandalism. Exceptional suitable sites should be interpreted and made available for general public viewing and, as appropriate, nominated to the National Registerl

Energy and Minerals

I. Needs for Change – Energy and Minerals

There is a need to:

- Require public assessment of the climate change impacts associated with every energy and minerals project.
- Require public assessment of the social cost of carbon associated with all fossil fuel projects.
- Review management options that authorize minimal or no fossil fuel extraction and result in minimal or no emissions or air pollution, including GHGs.
- Address desired conditions for potential future proposals for transmission corridors and renewable energy generation, including wind, solar, biomass, and geothermal, while protecting natural resources, wildlife migration corridors, heritage and sacred sites, traditional tribal activities, and scenery.
- Prevent or minimize surfaces uses relating to coal mining and protect air quality, water quality, watershed health, habitats, soils, cultural resources and recreation from impacts of coal mining.

I. Desired Conditions – Energy and Minerals

- The social costs of all fossil fuel extraction projects have been assessed according to best available, scientifically, and economically sound procedures, and have been made available for public review and input.
- Adverse effects to aquatic and other riparian dependent resources from mineral operations and renewable energy generation are avoided. Activities that retard or prevent attainment of aquatic conservation objectives in the short or long term are not allowed.
- Management areas are designated where mineral entry, transmission corridors, or other surface occupancy is prohibited where such action is deemed necessary to meet the objectives of the management area.
- Areas are not authorized for new oil and gas leasing where such action is deemed necessary to meet the objectives of the management area.
- Existing mining claims are acquired as necessary to meet the objectives of the management area and Forest Plan.

- Reclamation provisions of operating plans and surface use plans of operation are completed to standard and according to best management practices.

- Adverse effects to wildlife and wildlife habitat from mineral operations or renewable energy projects are avoided. Activities that retard or prevent attainment of wildlife conservation objectives in the short or long term are not allowed.

- The MLNF implements withdrawals and non-waivable No Surface Occupancy (NSO) lease stipulations to protect highly valued and special interest lands, including roadless and riparian areas, and to safeguard areas with special features such as steep slopes and sensitive soils.

- In areas open to surface occupancy, various non-discretionary protective measures – either special stipulations or standard stipulations – are enforced to protect viewsheds, wildlife habitat, soils, water quality, air quality, cultural and scenic resources, and other natural resource values.

- The relative scarcity of the values involved and the availability of alternative sites for those values are considered in all energy and minerals management decisions.

- Where appropriate to protect other resources, areas currently leased are removed from leasing. The existing leases may either simply expire without incident and not be reissued, or, should the leaseholder file an Application for Permit to Drill (APD), may be suspended pending further consideration of the area's resource values.

- The national interest in certain lands, the importance of their preservation, and their unique beauty and wildlife habitat all justify the purchase or exchange of lease parcels.

III. MLNF 2017 Preliminary Need for Change – Energy and Minerals

- *Minerals and energy management guidance is needed for locatable minerals (hardrock and placer), leasable minerals (conventional oils and gas, and coalbed methane), mineral material resources, and related transmission corridors.*

- *There is a need to review coal leasing unsuitability criteria and determine if any additional lands are unsuitable for leasing or if any previously identified suitable areas are now unsuitable.*

- *There is a need to incorporate estimates of remaining recoverable coal reserves; review and clarify/update coal stipulations; and identify areas for withdrawal as appropriate*

- *There is a need for desired conditions that address potential future proposals for transmission corridors and renewable energy generation, including wind, solar, biomass, and geothermal, while protecting natural resources, heritage and sacred sites, traditional tribal activities, and scenery*

IV. MLNF 1986 Forest Management Plan Desired Conditions –Energy and Minerals

COAL

- *Proposed coal lease tracts would be identified based on expressions of interest from coal development companies.*

- *Leasing would be considered and cleared, eliminated, or delayed for tracts within the Coal Development Potential Area that have been determined to be available for coal leasing based on application of the coal lease unsuitability criteria and multiple-use management decisions.*

- *Cleared tracts would be available for leasing subject to the mitigating requirements determined through the multiple-use management and environmental assessments.*

- *New mines would be expected to develop on existing as well as new leases and coal production would increase.*

- *Coal exploration, including new exploration of potential lease areas and obtaining additional geologic data for existing mining operations, would increase proportionately with new leasing and increased production.*

- *Subsidence and the resource monitoring programs, required for approval of mine plans, would provide necessary data to create models for predicting subsidence and the related impacts for evaluating future leases and/or mining operations.*

Oil and Gas

- *Oil and gas leases would be issued except in the Dark Canyon Wilderness Area. Leases would contain necessary stipulations to minimize or eliminate adverse impacts on other resources and resource uses that could be caused by exploration and development.*

- *Lease exploration and development activities would be evaluated on a case-by-case basis. Recommendations for project approval would be developed through site-specific environmental analyses.*

Locatable Minerals

- *Areas not withdrawn from locatable minerals location would be open and available for prospecting and development of mining claims. However, locatable mineral withdrawals and the Dark Canyon Wilderness Area would be subject to valid rights.*
- *Surface disturbing mining claim exploration and development activities would be evaluated and approved subject to site-specific environmental analyses.*

Common Variety Minerals

- *Common variety minerals would be developed and disposed of based on need and site-specific environmental analyses.*

Geophysical And Geochemical Exploration

- *Geophysical and geochemical exploration proposals for geologic and mineral exploration would be evaluated by site-specific environmental analyses, and approved with appropriate stipulations, or denied.*

Forest Vegetation

I. Needs for Change - Forest Vegetation

There is a need to:

- Establish the *Salicaceae* (i.e., aspen, cottonwood, and willow) as a focal species.
- Focus forest restoration on forest condition due to or exacerbated by forest management and uses that can be changed rather than on inexorable changes in forest composition and/or condition due to climate change.
- Establish, study and compare untreated to treated areas when the Forest Service applies any forest restoration treatment the success of which has not been documented.
- Identify specific, measurable predicted outcomes and triggers for adaptive management before forest treatments are undertaken.
- Provide direction for achieving sustainability, resiliency, and for minimizing risks to native vegetation and its composition and structure (including old growth, snags and downed woody material). This includes restoring natural disturbance cycles (e.g., fire and insects) where appropriate.
- Develop desired conditions regarding native vegetation structure, composition, and function, as well as objectives, standards, guidelines and management approaches that will promote ecological restoration, support resilience and sustainability, and minimize risks to ecosystem integrity amid climate change.
- Eliminate post-fire logging, except on a site-specific basis where, based on best available science, such logging is predicted to be more beneficial to soil, wildlife, and post-fire vegetation than passive restoration.
- Acknowledging that economic factors outside the control of the MLNF, remove the standard of maintaining the local timber industry.
- Maintain untreated controls for comparison with treatment outcomes whenever the outcomes are uncertain.
- Emphasize treatment by natural fire and ecological restoration (e.g., small-diameter thinning)
- Explicitly and publicly examine wildlife connectivity prior to vegetation treatments.

- Explicitly incorporate quantitative standards for riparian palatable woody browse and recruitment in riparian management.

- Base aspen management on the revised, consensus *Guidelines for Aspen Restoration on National Forests in Utah* (2017 draft completed; awaiting final approval by the Utah Forests Restoration Working Group; will be published by USFS Rocky Mountain Research Station]

- Base riparian forest restoration on the consensus riparian forest restoration recommendations being developed by the Utah Forests Restoration Working Group; recommendations due for completion by May 2018]

II. Desired Conditions – Forest Vegetation

Species of Conservation Concern

- Species of concern are monitored regularly and populations are stable or increasing.
- Habitat conditions favor reproduction in all populations of all plant species of concern.
- Where historically supported plant species (including their pollinators) are in decline, degraded habitat is restored.

Insects and Disease

- Insect epidemics are occurring within a range of frequencies, severities, and extents that maintain the long-term resilience of forests, and are often related to climate variability.
- Forests and woodlands are experiencing low levels of insect epidemics punctuated by periodic outbreaks.
- Forests are in varying stages of recovery from insect epidemics, creating a mosaic of forest patterns and structures.
- Periodic insect outbreaks are providing important food source for wildlife, and standing dead and down trees resulting from insect outbreaks are providing habitat for wildlife.
- Insect and disease epidemics are playing a critical role in the ecology of forests in southern and central Utah.

Alpine Communities

- Alpine communities are exhibiting minimal impacts from human uses, including non-native or artificial populations of ungulates.
- Maximum alpine native biological diversity is retained.

- Contractions in species' ranges and populations in response to climate change are not exacerbated by human uses or exotic species.

Spruce-Fir

- Spruce-fir forests are constantly changing and are highly variable from place to place.
- Principal natural disturbances including infrequent, high-severity fires; insect population eruptions; and windthrow are occurring at intensities, extents, and frequencies characteristic of spruce-fir forests.
- Spruce-fir forests form a mosaic of stands in varying stages of recovery from natural disturbances.
- Forests are becoming less fragmented, and aspen is regenerating successfully after disturbance where it is eventually invaded by spruce-fir.
- Forest mosaics are supporting viable populations of native species in increasingly natural patterns of distribution and abundance.

Aspen

- The spatial extent of both persistent and seral aspen forests of diverse heights is increasing.
- Most seral and persistent aspen sprouts are successfully recruiting above 6 feet.
- A diversity of native grasses, forbs, shrubs, and aspen sprouts are comprising the understory. Periodic fires of size and severity sufficient to stimulate regeneration are converting mid- and high-elevation aspen and mixed conifer forests to aspen where aspen is seral to those forests.
- Conifer invasion in seral aspen forests is not facilitated by ungulate grazing.
- Old aspen forests, including snags, are conserved and are providing unique and valuable habitat to a diversity of characteristic wildlife.
- The resulting forest mosaics are supporting viable populations of native species in increasingly natural patterns of distribution and abundance.

Mixed Conifer

- On drier sites, large and old fire adapted trees, such as Douglas fir and ponderosa pine, dominate mixed conifer forests.
- On cooler, wetter, and higher elevation sites, mosaics of denser, multi-layered forests in varying stages of recovery from disturbance are dominated by white fir and Engelmann spruce.
- Periodic fires, including infrequent crown fires, along with windthrow and insect epidemics, are maintaining the forest mosaic, and creating abundant habitat for wildlife in the form of snags, downed logs, injured trees, and in some locations, new aspen stands.

- Non-native plants and animals are either absent or their numbers are declining as they are replaced by native species.
- Old growth mixed conifer forests are providing habitat for viable populations of native species dependent upon that habitat.
- Over time, forest mosaics are supporting viable populations of native species in increasingly natural patterns of distribution and abundance.

Ponderosa Pine

- Ponderosa pine forests are dominated by large and old trees, which are protected from cutting.
- The density and relative abundance of large ponderosa pine trees within stands is increasing.
- Periodic surface fires are thinning seedlings and small trees, recycling nutrients, promoting understory growth, and creating and maintaining habitat for wildlife as snags, downed logs, and burned out root holes.
- Non-native plants and animals are either not present, or their numbers are declining as they are replaced by native species.
- Old growth ponderosa pine forests are providing habitat for viable populations of old growth-dependent species.
- Old growth forests are identified, mapped, and protected from harvest and any other uses that threaten their integrity and the viability of species who occupy them.
- Over time, forest mosaics are supporting viable populations of native species in increasingly natural patterns of distribution and abundance.

Meadow/Tall forb

- Tall forb meadows are forming an important part of the subalpine mosaic with spruce-fir forests, aspen, and mixed conifer.
- Bare ground is decreasing, and the proportion of a diversity of tall, succulent, native forbs is increasing.
- Over time, the extent of tall forb meadows is increasing, as they replace encroaching conifers destroyed during fires.
- The mosaic of forests and tall forb meadows is providing viable populations of native wildlife in natural patterns of distribution and abundance.

Mahogany Woodlands and Shrublands

- Mahogany woodlands and shrublands are forming relatively stable vegetation along ridges, rim rock slopes, rocky outcrops and canyon escarpments.
- Over time, infrequent, small fires are maintaining a mosaic of overstory and native shrubs, grasses and forbs.

- The resulting mosaic is maintaining viable populations of native species in natural patterns of distribution and abundance.

Gambel Oak/Mixed Shrublands

- Gambel oak shrublands are forming extensive matrix habitats at mid elevations. Periodic fires are maintaining a mix of seral stages.
- The coverage of native understory is increasing, and the frequency and extent of invasive and non-native plants is decreasing.
- Oak shrublands are providing important habitat elements, like snags and downed logs for resident, seasonal and migratory wildlife.
- The mosaic of vegetation resulting from fires and other natural processes is resulting in viable populations of native species occurring in natural patterns of distribution and abundance.

Pinyon/Juniper

- Pinyon and juniper are forming extensive woodlands in lower and mid elevations throughout the MLNF where historically present.
- Woodland structure and composition are highly variable by site and disturbance history.
- Periodic droughts are causing dieback among pinyon trees, followed by pinyon recruitment from seed caches and other sources where site conditions and climate are favorable.
- In high elevation woodlands mixed with ponderosa pine and other conifers, surface fires are maintaining robust native grasses.
- Where appropriate, drought and fire killed trees are providing a source of fuel wood for local communities.
- Throughout the pinyon-juniper communities, the extent and related effects of invasive plants is decreasing.
- Over time, the ever-changing mosaic of woodlands is resulting in viable populations of native species occurring in natural patterns of distribution and abundance.
- Native forbs, grasses, and shrubs associated with pinyon and juniper dominate the understory.

Sagebrush

- A variety of sagebrush species are thriving on the Forest as unfragmented and diverse plant and wildlife associations, existing on sites of differing moisture, soils, and disturbance.

- Native perennial grasses, forbs, and biological soil crusts are increasing, with native composition and cover moving toward reference area conditions.
- Adequate native vegetation is rendering the sagebrush communities more resistant to invasion by exotic species.
- Passive recovery of impaired sagebrush associations is occurring, acknowledging that long time periods may be required for restoration and for protection of sagebrush-obligate birds.
- Sagebrush wetlands (meadows adjacent to springs, seeps, streams, and ponds) are protected from trampling and compaction.
- In all sage grouse breeding habitats, sagebrush communities remain undisturbed by mechanical removal or prescribed fire, and wildfires are suppressed.
- Soil is being retained, and overland flow is decreasing.
- Fragmentation of sagebrush habitat with powerlines, roads, oil and gas development, water developments, fences and other developments is minimized for protection of sagebrush-dependent birds from predators.
- Residual grass height is >18 cm (7 inches) and sagebrush height is increasing, resulting in less predation of sage grouse and increased suitability of habitats for several other sagebrush species.

Riparian Ecosystems

- Riparian vegetation throughout the forest is a diverse mix of native species and structural stages linked to both stream and upland conditions.
- Riparian area vegetation includes but is not limited to all ages of native conifers, aspen, willows, box elder, maple, dogwood, birch, alder, cottonwoods, sedges, rushes, and native grasses.
- Stream edges are shaded by overhanging grasses, forbs and shrubs within 1' of the water surface that provide shading and security habitat for in-stream organisms such as juvenile fish.
- Woody vegetation provides a full range of size/age classes, habitats for aquatic- and riparian-associated wildlife, stream shading, snags and down logs.
- Instream flows are sufficient to create and sustain riparian, aquatic and wetland habitats and to retain natural routing of sediment, nutrients and wood densities, composition, and structure of native vegetation are improving.
- Riparian vegetation composition, structure, canopy, bank and ground cover are similar to relevant riparian reference areas.
- Streams are reconnected with natural floodplains where possible; beavers play an increasing role in expansion of riparian and wetland vegetation.
- The riparian areas of perennial and intermittent streams, seeps, springs, and still water bodies are fully vegetated and stable; ground cover is within 15% of relevant, MLNF reference areas.
- Riparian areas are dynamic and resilient to disturbances in structure, composition, and processes.

- Riparian-associated vertebrate and invertebrate animal species are increasing in number of native species and the health (e.g., desirable structure, size) of their populations.

Riparian Areas (Streams)

- Native riparian plant communities adjacent to perennial, ephemeral, and intermittent streams are reproducing and exhibiting potential height.
- Non-native plant species and "increaser" native plant species are decreasing.
- Riparian vegetation has sufficient density, root depth, composition, and distribution along the bank and channel bars to develop and maintain, within capacity, stable streambanks and effectively trap fine sediment that is moving through the system.
- Willows are reproducing and tall willows are rising above browse height of wild ungulates.
- Cottonwood galleries are established on existing sand/gravel bars and maintained by floods.
- Woody overstory vegetation provides a variety of wildlife habitats, stream shading, large wood recruitment, and aesthetic values.
- Sufficient and appropriate riparian vegetation is present to support beaver occupancy in potential beaver habitat in order to increase surface and subsurface water storage, reduce the magnitude and erosive activity of floods, help mitigate drought, and create diverse habitat for native wildlife.

Wetlands (Seeps, Springs, Ponds)

- Wetlands vegetation is a diverse mix of multi-age native species, similar to relevant reference areas.
- Trampling is minimal within wetlands, and hummocking is absent or declining.

Rare and Relict Vegetation Associations

- Rare and relict vegetation associations are protected to the degree possible on the Forest as unique and interesting features of forest, regional, and global life.
- Numerous reference areas and other protected areas provide potential for insight into the causes of rarity.

Reference Areas

- The Forest has identified and established reference areas for every major vegetation type and stream type in the Forest, in order to better understand the environmental consequences of uses and experimental treatments of the Forest.

- These reference areas exist as least-impacted, roadless areas free of livestock grazing for at least ten years, and free of other major human disturbances for a time sufficient to allow major recovery from the last major human disturbance (e.g., roads, off-road vehicle use, tree-cutting).

- In addition, the Forest has designated one least-impacted and one highly-impacted sixth order watershed undergoing active and/or passive restoration on each District as a reference area. The highly-impacted watershed provides understanding of the potential for restoration, and the efficacy of Forest restoration methods.

III. MLNF 2017 Preliminary Need for Change – Forest Vegetation

There is a need for the revised plan to provide direction for achieving sustainability, resiliency, and for minimizing risks to vegetation and its composition and structure (including snags and downed woody material). This includes restoring natural disturbance cycles (e.g. fire and insects) where appropriate.

There is a need to develop desired conditions regarding vegetation structure, composition, and function, as well as objectives, standards, guidelines and management approaches that will promote ecological restoration, support resilience and sustainability, and minimize risks to ecosystem integrity.

IV. MLNF 1986 Forest Management Plan – Forest Vegetation

Aspen

The aspen vegetation type would be managed and maintained in a condition of high productivity. Silvicultural practices treating total clones would generally be utilized resulting in the aspen type appearing as even-aged stands, but with stands in all age classes throughout the Forest.

Engelmann Spruce - Alpine Fir

Approximately 25 percent of this type is suitable for intensive management through commercial timber and wood product sales. Harvesting utilizing shelterwood or modified shelterwood systems would occur where slope stability would not be affected and where the practice would enhance vegetation diversity as well as improve wildlife habitat. The number of fir stands would be diminished as a result of some stands being converted back to aspen.

Ponderosa Pine

Approximately 50 percent of the type is suitable for intensive management using commercial timber and wood product sales. Silvicultural practices used would

emphasize the high productivity of this type while considering range, wildlife, and recreational uses and values.

Pinyon-Juniper

Pinyon-juniper stands (about 10 percent of the total) on gentle slopes and on land with good soils will be treated periodically to maintain early successional stages. This will help provide vegetation, scenic, and habitat, as well as forage and improved watershed. Pinyon-juniper stands (about 90 percent of the total) on steeper slopes and on lands with poor or rocky soils will be extensively managed and generally not treated except by natural disturbance.

Riparian

Vegetative cover within riparian component ecosystems would be maintained or diversified and enhanced as necessary to emphasize watershed, wildlife, and fisheries values. The stage of vegetative development may be locally altered to increase riparian and/or aquatic ecosystems.

Subalpine Forb Grassland

The subalpine forb grassland would include a diverse mixture of the native and desirable introduced high forage producing plant species. Management would maintain this complex in a healthy, vigorous condition to preclude invasion by less desirable species.

Gambel Oak and Mountain Shrub Types

Intensive management practices would maintain structural diversity within the woody species in at least 25 percent of the area covered by the Gambel oak and Mountain shrub type. Vegetative diversity within the grass and forb ground cover would also be improved. In some cases, the Gambel oak would be encouraged to successionally develop as an open savannah or in a high seral stage.

Invasive Species

I. Needs for Change - Invasive Species

There is a need to:

- Increase support for native plant resilience, diversity, and composition amid climate change.
- Track native species reproduction in areas sensitive to invasive species
- Reduce the dominance of native "increasers" (species such as *Iris missouriensis* whose increase is supported by selective avoidance by livestock).
- Prioritize reduction or elimination of the underlying causes of invasive species introduction, establishment, and spread over control of invasive species.
- Link all treatments of invasive species to stated identification and description of activities/uses that encourage the invasive species being treated.

II. Desired Conditions – Invasive Species

- The area in which invasive species are present is decreasing on the Forest.
- Conditions favoring the introduction, establishment, and spread of invasive species are significantly decreasing.
- Those native species that have lost ground to (a) exotic invasive species and (b) native "increasers" are regaining ground. New invaders are not obtaining any significant footholds in the Forest.
- Native plants dominate in all vegetation communities.
- Some persistent and/or invasive exotic plants earlier introduced and/or seeded by users of the Forest (e.g., cheatgrass, Kentucky bluegrass, smooth brome, crested and intermediate wheat grasses), continue to persist, but are declining in area on the Forest relative to native species.
- Herbicide use is last resort and associated with stated measures that will be taken to avoid return of the invasive species.

III. MLNF 2017 Preliminary Need for Change – Invasive Species

There is a need for plan standards and guidelines to address the presence of invasive species by encouraging the removal of existing undesirable populations, limiting the introduction and spread of new populations while promoting the characteristic composition and condition of native species.

IV. MLNF 1986 Forest Management Plan

[Invasive Species was not a topic within the 1986 Forest Plan, though "noxious weeds" were to be controlled]:

- *The noxious weed program would continue in coordination with local weed control districts with the aim of controlling existing infestations and preventing establishment of new ones.*
- *Special attention would be given to the control of musk thistle on the Forest.*
- *Integrated pest management techniques would be used to protect, maintain, and improve range conditions.*

Rangeland Management (Grazing)

I. Needs for Change – Rangeland Management (Grazing)

There is a need to:

General

- Develop standards and guidelines that emphasize the restoration and conservation of native grass, forb, and palatable woody species
- Establish a standard of 30% utilization (25% during drought) of native herbaceous species to insure
    - sufficient flower and seedhead retention by native grasses, grasslike species, and forbs for pollination and reproduction
    - improvement in riparian condition and function
    - increase in regeneration and recruitment of palatable woody species
    - increase in native ground cover
- Identify opportunities to achieve a balance of livestock-grazed lands with livestock-free lands
- Establish responses to exceedance of quantitative triggers for accountability with adaptive management
- Focus monitoring, using replicable methods, on riparian areas and in uplands with ≤10% slope and within the zone of influence of water developments.
- Modify decades-old estimations of livestock capacity in light of (a) increased weights of livestock in the past 30 years; and (b) observed and predicted increasing temperatures (regional warming) and associated consequences.
- Establish a number and variety of sizes of ungrazed areas to:
    a. demonstrate the ecological potential of MLSNF ecosystems and plant communities;
    b. understand impacts of livestock management practices;
    c. understand the potential rate of recovery where native species diversity or ecosystem functions have been depleted or degraded;
    d. distinguish climate impacts (e.g., rising temperatures, droughts) from livestock grazing impacts;
    e. protect particular species or habitats that are adversely affected by or incompatible with livestock grazing; and/or
    f. allow for possible restoration of species diversity and/or ecological processes that have been compromised by livestock grazing..
- Seed only with native species and where passive restoration has been demonstrated to be insufficient to restore native vegetaion
- Implement Best Management Practices to support high diversity of native pollinators; prevent invasion of exotic honey bee or bumblebees.
- Rely on herd management for predator avoidance and control; lethal predator control is not allowed.

Riparian Vegetation

- Establish desired conditions reflecting the need for variable height structure in cottonwood, aspen, and willow.
- Establish desired conditions that insure channel form and function necessary to maintain a stable system.
- Manage riparian areas of all fish-bearing streams to 90 percent their potential for late-seral, native vegetation and all other streams to at least 75 percent of their potential for late-seral, native vegetation.

Lakes, Ponds, Springs, and Wetlands

- Establish desired conditions for lakes, ponds, springs and wetlands ecosystems
- Revise standards and guidelines related to aquatic habitat.
- Use indicators, stressors, and best management practices to address concerns appropriately and proactively.
- Provide clear direction relevant to livestock meeting the intent of Executive Orders 11988 for Floodplains and 11990 for Wetlands.

Physical Stream Channel Habitat

- Revise desired conditions for watersheds, stream channel function, and floodplains.
- State and use clear monitoring and observation protocols for bank stability and expected channel configurations.
- Establish and implement standards and guidelines to reduce trampling and bank alteration.
- Establish standards for streambanks tiered to hydrological and ecological potential
- Maintain 85 percent of total streambank length at potential for bank stability.
- Establish direction for designated or undesignated stock driveways.

Aspen

- Create desired conditions for aspen regeneration and recruitment in both persistent and seral aspen communities.
- Develop and utilize standards for browse limits, including browse by wild ungulates, necessary to insure recruitment.

Sagebrush Grasslands

Establish clear, measurable desired conditions for sagebrush understory that will improve native species diversity and support sagebrush-dependent wildlife

II. Desired Conditions – Rangeland Management (Grazing)

- Livestock grazing continues to be permitted as a commercial activity on some of the Forest and with practices that are monitored and demonstrated to not impair native productivity of upland, riparian, and aquatic ecosystems.

- In order to ensure the viability of other multiple uses and values, some areas of the Forest are not grazed by livestock, e.g., erodible slopes, some aspen and sagebrush communities, reference areas, wetlands and springs, Research Natural Areas, some Special Interest Areas.

- Current livestock grazing areas have been recently analyzed for (1) capability for livestock grazing using criteria established by USFS Region 4, including slope limitations, current forage production, distance to water, and erodibility of soils; (2) capacity given the increased weight of livestock since capacity was last estimated; (3) capacity given rising temperatures during the past 30 years, predicted temperature increases, and reduced vegetation production during the coming 30 years; (4) current condition of native vegetation and wildlife; and (5) suitability by considering conflicts with other social or ecological values of the Forest.

- Where livestock grazing is found to be leading to unsatisfactory ecological conditions, livestock grazing is modified, in order to restore such Forest values as native plant community structure and function, native wildlife habitat, appropriate infiltration and water storage of soils, and soil stability.

- Half of each year's forb and grass biomass production palatable to livestock in each vegetation type is retained by the plants at the end of grazing season for reproduction, watershed protection, and nutrient cycling. Twenty-five percent of palatable forage is allocated for wildlife. No more than twenty-five percent is allocated to livestock.

- Shrubs and saplings retain reproductive capacity and recruitment into multi-storied stands.

- Streambanks retain overhangs and vegetation cover suitable to stream and soil type and remain 85% free of combined bank trampling and vehicle impacts.

- Ungulate browsing of riparian woody vegetation is limited within potential beaver habitat

III. MLNF 2017 Preliminary Need for Change – Rangeland Management (Grazing)

There is a need for plan components to allow flexibility in rangeland management to react to changing conditions such as drought and fire, and social and economic needs.

There is a need for standards and guidelines that emphasize the restoration and conservation of native grass and forb species in ecological types consistent with the respective desired conditions. In some areas, native grasses have been replaced with invasive species which are not as effective in the prevention of erosion or as productive for forage.

IV. MLNF 1986 Forest Management Plan – Rangeland Management Desired Conditions (Grazing)

- *Grazing capacity would be increased by the end of the first decade, and actual use and permitted use would be in balance with the projected grazing capacity. This could involve some reduction of permit obligations depending on the allotment. During the planning period, range condition and trend should gradually improve. Thus, grazing capacity and use should increase to exceed present levels.*
- *Allotment management plans would be completed. These plans would include goals and objectives, with management efforts to provide coordination and improvement of the range resource.*
- *The noxious weed program would continue in coordination with local weed control districts with the aim of controlling existing infestations and preventing establishment of new ones. Special attention would be given to the control of musk thistle on the Forest. Integrated pest management techniques would be used to protect, maintain, and improve range conditions. Predator control should be allowed on grazing allotments where a need is demonstrated.*
- *Some treated watershed areas closed to grazing would remain closed. However, some treated areas capable of supporting grazing, would be opened for this use.*
- *Endangered, threatened, and sensitive plant species populations and their habitats would be maintained and improved. Land disturbing activities would be reviewed for endangered, threatened, and sensitive plant species and clearance would be made before the projects are approved, thus, providing the safeguards needed for their protection and continued existence.*

Recreation

I. Needs for Change - Recreation

There is a need to:

- Prioritize resource needs by securing the long term sustainability of wildlife, habitat, watershed health and by protecting air and water quality rather than prioritizing an accommodation of desires of visitors and recreation technologies.

- Mitigate overcrowding and overuse of a growing local, recreating public with planning emphasis on least-impacting recreational activities.

- Place expectations for expansion of campgrounds on private lands, not on the Forest.

- Fully reflect increasing public interest in walking, hiking, wildlife viewing, and primitive outdoor experiences, as well as the need to address diverse motorized travel technologies

- Protect mechanized recreation (mountain biking) and muscle-powered recreation (skiing, snowshoeing, walking, hiking, and trail running) from motorized transportation.

- Remove the artificial divisions that hamper transportation and recreation planning by limiting summer and winter Travel Management Plans to motorized vehicles.
    - Treat electric motor assist bicycles (E-Bikes) as motorized vehicles.
    - Treat ATVs, Side-by-Sides, and other OHVs (including full size vehicles) fitted with winter track systems as Over-Snow Vehicles

- Direct subsequent site-specific transportation and recreation planning to address resource damage done by the 2005 Travel Management Rule's provision for cross-country travel up to 300 feet off designated routes for the p
- Direct subsequent site-specific transportation and recreation planning to designate as open those routes that access suitable sites, and to close those routes that access unsuitable sites.

Recreation Opportunity Spectrum

- Update the Forest's Recreation Opportunity Spectrum (ROS) to reflect changes in public desire and increase in visitation and vehicle technology (OHVs, OSVs, motor-assisted bicycles) since the completion of the 1986 plan.

- Make the balance between the proportion of land area classified as "Semi-Primitive Motorized" (SPM) classification (59% in the 1986 ROS), and Semi-Primitive Non-Motorized (SPNM) classification (8% in the 1986 ROS) more equitable and provide more opportunities for non-motorized recreation.[1]

- Set a framework for the Forest's upcoming Winter Travel Management Planning process (as required by the 2005 Travel Management Rule) to better reflect current uses and future desired conditions.
    - Address and preserve the growing popularity of backcountry skiing, particularly in the La Sal and Abajo mountains.

- Revise the winter ROS to minimize wildlife and resource disturbance, and minimize or eliminate non-motorized user conflict with over-snow vehicle use.

- Revise the summer ROS to accurately reflect the fact that the most popular and growing use of the forest is "walking/hiking."

- Eliminate [1986 Plan] consideration of developed, lift-served ski resorts.

II. Desired Conditions – Recreation

- The Forest provides much needed open space, solitude, and a wide variety of recreation opportunities.
- The commitment to certainty of natural resource protection and restoration of the rustic character and wildlands atmosphere that defines the Forest allows for timely and appropriate responses to unforeseen environmental impacts or misuse, as well as recreational equipment developments and trends not now anticipated.
- Recreation participation, activities and services contribute to visitors' physical and mental well-being and relationship with the Forest.
- Recreation is managed in a holistic manner using least-impactful principles in order to protect natural, cultural and historical heritage, and to minimize conflicts.
- High use areas are managed within ecological capacities in order to maintain the quality of experiences and natural ecology.
- Conflicts between recreationists and private lands and homeowners adjacent to National Forest lands, and with natural resources are addressed and resolved in a timely manner. Resolution of conflicts is consistent with area objectives and management direction.

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[1] An example of the broad overuse of SPM has resulted in many single track trails that are open to motorcycles, but are not designed for or currently used by motorcycles.

III. MLNF 2017 Draft Preliminary Need for Change – Recreation

There is a need for plan direction to guide the management of new and emerging technologies that may affect recreation opportunities and build enough flexibility in the forest plan that new technologies can be addressed.

There is a need to be responsive to changing trends in regard to services, activities and types of facilities desired by the public, but balance those with fiscal reality and impacts to natural resources. The trends in demographics such as the expectation for an older and more ethnically diverse population, the need to promote outdoor physical activities, especially among youth, and the desire to support local cultures and economies should all be considered in establishing a path forward for recreation management.

IV. MLNF 1986 Forest Management Plan

Developed Recreation

- *Recreation visitor use would be distributed between developed recreation facilities on individual and adjacent Ranger Districts. Use would also be distributed between government agency and privately-owned and/or operated facilities. Still, some individual developed recreation sites could be overcrowded during peak use periods.*
- *Developed recreation sites would be operated at a reduced service level during the pre-and post-summer use period. During the summer use period, high use fee sites comprising approximately 50 percent of the total Forest site capacity would be managed at the full service level and the remainder at the reduced service level. Sites adjacent to private resorts, easy accessible destination use sites, and some sites near towns or cities could be operated and maintained by private concessionaires.*
- *Existing campgrounds and picnic grounds would be rehabilitated and/or expanded where the private sector would not satisfy the demand. An average of 20 persons-at-one-time (PAOT) capacity would be constructed annually over the 50 year planning horizon to satisfy picnic ground and overnight campground demand. The condition of high use fee recreation facilities would be improved to condition class one or two. The vegetative condition including riparian areas would be maintained or improved.*
- *Summer home residences on National Forest System lands would be fewer because isolated special use permits for this use are non-transferable.*
- *Private sector resort demand would reach capacity between the years 1990 and 2000. The majority of any new capacity would be provided by the private sector off Forest or on private lands within the Forest boundary.*
- *High quality winter recreation opportunities would be provided, generally by the private sector, on sites suitable to this use.*

Dispersed Recreation

- *A range of dispersed recreation opportunities would be provided on National Forest System lands. Each activity would be managed to maintain or enhance appropriate opportunities.*

- *When a greater public need, such as timber harvest or minimal extraction would be determined by the Forest Supervisor, any dispersed recreation area not formally withdrawn from such activity could be impacted. However, after the operation ceased, the area would be reclaimed or rehabilitated consistent with the pre-project recreation opportunity classification goals*

Terrestrial and Aquatic Habitat

I. Needs for Change – Terrestrial and Aquatic Habitat

There is a need to:

- Manage habitat to maintain viable populations of native invertebrate as well as vertebrate wildlife.
- Manage habitat to restore viable populations of extirpated native wildlife that have the ecological potential to be present on the forest.
- Manage habitat for increases in populations of species of declining populations.
- Identify key wildlife connectivity needs of MLNF wildlife and facilitate connectivity planning across land ownerships.[2]
- Utilize the Utah State University's Beaver Restoration Assessment Tool (BRAT) and the Riparian Condition Assessment Tool (R-CAT) to prioritize riparian habitat (and upland aspen) for maintenance and restoration to support persistent beaver populations.
- Implement Best Management Practices to support habitat for a high diversity and populations of native pollinators; prevent invasion of exotic honey bee or commercial bumblebees.
- Prioritize habitat for native plant and wildlife species over presence of exotic or artificial populations of wildlife species.
- Provide plan direction that will result in diverse terrestrial, riparian and aquatic habitats and population connectivity for species movement across the landscape.
- Provide habitat for plant and animal species of conservation concern as well as state sensitive species, including by drafting and implementing species-specific plan components to insure sustainable ecological conditions for each of the species.
- Should the agency determine it is beyond the authority of the Forest Service or not within the inherent capability of the plan area to contribute to, maintain, or restore ecological conditions for species of conservation concern, the basis for that determination will be documented.
- Where possible, augment wildlife habitat through purchase from willing sellers, exchange, transfer or donation of additional acreage of crucial wildlife habitat for their migration, movement and dispersal.
- Establish and implement in a timely manner mitigation measures for fencing and structures to allow the safe movement of wildlife.

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[2] The Ferron, Price, and Sanpete Ranger Districts lie within a continental wildlife linkage extending from the greater Grand Canyon ecoregion northward along the Utah's High Plateaus, including the Wasatch Plateau, to the Greater Yellowstone Ecoregion. The Moab and Monticello Districts compose portions of a similar wildlife linkage extending from the San Juan Mountains of Colorado to the Uinta Mountains and beyond to Teton and Yellowstone National Parks

- Cooperate with the State in keeping all native wildlife and fish populations at healthy levels, and balanced within Desired Conditions for terrestrial and aquatic habitats.

II. Desired Conditions – Terrestrial and Aquatic Habitat

Linkages

- Management of the Forest is facilitating movement, dispersal, and genetic exchange of pollinators, black bear, wolves, deer, elk, bighorn sheep, and other wildlife populations.

- Aquatic habitats support well distributed, self-sustaining, and genetically diverse populations of appropriate native fauna, including species of concern, target species, and indicator species (vertebrates and invertebrates), relative to established reference sites and conditions.

- Aquatic habitats support well distributed, self-sustaining, and adequately genetically diverse populations of appropriate aquatic algae, phytoplankton, macrophytes, and riparian herbaceous and woody vegetation.

- Aquatic organism passage is not impaired by barriers such as road stream crossings except where barriers are necessary to protect native species from invasion by nonnative species.

- Lotic and lentic aquatic habitats retain all of the necessary and appropriate attributes to function properly and support native biotic communities.

- The ecological status of meadow vegetation is late seral (50 percent or more of the relative cover of the herbaceous layer is late seral with high similarity to the potential natural community). A diversity of age classes of hardwood shrubs is present and regeneration is occurring.

- Habitat conditions necessary to support native fish are restored and maintained.

Fish Habitat

- Forest conditions support expansion and restoration of native fish populations to their historic range.

- Proposed management activities consider all existing populations and individuals of conservation agreement species.

- Native fish species are given priority over non-native fishes and non-native fish, including sport fish, are not introduced into streams where native fish species occur.

- The presence of whirling disease is mapped for each stream on MLNF.

- Activities that negatively impact native fish populations, such as road use and construction, ORV use in stream channels and livestock grazing on stream banks, are restricted as necessary for desired wildlife habitat conditions.

- All existing Forest roadless areas remain roadless.

- Bank-trampling standards for livestock sufficient to protect fish habitat in fish-bearing streams are established.

- Sediment input from management activities does not exceed a pre-determined acceptable sediment threshold.

- Stream banks are undercut with overhanging canopy (e.g., grasses, willows, trees) for cover.

Upland Ecosystems

(See Watershed and Forest Vegetation Desired Conditions)

Riparian Ecosystems

(See Forest Vegetation Desired Conditions)

III. MLNF 2017 Preliminary Need to Change – Terrestrial and Aquatic Habitat

- *There is a need to incorporate multi-species and/or habitat-based plan components that are consistent with current science; for example, hiding cover and habitat security.*
- *There is a need to provide plan direction that allows for managing toward diverse terrestrial, riparian and aquatic habitat and population connectivity for species movement across the landscape.*
- *There is a need to allow for flexibility in wildlife habitat management components to consider natural disturbances, climate change, and changing management issues both on and off Forest lands.*
- *Plan components are needed to provide for habitat for species of conservation concern, including species-specific plan components to provide for sustainable ecological conditions in the plan area.*

- *If it is beyond the authority of the Forest Service or not within the inherent capability of the plan area to maintain or restore ecological conditions, the basis for that determination should be documented.*

IV. MLNF 1986 Forest Management Plan – Terrestrial and Aquatic Habitat

Wildlife and Fish

- *Appropriate habitat management would maintain viable populations of existing vertebrate species.*
- *Habitats of threatened and endangered species would be maintained. Habitat would be surveyed and appropriate action taken. Habitats for sensitive species would be managed to reduce the potential of these species becoming threatened or endangered.*
- *Flood damaged fisheries habitat could significantly improve as a result of the flood damage repair program in conjunction with watershed activities. In other areas, the fisheries habitat would gradually increase by improving habitat in suitable marginal and unsuitable lakes and reservoirs, and completing stream and riparian improvement projects. Riparian habitat could be maintained and its condition improved.*
- *Big-game winter range capacity could be maintained through direct habitat improvement which could offset encroachment by other activities. Increased emphasis would be given to non-game habitat and non-consumptive wildlife uses.*
- *Populations of deer and elk would increase over current levels. Management Indicator Species (MIS) habitat would be maintained at levels that meet or exceed requirements for minimum viable populations.*

Watershed Health

I. Needs to Change - Watershed Health

Soils

There is a need to:

- Develop standards and guidelines that improve watershed health primarily through passive restoration or active restoration methods that prevent the spread of exotic/invasive plant species
- Base plan components for water, soil and aquatic ecosystems on measurable thresholds and outcomes.
- Restore native ground cover (grasses, forbs, and biological soil crusts) in lower elevation areas of the Manti-La Sal to reduce the amount of soil erosion.
- Manage pinyon-juniper communities to limit erosion.
- Reduce livestock numbers and forage utilization to reduce soil erosion amid climate change
- Determine criteria to decide whether and when specific multiple uses, such as livestock grazing or off road vehicles, can resume on a burned area to ensure sufficient recovery of soil stability with native vegetation.
- Undertake management actions aimed at reducing soil erosion as experiments, with controls, in order to determine whether an action has been successful.
- Support and restore biological soil crusts on the approximately 40 percent of the MLNF where there is high potential for biological crust occurrence.[3]

Water

There is a need to:

- Establish beaver as a focal species for its hydrological engineering and creation of habitats for numerous species

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- [3] Total area on the Forest where there is high potential for biological crust occurrence is approximately 535,227 acres (38 percent); (personal communication, Matt Bowker and Jayne Belnap, US Geological Service, 02/26/2018).

- Maintain and obtain instream water flows

- Establish reference watersheds and reaches to provide reference conditions for water quantity, water retention, and water quality on the MLNF.

- Compile all trends detected in water quantity and quality in springs, streams, and groundwater since the 1986 plan, including all springs, streams, and groundwater sampled.

II. Desired Conditions – Watershed Health

Watershed Analyses

- The Forest is undertaking watershed analyses as a systematic way to collect, understand, organize, and analyze ecological information and environmental trends (including climate change trends and water use trends relative to water supply trends) and impacts.

- Watersheds are serving as the spatial and ecological context for projects and multiple use management.

- Water quality in streams, springs, lakes, wetlands, and other water bodies meets or exceeds all Clean Water Act requirements and EPA-approved state and tribal water quality standards.

- To the degree legally possible, the speed and amount of water loss from the Forest is minimized by appropriate hydrological channels and fully functioning aquatic and riparian hydrological systems and associated vegetative and wildlife communities, including re-establishment of beaver in potential reaches.

- Physical, chemical, and biological degradation of water is avoided through management of all human uses, particularly in the riparian and floodplain areas, but also in the uplands.

- Reference watersheds and reaches provide reference conditions for water quantity, water retention, and water quality on the Forest.

Soil Management

- The basic integrity of all topsoils and biological soil crusts on the Forest are intact and maintained to ensure proper nutrient cycling, allow water filtration, and to minimize erosion.

- Ground cover retains soil, bulk density, and soil biological life similar to that of appropriate reference sites.

- Commercial resource extraction, motorized and other recreation, roads, restoration activities, livestock grazing, or excessive wild ungulate use are managed to prevent erosion, compaction, degradation, or the introduction of exotic/invasive plant species.

- Soil that has been degraded is restored primarily through passive restoration or active restoration methods that prevent the spread of exotic/invasive plant species.

- Sufficient coarse woody debris and snag requirements to sustain biological productivity are met.

Watershed Function

- The structure and function of aquatic ecosystems and watersheds are maintained and restored. Watershed resiliency is maintained and restored. Hydrologic function of wetlands is restored.

- Watershed condition in all watersheds is determined at a minimum sixth-level hydrologic unit code scale. Watersheds that are a priority for maintenance and restoration are identified. The results of assessments are used to guide planning and management activities.

- Priority watersheds are identified where water quality and watershed condition will be improved. Watersheds are managed for special protection of human health, public use, and aquatic ecosystem values.

- Watershed conditions provide the water quality and quantity and soil productivity necessary to support ecological functions and designated beneficial uses.

- All elements of MLNF watersheds are in minimally fragmented, proper functioning condition. Where degradation has occurred, watersheds are being returned to functioning condition through restoration efforts.

- Quantities of water needed to maintain instream flows for recreation, fish and wildlife and other uses are determined and secured.

- Road densities of less than one mile per square mile are maintained and new roads are not constructed unless they are replacing or eliminating less ecologically sound roads, with no new mileage added. For watersheds with greater road density, road removal and decommissioning are priorities.

- User-created and temporary transportation routes are removed and restored to native vegetation.

- Closed, unauthorized routes and unneeded roads that are posing a risk to water quality are prioritized for decommissioning and restoration to native vegetation.

- MLNF projects and activities are improving or maintaining and not degrading aquatic ecosystems or watershed function.

- Forest Plan components are adequate to maintain or restore the ecological integrity of riparian areas and watersheds.

- Cooperation among land managers and landowners is achieved when necessary to develop and implement watershed-scale planning, protection and restoration.

- Native vegetation is increasing in dominance and cover.

- Beaver are becoming abundant in at least half their potential suitable habitat, engineering the restoration of hydrological functions and the linkage of aquatic and riparian areas with valley floors.

- Forests are returning to natural fire regimes.

- Native riparian forests are complex, diverse, and exhibiting appropriate height and age structure.

- Decisionmaking regarding uses, construction, projects and conservation of wildlife and vegetation within watersheds explicitly considers predicted watershed and landscape functioning in light of climate change.

Water Quality

- All waters of the state are meeting state and federal water quality standards. Water quality is being maintained or improved, as necessary, to meet state and federal water quality standards.

- All Forest waters (Category I waters) are being maintained at existing high quality. No Forest waters (Category I waters) are degraded and the essential character or designated use that makes the water a Category I water is protected. No point source discharges are being permitted.

- Protocols for monitoring all Forest waters (Category I waters) are developed and implemented to provide baseline water quality data and to ensure that existing water quality is maintained and not degraded.

- Degraded or impaired waters are identified and prioritized for the remediation and a schedule adopted for remediation.

- Sediment load and turbidity, as a component of water quality, are within the tolerance ranges of all target species as well as below established thresholds and within reference ranges. Potential drivers of increased sediment load (*e.g.*, soil compaction, impervious surface, increased runoff) are monitored and mitigated.

- All Forest Service projects and decisions are improving or maintaining and are not degrading water quality.

- Applicable Best Management Practices (BMPs) are fully implemented and monitored for their effectiveness.

Air Quality

- Air quality related values in MLNF, including visibility, are supporting human health, quality of life, economic opportunities, high quality recreation, and wilderness values.

- All activities and projects on MLNF are being undertaken or mitigated for least possible air quality adverse impacts.

- Degradation of air quality by land management and other activities on the Forest is prevented.

- Air quality is maintained or improved, as necessary, in order to protect and prevent impairment of air quality related values (AQRVs) and water quality in Wilderness Areas and Class II Areas.

- Air pollution from land management activities and other activities on the Forest is eliminated or minimize to the greatest extent possible, including by applying available mitigation and control measures.

- All activities on the Forest are conducted to meet state and federal air quality standards, protect Class I and Class II increment, and comply with all local, state and federal air quality regulations and requirements.

- All activities that may contribute air pollution to a non-attainment or maintenance area are conforming to all state or federal implementation plans.

- Visibility and lake chemistries are being monitored to assure that AQRVs in Wilderness Areas and Class II Areas are protected and where necessary, improved.

- Carbon emissions from land management activities and other activities on the Forest are minimized.

- Wildland fuel loadings resemble natural range of variation conditions in order to reduce the potential for harmful effects on air quality from high intensity wildfires.

- Management decisions will ensure oil and gas development activities on the MLNF are not causing or contributing to exceedances of the National Ambient Air Quality Standards, are not consuming increment and are not adversely impacting AQRVs in Class II Areas.

- All MLNF areas that are not Class I areas are protected as Class II areas.

- There is no degradation of Dark Canyon Wilderness Class I air quality, visibility or AQRVs.

Municipal Water Supplies (Drinking Water Protection Zones)

- Drinking water sources, including aquifers, are protected and any adverse impact to drinking water sources is prohibited.

- Drinking Water Protection Zones are identified and use and activities within them are restricted and regulated as necessary to prevent any degradation of water quality.

- Use and activities on municipal supply watershed are monitored.

- Drinking Water Source Protection Plans cover all applicable watersheds and the terms and conditions of any Drinking Water Source Protection Plans are met.

- Municipal supply watersheds are identified and protected as special management areas. Drinking water sources are withdrawn from mineral entry.

- Public is informed of use restrictions imposed on municipal supply watersheds and reasons for restrictions. Restriction clauses are included in all permits, leases, or other documents authorizing use within the watershed.

- Any Forest Service projects or decisions are improving or maintaining and are not degrading drinking water sources.

III. MLNF 2017 Preliminary Need To Change – Watershed Health

There is a need to base plan components for water, soil and aquatic ecosystems on specific watershed objectives. There is a need for the plan to be flexible under changing conditions, especially for impacts resulting from climate change, wildfire, and insect and disease outbreaks.

There is a need to develop standards and guidelines that improve watershed health by restoring vegetative cover and reducing erosion and sedimentation (e.g., reclaiming temporary roads to their natural vegetative condition).

IV. MLNF 1986 Forest Management Plan – Watershed Health Desired Conditions

- *Water quality and soil productivity would be maintained or improved.*
- *Flood damage repair programs in conjunction with fisheries improvement would result in improved conditions of damaged streams.*
- *Other identified watershed improvement needs would be completed at a reasonable rate throughout the planning period, which would reduce soil erosion and stream sedimentation.*
- *Future resource uses or activities would be executed so as to minimize impacts to soil and water quality.*
- *Reconstructing eroding portions of roads and trails will improve water quality.*
- *Protection from damage due to vehicular travel would increase through law enforcement and public education.*
- *The soil and water resource inventory and monitoring would be used in activity design and implementation.*
- *Water uses and needs including instream flows would be claimed through the State adjudication process.*
- *Increases in water yield due to aspen harvest could be less than one percent of current yield, and 95 percent of the increase would be in the Colorado River Basin.*

Wildfire

I. Needs to Change - Wildfire

There is a need to:

- Work with landowners and homeowners within the Wildland Urban Interface (WUI) to create defensible space in the immediate 100 feet of structures and to use non-flammable materials in structures.
- Work closely with surrounding communities to encourage zoning that does not require the forest to alter natural forest composition to reduce risks to the communities.
- Maintain and regularly update "let burn" policies and plans for wildfire in every forest type and area on MLNF.
- Develop effective burned area emergency response (BAER) plans, using native vegetation only, to prevent soil erosion after wildfire.
- Eliminate post-fire salvage logging.

II. Desired Conditions – Wildfire

- Wildfire is a principal factor regulating the structure, pattern, and diversity of ecosystems.
- Wildfire occurs within a range of frequencies, severities, and extents that, to the degree practicable, approximates the historic, natural variability of each ecosystem.
- Wildfires are managed to minimize negative impacts to imperiled and sensitive species and habitats.
- Wildfire does not result in the loss of human life, and is facilitated by a relatively safe landscape context characterized by defensible and prepared at-risk communities.
- Thinning-from-below of small diameter trees followed by prescribed fire in fire-frequent forest types reduces fire severity under moderate fire conditions.

III. MLNF 2017 Preliminary Need to Change – Wildfire

There is a need to update current plan direction to allow for an integrated resource approach to increase flexibility for restoration and maintenance of fire as an ecological process in fire adapted ecosystems while developing fire adapted communities to provide for safe and effective wildfire response for firefighters and public, especially in the Wildland Urban Interface (WUI).

IV. MLNF 1986 Forest Management Plan Desired Conditions - Wildfire

[Wildfire Desired Conditions were generally not described within the 1986 Forest Plan.]

- *Appropriate suppression response would be taken on wildfires as provided in the general Forest Direction and specific Management Unit Requirements.*
- *In the Dark Canyon Wilderness, prescribed unplanned ignitions could be used to maintain natural ecosystems.*
- *Control wildfires at all intensity levels.*
- *Control wildfires in Engelmann spruce types and in young ponderosa pine stands.*

Wildlife

I. Needs for Change - Wildlife

There is a need to:

- Establish beaver as a focal species.
- Establish the genus *Bombus* (bumblebees) as a focal species.
- Ensure, to the degree possible, that non-game wildlife populations are viable and are not de-emphasized or disadvantaged due to management for artificial populations of wild ungulates.
- Survey populations of species associated with focal species to insure that habitat maintenance of the focal species is actually resulting in maintenance of species predicted to be benefited by the presence of the focal species.
- Maintain viable populations of existing vertebrate species.
- Survey and maintain habitats of threatened and endangered species. Habitat would be surveyed and appropriate action taken where habitats are compromised.
- Habitats for sensitive species would be managed to reduce the potential of these species becoming threatened or endangered.
- Maintain and improve riparian habitat.

II. Desired Conditions – Wildlife

Species of Conservation Concern

The Forest Service describes "Species of Conservation Concern" (SCC) as a species

> ... other than federally recognized threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area.

SCC are monitored regularly and populations are stable or increasing. Habitat conditions favor reproduction in all SCC populations.

- Existing habitat of Non-Plant Species of Conservation Concern is maintained. Degraded habitat that historically supported these wildlife species or currently supports diminished populations of these species is restored.
- Wildlife species are monitored sufficiently to detect declines in productivity, and populations are stable or geographically expanding to fill potentially suitable habitat within historic range.

Table 1. Animal species proposed by Manti - La Sal National Forest as Species of Conservation Concern.

Taxa	Common Name
Bird	Black Rosy-finch
	Greater Sage-Grouse
	Peregrine Falcon
Fish	Bluehead Sucker
	Bonneville Cutthroat Trout
	Colorado River Cutthroat Trout
Mammal	American Pika
	Fringed Myotis
	Townsend's Big-eared Bat

Table 2. Animals with federal protection, that occur or have the potential to occur on the Manti-La Sal National Forest.

Taxa	Animal	Federal Status
Bird	Bald Eagle	Bald and Golden Eagle Protection Act
	California Condor	Endangered
	Gunnison Sage Grouse	Threatened
	Mexican Spotted Owl	Threatened
	Southwestern Willow Flycatcher	Endangered
	Yellow-billed Cuckoo	Threatened
Mammal	Gray Wolf	Endangered
	Lynx	Threatened

Table 3. Animal species that should be designated as "Species of Conservation Concern"

Taxa	Animal	Reason MLSNF does not Concur	Reason to Include as SCC
Bird	Bald Eagle	"there are minimal threats/risks to the species or its habitat in the plan area."	Fewer than 20 breeding pairs in Utah (UDWR 2015). At least 2 breeding pairs nest along the Colorado River between Colorado border and Moab (Arthur Morris personal communications). "Utah Species of Greatest Conservation Need" (UDWR 2015).
	Grace's Warbler	"species is regularly found in suitable habitat in the plan area. **Current** management of ponderosa pine in the plan area is compatible with habitat requirements of the species so there is not substantial concern for its persistence in the plan area." [Emphasis added]	Populations declined by almost 2% per year between 1966 and 2014, resulting in a cumulative decline of 56%, according to the North American Breeding Bird Survey (allaboutbirds.org).
	Purple Martin	"there are minimal threats/risks to the species and its habitat in the plan area."	Numbers declined by almost 1% per year between 1966 and 2015, resulting in a cumulative decline of 37%, according to the North American Breeding Bird Survey (allaboutbirds.com).
	Red Crossbill	"the species and its habitat are secure in the plan area."	Vulnerable to impacts from loss of forest trees (especially standing dead) that are important for this cavity nester.
	Western Bluebird	"there are minimal threats/risks to the species and its habitat in the plan area."	Vulnerable to impacts from loss of forest trees (especially standing dead) that are important for this cavity nester.
Invertebrate	Monarch Butterfly	"there are minimal threats/risks to the species and its habitat in the plan area."	Population has dropped 50% from long-term average (Jepsen et al. 2015).

	Western Bumblebee	"information (BASI) about this species is too limited to make a determination if this species is established within the plan area."	Decline value of 40% over the past decade suggests a Vulnerable Red List Category (IUCN 2017).
	Yavapai Mountains nail	"there are no recent records of this species in the plan area (not recorded since 1919) and only minimal threats/risks to its habitat in the plan area."	"Utah Species of Greatest Conservation Need" (UDWR 2015)
Reptile	Many-lined Skink	"there are minimal threats/risks to the species and its habitat in the plan area	"Utah Species of Greatest Conservation Need" (UDWR 2015).

Wildlife Species of Declining Populations that Need to be Included as Species of Conservation Concern on Manti-La Sal National Forest

Table 4. Birds that should be added as Species of Conservation Concern for Manti-La Sal National Forest.

Bird Species	Status	Where Observed on MLSNF	Primary Breeding /Secondary Breeding /Winter Habitat[1]
American Three-toed Woodpecker	Utah species of concern (UDWR 2017); Priority species for conservation in Utah (Parrish et al. 2002).	La Sal Mountains (E-bird); Abajo Mountains (Utah Sensitive Species GIS data)	Sub-Alpine Conifer / Lodgepole Pine / Sub-Alpine Conifer
Black-throated gray warbler	Numbers declined by about 1.5% per year between 1966 and 2014, resulting in a cumulative decline of 52%, according to the North American Breeding Bird Survey. Priority species for conservation in Utah (Parrish et al. 2002).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Pinyon-Juniper / Mountain Shrub / Migrant
Brewer's Sparrow	Declined by about 49% between 1966 and 2014, according to the North American Breeding Bird Survey	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Shrubsteppe High / Desert Scrub / Migrant

	(allaboutbirds.com). Priority species for conservation in Utah (Parrish et al. 2002).		
Broad-tailed hummingbird	Numbers declined by almost 1.5% per year between 1966 and 2015, resulting in a cumulative decline of 52%, according to the North American Breeding Bird Survey (allaboutbirds.com). Priority species for conservation in Utah (Parrish et al. 2002).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Lowland Riparian / Mountain Riparian / Migrant
Cassin's Finch	Near Threatened on the International Union for Conservation of Nature Red List (IUCN 2017).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Aspen / Sub-Alpine Conifer / Lowland Riparian
Ferruginous hawk	"Utah Species of Greatest Conservation Need" (UDWR 2015).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Pinyon-Juniper / Shrubsteppe / Grassland
Flamulated Owl	"Utah Species of Greatest Conservation Need" (UDWR 2015)	Wasatch Plateau and La Sal Mountains (E-bird)	Ponderosa Pine / Sub-Alpine Conifer / Migrant
Golden Eagle	"Utah Species of Greatest Conservation Need" (UDWR 2015).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Cliff / High Desert Scrub / High Desert Scrub
Grace's Warbler	RO recommended. Populations declined by almost 2% per year between 1966 and 2014, resulting in a cumulative decline of 56%, according to the North American Breeding Bird Survey (allaboutbirds.org).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Ponderosa Pine / Mixed Conifer / Migrant
Gray Vireo	Priority species for conservation in Utah (Parrish et al. 2002).	Wasatch Plateau, La Sal Mountains and Abajo	Pinyon-Juniper / Northern Oak / Migrant

		Mountains (E-bird)	
Lewis's Woodpecker	Declined by about 82% between 1966 and 2015, according to the North American Breeding Bird Survey (www.allaboutbirds.org). "Utah Species of Greatest Conservation Need" (UDWR 2015).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Ponderosa Pine / Lowland Riparian / Northern Oak
Northern Goshawk	Conservation Agreement Species (UDWR 2017).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Lodgepole Pine / Aspen Lowland / Riparian
Northern Harrier	The North American Breeding Bird Survey records a steady decline of over 1% per year from 1966 to 2014, resulting in a cumulative loss of 47% (allaboutbirds.org).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Wet Meadow / High Desert Scrub / Agriculture
Northern Pygmy-Owl	"Utah Species of Greatest Conservation Need" (UDWR 2015).	Wasatch Plateau and La Sal Mountains (E-bird)	Mountain Riparian / Mixed Conifer / Lowland Riparian
Olive-sided Flycatcher	"Utah Species of Greatest Conservation Need" (UDWR 2015).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Sub-Alpine Conifer / Ponderosa Pine / Migrant
Pine Grosbeak	North American Breeding Bird Survey data suggest that populations of Pine Grosbeaks declined by 2.4% per year between 1966 and 2015, resulting in a cumulative decline of 70% (www.allaboutbirds.org).	Wasatch Plateau and La Sal Mountains (E-bird)	Sub-Alpine Conifer / Sub-Alpine Conifer / Mixed Conifer
Pinyon Jay	Populations fell by 3.7% per year between 1966 and 2015, resulting in a cumulative decline of 85%, according to the	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Pinyon-Juniper / Ponderosa Pine / Pinyon-Juniper

	North American Breeding Bird Survey (www.allaboutbirds.org).		
Purple Martin	RO recommended. "Their numbers declined by almost 1% per year between 1966 and 2015, resulting in a cumulative decline of 37%, according to the North American Breeding Bird Survey" (allaboutbirds.com).	Wasatch Plateau (E-bird)	Aspen / Mixed Conifer / Migrant
Virginia's warbler	Priority species for conservation in Utah (Parrish et al. 2002).	Wasatch Plateau, La Sal Mountains and Abajo Mountains (E-bird)	Northern Oak / Pinyon-Juniper / Migrant

[1]From Utah Partners in Flight (Parrish et al. 2002).

Table 5. Animals (other than birds) recommended as Species of Conservation Concern for Manti-La Sal National Forest.

Taxa	Species	Status	Where Observed on MLSNF	Primary/ Secondary Habitat
Amphibian	Western Toad	"Utah Species of Greatest Conservation Need" (UDWR 2015).	Wasatch Plateau (Bosworth 2003)	Wetland / Mountain Riparian
Invertebrate	Monarch Butterfly	RO recommended; population has dropped 50% from long-term average (Jepsen et al. 2015).	La Sal Mountains (monarchmilkweedmapper.org)	Lowland Riparian / many others
Invertebrate	Western Bumblebee	RO recommended; average decline value of 40% over the past decade suggests a Vulnerable Red List Category (IUCN 2017).	Wasatch Plateau and La Sal Mountains (Xerces Society, personal communication)	Grassland / High Desert Scrub
Invertebrate	Yavapai Mountainsnail	RO recommended; "Utah Species of	Abajo Mountains in 1919 (UCDC)	Cliff / Aspen Forest

		Greatest Conservation Need" (UDWR 2015).		
Mammal	Allen's Big-eared Bat	"Utah Species of Greatest Conservation Need" (UDWR 2015)	Abajo Mountains (Bosworth 2003)	Lowland Riparian / Pinyon - Juniper
Mammal	Big Free-tailed Bat	"Utah Species of Greatest Conservation Need" (UDWR 2015)	La Sal Mountains (Bosworth 2003)	Lowland Riparian / Cliff
Mammal	Gunnison's Prairie Dog	"Utah Species of Greatest Conservation Need" (UDWR 2015)	In or near La Sal Mountains and Abajo Mountains (Bosworth 2003)	Grassland / High Desert Scrub
Mammal	Spotted Bat	"Utah Species of Greatest Conservation Need" (UDWR 2015)	La Sal Mountains and Abajo Mountains (Bosworth 2003)	High Desert Scrub / Cliff
Mammal	Wolverine	"Utah Species of Greatest Conservation Need" (UDWR 2015)	Historically in La Sal Mountains and Wasatch Plateau (Bosworth 2003)	
Reptile	Many-lined Skink	RO recommended; "Utah Species of Greatest Conservation Need" (UDWR 2015).	Abajo Mountains (Bosworth 2003)	Rocky Ponderosa Pine / Pinyon Juniper / Oak
Reptile	Smooth Greensnake	Utah "species of concern" (UDWR 2017)	La Sal Mountains and Abajo Mountains (Bosworth 2003)	Mountain Riparian / Wet Meadow

- Existing habitat for listed and candidate wildlife species is maintained.
- Degraded habitat that historically supported listed and candidate wildlife species or currently supports diminished populations of listed and candidate species is restored.

- Listed and Candidate wildlife species are monitored regularly and populations are geographically expanding to fill potentially suitable habitat within historic range.
- Honeybees and commercial bumblebees are not present on the MLNF.
- Degraded habitat that historically supported species (or their pollinators) whose population has been reduced or is declining, is being restored.
- Wildlife species habitat is maintained for UDWR species of concern.

Other Wildlife Species of Concern

Table 6. Other wildlife of concern.

Taxa	Reason for Concern	References
Amphibians	Very few surveys have been conducted; many populations declining; status on Forest uncertain	Bosworth 2003
Small Mammals	No small mammal surveys have been conducted; status of shrews, voles, rats, mice, etc. on Forest land is unknown	Personal communication, Heather Musclow, MLSNF 10/6/04.
Cavity-nesting birds	Birds that create and/or use tree cavities - such as woodpeckers, chickadees, red crossbill, bluebirds, flammulated owl, and american kestrel – are vulnerable to alteration of forest that reduces the availability of standing dead (and sometimes live soft-wood) trees where cavities are made.	
Snowshoe Hare	Populations are declining; TNC watch species (TNC 2002); may be affected by drought or climate change; important lynx prey	Personal communication, Heather Musclow, Barb Smith of MLSNF 10/6/04
River Otter	Has been found on MLSNF in Potters Pond area (USFS 1986). Populations declining dramatically. Important biological control of invasive crayfish	Bosworth 2003

	populations in stream ecosystems.	
Cougar	Relatively unknown status on MLSNF; affected by landscape scale fragmentation; Keystone foundation and umbrella species which affects whole forest ecosystem.	UDWR 1999b
Desert Bighorn Sheep	Populations have declined from historic levels; TNC (2002) target species; some re-introductions successful but competition and diseases from livestock limit success; sensitive to habitat fragmentation.	UDWR 1999a
Native bees, bumblebees	Native bee populations are declining throughout the West	Kopec and Burd 2017

- Status for other species of wildlife of concern on the Forest is known. Habitat that supports these wildlife species is identified and maintained. Degraded habitat that historically supported the species or currently supports diminished populations of sensitive species is restored.

- Habitat for all migratory birds potentially existing on the Forest is a priority for passive restoration where it is not currently productive for migratory birds. Impacts to migratory bird habitat are identified, documented, and minimized.

- The Forest considers birds listed on the US Fish and Wildlife Service's 2002 List of Birds of Conservation Concern and priority species identified by Utah Partner's in Flight before each Forest management decision. To the extent possible, Forest activities in or near breeding habitat are conducted outside of migratory bird breeding seasons, minimize temporary habitat losses, avoid long-term habitat losses, and mitigate unavoidable habitat losses.

- Forest mitigation includes habitat enhancement any time migratory bird habitat is disturbed. Habitat enhancement is in-kind within the watershed of the impacted habitat in suitable breeding areas.

III. MLNF 2017 Preliminary Need for Change – Wildlife

There is a need to update plan components to provide for conservation and recovery of federally listed species, as well as to maintain viable populations of species of conservation concern.

There is a need for standards and guidelines that incorporate the best available scientific information and contribute to the recovery and conservation of federally recognized species, maintaining viable populations of the species of conservation concern, and sustain the diversity of plant and animal communities, including common and game species within the plan area.

Prohibit the location of honeybee (non-native) apiaries and commercial bumblebees on the MLNF.

IV. MLNF 1986 Forest Management Plan – Wildlife

[For Wildlife by Vegetation Type at III-8]

ENGELMANN SPRUCE - ALPINE FIR

Harvesting utilizing shelterwood or modified shelterwood systems would occur where slope stability would not be affected and where the practice would enhance vegetation diversity as well as improve wildlife habitat.

PINYON-JUNIPER

Pinyon-juniper stands (about 10 percent of the total) on gentle slopes and on land with good soils will be treated periodically to maintain early successional stages. This will help provide vegetation, scenic, and habitat, as well as forage and improved watershed.

RIPARIAN

Vegetative cover within the riparian component ecosystems would be maintained or diversified and enhanced as necessary to emphasize watershed, wildlife, and fisheries values.

Wildlife and Fish *[at III-10]*

- *Appropriate habitat management would maintain viable populations of existing vertebrate species.*
- *Habitats of threatened and endangered species would be maintained. Habitat would be surveyed and appropriate action taken. Habitats for sensitive species would be managed to reduce the potential of these species becoming threatened or endangered.*

- *Flood damaged fisheries habitat could significantly improve as a result of the flood damage repair program in conjunction with watershed activities. In other areas, the fisheries habitat would gradually increase by improving habitat in suitable marginal and unsuitable lakes and reservoirs, and completing stream and riparian improvement projects. Riparian habitat could be maintained and its condition improved.*

- *Big-game winter range capacity could be maintained through direct habitat improvement which could offset encroachment by other activities. Increased emphasis would be given to non-game habitat and non-consumptive wildlife uses.*

- *Populations of deer and elk would increase over current levels. Management Indicator Species (MIS) habitat would be maintained at levels that meet or exceed requirements for minimum viable populations.*

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