

## 4.4 BIOLOGICAL RESOURCES

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### INTRODUCTION

This section describes the existing biological resources that occur or have the potential to occur within the Project Area and vicinity. In addition, a description of applicable regulations is provided. The analysis evaluates the potential impacts to biological resources that could occur in association with the development of property in the commercial districts and the implementation of the Mobility Element. The Land Use Element/Zoning Code Amendments would modify the development regulations and no specific projects are proposed at this time. Likewise, the roadway and trail alignments are conceptual in nature. Therefore, the analysis is evaluated at a program-level. With a programmatic study, such as this EIR, subsequent projects carried out under the proposed Land Use Element/ Zoning Code Amendments and Mobility Element Update may warrant site specific biological assessments and surveys once plans have been prepared.

### 1. ENVIRONMENTAL SETTING

#### a. Regulatory Framework

As part of the proposed Project's review and approval there are a number of performance criteria and standard conditions that must be met. These include compliance with all of the terms, provisions, and requirements of applicable laws that relate to Federal, State, and local regulating agencies for impacts to biological resources. The following provides an overview of the applicable regulations with regard to the biological resources that may be present within the Project Area.

#### (1) Federal

##### (a) Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) protects individuals as well as any part, nest, or eggs of any bird listed as migratory. In practice, Federal permits issued for activities that potentially impact migratory birds typically have conditions that require pre-disturbance surveys for nesting birds. In the event nesting is observed, a buffer area with a specified radius must be established, within which no disturbance or intrusion is allowed until the young have fledged and left the nest, or it has been determined that the nest has failed. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads, intervening topography, etc.), and is based on the professional judgment of a monitoring biologist. A list of migratory bird species protected under the MBTA is published by U.S. Fish and Wildlife Service (USFWS).

##### (b) Federal Clean Water Act, Sections 401 and 404

The mission of the Regional Water Quality Control Board (RWQCB) is to develop and enforce water quality objectives and implement plans that will best protect the beneficial uses of the state's waters, recognizing local differences in climate, topography, geology, and hydrology. The California RWQCB is responsible for implementing compliance not only with state codes such as the California Water Code, but also some federal acts such as Section 401 of the Clean Water Act (CWA). Section 401 of the CWA requires that any applicant for a federal permit for activities that involve a discharge to waters of the state shall provide the federal permitting agency with a certification from the state in which the discharge is proposed that states that the

discharge will comply with the applicable provisions under the federal CWA.<sup>1</sup> As such, before the USACE will issue a CWA Section 404 permit, applicants must apply for and receive a Section 401 water quality certification (WQC) from the RWQCB. The RWQCB regulates “discharging waste, or proposing to discharge waste, within any region that could affect “waters of the state” (Water Code § 13260 (a)), pursuant to provisions of the Porter-Cologne Water Quality Control Act which defines RWQCB jurisdictional “waters of the state” as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code § 13050 (e)).

With the exception of isolated waters and wetlands, most discharges of fill to waters of the state are also subject to a CWA Section 404 permit. If a CWA Section 404 permit is not required for the project, the RWQCB may still require issuance of Waste Discharge Requirements (WDR) under the Porter-Cologne Water Quality Control Act. The RWQCB may regulate isolated waters that are not under jurisdiction of the USACE through issuance of WDR’s. However, projects that obtain a Section 401 WQC are simultaneously enrolled in a statewide general WDR. Processing of Section 401 WQC’s generally requires submittal of 1) a construction storm water pollution prevention plan (SWPPP), 2) a final water quality technical report that demonstrates that post-construction storm water Best Management Practices (BMPs) comply with the local design standards for municipal storm drain permits (MS4 permits) implemented by the State Water Resources Control Board effective January 1, 2011, and 3) a conceptual Habitat Mitigation and Monitoring Plan (HMMP) to compensate for permanent impacts to RWQCB waters, if any. In addition to submittal of a CEQA document, a WQC application typically requires a discussion of avoidance and minimization of impacts to RWQCB jurisdictional resources, and efforts to protect beneficial uses as defined by the local RWQCB basin plan for the project. The RWQCB cannot issue a Section 401 WQC until the project CEQA document is certified by the lead agency.

### **(c) Federal Endangered Species Act (FESA)**

The Federal Endangered Species Act of 1973 (FESA) defines an “endangered” species as “any species which is in danger of extinction throughout all or a significant portion of its range”. A “threatened” species is defined as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range”. Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to “take” any listed species. “Take” is defined in Section 3(18) of FESA as to: “...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Further, the USFWS, through regulation, has interpreted the terms “harm” and “harass” to include certain types of habitat modification as forms of “take”. These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action which could affect a federally-listed plant or animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

Within the last ten years the USFWS instituted changes in the listing status of candidate species abandoning the C1/C2 model. Former C1 candidate species are now considered federal candidate species (FC). Some of the USFWS field offices (e.g., Sacramento) maintain lists of federal Species of Concern (FSC). Federal Species of Concern is not a term that is defined in the federal Endangered Species Act. Rather, it is an informal term that is used to characterize species whose population are or appear to be in decline and warrant

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<sup>1</sup> 33 USC 1341 (a) (1).

conservation. These species receive no legal protection and the use of the term FSC does not mean that they will eventually be proposed for listing.<sup>2</sup> Therefore, this term is not used in this assessment. For purposes of this assessment, the following acronyms are used for federal status species:

FE	Federally listed as Endangered
FT	Federally listed as Threatened
FPE	Federally proposed for listing as Endangered
FPT	Federally proposed for listing as Threatened
FPD	Federally proposed for delisting
FC	Federal candidate species (former Category 1 candidates)

#### **(d) USDA Forest Service Species**

The National Forest Management Act (NFMA) of 1976 and its implementing regulations require the United States Forest Service (USFS) to ensure a diversity of animal and plant communities and maintain viable populations of existing native species as part of their multiple use mandate. The USFS sensitive species program is a proactive approach to conserving species to ensure the continued existence of viable, well-distributed populations, and to maintain biodiversity of National Forest Service lands.<sup>3</sup> In addition, the Secretary of Agriculture's policy on fish and wildlife (Department Regulation 9500-4) directs the USFS to avoid actions "which may cause a species to become threatened or endangered."

The USFS defines sensitive species as those animal and plant species identified by a regional forester for which population viability is a concern. This may be a result of significant current or predicted downward trends in habitat that would reduce a species' existing distribution or significant current or predicted downward trends in density or population numbers.<sup>4</sup>

The USFS maintains a list of sensitive wildlife and plant species. This list consists of rare plants and animals which are given special management consideration to ensure their continued viability within the national forests.<sup>5</sup>

#### **(e) Inyo National Forest Land and Resource Management Plan**

The USFS Inyo National Forest Land and Resource Management Plan (LRMP) establishes the management, direction, and long-range goals for the Inyo National Forest (USFS 1988).<sup>6</sup> Management goals for the USFS include (but are not limited to) the following:

<sup>2</sup> *Sacramento Fish & Wildlife website: [http://sacramento.fws.gov/es/spp\\_concern.htm](http://sacramento.fws.gov/es/spp_concern.htm)*

<sup>3</sup> *United State Forest Service (USFS). 2007. Threatened, Endangered, & Sensitive Species Program Bulletin. February 2007. Available online at <http://www.fs.fed.us/biology/tes/index.html>*

<sup>4</sup> *USFS. 1997. Forest Service Manual, Section 2670.5*

<sup>5</sup> *Murphy, Leeann. 2009. Wildlife Biologist, Inyo National Forest. Email communication with Linda Robb, Senior Biologist, PCR Services Corporation on November 16, 19, and 20, 2009.*

<sup>6</sup> *USFS. 1988. Inyo National Forest Land and Resources Management Plan. Inyo County Planning Department. Independence, CA.*

- Protect and improve riparian area-dependent resources while allowing for management of other compatible uses.
- Protect or improve the habitats of threatened or endangered species in cooperation with state and other federal agencies.
- Protect sensitive plants to ensure they will not become threatened or endangered.
- Manage wildlife habitat to provide species diversity, ensure that viable populations of existing native wildlife is maintained, and that the habitats of management emphasis species are maintained or improved.

Forest-wide Standards and Guidelines provide specific guidelines for the management of each resource to ensure its enhancement and protection. These include (but are not limited to) the following:

### ***Riparian Areas***

- Protect streams, streambanks, lakes, wetlands, and shorelines, and the plants and wildlife dependent on these areas.
- Prevent adverse riparian area changes in water temperature, sedimentation, chemistry, and water flow.
- Rehabilitate and/or fence riparian areas that consistently show resource damage.
- Allow new developments and surface disturbance in riparian areas only after on-site evaluations have determined that resources are not adversely affected, or mitigation of any adverse impacts is identified and incorporated into the project design.

### ***Sensitive Plants***

- Allow no new disturbance of identified sensitive plant habitat without direction from Interim Management Guidelines, Species Management Guides, or an environmental analysis.
- Complete inventories of project areas and areas of disturbance if there is potential habitat or known population locations identified.

### ***Wildlife – Threatened, Endangered, and Sensitive Wildlife Species***

- Cooperate with the USFWS and the California Department of Fish and Wildlife (CDFW)<sup>7</sup> in the management of threatened and endangered species.
- Submit proposals for actions that might affect the continued existence of a threatened or endangered species to the USFWS for formal consultation.

### ***Wildlife – Management Indicator Species***

- Management Indicator Species (MIS) are wildlife species identified in the USFS MIS Amendment Record of Decision (ROD) signed December 14, 2007. The list of MIS was developed under the 1982 National Forest System LRMP Rule and amended by the 2007 SNF MIS Amendment ROD. Forest

<sup>7</sup> As of January 1, 2013, the former California Department of Fish and Game name has been changed to the California Department of Fish and Wildlife.

Service resource managers are directed to analyze the effects of Proposed Project Alternatives on the habitat of each MIS affected by such projects and monitor populations and/or habitat trends of each MIS.

The following habitat or ecosystem components and corresponding USFS's MIS are included under the 2007 USFS MIS Amendment ROD.

- Riverine and lacustrine: aquatic macroinvertebrates
- Shrubland (west-slope chaparral types): fox sparrow (*Passerella iliaca*)
- Sagebrush: greater sage-grouse (*Centrocercus urophasianus*)
- Oak-associated hardwood and hardwood/conifer: mule deer (*Odocoileus hemionus*)
- Riparian: yellow warbler (*Dendroica petechia*)
- Wet meadow: Pacific tree frog (*Pseudacris regilla*)
- Early- and mid-seral coniferous forest: mountain quail (*Oreortyx pictus*)
- Late-seral open canopy coniferous forest: sooty (blue) grouse (*Dendragapus obscurus*)
- Late-seral closed-canopy coniferous forest: California spotted owl (*Strix occidentalis occidentalis*), Pacific marten (*Martes caurina*), and northern flying squirrel (*Glaucomys sabrinus*)
- Snags in green forest: hairy woodpecker (*Picoides villosus*)
- Snags in burned forest: black-backed woodpecker (*Picoides arcticus*)

## (2) State

### (a) State of California Fish and Game Code, Section 1602

Section 1602 of the California Fish and Game Code requires any entity (e.g., person, state or local government agency, or public utility) who proposes a project that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake to notify the CDFW of the proposed project. In the course of this notification process, the CDFW will review the proposed project as it affects streambed habitats within the project area. The CDFW may then place conditions on the Section 1602 clearance to avoid, minimize, and mitigate any potentially significant adverse impacts within CDFW jurisdictional limits.

### (b) California's Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as:

*...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.*

The State defines a threatened species as:

*...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species.*

Candidate species are defined as:

*...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.*

Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Wildlife Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened or endangered species by stating:

*...no person shall import into this State, export out of this State, or take, possess, purchase, or sell within this State, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided.*

Under the CESA, “take” is defined as, “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.”

Additionally, some special-status mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Wildlife Code, Sections 4700 and 3511, respectively.

California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. Informally listed species are not protected per se, but warrant consideration in the preparation of biological assessments.

For purposes of this assessment, the following acronyms are used for State status species:

SE	State listed as Endangered
ST	State listed as Threatened
SR	State Rare
SCE	State Candidate for Endangered
SCT	State Candidate for Threatened
SCD	State Candidate for Delisting
SFP	State Fully Protected
SSC	California Species of Special Concern

### (c) State of California Fish and Game Code, Section 350.5

Section 3503.5 of the California Fish and Game Code states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Activities that result in the abandonment of an active bird of prey nest may also be considered in violation of this code. In addition, California Fish and Game Code, Section 3511 prohibits the taking of any bird listed as fully protected, and California Fish and Game Code, Section 3515 states that it is unlawful to take any non-game migratory bird protected under the MBTA. Disturbances at active nesting territories should be avoided during the nesting season, typically, April 1 through August 31 in the Mammoth Lakes area.

### (d) California Native Plant Society

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of special-status species in California. The CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California.<sup>8</sup> The list serves as the candidate list for listing as Threatened and Endangered by CDFW. The CNPS has developed five categories of rarity, of which Ranks 1A, 1B, and 2 are particularly considered special-status:

- Rank 1A Presumed extinct in California.
- Rank 1B Plants Rare, Threatened, or Endangered in California and elsewhere.
- Rank 2 Plants Rare, Threatened, or Endangered in California, but more common elsewhere.
- Rank 3 Plants about which we need more information – a review list.
- Rank 4 Plants of limited distribution – a watch list.

The CNPS recently added “threat ranks” which parallel the ranks used by the California Natural Diversity Database (CNDDDB), which is CDFW species account database. These ranks are added as a decimal code after the CNPS Rank (e.g., Rank 1B.1). The threat codes are as follows:

- 1 – Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);
- 2 – Fairly endangered in California (20-80% occurrences threatened);
- 3 – Not very endangered in California (<20% of occurrences threatened or no current threats known).

Special-status species that occur or potentially could occur within the study area are based on one or more of the following: (1) the direct observation of the species within the study area during any field surveys; (2) a record reported in the CNDDDB; and (3) the study area is within known distribution of a species and contains appropriate habitat.

<sup>8</sup> CNPS, *Rare Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org>.*

### **(e) Special Interest Species**

The CDFW, and most local agencies, and special interest groups, such as the CNPS publish watch lists of declining species. Species on these lists are a part of the special interest species assessment. Special interest species, species of concern, and candidates for state and/or federal listing are also included in the special interest species discussion.

Inclusion of species described in this analysis is based on the following:

- Direct observation of the species or its sign in the Project Area or immediate vicinity during surveys conducted for this study or reported in previous biological studies;
- Sighting by other qualified observers;
- Record reported by the CNDDDB published by the CDFW;<sup>9</sup>
- Presence or location of specific species lists provided by private groups (e.g., CNPS); or
- Site lies within known distribution of a given species and contains appropriate habitat.

## **(3) Regional**

### **(a) Upper Owens River Watershed Management Plan**

In March, 2007, through funding provided by a grant from the State Water Resources Control Board, Mono County, and The Mono County Collaborative Planning Team completed the upper Owens River Watershed Management Plan. Goals of the upper Owens River Watershed Management Plan include maintaining and improving the aquatic habitat of Hot Creek and Mammoth Creek, maintaining existing wetlands, and maintaining and improving riparian habitat. Potential actions to facilitate these goals include the following:

- Guide development away from wetland margins and do not develop wetland areas;
- Explore opportunities for land trades with areas of lesser quality habitat;
- Suggest conservation easements on wetland parcels;
- Remove and improve roads in riparian areas;
- Remove nonessential stream crossings, and remove development from riparian zones; and
- Restore degraded riparian areas.

## **(4) County**

### **(a) Mono County Regional Transportation Plan and General Plan Update**

The purpose of the adopted Mono County General Plan (1992) is to establish policies to guide decisions on future growth, development, and conservation of natural resources in the unincorporated area of the county. The plan reflects community-based planning and includes individual area plans for Mono County

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<sup>9</sup> CDFW (California Department of Fish and Wildlife). 2015. *California Natural Diversity Database (available by subscription) and Rarefind*. CDFW: Sacramento, California.



communities. As discussed in the adopted General Plan, approximately 94 percent of the land in Mono County is publicly owned; approximately 88 percent of the public land is managed by the USFS, and other public agencies. According to the adopted General Plan, because such a great percentage of the land in the county remains open space and since the County has no direct authority over much of that land, one of Mono County's main concerns about open space is coordinating county policies with the land use policies of the agencies managing the public lands.<sup>10</sup> The County is also concerned about the impacts of federal open space policies on county resources.

The Mono County General Plan Update (2015) adopted on December 14, 2015 also states that the County has limited direct planning authority over only a small percentage of the lands in the county and, therefore, must work with other land managers to manage the natural resources in the area.<sup>11</sup> Under the adopted General Plan and Draft General Plan Update, the unincorporated County area around the Town of Mammoth Lakes is designated as Resource Management (RM),<sup>12</sup> which is intended to recognize and maintain a wide variety of values in the lands outside the existing communities. According to the General Plan Update, land use designations reflect federal designations.

One of the goals of the Mono County General Plan is to “maintain an abundance and variety of vegetation, aquatic and wildlife types in Mono County for recreational use, natural diversity, scenic value, and economic benefits.”<sup>13</sup> This goal is accomplished through a number of policies including the following:

- Future development shall mitigate impacts to biological resources to a level of less than significant or avoid potential significant impacts;
- Threatened and endangered plants and wildlife and their habitats shall be protected and restored;
- Native plants, sensitive plants, and plants “of exceptional scientific, ecological, or scenic value” shall be protected and restored;
- Construction activities shall be prohibited in sensitive habitats prior to environmental review;
- Soil conservation practices shall be utilized during construction;
- The acquisition of valuable wildlife habitat by land conservation organizations or federal or state land management agencies shall be encouraged;
- OHV use shall be restricted in valuable habitats;
- Water quality for fishery habitat shall be maintained by enforcing the policies of the Conservation/Open Space Element of the Mono County General Plan;
- Efforts shall be made to regulate in-stream flows and lake levels for the purposes of maintaining fisheries and other riparian-dependent biological resources;
- Efforts shall be made to manage fisheries “in accordance with their biological capabilities”;

<sup>10</sup> *Mono County General Plan, Conservation and Open Space Element, 2012, page V-3.*

<sup>11</sup> *Mono County General Plan, page II-105, 2015.*

<sup>12</sup> *Mono County General Plan, Mono County General Plan, Figure 72.*

<sup>13</sup> *Mono County Planning Department. 1993. Mono County General Plan. Biological Resources.*

- Non-consumptive use of existing fisheries shall be promoted;
- Efforts to support the reintroduction of trout in appropriate locations shall be made; and
- CDFW fish stocking efforts shall be supplemented with a “county-supported stocking program”.

## **(5) Local**

### **(a) Town of Mammoth Lakes General Plan**

The value of the Town’s forest setting and occurrence of forest trees throughout the Urban Growth Boundary (UGB), as well as within the broader municipal boundary and planning area is reflected in the Town’s General Plan. The General Plan recognizes that recreational public access throughout the town and connection to the surrounding forest is essential. The General Plan Community Design Element recognizes that the community is set within the forest and that trees and the natural landscape are prominent and create a sense of scale and a strong aesthetic. The Community Design Element states that Mammoth Lakes will develop as a village in the trees and that the community supports the retention of major landscape characteristics and unique natural features, such as trees.<sup>14</sup> The Community Design Element also encourages maintaining the forested character of the Town’s streets and to retain natural pockets of forest within the UGB and surrounding area.

The General Plan Resource Management and Conservation Element sets forth policies and goals to encourage the role of the Town in conserving the area’s natural resources and Goal R.1 states: “Be stewards of habitat, wildlife, fisheries, forests and vegetation resources of significant biological, ecological, aesthetic and recreational value”.<sup>15</sup> Policy R.1.A is to be stewards of important wildlife and biological habitats within the UGB; Policy R.1.B is that development shall be stewards of Special Plant species and natural communities and habitats; Policy R.1.D is to be stewards of primary wildlife habitats through construction of active and passive recreation away from habitat; and Policy R.1.I is to encourage the management of forest resources in and adjacent to the town to ensure forest health, minimize insect and pathogen outbreaks and reduce fuel loading. Action R.1.B.1 is to minimize removal of native vegetation and trees.

### **(b) Special Use Permits**

The Town is located within the Eastern Sierra conifer forest and forest trees, such as Lodgepole pine (*Pinus contorta* ssp. *murrayana*), Jeffrey pine (*Pinus jefferyi*), and other conifers, are located along most of the Town’s urban streets. These occur as specimen trees and stands within the Town’s developed and undeveloped properties. Many Town recreational facilities, including several miles of paved multi-use paths (MUPs), are located within the Inyo National Forest surrounding the UGB. These facilities are forested in character and contain notable stands of Jeffrey pines and other older growth trees. Facilities within the Inyo National Forest operate under Special Use Permits granted to the Town by the USDA Forest Service.

### **(c) Town of Mammoth Lakes Zoning Code**

The Town of Mammoth Lakes Zoning Code reflects the value that the General Plan places on the Town’s and the surrounding National Forest’s existing forest resources. Zoning Code Section 17.36.140 regulates the

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<sup>14</sup> *Town of Mammoth Lakes General Plan, 2007, page 16.*

<sup>15</sup> *Town of Mammoth Lakes General Plan, 2007, page 44.*

protection and removal of certain trees and reflects the Town's interest in maintaining existing forest trees based on their important environmental, aesthetic and health benefits. Under Code Section 17.36.140, benefits from trees include, but are not limited to, enhancement of the character and beauty of the community as a "Village in the Trees," protection of property values, provision of wildlife habitat, reduction of soil erosion, noise buffering, wind protection, and visual screening for development. Zoning Code Sections 17.24.040(D) and 17.36.050(B) require the preservation of existing trees and vegetation within commercial, residential and industrial zones to the maximum extent possible.

The Zoning Code also provides exemptions to the ban on tree removal. These apply to trees that present an immediate safety hazard to life or property, as determined by the Town Manager, Director, Building Official, Public Works Director, or other official. Tree removal performed by the Town, public utilities, or other public agencies in public utility easements or public rights-of-way is also permitted under the Zoning Code. In addition, tree removal for fuel reduction on public land or tree removal performed in conjunction with an approved fuel reduction program or activity is exempt. Exemptions also include trees that are visibly dead or felled in a natural event; and coniferous and deciduous trees with a diameter at breast height (DBH) of less than 12 inches.

Under Code Section 17.36.140.G, a development site that includes tree removal must provide an approved Tree Removal and Protection Plan, including tree protection measures or obtain a separate tree removal permit. Code Section 17.36.140.I requires mitigation for tree removal in certain circumstances, including replacement plantings. If required, replacement shall be limited to plantings in areas suitable for tree replacement with species identified in the Town's Recommended Plant List. The replacement ratio shall be determined by the Director. If required, the minimum replacement tree size shall be seven gallons. Replacement requirements may also be determined based on the valuation of the tree as determined by a Registered Professional Forester (RPF) or arborist. The property owner shall maintain plantings to a level approved by the Director.

## **b. Existing Conditions**

### **(1) Vegetation Communities**

The following provides a discussion of the existing vegetation resources found within the entire Project Area, which consists of individual or mixed plant communities as shown in **Figure 4.4-1, Vegetation Map**.<sup>16</sup> Plant communities found within each Project component are more specifically described in sections (a) *Land Use and Zoning Code Amendments* and (b) *Mobility Element Update*, below.

#### **Aspen Forest and Aspen Woodland**

Aspen forest consists of dense groves of quaking aspen (*Populus tremuloides*) as the sole or dominant tree in the canopy, which can grow up to 65 feet in height. The understory in this community is typically sparse, but includes a variety of small shrubs and herbaceous perennials. Scrubby quaking aspen thickets may occur at the edges in areas of relatively dry soil or at high altitudes. Additional species include mountain snowberry

<sup>16</sup> Due to the scale of the Project, the following descriptions summarize the basic characteristics and constituent species of plant communities as stand-alone elements. In cases where two or three of these communities are mixed, the vegetation shares characteristics and constituent species from each of the component parts.

(*Symphoricarpus rotundifolius*), interior rose (*Rosa woodsii* var. *ultramontana*), mountain alder (*Alnus incana*), ranger's buttons (*Sphenosciadium capitellatum*), common yarrow (*Achillea millefolium*), wax currant (*Ribes cereum*), Sierra onion (*Allium campanulatum*), meadow goldenrod (*Solidago canadensis* ssp. *elongata*), and narrow-leaved willow (*Salix exigua*).

Aspen woodland consists of quaking aspen as the sole or dominant tree in the tree canopy. In contrast to aspen forests, trees in aspen woodland tend to be less than 115 feet in height with an intermittent or open canopy. This plant community characteristically occurs at elevations between 5,000 feet and 10,000 feet in depressions and swales, on slopes, at meadow margins, along stream corridors, and on colluvial toe slopes where soils are typically deep, well developed, and seasonally or permanently saturated. Additional species typically include willow (*Salix* spp.), lodgepole pine, white fir (*Abies concolor*), mountain alder, common yarrow, ranger's buttons, mountain snowberry, sticky cinquefoil (*Drymocallis glandulosa*), mountain meadow rue (*Thalictrum fendleri*), and scarlet gilia (*Ipomopsis aggregata*).

For the purpose of this assessment, the terms "forest" and "woodland" are used to describe quaking aspen dominated vegetation types as a whole.

### Great Basin Sagebrush Scrub

Great Basin sagebrush scrub consists of mostly soft-woody shrubs, usually lacking an understory and intermixed with areas consisting of bare ground. This plant community typically grows at elevations between 1,000 feet and 10,000 feet on plains, alluvial fans, pediments, lower slopes, and valley bottoms, and along seasonal and perennial stream channels, and dry washes. Great Basin sagebrush (*Artemisia tridentata*) is the dominant species of this plant community, and growth occurs mostly in late spring and early summer. This plant community is dormant during the winter and occurs on a wide variety of soils and terrain, from rocky, well-drained slopes to fine-textured, valley soils with a high water table. Other characteristic species include four-wing saltbush (*Atriplex canescens*), rubber rabbitbrush (*Ericameria nauseosus*), Idaho fescue (*Festuca idahoensis*), antelope bitterbrush (*Purshia tridentata*), and Great Basin wild rye (*Elymus cinereus*).

### Conifer Forest

Conifer forest consists of an open to dense forest of coniferous evergreens up to 250 feet in height. Within the basic conifer forest classification, there are various alliances that are dominated by individual species. In mixed conifer forest, dominant species within the Project Area include lodgepole pine, white fir, western white pine (*Pinus monticola*), and Jeffrey pine. Lodgepole pine and Jeffrey pine are most commonly the dominants or co-dominants; however, there is considerable mixing of all of the above mentioned pine species. The understory typically consists of scattered broadleaved mesophytic shrubs and small trees. Species characteristic of this community may also include currant (*Ribes* spp.), manzanita (*Arctostaphylos* sp.), chinquapin (*Chrysolepis sempervirens*) and California lilac (*Ceanothus* spp.).

Conifer forest predominates much of the landscape surrounding the Town and occurs as scattered fragments within the Town's UGB. Jeffrey pine forest is characterized as a tall, open forest dominated by Jeffrey pine with sparse understories of either montane chaparral or Great Basin sagebrush scrub. This community occurs on dry, cold sites, especially on well-drained slopes, ridges, or cold air accumulation basins up to approximately 9,500 feet. Characteristic species include Jeffrey pine (dominant), Great Basin sagebrush, antelope bitterbrush, huckleberry oak (*Quercus vaccinifolia*), and snowberry. Lodgepole pine forest is

characterized by dense forest of slender trees dominated by lodgepole pine, which grow up to 130 feet tall. More open stands also occur within drier sites, where trees reach 65 feet tall. Dense stands of lodgepole pines typically have a sparse understory with small shrubs and perennial herbs occurring within the forest openings. Lodgepole pine forest typically occurs at elevations between 5,000 feet and 11,150 feet with cool, dry summers and long winters with abundant snowfall. This community tolerates a variety of soil conditions and moisture levels; however, it most commonly occurs on rocky, well-drained soils. Characteristic species include lodgepole pine (dominant), quaking aspen, cinquefoil (*Dryocallis* spp.), heather (*Phyllodoce* spp.), and wintergreen (*Pyrola* spp.).

### **Mixed Willow Riparian Scrub**

Mixed willow riparian scrub consists of a relatively open to dense shrubby streamside thicket consisting of a mixture of willow species as the dominant species in the shrub canopy. Species in this community include arctic willow (*Salix arctica*), narrow-leaved willow (*Salix exigua*), Lemmon's willow (*Salix lemmonii*), shining willow (*Salix lucida* ssp. *lasiandra*), yellow willow (*Salix lutea*), tea-leaved willow (*Salix planifolia*), corn lily (*Veratrum californicum*), fireweed (*Epilobium angustifolium*), spike mallow (*Sidalcea oregano* ssp. *spicata*), western blue flag (*Iris missouriensis*), seep monkeyflower (*Mimulus guttatus*), mountain snowberry, meadow goldenrod, common yarrow, and horse-mint (*Agastache urticifolia*). This plant community occurs throughout the eastern Sierra Nevada up to elevations of approximately 12,500 feet. It requires seasonally or perennially saturated soils and, consequently, is found primarily along large tributary drainages.

### **Montane Wet Meadow**

Montane meadow vegetation is characterized by a dense growth of sedges and other perennials herbs. Typically, it occurs between 4,000 feet and 8,500 feet. The main growth period for this plant community is from late spring through summer with a dormancy period in the winter. This community occurs on fine-textured, somewhat permanently moist or wet soils. Montane wet meadows are often a successional stage in the filling of lakebeds with soil and often are characterized by young trees encroaching from the margins. Plant species observed within this community include epilobium (*Epilobium ciliatum*), smoothstem willow-herb (*Epilobium glaberrimum*), fireweed, corn lily, wandering daisy (*Erigeron peregrinus* var. *hirsutus*), sedge (*Cyperus* sp.), Kelly's tiger lily (*Lilium kelleyanum*), leopard lily (*Lilium pardalinum*), yampah (*Perideridia parishii* ssp. *latifolia*), arrow-leaf butterweed (*Senecio triangularis*), meadow goldenrod, western blue flag, Sierra rein orchid (*Platanthera leucostachys*), monkshood (*Aconitum columbianum*), swamp onion (*Allium validum*), meadow paintbrush (*Castilleja miniata* ssp. *miniata*), Brewer's mitrewort (*Mitella breweri*), cow parsnip (*Heracleum lanatum*), sticky cinquefoil, mountain meadow rue, rush, horsetail (*Equisetum* sp.), seep monkeyflower, slender cinquefoil (*Potentilla gracilis*), common yarrow, elephant's head (*Pedicularis groenlandica*), spike mallow, dented silk-moss (*Plagiothecium denticulatum*), common green bryum moss (*Bryum pseudotriquetrum*), ribbed bog moss (*Aulacomnium palustre*), and water speedwell (*Veronica anagallis-aquatica*).

### **Montane Chaparral**

Montane chaparral is associated with mountainous terrain from mid to high elevations from 3,000 feet to over 10,000 feet. It occurs throughout the mountain ranges in southern California, the Sierra Nevada, and the Cascade mountain ranges in central and northern California. Montane chaparral can be found on shallow to deep soils, on all exposures, and from gentle to relatively steep slopes. It has the potential to dominate

more xeric sites, but occurs locally throughout the coniferous zone. The growth form of montane chaparral plant species can vary from tree-like to prostrate. When mature, it generally becomes extremely dense. The composition of montane chaparral varies markedly throughout California depending on elevation, geography, soil type, and slope aspect. In the Mammoth Lakes region, dominant species include manzanita (*Arctostaphylos nevadensis* and *A. patula*), lilac (*Ceanothus cordulatus*, *C. integerrimus*, and *C. velutinus*), and bitter cherry (*Prunus emarginata*).

### **Developed and Disturbed**

Developed and disturbed habitats are found throughout the Town and along roads. While there are portions within the Town that support native trees, shrubs and groundcovers, much of the Town is characterized by hardscape surfaces, bare ground, non-native plants, and ornamental plantings.

#### **(a) Land Use Element/ Zoning Code Amendments**

There are undeveloped parcels located within the commercial districts along Main Street and Old Mammoth Road. While these parcels are mostly characterized by disturbed areas, some of the parcels support, at least in part, conifer forest community described above. Many of the developed and disturbed parcels occur along Old Mammoth Road in the eastern portion of the Town. Parcels dominated by pine trees with some areas of disturbance are mainly located adjacent to open areas supporting pine trees along Main Street in the northern portion of the Town. Based on U.S. Geological Survey (USGS) 7.5-minute Old Mammoth topographic quadrangle map,<sup>17</sup> a few of the parcels appear to support a blue line stream.

#### **(b) Mobility Element Update**

##### ***Road Improvements***

The Mobility Element Update identifies eight (8) road improvement projects, as shown in Figure 2-5 in this EIR. In addition to the eight (8) identified improvement projects, the proposed Sierra Park Road Extension is planned to cross Mammoth Creek, which is included in all discussions pertaining to the Mobility Element Update. Two additional roads are planned to run parallel to the proposed MUPs 4-5, N-1, N-2, and N-3 (see *Multi-Use Path* section below). Because these areas extend through the same habitats, existing biological resources and potential project-related impacts within these areas are discussed in sections pertaining to MUPs. All of the proposed road improvements are contained within the UGB. The road improvements would mostly involve construction within areas of the Town that are already developed and/or disturbed. However, some improvements are planned in sections of the Town that are relatively undisturbed and support native vegetation communities, including aspen forest and aspen woodland, great basin sagebrush scrub, conifer forest, and montane wet meadow. The major vegetation communities occurring within areas planned for road improvements are presented in **Table 4.4-1, *Vegetation Communities within the Proposed Road Improvement Areas***. Vegetation communities are listed in order of most prevalent to least prevalent.

<sup>17</sup> United States Geological Survey (USGS). 1983. *Old Mammoth, California topographic quadrangle map*.

**Table 4.4-1****Vegetation Communities within the Proposed Road Improvement Areas**

<b>Improvement Project</b>	<b>Vegetation Communities</b>
Main Street Plan <sup>a</sup>	<ul style="list-style-type: none"> <li>▪ Disturbed/Developed</li> </ul>
USFS Property Connections <sup>b</sup>	<ul style="list-style-type: none"> <li>▪ Developed/Disturbed</li> <li>▪ Conifer Forest</li> </ul>
Thompsons Way	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Conifer Forest</li> <li>▪ Developed/Disturbed</li> </ul>
Tavern Road Extension	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Conifer Forest</li> <li>▪ Developed/Disturbed</li> </ul>
Sierra Nevada Road Extension	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Developed/Disturbed</li> </ul>
Shady Rest Site Connections <sup>b</sup>	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Montane Wet Meadow</li> <li>▪ Developed/Disturbed</li> </ul>
Callahan Way Extension	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed/Disturbed</li> </ul>
7B Road (Sierra Star Connector)	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed/Disturbed</li> </ul>
Sierra Park Road Extension	<ul style="list-style-type: none"> <li>▪ Great Basin Sage Scrub</li> <li>▪ Developed Disturbed</li> <li>▪ Aspen Forest and Aspen Woodland</li> </ul>

<sup>a</sup> Although mostly developed, there are some planted street trees along Main Street.

<sup>b</sup> USFS Property Connections and Shady Rest Site Connections cross unnamed blue line streams based on USGS topographic mapping.

Source: ESA PCR, 2015.

The Main Street Plan includes the vacation of the frontage roads and conversion to a four-lane cross-section with a center median and turn pockets, which primarily would occur on developed and/or disturbed land. Although the Main Street Plan is proposed along a highly developed street within the Town, there are a number of native pine trees planted along Main Street. The USFS Property Connections would provide connections within the USFS lands on the north side of Main Street, primarily along Forest Trail. Additionally, there are a number of roads proposed between Forest Trail and Sawmill Cutoff, adjacent to the Mammoth Lakes Fire Department. These connections would provide improved connectivity on the north

side of Main Street and would be considered with potential future USFS development plans. The Inyo National Forest lies directly north of Forest Trail, which supports primarily conifer forest habitat. Conifer forest habitat and an unnamed USGS mapped blue line stream also occur in the area between Forest Trail and Sawmill Cutoff.

The Thompsons Way Improvement Project, the Sierra Nevada Road Extension, and Tavern Road Extension are generally located south of Main Street and east of Old Mammoth Road in the eastern portion of the Town. The vegetation types within these areas are dominated by Great Basin sagebrush scrub intermixed with some areas of conifer forest and developed and/or disturbed land. The Sierra Nevada Road Extension would pass through an area dominated by Great Basin sagebrush scrub with some areas of developed and/or disturbed land.

The Callahan Way Extension and 7B Road (Sierra Star Connector) are generally located south of Main Street and east of Joaquin Road in the western portion of the Town. Callahan Way Extension and 7B Road (Sierra Star Connector) areas are dominated by conifer forest with some areas of developed and/or disturbed land.

The Shady Rest Site Connections are generally located south of Main Street and north of Sierra Nevada Road in the center of the Town. The area is dominated by conifer forest with some disturbed areas, primarily from existing trails. Based on USGS topographic mapping, there is an unnamed blue line stream that occurs in the northwestern portion of the Shady Rest Site Connections, which supports montane wet meadow habitat.<sup>18</sup> The vegetation in this area was previously mapped by BonTerra Consulting in 2007 for a project called Hidden Creek Crossing, which appears consistent with current aerial photographs.<sup>19</sup>

The Sierra Park Road Extension would provide a direct connection between Meridian Boulevard and Mammoth Creek Road. The majority of this proposed road would traverse through Great Basin sage scrub habitat with scattered conifer trees. The section of the extension near Mammoth Creek appears to support aspen forest and aspen woodland.

## **(2) Multi-Use Paths (MUPs)**

In addition to the road improvement described above, the Mobility Element Update includes the implementation of a proposed network of MUPs, which are proposed within the UGB as well as within adjacent Inyo National Forest lands. As stated previously, a number of the MUPs proposed as a part of this Mobility Element Update were previously described in the Trails System Master Plan (TSMP) EIR, which was certified on October 19, 2011 (SCH#2010111013). A total of 38 MUPs are proposed as a part of the Mobility Element Update, including 17 MUPs that were previously described as part of the TSMP project (MUP 2-1 through 4-5) and 24 newly proposed MUPs (MUP N-1 through N-24). Design guidelines for MUPs specify that they will be between 10 feet and 12 feet wide. The proposed MUPs will traverse several natural communities, including those trails within the developed portions of the Town, and will potentially be located in any of the vegetation communities previously identified, including aspen forest and aspen woodland, great basin sagebrush scrub, conifer forest, mixed willow riparian scrub, montane meadow, and

<sup>18</sup> *United States Geological Survey (USGS). 1983. Old Mammoth, California topographic quadrangle map.*

<sup>19</sup> *BonTerra Consulting. 2007. Hidden Creek Crossing Project Site Draft Biological Technical Report. Prepared for RBF Consulting. October 16, 2007.*



montane chaparral. The major vegetation communities present within MUPs is displayed in **Table 4.4-2, *Vegetation Communities within the Proposed MUP Areas***, below. Although MUPs previously proposed for the TSMP project are in the same general location, some of the MUPs have a slightly altered conceptual alignment, which are identified in Table 4.4-2. One (1) MUP (MUP 3-3) was previously proposed in the TSMP project but is not proposed as a part of the Mobility Element Update and has not been completed. MUPs 3-1, 3-4, 3-7, and 3-11 were previously proposed for the TSMP project and have been completed.

**Table 4.4-2****Vegetation Communities within the Proposed MUP Areas**

<b>MUP</b>	<b>Name</b>	<b>From</b>	<b>To</b>	<b>Vegetation Communities</b>
<i>Evaluated in TSMP EIR</i>				
MUP 2-1 <sup>a</sup>	Main Path (4a) – Town Loop	Mammoth Creek Park	Minaret Road	<ul style="list-style-type: none"> <li>▪ Aspen Forest and Aspen Woodland</li> <li>▪ Great Basin Sagebrush Scrub</li> </ul>
MUP 2-2	Lodestar Connector	Majestic Pines Drive	Hidden Valley Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> </ul>
MUP 3-2 <sup>b</sup>	Elementary School Connector	Main Path - Town Loop	Sierra Nevada Road Extension	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP 3-5 <sup>b</sup>	Manzanita Connector	Manzanita Road	Chaparral Road Extension	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Montane Wet Meadow</li> <li>▪ Developed and Disturbed</li> </ul>
MUP 3-6	MCWD Access	Main Path - Town Loop	MCWD Facility	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> </ul>
MUP 3-8	Hidden Valley to Minaret Connector	Hidden Valley Road	Minaret Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP 3-9 <sup>b</sup>	Center Street to Hidden Creek Connector	Chaparral Road Extension	West Tavern Road Extension	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP 3-10 <sup>b</sup>	Manzanita to Tavern Connector	Chaparral Road	North Extension from Arrowhead Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP 3-12 <sup>c</sup>	North Village to St. Anton Connector	East of Minaret	St. Anton Circle	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP 3-13	Eagle Path	Eagle Lodge	Lake Mary Road	<ul style="list-style-type: none"> <li>▪ Developed and Disturbed</li> </ul>
MUP 4-1 <sup>b,c</sup>	Shady Rest Park Path Extension	Main Street Connector	Shady Rest Path	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Developed and Disturbed</li> </ul>
MUP 4-2	Forest Trail to Shady Rest Connector	Forest Trail	MUP N-13	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> </ul>
MUP 4-3 <sup>b,c</sup>	Knolls Path (south route)	Forest Trail to Shady Rest Connector (MUP 4-2)	Minaret Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> </ul>

Table 4.4-2 (Continued)

## Vegetation Communities within the Proposed MUP Areas

<u>MUP</u>	<u>Name</u>	<u>From</u>	<u>To</u>	<u>Vegetation Communities</u>
MUP 4-4 <sup>a,b</sup>	Mammoth Creek Path	Town Loop	MCWD Facility	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Montane Chaparral</li> </ul>
MUP 4-5 <sup>c</sup>	Sherwin/Snowcreek Connector	Old Mammoth Road	Snowcreek VIII Access/Egress Point	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> </ul>
<b><i>Trails Proposed in the Mobility Element Update</i></b>				
MUP N-1		Old Mammoth Road	Fairway Drive	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-2 <sup>c</sup>		Sherwin Creek Road	Fairway Circle	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-3		Snowcreek VIII Access/Egress Point	Fairway Drive	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> </ul>
MUP N-4 <sup>c</sup>		Snowcreek VIII Access/Egress Point	South Snowcreek Resort	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Montane Chaparral</li> <li>▪ Montane Wet Meadow</li> <li>▪ Developed/Disturbed</li> </ul>
MUP N-5		Chateau Road	Mammoth Creek Park	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Montane Chaparral</li> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> </ul>
MUP N-6		Cerro Coso Community College	Mono County Library and Ice Rink	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Montane Chaparral</li> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> </ul>
MUP N-7		Main Street	Town Loop	<ul style="list-style-type: none"> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> </ul>
MUP N-8		Thompson Way Extension	Sierra Nevada Road Extension	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-9		Thompson Way Extension	Sierra Park Road	<ul style="list-style-type: none"> <li>▪ Developed and Disturbed</li> </ul>
MUP N-10		Chaparral Road	Manzanita Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-11 <sup>c</sup>		Southern portion of Shady Rest Park path Extension (MUP 4-1)	Shady Rest Park/Sawmill Cutoff Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-12		Shady Rest Park/Sawmill Cutoff Road	Sawmill Cutoff Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> </ul>
MUP N-13		Shady Rest Path at Sawmill Cutoff Road	Forest Trail to Shady Rest Connector	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> </ul>
MUP N-14		Main Street	East Bear Lake Drive	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>

**Table 4.4-2 (Continued)****Vegetation Communities within the Proposed MUP Areas**

<b>MUP</b>	<b>Name</b>	<b>From</b>	<b>To</b>	<b>Vegetation Communities</b>
MUP N-15		East Bear Lake Drive	Minaret Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-16		MUP N-14	Main Street	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-17 <sup>c</sup>		Minaret Road	MUP N-18	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> </ul>
MUP N-18		Minaret Road	Lake Mary Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-19		Minaret Road	Meridian Boulevard	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Great Basin Sagebrush Scrub</li> <li>▪ Developed and Disturbed</li> <li>▪</li> </ul>
MUP N-21 <sup>c</sup>		Main Street at Minaret Road	Meadow Lane at Minaret Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> <li>▪ Developed and Disturbed</li> </ul>
MUP N-22 <sup>e</sup>		Lake Mary Road	Lake Mary Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> </ul>
MUP N-23 <sup>e</sup>		Lake George Road	Around Lake Mary Road	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> </ul>
MUP N-24 <sup>e</sup>		Lake George Road	MUP N-22	<ul style="list-style-type: none"> <li>▪ Conifer Forest</li> </ul>

<sup>a</sup> The conceptual alignments of these MUPs run parallel to Mammoth Creek.

<sup>b</sup> The conceptual alignments of the proposed MUPs for the Mobility Element Update are slightly altered from those proposed in the TSMP BRA and EIR.

<sup>c</sup> The conceptual alignments of these MUPs cross unnamed blue line stream based on UGSG topographic mapping.

<sup>d</sup> The conceptual alignments of MUPs N-22, -23, and -24 are in the vicinity of Lake Mary.

Source: ESA PCR, 2016.

### **(3) Wildlife**

The plant communities discussed above provide habitat for wildlife. Following are discussions of wildlife populations categorized by taxonomic group that may be found within the general Project Area. While focused surveys were not performed for this Project, general field and reconnaissance-level surveys were previously conducted for the TSMP project and are discussed in further detail in Section 2(a), Methodology, below.

#### **(a) Invertebrates**

The Project Area is expected to support populations of a diverse assortment of invertebrates due to the number of diverse plant communities, including aquatic macroinvertebrates within Mammoth Creek.<sup>20</sup>

<sup>20</sup> Aquatic macroinvertebrates is a MIS associated within riverine and lacustrine habitats for the Sierra Nevada Forests.

### (b) Fish

A number of focused surveys for fish species have been conducted for areas within the Project Area and vicinity since 1992.<sup>21</sup> During these surveys, brown trout (*Salmo trutta*), rainbow trout (*Oncorhynchus mykiss*), and brook trout (*Salvelinus fontinalis*) have been detected within the Project Area and vicinity. Within the Project Area, Mammoth Creek is perennial stream that could potentially support these fish species.

### (c) Amphibians

Terrestrial amphibian species may or may not require standing water for reproduction. Terrestrial species avoid desiccation by burrowing underground; within crevices in trees, rocks, and logs; and under stones and surface litter during the day and dry seasons. Due to their secretive nature, terrestrial amphibians are rarely observed, but may be quite abundant if conditions are favorable. Aquatic amphibians are dependent on standing or flowing water for reproduction. Such habitats include fresh water marshes and open water (reservoirs, permanent and temporary pools and ponds, and perennial streams). Many aquatic amphibians will utilize vernal pools as breeding sites. These pools are temporary in duration and form following winter and spring rains.

Mammoth Creek is a perennial stream that occurs within the Project Area, which could potentially support amphibian species. The Project Area, particularly within and adjacent to Mammoth Creek, has the potential to support a few amphibian species, including Sierran treefrog (*Pseudarcis sierra*)<sup>22</sup> and western toad (*Anaxyrus boreas*). However, during Martin's 2009 surveys throughout the Mammoth Lakes Basin, the Sierran treefrog was found or detected only around Lake Mary and Twin Lakes. None were found or detected along Mammoth Creek or in Mammoth Meadows.<sup>23</sup> Martin also noted that the staff at the Valentine

<sup>21</sup> Beak Consultants Incorporated. November 1994. Mammoth Creek 1994 Fish Community Survey.

-- November 1993. Mammoth Creek 1993 Fish Community Survey.

-- November 1992. Mammoth Creek Fish Community Survey.

KDH. April 2006. Mammoth Creek 2004 Fish Community Survey.

-- September 2004. Mammoth Creek 2003 Fish Community Survey.

-- July 2003. Mammoth Creek 2002 Fish Community Survey.

-- June 2002. Mammoth Creek 2001 Fish Community Survey.

-- June 2001. Mammoth Creek 2000 Fish Community Survey.

-- March 1998. Mammoth Creek 1997 Fish Community Survey.

Horseshoe Canyon Biological Consultants. December 1999. Mammoth Creek 1999 Fish Community Survey.

Sierra Nevada Aquatic Research Laboratory (SNARL). January 1997. Mammoth Creek 1996 Fish Community Survey.

-- 1995. Mammoth Creek 1995 Fish Community Survey.

Thomas R. Payne & Associates. January 16, 2009. October 2008 Mammoth Creek Fish Community Survey.

-- December 24, 2007. October 2007 Mammoth Creek Fish Community Survey.

-- December 28, 2006. October 2006 Mammoth Creek Fish Community Survey.

<sup>22</sup> Sierran treefrog is a MIS associated with wet meadow and freshwater emergent wetland habitats for the Sierra Nevada Forests.

<sup>23</sup> Martin, David. 2010. Canorus Ltd. Personal communication via email with Linda Robb, Senior Biologists, PCR Services Corporation on January 25.

Reserve have seen “one or two in some 20 years”. Therefore, significant populations of the Sierran treefrog are not expected within the Project Area.

#### (d) Reptiles

Reptiles, as a group, occupy a much broader spectrum of habitats than amphibians. Reptilian diversity and abundance typically varies with habitat type and character. Some species prefer only one or two natural communities; however, most will forage in a variety of communities. A number of reptile species prefer open habitats that allow free movement and high visibility. Most species occurring in open habitats rely on the presence of small mammal burrows for cover and escape from predators and extreme weather.

One reptile species, mountain garter snake (*Thamnophis elegans*), was previously detected during field surveys conducted for the TSMP project. Several other species have the potential to occur within the Project Area, including rubber boa (*Charina bottae*), Sierra alligator lizard (*Elgaria coerulea*), Sierra fence lizard (*Sceloporus occidentalis*), and sagebrush lizard (*Sceloporus graciosus*).

#### (e) Birds

The vegetation communities within the Project Area provide foraging and cover habitat for year-round and seasonal residents. Bird species detected during field and reconnaissance surveys conducted for the TSMP project included turkey vulture (*Cathartes aura*), red-tailed hawk (*Buteo jamaicensis*), northern flicker (*Colaptes auratus*), hairy woodpecker (*Picoides villosus*), olive-sided flycatcher (*Contopus cooperi*), western wood-pewee (*Contopus sordidulus*), cliff swallow (*Petrochelidon pyrrhonota*), violet-green swallow (*Tachycineta thalassina*), black-billed magpie (*Pica hudsonia*), American robin (*Turdus migratorius*), black-headed grosbeak (*Pheucticus melanocephalus*), western tanager (*Piranga ludoviciana*), dark-eyed junco (*Junco hyemalis*), fox sparrow<sup>24</sup>, green-tailed towhee (*Pipilo chlorurus*), red-winged blackbird (*Agelaius phoeniceus*), brown-headed cowbird (*Molothrus ater*), common grackle (*Quiscalus quiscula*), pine siskin (*Carduelis pinus*), Stellar’s jay (*Cyanocitta stelleri*), Brewer’s blackbird (*Euphagus cyanocephalus*), Clark’s nutcracker (*Nucifraga columbiana*), mountain chickadee (*Poecila gambeli*), and American crow (*Corvus brachyrhynchos*).

Several additional species have the potential to occur in the Project Area. These include (but are not limited to) American kestrel (*Falco sparverius*), mountain quail<sup>25</sup>, great horned owl (*Bubo virginianus*), belted kingfisher (*Ceryle alcyon*), brown creeper (*Certhia americana*), mountain bluebird (*Sialia currucoides*), orange-crowned warbler (*Vermivora celata*), yellow-rumped warbler (*Dendrioca coronate*), yellow warbler,<sup>26</sup> and Wilson’s warbler (*Wilsonia pusilla*).

#### (f) Mammals

Most mammals are either nocturnal, reclusive, or both, and are more often detected by their sign, denning sites, etc., or through live-trapping (rodents). Mammals previously observed during field and

<sup>24</sup> Fox Sparrow is a MIS associated with shrubland habitat for the Sierra Nevada Forests.

<sup>25</sup> Mountain quail is a MIS associated with early- and mid-seral coniferous forest habitat for the Sierra Nevada Forests.

<sup>26</sup> Yellow warbler is a MIS associated with montane riparian and valley foothill riparian habitats for the Sierra Nevada Forests.

reconnaissance surveys conducted for the TSMP project by sight, scat, tracks, or other means include mule deer, snowshoe hare (*Lepus americanus*), Botta's pocket gopher (*Thomomys bottae*), western gray squirrel (*Sciurus griseus*), California ground squirrel (*Spermophilus beecheyi*), golden-mantled ground squirrel (*Spermophilus beecheyi*), chipmunk (*Tamias sp.*), and black bear (*Ursus americanus*).

Several additional species have the potential to occur in the Project Area. These include (but are not limited to) broad-footed mole (*Scapanus latimanus*), big brown bat (*Eptesicus fuscus*), northern flying squirrel, lodgepole chipmunk (*Tamias speciosus*), deer mouse (*Peromyscus maniculatus*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), long-tailed weasel (*Mustela frenata*), Pacific marten<sup>27</sup>, mountain lion (*Felis concolor*), bobcat (*Lynx rufus*), and raccoon (*Procyon lotor*).

#### (4) Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. In the absence of habitat linkages that allow movement to adjoining open space areas, various studies have concluded that some wildlife species, especially the larger and more mobile mammals, will not likely persist over time in fragmented or isolated habitat areas because such conditions preclude the USFS infusion of new individuals and genetic USFS information into isolated populations.<sup>28, 29, 30, 31</sup>

Corridors effectively act as links between different populations of a species. A group of smaller populations (termed "demes") linked together via a system of corridors is termed a "metapopulation." The long-term health of each deme within the metapopulation is dependent upon its size and the frequency of interchange of individuals (immigration vs. emigration). The smaller the deme, the more important immigration becomes, because prolonged inbreeding with the same individuals can reduce genetic variability. Immigrant individuals that move into the deme from adjoining demes mate with individuals and supply that deme with new genes and gene combinations that increases overall genetic diversity. An increase in a population's genetic variability is generally associated with an increase in a population's health and long-term viability.

Corridors mitigate the effects of habitat fragmentation by: (1) allowing animals to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and (3) serving as travel routes

<sup>27</sup> Northern flying squirrel and Pacific marten are MIS associated with late-seral closed-canopy coniferous forest habitat for the Sierra Nevada Forests.

<sup>28</sup> MacArthur, R. M. and E. O. Wilson. 1967. *The Theory of Island Biogeography*. Princeton University Press: Princeton, New Jersey

<sup>29</sup> Soule, M. E. 1987. *Viable Populations for Conservation*. Sinaur Associates Inc., Publishers, Sunderland, Massachusetts.

<sup>30</sup> Harris, L. D. and P. B. Gallagher. 1989. *New initiatives for wildlife conservation: the need for movement corridors*. Pages 11-34 in G. Mackintosh, ed. *Preserving communities and corridors*. Defenders of Wildlife. Washington D.C. 96 pp.

<sup>31</sup> Bennett, A. F. 1990. *Habitat Corridors and the Conservation of Small Mammals in a Fragmented Forest Environment*. *Landscape Ecol.* 4:109-122

for individual animals as they move within their home ranges in search of food, water, mates, and other needs.<sup>25, 32, 33, 34</sup>

Wildlife movement activities usually fall into one of three movement categories: (1) dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions); (2) seasonal migration; and (3) movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover). Although the nature of each of these types of movement is species specific, large open spaces will generally support a diverse wildlife community representing all types of movement. Each type of movement may also be represented at a variety of scales from non-migratory movement of amphibians, reptiles, and some birds, on a “local” level to many square mile home ranges of large mammals moving at a “regional” level. A number of terms have been used in various wildlife movement studies, such as “wildlife corridor,” “travel route,” and “wildlife crossing” to refer to areas in which wildlife move from one area to another. To clarify the meaning of these terms and facilitate the discussion on wildlife movement in this study, these terms are defined as follows:

**Travel Route:** A landscape feature (such as a ridgeline, drainage, canyon, or riparian strip) within a larger natural habitat area that is used frequently by animals to facilitate movement and provide access to necessary resources (e.g., water, food, cover, den areas). The travel route is generally preferred because it provides the least amount of topographic resistance in moving from one area to another; it contains adequate food, water, and/or cover while moving between habitat areas; and provides a relatively direct link between target habitat areas.

**Wildlife Corridor:** A piece of habitat, usually linear in nature, that connects two or more habitat patches that would otherwise be fragmented or isolated from one another. Wildlife corridors are usually bounded by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as “habitat or landscape linkages”) can provide both transitory and resident habitat for a variety of species.

**Wildlife Crossing:** A small, narrow area, relatively short in length and generally constricted in nature, that allows wildlife to pass under or through an obstacle or barrier that otherwise hinders or prevents movement. Crossings typically are manmade and include culverts, underpasses, drainage pipes, and tunnels to provide access across or under roads, highways, pipelines, or other physical obstacles. These are often “choke points” along a movement corridor.

Local scale wildlife movement likely occurs within the Project Area as well as its surrounding vicinity. The Project Area contains habitat that supports a variety of common species of invertebrates, amphibians, reptiles, birds, and mammals. The home range and average dispersal distance of many of these species may be entirely contained within the Project Area and immediate vicinity. Numerous populations of insects,

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<sup>32</sup> Noss, R. F. 1983. *A Regional Landscape Approach to Maintain Diversity*. *BioScience*. 33:700-706.

<sup>33</sup> Fahrig, L. and G. Merriam. 1985. *Habitat Patch Connectivity and Population Survival*. *Ecology*. 66:1762-1768

<sup>34</sup> Simberloff, D. and J. Cox. 1987. *Consequences and Costs of Conservation Corridors*. *Conserv.Biol*. 1:63-71.

amphibians, reptiles, small mammals, and a few bird species may find all of their resource requirements within the Project Area and its immediate vicinity. Riparian areas and other natural landscape features located in and around the Project Area can serve as natural guides for wildlife along travel routes. Local movement by small and medium-sized mammals such as California ground squirrel, Botta's pocket gopher, deer mouse, long-tailed weasel, Pacific marten, and gray fox may occur within the Project Area. Occasionally, individuals expanding their home range or dispersing from their natal range will attempt to disperse from the Project Area.

It is also possible for migratory individuals to utilize the Project Area for cover and water resources. The Round Valley and Casa Diablo Mule Deer Herds are known to use areas in the vicinity of the Project Area for portions of their migrations from winter ranges in the lowlands to summer ranges within the higher elevations of the Sierra Nevada. The deer migratory routes are illustrated in Figure 10 included in the TSMP BRA, which is on file with the Town. Predators, such as the mountain lion have also been known to make migrations that directly correlate temporally and spatially with those of mule deer in the region (Pierce, et al. 1999).<sup>35</sup>

#### **(a) Mule deer**

Although not considered a special-status wildlife species, mule deer are considered an important harvest species by the CDFW. The Town is located within the Eastern Sierra Nevada Deer Assessment Unit. Deer populations within the Town consist of Rocky Mountain mule deer from the Round Valley and Casa Diablo herds. Some deer from both herds use the Doe Ridge area throughout the summer. These herds are migratory. Deer herd management plans were prepared by the CDFW in the mid 1980's for both herds. Management objectives include enhancing important winter, holding, migratory, and fawning habitats. Migratory movements occur over a six to ten week period. Deer begin their spring migration in April or May after occupying holding areas to feed and regain strength lost over the winter. When the snow recedes and forage is available at their higher elevation summer ranges (usually mid-June), they migrate to these areas.

The Round Valley herd range encompasses approximately 2,000 square miles and includes the west slope of the Sierra Nevada to the San Joaquin Ridge. The Mammoth Pass herd segment of the Round Valley herd uses a route that heads westerly below Mammoth Rock, passes through the Mammoth Lakes Basin, and then crosses over Mammoth Pass into the Middle Fork of the San Joaquin River Drainage.<sup>36</sup> The Project Area is located within the Mammoth Lakes Basin.

The Casa Diablo herd's winter range includes the lower elevations near Benton, California to the north end of Owen's Valley. Some deer from this herd migrate across Doe Ridge towards their summer range on the higher elevations of the eastern Sierra Nevada (between June Lake and Lee Vining). The Mammoth Lakes Basin, which is located south-southeast of the Project Area, is utilized as a migratory corridor and holding

<sup>35</sup> Pierce, B.M., V.C. Bleich and R.T. Bowyer. 1999. *Population dynamics of mountain lions and mule deer: top-down or bottom-up regulation? Final Report. Deer Herd Management Plan Implementation Program. California Department of Fish and Game. Sacramento, California.*

<sup>36</sup> PCR Services Corporation. 2005. *Revised Draft Program, Environmental Impact Report. Town of Mammoth Lakes 2005 General Plan Update. October 2005.*



area by the Round Valley Herd. The Casa Diablo Herd utilizes an area approximately 8 to 9 miles to the northwest of the Project Area and 6 to 7 miles north of the Town.<sup>37</sup>

Approximately 75 percent of the Round Valley Herd leaves their wintering grounds in the Round Valley, which is located approximately 20 miles southeast of the Project Area, to migrate in a northerly direction along the toe of the Eastern Sierra to the Mammoth Lakes Basin.<sup>38</sup> The herd utilizes the Mammoth Lakes Basin as a holding area for approximately eight weeks while they forage and wait for winter snows to recede from the mountain passes. Following the snowmelt, some deer leave the approximately 11,300-acre holding area to traverse over the Mammoth Crest via McGee, Hopkins, Solitude, Mammoth, and San Joaquin passes to their preferred summering grounds in the Sierra Nevada between the Sierra Nevada's western slope and the San Joaquin Ridge. Those deer that do not continue their migration beyond the Mammoth Lakes Basin remain there until the herd makes its way back to the Round Valley in the fall months.<sup>39</sup>

The Town's 2007 General Plan identifies three distinct migration corridors for the Round Valley Herd, which occur within the vicinity of the Project Area:

1. The Solitude Pass/Duck Lake herd segment leaves the holding area and migrates to summer ranges through the Solitude Pass located in the Sherwin Range, and Duck Pass located approximately three (3) miles south of the holding area.
2. The Mammoth Pass herd segment of the Round Valley Herd migrates along a route that heads westerly below Mammoth Rock, passes through the Mammoth Lakes Basin, and then crosses over Mammoth Pass into the Middle Fork of the San Joaquin River Drainage.
3. The San Joaquin herd segment migrates across the Sierra crest over San Joaquin Ridge between Minaret Summit and Deadman Pass from the western portion of the holding area.

A fairly consistent timeline of movement is generally observed for the Round Valley Herd's annual migration. Interannual temporal variability does occur, however, with respect to migrations. Variability in migration timing is generally dependent on environmental factors that affect food and habitat requirements.<sup>40</sup> The Round Valley Herd begins to appear in the Mammoth Lakes Basin during the spring. Migrants typically occupy the basin from April through June. Around mid-June most deer that are going to continue their journey to summering grounds in the higher elevations of the Sierra have left the Mammoth Lakes Basin. Not all deer continue on to the higher elevations. Some choose to spend their summers in and around the

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<sup>37</sup> Jones and Stokes. 1999. *Final Report: An assessment of the Sandhouse Project's Effects on Mule Deer Movement and Mortality Along State Route 395 in Mono County*. Report submitted to California Department of Transportation, District 9.

<sup>38</sup> Taylor, T. 1996. *Snowcreek Ski Area Deer Study, 1995 Spring and Fall Migration Study*. Prepared for Dempsey Construction Corporation, Mammoth Lakes, California.

<sup>39</sup> Town of Mammoth Lakes. 2007. *Section 4.3, Biological Resources, General Plan Update EIR*. pp. 4-60 – 4-61.

<sup>40</sup> French, D.P., M. Reed, J. Calambokidis, and J.C. Cabbage. 1989. *A simulation model of seasonal migration and daily movements of the northern fur seal*. *Ecological Modeling* 48:193-219.

holding area.<sup>41</sup> The Round Valley Herd will begin to return to its wintering grounds in the fall months as temperatures drop and snow begins to accumulate.

The Mammoth Lakes Basin holding area represents the point where migration associated areas are most closely located to the Project Area. Deer from the Round Valley Herd generally occupy an area south and west of U.S. Route 395, and between Tobacco Flats to the east and Mammoth and Sherwin Creeks to the west. This area is known as the Sherwin Holding Area. The close proximity of these two areas presents a high likelihood for members of the Round Valley Herd to occur within the Project Area during the spring through fall months.

### **(b) Mountain Lion**

Mountain lions were once the broadest ranging terrestrial mammals in the western hemisphere, ranging from British Columbia to southern Chile and Argentina, and from coast to coast in North America.<sup>42, 43</sup> As time has passed, land use changes, extermination campaigns, and hunting pressure have diminished the geographic range of the mountain lion to rocky, mountainous, and relatively unpopulated areas.<sup>37, 44</sup>

A wide range of habitats, including swamps, riparian woodlands, and open space with ample brush and/or woodland cover, are utilized by mountain lions throughout their range. This highly adaptable species is found in North America between sea level and approximately 11,500 feet above MSL.<sup>38</sup>

Mule deer make up the bulk of the mountain lion's diet throughout North America. Some experts have observed mule deer constituting over 90 percent of a mountain lion's diet.<sup>37</sup> This rate has been known to vary between seasons.<sup>39</sup> Small to medium sized mammals, birds, and reptiles are also opportunistically consumed by mountain lions.<sup>30</sup>

Home range figures are highly variable throughout the mountain lion's range with males typically utilizing larger home ranges than females. Pierce, et al. documented home ranges between 425 km<sup>2</sup> and 817 km<sup>2</sup> (164 miles<sup>2</sup> and 315 miles<sup>2</sup>) for mountain lions in the Round Valley area of California. Mountain lions are generally solitary in nature, but home ranges have been known to overlap.<sup>30, 45</sup>

Pierce, et al. observed an interesting connection between mountain lion home range size and behavior of their prey.<sup>30</sup> Mountain lions from the Round Valley that primarily preyed on migratory mule deer had home ranges that rarely changed over time. Contrastingly, mountain lions that primarily preyed on non-migratory

<sup>41</sup> Carey, D., T.R. Thomas, and H. Altman. 2004. *Environmental Assessment: Upper Basalt Geothermal Exploration Project (EA Number: CA-170-05-04)*. Report submitted to U.S. Department of the Interior, Bureau of Land Management, Bishop Resource Area.

<sup>42</sup> Logan, K.A. and L.L. Sweanor. 2001. *Desert Puma: Evolutionary ecology and conservation of an enduring carnivore*. Washington, D.C.: Island Press.

<sup>43</sup> NatureServe. 2006. *NatureServe Explorer: An online encyclopedia of life [web application]*. Version 6.0. NatureServe, Arlington, Virginia. <http://www.natureserve.org/explorer>. (Accessed 7 November 2006).

<sup>44</sup> Currier, M.J.P. 1983. *Felis concolor*. *Mammalian Species* 200:1-7. Ecosign Mountain Resort Planners Ltd., 1997. *Mammoth Mountain Master Plan*. November 1997.

<sup>45</sup> Sweanor, L.L., K.A. Logan, and M.G. Hornocker. 2000. *Cougar dispersal patterns, metapopulation dynamics, and conservation*. *Conservation Biology* 14:798-808.

mule deer tended to make seasonal migrations that corresponded to mule deer movements, both spatially and temporally. Home ranges for mountain lions that were contiguous throughout the year were larger than those with distinct summer and winter ranges.

The Round Valley mountain lion population exhibited two different modes of migration. Some lions tended to move rather slowly along the deer herd's migratory route, but did not show signs of having a discontinuous home range. Other lions moved more rapidly and had distinct summer and winter ranges that mirrored those of the Round Valley Herd.

Mountain lions that followed the migration of the Round Valley Herd to the Sherwin Holding Area have a high potential to occur within the Project Area. Logan and Sweanor documented transient behavior in numerous mountain lion populations.<sup>37</sup> They also describe the possibility of mountain lions making the change from transient behavior to territorial multiple times throughout its life. Transient behavior, as described by Logan and Sweanor, usually occurs because of one or a combination of four potential conditions: (1) population isolation; (2) an extremely low, patchy, or migratory food base; (3) an extremely diffuse mountain lion population; and (4) inability to compete. If transient lions make their way into the Sherwin Holding Area it is possible that they could wander into the Project Area in search of food, mates, or establishment of a new home range.

## **(5) Jurisdictional Waters and Wetlands**

In California, certain drainage features and the associated riparian resources fall under the regulatory jurisdiction of the ACOE, RWQCB, and CDFW. These features can include: perennial, intermittent and ephemeral streams; lakes, ponds, and other impounded water bodies; and wet meadows and wetlands. Whereas the ACOE and RWQCB use the ordinary high water mark to determine their jurisdiction, CDFW may include the bed, banks and associated riparian habitat within its jurisdiction. There are numerous jurisdictional features throughout the Project Area. Most notably, Mammoth Creek and its tributaries are regulated by one or more of the above mentioned agencies.

## **(6) Special-Status Species and Habitats**

The following subsections indicate the habitats, as well as plant and animal species, present or potentially present in the Project Area that have been afforded special recognition. Sources used to determine the potential occurrence of special-status resources in the vicinity of the site include USFWS Database of Occurrences,<sup>46</sup> CNPS,<sup>47</sup> and a number of CDFW resources, including CNDDDB;<sup>48</sup> Special Vascular Plants,

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<sup>46</sup> U.S. Department of the Interior. Fish and Wildlife Service (USFWS). 2009. Database of occurrences.

<sup>47</sup> CNPS, Rare Program. 2015. Inventory of Rare and Endangered Plants (online edition, v8-02). California Native Plant Society, Sacramento, CA. Website <http://www.rareplants.cnps.org>.

<sup>48</sup> CDFW (California Department of Fish and Wildlife). 2015. California Natural Diversity Database (available by subscription) and Rarefind. CDFW: Sacramento, California.

Bryophytes, and Lichens List;<sup>49</sup> and State and Federally Listed Endangered, Threatened and Rare Plants of California.<sup>50</sup>

### (a) Special-Status Plant Communities Within the Project Area

The Project Area supports plant communities considered special-status by the CDFW's CNDDDB due to their scarcity and/or because they support state and/or federal listed endangered, threatened, or rare vascular plants and animals. These communities are considered highest-inventory priority communities by the CDFW, indicating that they are declining in acreage throughout their range due to land use changes. These communities are described previously and include montane wet meadow, aspen forest and woodland, and willow scrub, and any mixed community comprised in part by one of these plant communities. These communities constitute wetland and riparian natural communities.

### (b) Special-Status Plant Species Within the Project Area

Special-status plants include those listed, or candidates for listing, by the USFWS and CDFW, and species considered special-status by the CNPS (particularly Ranks 1A, 1B, and 2).<sup>51</sup> The literature search methodology is explained in further detail in Section 2(a) below.

A total of 91 special-status plant species were reported in the CNDDDB and CNPS to occur within the vicinity of the Project Area. The majority of these species were presented in Table 4, *Sensitive Plant Species*, in the TSMP BRA. Of the 91 special-status plant species, 11 new species were reported within the vicinity since the 2011 literature search performed for TSMP BRA, including Tulare rockcress (*Boecheera tularensis*), Geyer's sedge (*Carex geyeri*), fell-fields claytonia (*Claytonia megarhiza*), short-pedicelled cleomella (*Cleomella brevipes*), golden goodmania (*Goodmania luteola*), seep kobresia (*Kobresia myosuroides*), long seta hump moss (*Meesia longisetata*), bog sandwort (*Minuartia stricta*) naked-stemmed phacelia (*Phacelia gymnoclada*), slender-leaved pondweed (*Stuckenia filiformis* ssp. *alpine*), and golden violet (*Viola purpurea* ssp. *aurea*). The majority of the 91 species are not expected to be present due to a lack of suitable habitat and/or the Project Area is outside of the species' range. Of the 91 special-status plant species, 24 species were determined to have the potential to occur within the Project Area based on the presence of suitable habitat. These species are listed below and their CNPS ranks are in parentheses:

- Long Valley milk-vetch, *Astragalus johannis-howellii* (CNPS 1B.2);
- Lemmon's milk-vetch *Astragalus lemmonii* (CNPS 1B.2);
- Kern milk-vetch, *Astragalus lentiginosus* var. *kernensis* (CNPS 1B.2);
- Smooth saltbush, *Atriplex pusilla* (CNPS 2B.3);
- Hockett Meadows lupine, *Lupinus lepidus* var. *culbertsonii* (CNPS 1B.3);

<sup>49</sup> CDFW. 2009. *Special Vascular Plants, Bryophytes, and Lichens List*. Quarterly publication. 80 pp.

<sup>50</sup> CDFW, Habitat Conservation Division. 2009. *Wildlife & Habitat Data Analysis Branch. State and Federally Listed Endangered and Threatened Animals of California*. 12pp.

<sup>51</sup> CNPS List 1A species are presumed extinct in California, List 1B species are rare or endangered in California and elsewhere, and List 2 species are rare or endangered in California but more commonly found elsewhere.

- Father Crowley's lupine *Lupinus padre-crowleyi* (CNPS 1B.2);
- Scalloped moonwort, *Botrychium crenulatum* (CNPS 2B.2);
- Common moonwort, *Botrychium lunaria* (CNPS 2.3);
- Tall draba, *Draba praealta* (CNPS 2B.3);
- Blandow's bog moss, *Helodium blandowii* (CNPS 2B.3);
- Alkali ivesia, *Ivesia kingii* var. *kingi* (CNPS 2B.2);
- Seep kobresia (CNPS 2B.2);
- Long seta hump moss (CNPS 2B.3);
- Small-flowered grass-of-Parnassus, *Parnassia parviflora* (CNPS 2B.2);
- Scalloped-leaved lousewort, *Pedicularis crenulata* (CNPS 2B.2);
- Naked-stemmed phacelia (CNPS 2B.3);
- Inyo phacelia, *Phacelia inyoensis* (CNPS 1B.2);
- Golden violet (CNPS 2B.2);
- Inyo County star-tulip, *Calochortus excavates* (CNPS 1B.1);
- Alkali tansy-sage, *Sphaeromeria potentilloides* var. *nitrophila* (CNPS 2B.2);
- Little bulrush, *Trichophorum pumilum* (CNPS 2B.2);
- Marsh arrow-grass, *Triglochin palustris* (CNPS 2B.3);
- Slender-leaved pondweed, *Potamogeton filiformis* (CNPS 2.2); and
- Robbins' pondweed, *Potamogeton robbinsii* (CNPS 2B.3).

The above listed plants only include those with a CNPS ranking of 1 or 2; however, there are a number of CNPS-ranked species with a ranking of 3 or 4 that have the potential to occur within the Project Area. Subalpine fireweed (*Epilobium howellii*) is ranked on CNPS as a 4.3 and was observed during field surveys conducted for the TSMP project.

### (c) Special-Status Wildlife Species Within the Project Area

Special-status wildlife species include those species listed as endangered or threatened under the federal ESA or CESA, candidates for listing by USFWS or CDFW, and SSC<sup>52</sup> to the CDFW. In addition, species considered sensitive by the USFS (FSS)<sup>53</sup> have also been included and analyzed in this document to provide a

<sup>52</sup> California Species of Special Concern (SSC) are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. Informally listed species are not protected per se, but warrant consideration in the preparation of biological assessments.

<sup>53</sup> USFS Sensitive Species (FSS) are defined by the Forest Service as "those plants and animals species identified by a Regional Forester for which population viability is concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density; (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution." (United States Forest Service. 1997. Forest Service Manual, Section 2670.5).

comprehensive list of species. The literature search methodology is explained in further detail in Section 2(a) below.

A total of 39 special-status wildlife species were reported in the CNDDDB as occurring in the vicinity of the Project Area, with the majority of these species not expected to be present due to a lack of suitable habitat. A total of 12 species were determined to potentially occur within the Project Area based on the presence of suitable habitat, which are listed below with their Federal and/or State listing in parentheses:

- Mount Lyell salamander, *Hydromantes platycephalus* (California Species of Special Concern [SSC]);
- Yosemite toad (Federally Threatened [FT], USFS Sensitive [FSS]);
- Northern goshawk, *Accipiter gentilis* (SSC, FSS);
- Great gray owl, *Strix nebulosa* (State Endangered [SE], FSS);
- Greater sage-grouse (SSC, FSS);
- Yellow warbler (SSC);
- Willow flycatcher, *Empidonax traillii* (SE, FSS);
- Mount Lyell shrew, *Sorex lyelli* (SSC);
- Townsend's western big-eared bat, *Corynorhinus townsendii* (State Candidate Threatened [SCT], SSC, FSS);
- Sierra Nevada mountain beaver, *Aplodontia rufa californica* (SSC);
- Pacific marten (FSS); and
- Sierra Nevada red fox, *Vulpes vulpes necator* (ST, FS: Sensitive).

The literature review results were generally consistent with results obtained and presented in Table 4, *Sensitive Wildlife Species*, in the TSMP BRA, which also lists the same 12 species above to have a potential to occur in the TSMP project area. Only one new species, Swainson's hawk (*Buteo swainsoni*) (ST), was recorded within the vicinity of the Project Area since the 2011 literature search. Swainson's hawk is not expected to occur within the Project Area due to lack of suitable habitat, namely grasslands. The sole record of this species was updated in CNDDDB in 2013, but the species record was from sightings in 1977 and 1978.

As previously mentioned, focused surveys for fish species have been conducted for areas within the vicinity of the Project Area since 1992 excluding 1998. No special-status fish have the potential to occur within the Project Area.

## **(7) Critical Habitat**

The Project Area is not within designated critical habitat for any listed plant or wildlife species.

## 2. METHODOLOGY AND THRESHOLDS OF SIGNIFICANCE

### a. Methodology

#### (1) Approach

Direct impacts are considered to be those that involve the loss, modification or disturbance of natural habitats (i.e., vegetation or plant communities), which, in turn, directly affect plant and wildlife species dependent on that habitat. Direct impacts also include the destruction of individual plants or wildlife, which is typically the case in species of no or low mobility (i.e., plants, amphibians, reptiles, and small mammals). The collective loss of individuals in these manners may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and, hence, population stability.

Indirect impacts are considered to be those that involve the effects of increases in ambient levels of sensory stimuli (e.g., noise, light), unnatural predators (e.g., domestic cats and other non-native animals), and competitors (e.g., exotic plants, non-native animals). Indirect impacts may be associated with the construction and/or eventual habitation/operation of a project; therefore, these impacts may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites. Such impacts include increased pollutant discharges to receiving water bodies such as wetlands or marine environments, harassment by humans and/or their pets, light and glare, or increased ambient noise levels.

The determination of impacts in this analysis is based on both the features of the Project and the biological values of the habitat and/or sensitivity of plant and wildlife species potentially affected. The General Plan Policies, mitigation measures currently adopted by the Town, and recommended mitigation measures to address Project impacts are discussed in section 3.0, *Environmental Impacts*, below.

The direct and indirect impacts determined to be less than significant include impacts to biological resources that are relatively common or exist in a degraded or disturbed state, rendering them less valuable as habitat, or impacts that do not meet or exceed the significance thresholds defined below. Those impacts determined to be significant are those that do meet the thresholds of significance defined below. Specific considerations included the overall size of habitats to be affected, previous land uses and disturbance history, the surrounding environment and regional context, the biological diversity and abundance, the presence of special-status plant and wildlife species, the importance to regional populations of these species, and the degree to which habitats within the Project Area are limited or restricted in distribution on a regional basis and, therefore, are considered special-status in themselves.

In addition to the previously discussed road improvements and MUPs, the Mobility Element Update considers other transportation elements such as on-street bike lanes, pedestrian and transit routes, and parking lots. Since these improvements would generally be located within existing roadways and disturbed areas, these improvements would not affect biological resources; therefore, they are not analyzed in this assessment. As also noted earlier, the impact analysis for this assessment is programmatic for all Project components. In order to accommodate the multi-faceted nature of the Project, the following impact analysis is organized into two subsections. Project impacts related to each Project component are discussed

separately under subsection (a) Land Use Element/Zoning Code Amendments and subsection (b) Mobility Element Update. Within subsection (b), road improvements and MUPs are addressed separately. Although this analysis addresses individual project components, the proposed road and MUP alignments are conceptual in nature, and are expected to undergo additional refinement as they are implemented.

This assessment of biological resources was based primarily on information compiled for the TSMP project. Although the TSMP project area includes some areas outside of the Project Area described for this Draft EIR, many areas do overlap. As such, biological resources within the Project Area were partly identified based on the presence of vegetation communities previously described or were observed during field surveys conducted for the TSMP project. Field and reconnaissance surveys were conducted for the TSMP project by PCR and LSA Associates (LSA) biologists, although no protocol focused surveys were conducted. In addition, USFS biologists provided PCR with the results of special-status plant surveys they conducted in the vicinity of proposed MUP N-4. Field surveys are described in further detail in section (3) *Field Investigations*, below.

In addition to work performed for the TSMP project, this assessment was based on 2013 Google Earth aerials<sup>54</sup>, USGS topographic mapping<sup>55</sup>, and photographs that were taken of the 14 vacant parcels and some of the road improvement areas in 2015.<sup>56</sup> The proposed road improvement and MUP areas were evaluated using the aerials and topographic maps with an approximate 300-foot buffer surrounding the linear Project components on each side.

It should be noted that there are other planned improvements outlined in the Mobility Element Update, such as the installation of pedestrian routes, bike routes, traffic signals, bridge stream crossings, parking lots, and construction staging areas. The majority of these improvements are planned within areas of the Town that are already developed or disturbed and therefore, are not evaluated in this analysis.

## (2) Literature Review

This Draft EIR summarizes information gained in part for the TSMP BRA. An updated literature review was performed, which was compared to the literature review performed in 2011. The purpose of the literature review was to determine special-status plant and animal species known to occur within the vicinity of the Project Area and to locate any additional occurrences of special-status species that were submitted subsequent to the record search performed in 2011. The 2011 record search included six (6) USGS 7-minute quadrangles: *Old Mammoth*, *Mammoth Mountain*, *Whitmore Hot Springs*, *Convict Lake*, *Crystal Crag*, and *Bloody Mountain*. An updated 9-quadrangle search was performed on October 21, 2015 using CNDDDB<sup>57</sup> and CNPS,<sup>58</sup> which included the six (6) previously named quadrangles as well as *June Lake*, *Crestview*, and *Dexter*

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<sup>54</sup> Google Earth Pro. 2013. Town of Mammoth Lakes. <http://www.google.com/earth/index.html>,

<sup>55</sup> United States Geological Survey (USGS). 1983. *Old Mammoth, California topographic quadrangle map*.

<sup>56</sup> Photographs were taken by PCR Associate Principal Luci Hise-Fisher on June 9 and 10, 2015.

<sup>57</sup> CDFW (California Department of Fish and Wildlife). September 2015 and October 2011. *California Natural Diversity Database (available by subscription) and Rarefind*. CDFW: Sacramento, California.

<sup>58</sup> CNPS (California Native Plant Society). September 2015 and October 2011. *Inventory of Rare and Endangered Plants of California*. California Native Plant Society. Available online (<http://cnps.web.aplus.net/cgi-bin/inv/inventory.cgi>).



*Canyon*.<sup>59</sup> Federal register listings, protocols, and species data published by the USFWS and CDFW were reviewed in conjunction with anticipated federally and state listed species potentially occurring within the vicinity. Information pertaining to special-status species provided by the USFS was also reviewed. In addition, several regional flora and fauna field guides were utilized to assist in the identification of species and suitable habitats (e.g., Weden 2005 and Laws 2007).<sup>60</sup>

### **(3) Field Investigations**

Although no field surveys were conducted for the purpose of this Project, field and reconnaissance-level surveys were performed within the Project Area and vicinity for the TSMP project. Field surveys for the TSMP project occurred on July 3<sup>rd</sup>, 5<sup>th</sup> and 6<sup>th</sup>, 2009<sup>61</sup> and reconnaissance surveys within the vicinity of the Project Area were performed on August 31 and September 1, 2010. During field and reconnaissance surveys, notes were taken regarding general site conditions, vegetation, potential jurisdictional areas of the ACOE and CDFW, and suitability of habitat for various special interest elements.

#### **(a) Plant Community Mapping**

Vegetation community classifications are based on descriptions used in the TSMP BRA and EIR, which follow a basic classification system that is considered appropriate for the scale of the proposed Project. In addition, a generalized vegetation map was prepared, as shown in Figure 4.4-1. The vegetation map was prepared using CalVeg data obtained from the California Department of Forestry and Fire Protection (CAL FIRE).<sup>62</sup>

#### **(b) General Plant Inventory**

All plant species observed during surveys conducted by LSA and PCR for the TSMP project were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy follows Hickman.<sup>63</sup> Common plant names, when not available from Hickman, were taken from Munz.<sup>64</sup> Because common names vary significantly between references, scientific names are included upon initial mention of each species; common names consistent throughout the report are employed thereafter. All plant species observed were included in Appendix A, *Floral and Faunal Compendium*, of the TSMP BRA.

#### **(c) Special-Status Plant Surveys**

Special-status plants include those listed by the USFWS, CDFW, and CNPS (particularly Ranks 1A, 1B, and 2). Focused special-status plant surveys were not conducted by either LSA or PCR for the TSMP project in 2011.

<sup>59</sup> Only one additional species was reported in the 2015 9-quadrangle record search when compared to the 2011 record search, namely the prairie falcon (*Falco mexicanus*). This species was not considered to have a potential to occur within the Project Area due to lack of suitable habitat, particularly grasslands and desert scrubland.

<sup>60</sup> Weden, Norman F. Ph.D. February 2005. *A Sierra Nevada Flora*. Wilderness Press. Berkeley, California.

<sup>61</sup> Field surveys were conducted by LSA Biologists Wendy Walters and Sarah Barrera and reconnaissance surveys were performed by PCR Director of Biological and Regulatory Services Steve Nelson.

<sup>62</sup> CAL FIRE (California Department of Forestry and Fire Protection). 2011. CalVeg. Available online (<http://frap.fire.ca.gov/data/frapgisdata-subset.php>).

<sup>63</sup> Hickman, J. C. 1993. *The Jepson Manual: Higher Plants of California*. Berkeley: University of California Press.

<sup>64</sup> Munz, P.A. 1968. *A California Flora and Supplement*. Berkeley: University of California Press.

However, focused surveys were performed by USFS Botanists Kristen Dutcher, Paul Satterthwaite, and Sue Weis within the vicinity of MUP N-4 on July 20 and August 20, 2010 (Dutcher and Satterthwaite, 2010). The results of their findings are incorporated herein where appropriate.

#### **(d) General Wildlife Inventory**

All wildlife species and diagnostic signs (call, tracks, nests, scat, remains, or other sign) of species observed within the Project Area and vicinity during field and reconnaissance surveys conducted for the TSMP project were recorded in field notes by both LSA and PCR. Binoculars and regional field guides were utilized for the identification of wildlife, as necessary. Wildlife taxonomy follows Stebbins<sup>65</sup> for amphibians and reptiles, the American Ornithologists' Union<sup>66</sup> for birds, and Jameson and Peeters<sup>67</sup> for mammals. Scientific names are used during the first mention of a species; common names only are used in the remainder of the text. A list of all wildlife species detected is included in Appendix A, *Floral and Faunal Compendium*, of the TSMP BRA.

#### **(e) Special-Status Wildlife Species**

No focused surveys for special-status wildlife species were conducted by either LSA or PCR for the TSMP project in 2011. Rather, an evaluation of habitat conditions and their suitability to support listed and/or species of concern to federal and State wildlife agencies were performed. This evaluation included an assessment of habitat characteristics and how they fit with the habitat requirements of special-status species that include the Project Area within their range.

#### **(f) Jurisdictional Waters**

Delineations of the potential jurisdictional waters and wetlands were not conducted. However, areas within the Project Area and vicinity that may potentially fall under the jurisdiction of ACOE under Section 404 of the CWA or CDFW under Sections 1600 et seq. of the California Fish and Game Code were identified. During site visits performed for the TSMP project, general site characteristics were noted including presence of any hydrological conditions (including any drainage patterns, surface inundation, or saturated soils) or vegetation potentially indicative of the presence of water for an extended period of time within a site. Soil samples were not collected and wetland data forms were not prepared.

It should be noted that the findings and conclusions presented in this Draft EIR and the TSMP BRA regarding the location and extent of wetlands and other waters subject to regulatory jurisdiction represent the professional opinions of LSA and/or PCR. These findings and conclusions are to be considered preliminary until verified by the ACOE and CDFW.

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<sup>65</sup> Stebbins, R. C. 2003. *A Field Guide to Western Reptiles and Amphibians*, third edition. Boston: Houghton-Mifflin.

<sup>66</sup> American Ornithologists' Union. 1998. *The American Ornithologists' Union Checklist of North American Birds*. 7th Edition. American Ornithologists' Union, Washington, D.C.

<sup>67</sup> Jameson, Jr., E. W., and H. J. Peeters. 1988. *California Mammals*. Berkeley: University of California Press.

### **(g) Regional Connectivity/Wildlife Movement Corridor Assessment**

The analysis of wildlife movement is based on USFS information compiled from the literature for the TSMP BRA. Within the past 30 years there have been a number of studies regarding the regional movements of deer herds, and the Town has delineated a deer migration route in its General Plan. As for other species, aerial photographs and topographic maps were used to determine likely wildlife movement patterns. Relative to corridor issues, the focus of this assessment is to determine if the buildout in the commercial districts and introduction of new roads and trails within the Project Area would have significant impacts on the regional wildlife movement.

### **b. Thresholds of Significance**

For purpose of this EIR, the Town has utilized the checklist questions in Appendix G of the *CEQA Guidelines* as thresholds of significance to determine whether the Project would have a significant environmental impact regarding biological resources. The Project would result in a significant impact to biological resources if the Project would:

- BIO-1:** Result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (refer to Impact Statement BIO-1).
- BIO-2:** Result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service (refer to Impact Statement BIO-2).
- BIO-3:** Result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means (refer to Impact Statement BIO-3).
- BIO-4** Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites (refer to Impact Statement BIO-4).
- BIO-5** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (refer to Impact Statement BIO-5).
- BIO-6** Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (refer to Impact Statement BIO-6).

## c. Applicable General Plan Goals/Policies and Adopted Mitigation Measures

### (1) General Plan

The following is a list of applicable goals and policies contained in the Town's Resource Management and Conservation Element of the General Plan:

#### (a) Habitat Resources

**Goal R.1:** Be stewards of habitat, wildlife, fisheries, forests and vegetation resources of significant biological, ecological, aesthetic and reactional value.

- **Policy R.1.A:** Be stewards of important wildlife and biological habitats within the Town's municipal boundary.
- **Policy R.1.B:** Development shall be stewards of Special Status plant and animal species and natural communities and habitats.
- **Policy R.1.C:** Prior to development, projects shall identify and mitigate potential impacts to site-specific sensitive habitats, including special status plant, animal species and mature trees.
- **Policy R.1.D:** Be stewards of primary wildlife habitats through public and/or private management programs. For example, construction of active and passive recreation and development areas away from the habitat.
- **Policy R.1.J:** Live safely with wildlife within our community.

#### (b) Healthy Ecosystems

**Goal R.2:** Maintain a healthy regional natural ecosystem and provide stewardship for wetlands, wet meadows and riparian areas from development-related impacts.

- **Policy R.2.B:** Be stewards of forested areas, wetlands, streams, significant slopes and rock outcroppings. Allow stands of trees to continue to penetrate the community to retain the mountain character of Mammoth Lakes. Minimize tree removal for development to the greatest extent possible.
- **Policy R.2.C:** Avoid wetland disturbance to greatest extent possible by requiring all feasible project modifications.
- **Policy R.2.D:** Mapped intermittent streams should not be placed in culverts.

#### (c) Mammoth Creek

**Goal R.3:** Preserve and enhance the exceptional natural, scenic and recreational value of Mammoth Creek.

- **Policy R.3.A:** Prohibit development in the vicinity of Mammoth Creek that does not maintain minimum established setbacks and protect stream-bank vegetation.
- **Policy R.3.C:** Restore degraded areas within and adjacent to Mammoth Creek, in association with contiguous development projects or as off-site mitigation.

## (2) General Plan Update Mitigation Measures

The Mitigation Monitoring and Reporting Program (MMRP) for the Town of Mammoth Lakes General Plan Update includes a mitigation measure applicable to biological resources. Since this is an adopted measure, for purposes of this EIR, this measure is applied where relevant and necessary to address the significant impacts of the Project. The following mitigation measure is from the Town's adopted General Plan MMRP:

**GPMM 4.3-1 Wildlife Corridors:** The Town shall require developers of residential properties to include a disclosure statement that Mammoth Lakes is an area of habitat for mountain lions which indicates a potential risk, particularly to children and small pets.

## (3) Trails System Master Plan Mitigation Measures

The adopted MMRP for the Town of Mammoth Lakes TSMP also includes mitigation measures that are applicable to the biological resources relative to the new MUPs. Since these are adopted measures, for purposes of this EIR, these measures are applied where relevant and necessary to address the significant impacts of the Project. The following mitigation measures are from the Town's adopted TSMP MMRP:

**TSMM 4.C-1 Willow Flycatcher:** Prior to approval of individual projects proposed under the TSMP or PRMP that have the potential to significantly disturb riparian vegetation associated with Mammoth Creek and its tributaries, the Town shall require a habitat evaluation by a biologist well versed in the requirements of willow flycatcher to be completed. If no suitable habitat for the species is identified within 300 feet of construction or maintenance activities, no further measures would be required in association with the project. If suitable habitat for the species is identified within 300 feet of such activities, prior to construction the Town shall require that a survey be completed by a qualified biologist for the species according to CDFG survey guidelines (Bombay et. al., May 29, 2003). This survey protocol requires a minimum of two surveys, one between June 15-25 and one during either June 1-14 or June 26-July 15. Surveys during these periods must be at least five days apart and the second survey shall be conducted no more than one week prior to clearing of vegetation and/or the operation of motorized heavy equipment. If the surveys determine the species is not present within 300 feet of the area to be affected by an individual project, no further action shall be required. If, however, willow flycatcher is determined to be present and is using habitat within 300 feet of Project-related activities, inclusive of nesting and foraging, the Town shall consult with CDFG prior to initiating any construction activities in the area. Consultation may entail the processing of a 2081 Incidental Take Permit that includes certain conditions to avoid and/or mitigate for potential impacts to the species. Such conditions could include, but not be limited to, restrictions on the time of year for construction, noise monitoring, restrictions on equipment use, and others.

**TSM 4.C-2 Nesting Birds:** To the extent practicable, brush and tree removal activities for trail and facilities and major construction activity shall be initiated outside of the nesting bird season, which is generally held to be from April 1 to August 31 in the Mammoth Lakes area, and shall be carried out with no more than a two week lapse in the work. If the Town deems this to not be practicable the Town shall require a nesting bird survey by a monitoring biologist to be conducted within 300 feet (for songbirds) and 500 feet (for raptorial birds) of construction sites no more than one week prior to initiating construction to ensure no birds protected under the MBTA and/or State Fish and Game Code Section 3503 et seq. are harmed or harassed.

If no active nests of songbirds and raptors are found within 300 feet and 500 feet, respectively, of the construction site, the work may begin. If active nests are found within the survey areas the Town shall delineate a buffer zone of 300 feet and 500 feet for songbirds and raptors, respectively, around the nest. Based on the nature of the work to be performed and the equipment to be used, the monitoring biologist may reduce the buffer zone based on intervening vegetation and topography. Such buffer zones shall remain in place until the young in the nest have fledged or the nest has failed, as determined by the monitoring biologist.

All projects involving removal of trees or vegetation capable of supporting nesting birds shall be subject to the requirements of this Mitigation Measure.

**TSM 4.C-3 Other Sensitive Wildlife:** As discussed earlier, there are a number of wildlife species of concern to federal and State resource agencies that are known or are expected to occur in the Project area.

- For such avian species, implementation of the mitigation measure for nesting birds below will suffice in reducing impacts to these species to less than significant.
- For such amphibian species, including the Mount Lyell salamander and Yosemite toad, where suitable habitat exists for these species in the project area, a thorough search of areas to be disturbed shall be made by construction personnel trained in the methods of searching for these species. If any amphibians are found, regardless of species, they will be captured and relocated in like habitat no less than 100 feet away from construction sites.
- For such sensitive mammal species with the potential to occur in conjunction with particular project components, including the Sierra Nevada red fox, American marten, Sierra Nevada mountain beaver, Townsend's western big-eared bat, and Mount Lyell shrew, and where suitable habitat for these species exists in the project area, pre-construction surveys shall be conducted by a biologist familiar with the sign of each species to identify signs of their presence or determine their absence no more than two weeks prior to initiating construction activities. Such surveys shall encompass the area to be disturbed and the habitat within 300 feet of construction activities. Due the secretive and/or nocturnal activity patterns of these species, the following signs shall be used:
  - Sierra Nevada red fox – evidence of den, normally on slopes with porous soils.
  - American marten – evidence of den, normally in hollow trees or downed logs.

- Sierra Nevada mountain beaver – evidence of extensive tunnels, runways and burrows beneath dense streamside vegetation.
- Townsend’s western big-eared bat – evidence of occupation by colonies in caves, mine tunnels, and buildings
- Mount Lyell shrew – evidence of nests of dry leaves or grasses in stumps or under logs or piles of brush.

If no evidence of the presence of any of these species is found, no further mitigation activities shall be required. However, if evidence of the presence of any of these species is observed, impacts will be avoided or minimized in one or more of the following ways and in consultation with CDFG and/or USFS: realigning trails and relocating new facilities so as to retain a 100-foot buffer between the occupied site and construction activities and human use; suspending construction activities within 300 feet of the den, nest, or bat roosts during the breeding period, (generally held to be March 1 to July 31 for these species); verifying the actual occupation of dens, nests, or roosts by means such as placing tracking medium around the den or nest entrance or conducting a bat survey at the roost entrance at sunset; temporarily blocking the entrance of a den or nest verified to be unoccupied until after construction is completed.

**TSM 4.C-4 Sensitive Plants:** Prior to approval of individual projects proposed under the TSMP that are located in areas not previously surveyed for sensitive plant species, and that are determined to have habitat suitable to support such plants, the Town shall require that a survey be completed by a qualified botanist for sensitive plant species within 100 feet on either side of a trail alignment or within the disturbance area of other proposed facilities. These surveys shall be conducted during the flowering period for the target species when they are most readily detectable. For those species with at least a low potential to occur in the Project area, this period is usually from late June to mid-August. For reference, the flowering period for individual species is provided in Table 5, *Sensitive Plant Species*, in the Project’s BRA (Appendix E of this Draft EIR). If no sensitive plant species are located within the area of disturbance, no further action shall be required. If sensitive plant species are located within such areas and are likely to be impacted by an individual project, conservation actions shall be implemented. Such actions shall include, but not necessarily be limited to re-routing the trail alignment so as to avoid or minimize impacts to sensitive plants while preserving an off-site population that is substantially larger than the population to be impacted, developing a transplantation program, and collecting seeds to move populations elsewhere out of harm’s way. These measures shall be developed in consultation with the CDFG and USFS.

**TSM 4.C-5 Sensitive Habitats:** As previously noted, there are three vegetation types within the Project area that are considered sensitive. These are aspen forest and woodland, mixed willow riparian, and montane wet meadow. To the extent practicable new trails and other recreational facilities shall avoid these vegetation types. In the event this is not practicable impacts will be minimized by restricting the Project footprint, including temporary and permanent impacts, to the minimum required to implement the project. Mitigation for trees that are necessary to remove has also been incorporated in the Project’s Aesthetics and Visual Resources assessment.

In the event the Town elects to repair, maintain and/or improve trail crossings along stream courses and other drainage features (that often support the sensitive vegetation

types mentioned above) in association with individual projects proposed under the TSMP, prior to project approval the Town shall notify and consult with the CDFG regarding the need for a Streambed Alteration Agreement (SAA). All work shall be performed in compliance with the conditions set forth in the SAA, as determined by the CDFG. Such conditions may include the in-kind replacement or restoration of riparian habitat at a 1:1 ratio for temporary impacts and a 2:1 ratio for permanent impacts within the Project Area, or as otherwise directed by the CDFG. Alternatively, if the impacts are very minor, the CDFG may, at its discretion, allow the work to proceed under a letter of law without mitigation other than notification and consultation.

As part of the SAA agreement process and prior to beginning construction within CDFG regulated drainages, a Habitat Mitigation and Monitoring Plan (HMMP) should be developed in coordination with the CDFG and USFS if necessary that ensures no net loss of riparian habitat value or acreage. The HMMP shall include, but not necessarily be limited to, the following:

- The establishment of a reference site near regulated resources to be impacted that have similar hydrology, soil regimes, and exposure as the resources to be impacted.
- The establishment of baseline conditions at the reference site regarding absolute native shrub and tree cover, woody shrub and tree stalk density, percentage cover by non-native plant species, and plant species diversity the vegetation using the Sorensen method (Stiling, 1999) within a 400 square foot prescribed reference plot.
- The establishment of a restoration site to encompass the mitigation needs of one or more Project elements either on the Project element site or off site within the Mammoth Creek watershed.
- A minimum 3-year establishment, monitoring, and maintenance (trash collection, weeding, etc.) period.
- The establishment of the following success criteria within a 400 square foot prescribed plot within the restoration site – 70 % of baseline absolute cover by native shrubs and trees; 70 % of baseline woody shrub and tree stalk density; no more than 5% cover by non-native plant species; and a Sorensen value of 0.6.

The HMMP shall be subject to CDFG approval and may require additional measures in addition to the mitigation discussed above. Because the implementation of individual projects proposed under the TSMP is expected to occur over several years, the Town should also explore the processing of a Programmatic SAA with CDFG.

Also of note, the Project's Hydrology and Water Quality assessment identified several mitigation measures which are consistent with the protection of sensitive riparian and wet meadow vegetation. These include: measures that control erosion; avoidance of wet areas, springs, wetlands, and the lower portions of slopes; crossing structures at stream crossings; and, the establishment of 5 foot wide vegetation buffers between trails, streams, and wetlands. Implementation of these mitigation measures would further reduce the potential impacts to sensitive habitats.



**TSM4.C-6 Federally Protected Wetlands:** In the event the Town elects to construct, repair, maintain and/or improve trail crossing in association with individual projects proposed under the TSMP within waters of the U.S. and federally protected wetlands, prior to project approval the Town shall notify and consult with the ACOE regarding the need for a Section 404 Permit and the RWQCD regarding the need for its 401 certification. All work shall be performed in compliance with the conditions set forth in the Permit, as determined by the ACOE. Such conditions may include the in-kind replacement or restoration of waters and/or wetlands at a ratio of 1:1 for temporary impacts and a ratio of 2:1 for permanent impacts within the Project Area, or as otherwise directed by the ACOE. Alternatively, if the impacts are less than 0.1 acre, the ACOE may, at its discretion, allow the work to proceed without mitigation other than notification and consultation.

The mitigation shall use the same approach as is outlined above in Section 6.1.5 for the mitigation of impacts to CDFG regulated resources. As is usually the case, CDFG jurisdiction extends beyond that of ACOE and mitigation for impacts to CDFG regulated resources is inclusive of ACOE mitigation needs.

**TSM4.C-7 Local Policies or Ordinances:** In order to educate trail and facility users about the potential for human/wildlife conflicts, the Town shall install signage at all new entry points to the trail system that include warning signs. The signs shall explain the risks and potential dangers that could be encountered by trail use and include instructions for what to do in case of a potential human/wildlife conflict. The signage should include, but not necessarily be limited to the following: refer to the Police Department/Wildlife Management Officer, USFS personnel and/or CDFW personnel as appropriate when dealing with bears; prohibitions on feeding wildlife; warnings against approaching wildlife; and user responsibilities for removing trash.

### 3. ENVIRONMENTAL IMPACTS

**Threshold BIO-1:** The project would have a significant impact if the project would result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

**Impact Statement BIO-1:** *Project elements are proposed within habitats that could support several special-status plant and wildlife species. In such cases, the loss of habitat and individuals of special-status species as well as migratory birds would be considered potentially significant. Compliance with MM BIO-1 through MM BIO-4 and applicable policies in the General Plan would reduce impacts to special-status plant and wildlife species and migratory birds to a less than significant level.*

#### a. Land Use Element/Zoning Code Amendments Impacts

While the Land Use Element/Zoning Code Amendments would not directly result in new development within the Town, buildout of the 14 vacant parcels within the commercially designated areas are evaluated. These parcels are mostly located within areas that are already developed and/or disturbed and therefore, support a limited number of biological resources. However, a few parcels reside within areas that support some native vegetation, and therefore, could potentially support special-status species.

### **(1) Special-Status Plant Species**

Although the majority of parcels are developed and likely do not support any special-status plant species, some parcels do support areas of native vegetation primarily characterized by conifer forest habitat. Special-status plant species with the potential to occur within the Project Area and that are associated with conifer forest habitat include Kern milk-vetch, Father Crowley's lupine, slender-leaved pondweed, Blandow's bog moss, long seta hump moss, scalloped moonwort, common moonwort, seep kobresia, and marsh arrowgrass. Kern milk-vetch and Father Crowley's lupine are associated with drier soils and may have a potential to occur in the conifer forest-dominated parcels. However, the remaining seven (7) species are typically associated with hydric conditions, such as meadows and seeps, which the majority of the parcels appear to lack; therefore, these would be unlikely to occur. A few of the parcels appear to support an unnamed blue line stream. Therefore, these parcels may provide hydric soil conditions that could potentially support the seven species typically associated with conifer forest habitats and hydric conditions. Additionally, subalpine fireweed, a CNPS-ranked 4.3 species, has the potential to occur where hydric conditions are present. Conducting habitat suitability evaluations and/or special-status plant surveys prior to development within parcels dominated by conifer forest habitats as outlined in MM BIO-4, below, and Policies R.1.B and R.1.C in the General Plan, above, would reduce any potential impacts to special-status plant species to less than significant. MM BIO-4 parallels the recommendations outlined in TSMM 4.C-4 was specifically designed for impacts to special-status plant species due to the construction of trails and other projects analyzed in the TSMP EIR. The wording in MM 4.C-4 has been rephrased to include any project analyzed under the Land Use Element/Zoning Code Amendments and Mobility Element Update.

### **(2) Special-Status Wildlife Species**

Because the vacant parcels are located within a highly developed area of the Town, special-status amphibian and mammal species are not likely to use the native vegetation for habitat since higher quality resources exist in close proximity to north of the Town's UGB. However, parcels dominated by conifer forest habitat support potential nesting and foraging habitat for migratory birds, including the special-status species northern goshawk. Project impacts resulting from the development of vacant parcels would require the removal of vegetation. It is a violation of the federal Migratory Bird Treaty Act to disturb actively nesting birds either directly (e.g., brush and tree removal) or indirectly (e.g., excessive construction noise). Should a violation occur during implementation of Project elements, there could be potentially significant impacts to migratory birds. Compliance with MM BIO-2, below, and Policies R.1.B, R.1.C, and R.1.J in the 2007 General Plan, above, would reduce potentially significant effects to migratory birds to less than significant. MM BIO-2 parallels the recommendations outlined in TSMM 4.C-2 of the TSMP EIR, which was a mitigation measure specifically designed for impacts to migratory birds due to the construction of trails and other projects analyzed in the TSMP EIR. The wording in TSMM 4.C-2 has been rephrased to include any project analyzed under the Land Use Element/ Zoning Code Amendments and Mobility Element Update and are introduced as MM BIO-2.

### **b. Mobility Element Update Impacts**

The Mobility Element Update road improvements and MUPs traverse through a variety of native plant communities, particularly the proposed MUPs, which have the potential to support special-status plant and wildlife species. Potential special-status species that occur within each component of the Mobility Element Update improvement areas are described below.

## (1) Special-Status Plant Species

### Road Improvements

Although road improvements are surrounded by developed areas within the Town, many of the improvements would extend existing roads through native vegetation communities. The Main Street Plan is not expected to support special-status plant species due to the high-level of vehicular and pedestrian use. The majority of native plant species along Main Street were previously removed for development. Nonetheless, there are scattered native trees, mainly Jeffrey pines, planted along Main Street that have the potential to support migratory bird species (see discussion regarding special-status wildlife, below). Thompson Way, Tavern Road Extension, Sierra Nevada Road Extension, and Sierra Park Road Extension support some areas of Great Basin sagebrush scrub. Special-status plant species that have a potential to occur within the Project Area and are associated with Great Basin sagebrush scrub include Long Valley milk-vetch, Lemmon's milk vetch, smooth saltbush, alkali ivesia, naked-stemmed phacelia, golden violet, and Father Crowley's lupine. However, many of these species are typically associated with Great Basin sagebrush and hydric conditions, such as the presence of meadows and seeps. The road extensions that are proposed to extend through Great Basin sagebrush scrub are not within or adjacent to areas that support meadows and seeps. Therefore, only Long Valley milk-vetch, naked-stemmed phacelia, golden violet, and Father Crowley's lupine may have a potential to occur within these three road extension areas.

The USFS Property Connections, Thompson Way, Tavern Road Extension, Shady Rest Site Connections, Callahan Way Extension, and 7B Road (Sierra Star Connector) support some areas of conifer forest. As previously mentioned, many of the special-status plant species associated with conifer forest habitat are also associated with hydric conditions. The majority of these road extensions appear to be within drier conditions; therefore, Kern milk-vetch and Father Crowley's lupine have a potential to occur within Thompson Way, Tavern Road Extension, and Callahan Way Extension road improvement areas. There are unnamed blue line streams that occur within the USFS Property Connections and Shady Rest Site Connections road improvement areas, which have the potential to support hydric conditions. Therefore, species associated with both conifer forest and hydric conditions, including Slender-leaved pondweed, Blandow's bog moss, long seta hump moss, scalloped moonwort, common moonwort, seep kobresia, and marsh arrow-grass, may have the potential to occur. Additionally, subalpine fireweed, a CNPS ranked 4.3 species, has the potential to occur.

The unnamed blue line streams that occurs in the northwestern portion of the Shady Rest Site Connections appears to support montane wet meadow habitat, which was also previously mapped by BonTerra Consulting in 2007.<sup>68</sup> Although the current drought may have promoted drier conditions, a review of aerial photographs from 2013 seem to suggest that montane wet meadow habitat still exists within this area. There are a number of special-status species that are documented within the vicinity of the Project Area that have a potential to occur within montane wet meadow habitat, including scalloped moonwort, Inyo County star-tulip, tall draba, Blandow's bog moss, alkali ivesia, seep kobresia, Hockett Meadows lupine, long seta hump moss, small-flowered grass-of-Parnassus, scalloped-leaved lousewort, Inyo phacelia, Robbins'

<sup>68</sup> BonTerra Consulting. 2007. *Hidden Creek Crossing Project Site Draft Biological Technical Report*. Prepared for RBF Consulting. October 16, 2007.

pondweed, alkali tansy-sage, little bulrush, and marsh arrow-grass. Additionally, subalpine fireweed, a CNPS-ranked 4.3 species, has the potential to occur within the Shady Rest Site Connections.

The Sierra Park Road Extension is proposed to cross Mammoth Creek, which supports aspen woodland and aspen forest habitat. Special-status plant species with the potential to occur along Mammoth Creek may include such species as little bulrush, Father Crowley's lupine, and slender-leaved pondweed, which are typically associated with riparian areas. Other hydrophytic species previously mentioned may also have the potential to occur along Mammoth Creek.

Conducting habitat assessments and/or special-status plant surveys within areas supporting suitable habitat prior to development within the road improvement areas as outlined in MM BIO-4, below, and Policies R.1.B and R.1.C in the 2007 General Plan, above, would reduce any potential impacts to special-status plant species to less than significant.

### **Multi-Use Paths (MUPs)**

As mentioned previously, many of the MUP alignments proposed are conceptual in nature, and are expected to undergo additional refinement as they are implemented. Therefore, the MUP areas will generally be addressed as a single unit unless otherwise specified.

The 38 proposed MUPs would traverse through several natural communities (even within developed portions of the Town) and can potentially be located in any of the vegetation communities previously identified, including aspen forest and aspen woodland, great basin sagebrush scrub, conifer forest, mixed willow riparian scrub, montane meadow, and montane chaparral. The majority of MUPs are proposed within areas that are dominated by conifer forest habitat and some areas of Great Basin sagebrush scrub, where special-status plant species associated with these habitats mentioned in the preceding sections have the potential to occur. The conceptual alignments for proposed MUPs 2-1 and 4-4 run parallel to Mammoth Creek, MUPs 3-12, 4-1, 4-3, 4-5, N-2, N-4, N-11, N-17, and N-21 appear to cross unnamed blue line streams, and MUPs N-22, N-23, and N-24 are proposed adjacent to Lake Mary.

As previously mentioned, USFS botanists surveyed within the vicinity of MUP N-4 for special-status plant species on July 20 and August 20, 2010 (Dutcher and Satterthwaite, 2010). No sensitive, threatened, endangered, or proposed plant species were located during the survey. However, the botanists did determine there was potential habitat for sensitive plant species in Kerry Meadow through which a portion of the proposed trail may be located.

Conducting habitat assessments and/or special-status plant surveys within areas supporting suitable habitat prior to development within the road improvement areas as outlined in TSMM 4.C-4 would reduce any potential impacts to special-status plant species to less than significant.

## (2) Special-Status Wildlife Species

### Road Improvements

The majority of the road improvements are mostly proposed within existing developed areas. However, some road alignments are proposed through areas that support conifer forest, Great Basin sagebrush scrub, and montane wet meadow habitats. Because the majority of the proposed road improvement projects are located within a highly developed area of the Town, special-status amphibian and mammal species are not likely to use native vegetation for habitat within these areas since higher quality resources exist outside of the Town's UGB. The exception to this is the Sierra Park Road Extension, which crosses Mammoth Creek. The willow flycatcher has a low to moderate potential to nest in riparian habitat associated with Mammoth Creek and its tributaries. According to the 2007 General Plan, potential habitat for the willow flycatcher occurs along Mammoth Creek directly upstream of U.S. Highway 395 and upstream from the creek's intersection with Minaret Road.<sup>69</sup> The portion of the Sierra Park Road Extension that is proposed to cross Mammoth Creek has a potential to support willow flycatcher as well as special-status amphibian species. Compliance with MM BIO-1 and MM BIO-3, below, and Policies R.1.B, R.1.C, and R.1.J in the 2007 General Plan, above, would reduce potentially significant impacts to willow flycatcher and special-status amphibians to less than significant, respectively. MM BIO-1 and MM BIO-3 parallel the TSMM 4.C-1 and TSMM 4.C-3 from the TSMP MMRP, which were specifically designed for impacts to willow flycatcher and other special-status wildlife species due to the construction of trails and other projects analyzed in the TSMP. The wording in TSMM 4.C-1 and TSMM 4.C-3 has been rephrased to include any project analyzed under the Land Use Element/Zoning Code Amendments and Mobility Element Update.

Road improvements proposed within areas dominated by aspen forest and aspen woodland, conifer forest, and Great Basin sagebrush scrub habitat could potentially support habitat for migratory birds, including the special-status species northern goshawk. Compliance with MM BIO-2, below, and Policies R.1.B, R.1.C, and R.1.J in the 2007 General Plan, above, would reduce potentially significant effects to migratory birds to less than significant.

No other special-status wildlife species are expected to occur within the road improvement areas.

### Multi-Use Paths (MUPs)

The 38 proposed MUPs would traverse through several natural communities (even within the developed portions of the Town) and can potentially be located in any of the vegetation communities previously identified, including aspen forest and aspen woodland, great basin sagebrush scrub, conifer forest, mixed willow riparian scrub, montane meadow, and montane chaparral. These vegetation communities have the potential to support special-status wildlife species.

Four (4) federal or state listed wildlife species have the potential to occur within the Project Area, including Yosemite toad (FT), great gray owl (SE), willow flycatcher (SE), and Sierra Nevada red fox (ST). The USFWS

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<sup>69</sup> *Town of Mammoth Lakes. 2007. Section 4.3, Biological Resources, General Plan Update. p. 4-54.*

has not designated critical habitat for any of these species within the Project Area. No other federal/state listed species have the potential to occur in the Project Area.

Additionally, there are eight (8) wildlife species that are not federal or state listed species but are considered special-status, such as California Species of Special Concern (SSC) and USFS Sensitive Species (FSS). These species include Mount Lyell salamander (SSC), northern goshawk (SSC, FSS), greater sage-grouse (SSC, FSS), yellow warbler (SSC), Mount Lyell shrew (SSC), Townsend's western big-eared bat (SCT, SSC, FSS), Sierra Nevada mountain beaver (SSC), and Pacific marten (FSS).

The twelve special-status species mentioned above have the potential to occur within MUP alignment areas, particularly those that are proposed outside of the UGB and within special-status habitats. Since many of the proposed MUP alignments are conceptual in nature, habitat occurring within planned MUP areas should be reviewed as the individual projects are approved. For those MUPs that occur within potentially suitable habitat for special-status wildlife species, compliance MM BIO-3, below, and Policies R.1.B, R.1.C, and R.1.J in the General Plan, above, would reduce any impacts to a less than significant level.

Additionally, the majority of the MUPs traverse through areas that support potential nesting and foraging habitat for migratory birds. Project impacts resulting from the construction of MUPs will require the removal of vegetation. It is a violation of the federal Migratory Bird Treaty Act to disturb actively nesting birds either directly (e.g., brush and tree removal) or indirectly (e.g., excessive construction noise). Should this occur during implementation of Project elements, such a violation would represent a potentially significant impact. It should be noted that this potential impact may be associated with all elements and areas of the Project, including elements within the developed Town area. Compliance with MM BIO-2, below, and Policies R.1.B, R.1.C, and R.1.J in the General Plan, above, would reduce potentially significant effects to migratory birds to less than significant.

Those MUPs that are adjacent to riparian habitat associated with Mammoth Creek, especially mixed willow riparian scrub, have a potential to support willow flycatcher. Proposed MUPs 2-1 and N-21 both are adjacent to Mammoth Creek and occur within riparian habitat, which may provide suitable foraging and breeding habitat for willow flycatchers. Compliance with MM BIO-1, below, and Policies R.1.B, R.1.C, and R.1.J in the General Plan, above would reduce potentially significant impacts to willow flycatcher to less than significant.

### **Mitigation Measures**

The development of vacant parcels and redevelopment of already developed parcels could result in impacts to special-status plant species and migratory birds. Additionally, the installment of new roads and MUPs could result in an impact to special-status plant species and special-status wildlife species, including willow flycatcher and migratory birds. Therefore, the following mitigation measures are recommended:

**MM BIO-1 Willow Flycatcher:** Prior to approval of road improvement projects and MUPs proposed under the Mobility Element Update that have the potential to significantly disturb riparian vegetation associated with Mammoth Creek and its tributaries, the Town shall require a habitat evaluation by a biologist well versed in the requirements of willow flycatcher to be completed. If no suitable habitat for the species is identified within 300 feet of construction

or maintenance activities, no further measures would be required in association with the project. If suitable habitat for the species is identified within 300 feet of such activities, the Town shall require that a survey be completed prior to construction by a qualified biologist for the species according to CDFW survey guidelines (Bombay et. al., May 29, 2003). This survey protocol requires a minimum of two surveys, one between June 15-25 and one during either June 1-14 or June 26-July 15. Surveys during these periods must be at least five days apart and the second survey shall be conducted no more than one week prior to clearing of vegetation and/or the operation of motorized heavy equipment. If the surveys determine the species is not present within 300 feet of the area to be affected by an individual project, no further action shall be required. If, however, willow flycatcher is determined to be present and is using habitat within 300 feet of Project-related activities, inclusive of nesting and foraging, the Town shall consult with CDFW prior to initiating any construction activities in the area. Consultation may entail the processing of a 2081 Incidental Take Permit that includes certain conditions to avoid and/or mitigate for potential impacts to the species. Such conditions could include, but not be limited to, restrictions on the time of year for construction, noise monitoring, restrictions on equipment use, and others.

**MM BIO-2 Migratory Birds:** To the extent practicable, brush and tree removal related to projects proposed under the Land Use Element and Zoning Code Amendments and Mobility Element Update shall be initiated outside of the nesting bird season, which is generally held to be from April 1 to August 31 in the Mammoth Lakes area, and shall be carried out with no more than a two week lapse in the work. If the Town deems this to not be practicable, the Town shall require a nesting bird survey by a monitoring biologist to be conducted within 300 feet (for songbirds) and 500 feet (for raptorial birds) of construction sites no more than one week prior to initiating construction to ensure no birds protected under the MBTA and/or State Fish and Game Code Section 3503 et seq. are harmed or harassed.

If no active nests of songbirds and raptors are found within 300 feet and 500 feet, respectively, of the construction site, the work may begin. If active nests are found within the survey areas the Town shall delineate a buffer zone of 300 feet and 500 feet for songbirds and raptors, respectively, around the nest. Based on the nature of the work to be performed and the equipment to be used, the monitoring biologist may reduce the buffer zone based on intervening vegetation and topography. Such buffer zones shall remain in place until the young in the nest have fledged or the nest has failed, as determined by the monitoring biologist.

All projects involving removal of trees or vegetation capable of supporting nesting birds shall be subject to the requirements of this Mitigation Measure.

**MM BIO-3 Other Special-Status Wildlife:** As discussed earlier, there are a number of wildlife species of special concern to Federal and State resource agencies that are known or are expected to occur within the planned road improvement and MUP areas under the Mobility Element Update.

- For such avian species, including northern goshawk, greater sage-grouse, yellow warbler, and great gray owl, implementation of MM BIO-2 for nesting birds will suffice in reducing impacts to these species to less than significant.
- For such amphibian species, including the Mount Lyell salamander and Yosemite toad, where suitable habitat exists for these species, a thorough search of areas to be disturbed shall be made by construction personnel trained in the methods of searching for these species. If any amphibians are found, regardless of species, they will be captured and relocated in like habitat no less than 100 feet away from construction sites.
- For such special-status mammal species with the potential to occur in conjunction with particular project components, including the Sierra Nevada red fox, Pacific marten, Sierra Nevada mountain beaver, Townsend's western big-eared bat, and Mount Lyell shrew, and where suitable habitat for these species exists in the Project Area, pre-construction surveys shall be conducted by a biologist familiar with the sign of each species to identify signs of their presence or determine their absence no more than two weeks prior to initiating construction activities. Such surveys shall encompass the area to be disturbed and the habitat within 300 feet of construction activities. Due the secretive and/or nocturnal activity patterns of these species, the following signs shall be used:
  - Mount Lyell shrew – evidence of nests of dry leaves or grasses in stumps or under logs or piles of brush.
  - Townsend's western big-eared bat – evidence of occupation by colonies in caves, mine tunnels, and buildings.
  - Sierra Nevada mountain beaver – evidence of extensive tunnels, runways and burrows beneath dense streamside vegetation.
  - Pacific marten – evidence of den, normally in hollow trees or downed logs.
  - Sierra Nevada red fox – evidence of den, normally on slopes with porous soils.

If no evidence of the presence of any of these species is found, no further mitigation activities shall be required. However, if evidence of the presence of any of these species is observed, impacts will be avoided or minimized in one or more of the following ways and in consultation with CDFW and/or USFS: realigning roads and/or trails so as to retain a 100-foot buffer between the occupied site and construction activities and human use; suspending construction activities within 300 feet of the den, nest, or bat roosts during the breeding period, (generally held to be March 1 to July 31 for these species); verifying the actual occupation of dens, nests, or roosts by means such as placing tracking medium around the den or nest entrance or conducting a bat survey at the roost entrance at sunset; temporarily blocking the entrance of a den or nest verified to be unoccupied until after construction is completed.

**MM BIO-4** Special-Status Plants: Prior to approval of individual projects proposed under the Land Use Element and Zoning Code Amendments and Mobility Element Update that are



determined to have habitat suitable to support special-status plants, the Town shall require a survey be completed by a qualified botanist for special-status plant species within 100 feet on either side of a trail alignment or within the disturbance area of other proposed projects. These surveys shall be conducted during the blooming period for the potential occurring species, which is when they are most easily identifiable. For those species with at least a low potential to occur in the Project Area, this period is usually from late June to mid-August. If no special-status plant species are located within the area of disturbance, no further action shall be required. If special-status plant species are located within such areas and are likely to be impacted by an individual project, conservation actions shall be implemented. Such actions shall include, but not necessarily limited to, re-routing the trail alignment so as to avoid or minimize impacts to special-status plants while preserving an off-site population that is substantially larger than the population to be impacted, developing a transplantation program, and collecting seeds to move populations elsewhere out of harm's way. These measures shall be developed in consultation with the CDFW and USFS.

**Threshold BIO-2:** The project would result in a significant impact if the project would result in a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

**Impact Statement BIO-2:** *Project-related construction and maintenance activities could result in the loss of high priority inventory communities and drainage-associated vegetation under CDFW jurisdiction. These impacts would be considered potentially significant and may require Section 1602 Permit from CDFW. With the implementation of Section 1602 Permit and compliance with MM BIO-5 and applicable policies in the General Plan, impacts to special-status habitats and drainage-associated vegetation under CDFW jurisdiction would be reduced to a less than significant level.*

### a. Land Use Element/Zoning Code Amendment Impacts

Because the vacant parcels occur within a heavily developed portion of the Town, many of the parcels are already developed and/or disturbed and do not support native vegetation communities. However, blue line streams are indicated on USGS 7.5-minute topography through some of the parcels. Although these parcels do not appear to support any special-status habitats pursuant to CDFW regulation, it should be noted that any future activities within the Project Area that could affect stream beds, banks, or associated vegetation (e.g., parcel development, stream crossing repair/ maintenance/ improvement, bank stabilization) may also be regulated by Section 1602 of the California State Fish and Game Code. Under the jurisdiction of the CDFW such impacts would be considered potentially significant and may require a Streambed Alteration Agreement (SAA) from the CDFW. Compliance with MM BIO-5, below, and Policies R.1.A and R.1.D in the 2007 General Plan, above, would reduce any potential impacts to vegetation under CDFW jurisdiction less than significant levels. MM BIO-5 parallels the recommendations outlined in TSMM 4.C-5 of the TSMP MMRP, specifically designed for impacts to special-status habitats due to the construction of trails and other projects in the TSMP. The wording in TSMM 4.C-5 has been rephrased to include any project analyzed under the Land Use Element/Zoning Code Amendments and Mobility Element Update.

## b. Mobility Element Update Impacts

### Road Improvements

The majority of the proposed road improvements would occur within areas that support vegetation communities that are not considered special-status pursuant to CDFW regulation. However, montane wet meadow was previously mapped within the Shady Rest Site Connections and the portion of Sierra Park Road Extension that crosses Mammoth Creek supports aspen forest and aspen woodland, which are both considered a special-status habitat. Impacts to special-status habitats would be considered potentially significant. Additionally, the USGS mapped blue line streams that are within the proposed road alignments for the USFS Property Connections and Shady Rest Site Connections could support associated vegetation under CDFW jurisdiction and vegetation associated with Mammoth Creek would be under CDFW jurisdiction. Vegetation associated with any drainage would be regulated by Section 1602 of the California State Fish and Game Code. Under the jurisdiction of the CDFW such impacts would be considered potentially significant and may require a Streambed Alteration Agreement (SAA) from the CDFW. Compliance with MM BIO-5, below, and Policies R.1.A and R.1.D in the General Plan, above, would reduce any potential impacts to less than significant levels.

### Multi-Use Paths (MUPs)

The majority of the proposed road improvements would occur within areas that support vegetation communities that are not considered special-status habitats pursuant to CDFW regulation. However, the alignments for the proposed MUPs 2-1, 3-5, and N-4 would occur within areas that support habitat considered special-status. MUP 2-1 would run parallel to Mammoth Creek and appears to support aspen forest and aspen woodland habitat. MUP 3-5 and MUP N-4 are proposed within an area previously mapped as montane wet meadow habitat. MUP-21 would cross Mammoth Creek and appears to support both montane wet meadow and mixed willow riparian scrub habitats. These habitats are considered special-status pursuant to CDFW and impacts would be considered potentially significant. Additionally, a number of proposed MUPs appear to cross blue line streams, including MUPs 3-12, 4-1, 4-3, 4-5, N-2, N-4, N-11, N-17 and N-21. Areas where MUPs are proposed to cross blue line streams as well as Mammoth Creek should be evaluated to determine if potential wetlands or other jurisdictional features exist prior to development. Vegetation associated with drainages would be regulated by Section 1602 of the California State Fish and Game Code. Under the jurisdiction of the CDFW such impacts would be considered potentially significant and may require a Streambed Alteration Agreement (SAA) from the CDFW. Compliance with MM BIO-5, below, and Policies R.1.A and R.1.D in the General Plan, above, would reduce any potential impacts to less than significant levels.

### Mitigation Measures

The construction of proposed projects under the Land Use Element/ Zoning Code Amendments and Mobility Element Update may result in impacts to special-status habitats and drainage-associated vegetation under CDFW jurisdiction. Therefore, the following mitigation measure is recommended:

**MM BIO-5 Special-Status Habitats:** Three vegetation types within the Project Area that are considered special-status: aspen forest and woodland, mixed willow riparian scrub, and montane wet meadow. To the extent practicable Project components shall avoid these

vegetation types. In the event this is not practicable, impacts shall be minimized by restricting the Project footprint, including temporary and permanent impacts, to the minimum required to implement the project.

In the event the Town elects to repair, maintain and/or improve trail crossings along stream courses and other drainage features (that often support the special-status vegetation types mentioned above) in association with individual projects proposed under the Project, prior to approval the Town shall notify and consult with the CDFW regarding the need for a Streambed Alteration Agreement (SAA). All work shall be performed in compliance with the conditions set forth in the SAA, as determined by the CDFW. Such conditions may include the in-kind replacement or restoration of riparian habitat at a 1:1 ratio for temporary impacts and a 2:1 ratio for permanent impacts within the Project Area, or as otherwise directed by the CDFW. Alternatively, if the impacts are very minor, the CDFW may, at its discretion, allow the work to proceed under a letter of law without mitigation other than notification and consultation.

As part of the SAA agreement process and prior to beginning construction within CDFW regulated drainages, a Habitat Mitigation and Monitoring Plan (HMMP) should be developed in coordination with the CDFW and USFS if necessary that ensures no net loss of riparian habitat value or acreage. The HMMP shall include, but not necessarily be limited to, the following:

- The establishment of a reference site near regulated resources to be impacted that have similar hydrology, soil regimes, and exposure as the resources to be impacted.
- The establishment of baseline conditions at the reference site regarding absolute native shrub and tree cover, woody shrub and tree stalk density, percentage cover by non-native plant species, and plant species diversity the vegetation using the Sorensen method within a 400 square foot prescribed reference plot.
- The establishment of a restoration site to encompass the mitigation needs of one or more Project elements either on the Project element site or off site within the Mammoth Creek watershed.
- A minimum 3-year establishment, monitoring, and maintenance (trash collection, weeding, etc.) period.
- The establishment of the following success criteria within a 400 square foot prescribed plot within the restoration site – 70 % of baseline absolute cover by native shrubs and trees; 70 % of baseline woody shrub and tree stalk density; no more than 5% cover by non-native plant species; and a Sorensen value of 0.6.

**Threshold BIO-3:** The project would result in a significant impact if the project would result in a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

**Impact Statement BIO-3:** *Buildout of vacant parcels and construction of road improvements and MUPs may affect wetlands and/or other jurisdictional features through potential dredging and filling activities. These impacts would be potentially significant and may require CWA Section 404 Permits from the ACOE, and a Section 401 Water Quality Certification from the RWQCB. With the implementation of such permits and compliance with MM BIO-6 and applicable polices in the General Plan, impacts would be reduced to less than significant levels.*

### **a. Land Use Element/ Zoning Code Amendments Impacts**

Based on USGS topographic mapping, there are unnamed blue line streams that run through some of the parcels. At the time of proposed development parcels should be evaluated to determine if potential wetlands or other jurisdictional features exist prior to development. If jurisdictional features, including wetlands, exist within the parcel, impacts could be considered potentially significant under the jurisdiction of the ACOE such and may require a CWA Section 404 Permit from the ACOE, and a Section 401 Water Quality Certification from the RWQCB. Additionally, any future activities within the Project Area that could affect stream beds, banks, or associated riparian vegetation could also be regulated by Section 1602 of the California State Fish and Game Code. Impacts with respect to federally protected wetlands and other jurisdictional features would be reduced to less than significant levels through compliance with MM BIO-6, below, and Polices R.2.B, R.2.C, R.2.D, R.3.A, and R.3.C in the General Plan, above. BIO-6 parallels the recommendations outlined in TSMM 4.C-6 of the TSMP MMRP, specifically designed for impacts to federally protected wetlands due to the construction of trails and other projects analyzed in the TSMP EIR. The wording in TSMM 4.C-6 has been rephrased to include any project analyzed under the Land Use Element/ Zoning Code Amendments and Mobility Element Update.

### **b. Mobility Element Update Impacts**

#### **Road Improvements**

Based on USGS topographic mapping, USFS Property Connections and Shady Rest Site Connections appear to cross unnamed blue line streams. Additionally, portions of Shady Rest Site Connections support montane wet meadow and a portion of Sierra Park Road Extension crosses Mammoth Creek. The areas where these road improvements are proposed should be evaluated to determine if potential wetlands or other jurisdictional features exist prior to development. If jurisdictional features, including wetlands, exist within the road improvement areas, impacts could be considered potentially significant under the jurisdiction of the ACOE such and may require a CWA Section 404 Permit from the ACOE, and a Section 401 Water Quality Certification from the RWQCB. Additionally, any future activities within the Project Area that could affect stream beds, banks, or associated riparian vegetation could also be regulated by Section 1602 of the California State Fish and Game Code. Impacts with respect to federally protected wetlands and other jurisdictional features would be reduced to less than significant levels through compliance with MM BIO-6, below, and Polices R.2.B, R.2.C, R.2.D, R.3.A, and R.3.C in the General Plan, above.

## Multi-Use Paths (MUPs)

A number of proposed MUPs appear to cross blue line streams, including MUPs 3-12, 4-1, 4-3, 4-5, N-2, N-4, N-11, N-17, and N-21. Areas where MUPs are proposed to cross blue line streams should be evaluated to determine if potential wetlands or other jurisdictional features exist prior to development. In particular, MUP 2-1 is proposed to align directly parallel to Mammoth Creek, which would fill in a gap on the Main Path along Old Mammoth Road between Mammoth Creek Park and Minaret Road. The alignment of MUP 4-4 is also proposed to run parallel to Mammoth Creek; however the alignment appears to be setback from the stream banks and may not affect any jurisdictional features or hydrophytic vegetation. Mammoth Creek is considered a perennial stream and is likely to fall under ACOE, RWQCB, and CDFW jurisdiction due to the presence of moist soils and obligate hydrophytic plant species on the banks of the Creek. These also indicate that the banks likely contain wetlands that would also fall under ACOE/RWQCB jurisdiction and impacts would require Section 404/401 Permits. All riparian vegetation associated with Mammoth Creek and blue line streams would be under CDFW jurisdiction. Impacts to federally protected wetlands and other jurisdictional features associated with the construction of MUPs would be reduced to less than significant levels through compliance with MM BIO-6, below, and Policies R.2.B, R.2.C, R.2.D, R.3.A, and R.3.C in the General Plan, above.

## Mitigation Measures

The construction of proposed projects under the Land Use Element/Zoning Code Amendments and Mobility Element Update could result in impacts to federally protected wetlands and/or other jurisdictional features under ACOE/RWQCB jurisdiction. Therefore, the following mitigation measure is recommended:

**MM BIO-6 Federally Protected Wetlands:** Prior to any project approval for construction, repair, maintenance and/or improvements in association with individual projects proposed under the Land Use Element and Zoning Code Updates and Mobility Element Update within waters of the U.S. and federally protected wetlands, the Town shall notify and consult with the ACOE regarding the need for a Section 404 Permit and the RWQCB regarding the need for its 401 certification. All work shall be performed in compliance with the conditions set forth in the Permit, as determined by the ACOE. Such conditions may include the in-kind replacement or restoration of waters and/or wetlands at a ratio of 1:1 for temporary impacts and a ratio of 2:1 for permanent impacts within the Project Area, or as otherwise directed by the ACOE. Alternatively, if the impacts are less than 0.1 acre, the ACOE may, at its discretion, allow the work to proceed without mitigation other than notification and consultation.

The mitigation shall use the same approach as is outlined above for the mitigation of impacts to CDFW regulated special-status habitats. As is usually the case, CDFW jurisdiction extends beyond that of ACOE and mitigation for impacts to CDFW regulated resources is inclusive of ACOE mitigation needs.

**Threshold BIO-4:** The project would result in a significant impact if the project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native nursery sites.

**Impact Statement BIO-4:** *Because the majority of the Project Area is within the Town's UGB, impacts related to the movement of wildlife are not expected to be significant and no mitigation would be required.*

#### **(a) Land Use Element/Zoning Code Amendment Impacts**

All of the vacant parcels are located within the commercially designated areas of the Town and are adjacent to developed parcels. Therefore, development of the vacant parcels and/or the redevelopment of already developed lands as a result of implementation of the Land Use Element/Zoning Code Amendments would not interfere with wildlife movement.

#### **(b) Mobility Element Update Impacts**

##### **Road Improvements**

The proposed road improvements are all contained within the UGB and roads primarily traverse through areas of the Town that are already developed. Although the development of the proposed roads may result in disturbances to local wildlife movement, those species adapted to urban areas would be expected to persist following the installment of the roads. The road improvement areas are not expected to facilitate wildlife movement on a regional scale.

##### **Multi-Use Paths (MUPs)**

There are a number of MUPs that are proposed to extend outside of the UGB. However, fairly intensive recreational activities, including hiking, biking and riding, are already occurring within these areas. Thus, any wildlife movement that is occurring today through these areas does so in the presence of humans and their recreational activities, and is expected to continue uninterrupted. Intensification of overall human use would occur as MUPs are installed; however, the MUPs are considered minimally invasive and are not considered to be an agent for habitat fragmentation and habitat isolation.

##### **Mitigation Measures**

Impacts related to migratory wildlife and corridors would be less than significant and no mitigation measures are necessary.

**Threshold BIO-5:** The project would result in a significant impact if the project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

**Impact Statement BIO-5:** *With the development of vacant parcels within the Town and construction associated with the road improvement and MUP projects, a number of trees would be removed. The Town's Tree Removal and Protection Ordinance requires a permit to remove certain species of trees and requires replacement of trees. Additionally, potential conflicts between humans and their pets and wildlife are likely to currently occur within and adjacent to the Project Area, particularly in the MUP*

*areas, and as such, the Project could conflict with the management goals and standards and guidelines of the Inyo National Forest Land and Resource Management Plan (LRMP). These impacts could be significant; however, compliance with adopted mitigation measures and implementation of the prescribed mitigation measure would reduce any potential impacts to less than significant levels.*

The Town is located within the East Sierra conifer forest and cited in the Town's General Plan and the Zoning Code as a "Village in the Trees." The Zoning Code describes the importance of trees in the protection of property values, provision of wildlife habitat, reduction of soil erosion, noise buffering, wind protection, and visual screening for development. New streets and MUPs on vacant or undisturbed properties has the potential to remove specimen forest trees.

In addition, the redevelopment of buildings closer to the street has the potential to remove forest trees occurring within the current roadway right-of-way, particularly along Main Street. All tree removal within the UGB must be performed in accordance with the Town's Tree Removal and Protection Ordinance, as enforced under Zoning Code Section 17.36.140. This ordinance regulates the protection and removal of certain trees. Under Section 17.36.140.G, a development site that includes tree removal must provide an approved Tree Removal and Protection Plan, including tree protection measures, or obtain a separate tree removal permit. Code Section 17.36.140.I requires mitigation for tree removal, including replacement plantings at a ratio determined by the Director. If required, replacement must be limited to plantings in areas suitable for tree replacement with species identified in the Town of Mammoth Lakes' Recommended Plant List.<sup>70</sup> The minimum replacement tree size is seven gallons. Replacement requirements may also be determined based on the valuation of the tree as determined by a Registered Professional Forester (RPF) or arborist. The property owner is also required to maintain plantings to a level approved by the Director. With the implementation of existing Zoning Code requirements, impacts to biological resources resulting from development of properties would be less than significant.

Code Section 17.36.140 also allows cutting of trees for public rights of way. As such, roads and MUP's that require tree cutting would be consistent with the intent of the Zoning Code Section 17.36.140, the purpose of which is to protect trees and to reflect the Town's interest in maintaining existing forest trees. Although the location of new streets and MUPs under the Mobility Element Update is conceptual in nature and no specific right-of-way designs have been developed, the construction of new trails and streets could result in an adverse impact on the Town's existing forestry resources. As such, mitigation is recommended. Mitigation Measure (MM) BIO-1 would require the replacement of removed trees within the UGB, including street trees, in accordance with the Town's Recommended Plant List. Compliance with MM BIO-1 (below), Policies R.1.B, R.1.C, and R.2.B in the General Plan (above), and existing Zoning Code requirements (above), impacts with respect to the removal of trees within the UGB would be less than significant.

### **Inyo National LRMP**

It is expected that with implementation of the Project by the Town, the Project will be consistent with local policy and ordinances as well as USFS land use and conservation plans. As previously outlined in section (1) above, the Town's 2007 General Plan Resource Management and Conservation Element includes policies

<sup>70</sup> Mammoth Community Water District. 2014. *Water Efficient Landscape Regulations User Guide*. Mammoth Lakes, CA. May 2014.

specifically directed at: sound stewardship of important wildlife and biological habitats, as well as special status plant and animal species; mitigation for potential impacts to special-status habitats, including special-status plant and animal species and mature trees; construction of active and passive recreation away from habitat areas; support of fishery management activities; and living safely with wildlife.

Nonetheless, conflicts between humans and their pets and wildlife such as bears, mountain lions and coyotes are likely to currently occur within and adjacent to the Project Area. Given the natural setting of much of the Project Area, particularly the MUP areas outside of the UGB, it is inevitable that potential conflicts with wildlife would occur so long as humans (and their pets) continue to visit and use the Project Area and its trail systems. Such conflicts potentially include, but are not limited to harassment of wildlife by off-leash dogs, or by humans approaching wildlife, the feeding of wildlife, the discharge of weapons at or in proximity to wildlife, noise associated with snowmobiles and Off-Highway Vehicles, and human disturbance of breeding and foraging activities, all of which are detrimental normal wildlife behavior. Conversely, in some cases, human/wildlife conflicts have resulted in injury, often severe, to humans.

In addition, the adoption and implementation of the Project would need to be cognizant of the Inyo National LRMP and the management goals and standards and guidelines it contains. Specifically, these goals, standards and guidelines stress the conservation of riparian areas, special-status plants, wildlife, and special-status wildlife species. By complying with GPMM 4.3-1, TSMM 4.C-7, MM BIO-1 through MM BIO-7, and policies in the General Plan, the Project would be consistent with local policies and ordinances and any impacts would be reduced to less than significant levels.

### Mitigation Measures

The development of vacant parcels and construction associated with the road improvement and MUP projects could result in the removal of trees within the Town, which could result in a significant impact. Therefore, the following mitigation measure is recommended:

**MM BIO-7:** All street and trail construction within the UGB resulting in the removal of healthy specimen trees, including street trees, shall replace any removed tree on a one to one basis. Trees must be selected from the Town's Recommended Plant List to the satisfaction of the Director.

**Threshold BIO-6:** The project would result in a significant impact if the project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

**Impact Statement BIO-6:** *At this time there are no adopted or on-going region-wide habitat conservation plans in the area that would be affected by implementation of the Project. Thus, no Project-related impacts would occur in this regard and no mitigation would be required.*



There are no Habitat Conservation Plans or Natural Community Conservation Plans in place within the Project Area. As indicated in the General Plan EIR,<sup>71</sup> there are a number of other approved plans that are within the Project Area, including Owens Basin Wetland and Aquatic Species Recovery Plan Inyo and Mono Counties, California,<sup>72</sup> Draft Recovery Plan for the Sierra Nevada Bighorn Sheep (*Ovis canadensis californiana*),<sup>73</sup> Riparian Bird Conservation Plan for 14 Priority Riparian-Dependent Species,<sup>74</sup> and Greater Sage-Grouse Conservation Plan for the Bi-State Area of Nevada and Eastern California.<sup>75</sup>

Through compliance with design features and policies outlined in the General Plan as well as implementation of MM BIO-1 through MM BIO-7, biological resources would be protected during construction activities associated with Project. These design features, policies, and mitigation measures would serve to reinforce the Town's commitment to the preservation of biological resources.

### Mitigation Measures

The Project would not conflict any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan with respect to migratory wildlife or corridors, and no mitigation measures are necessary.

## 4. CUMULATIVE IMPACTS

The development of vacant parcels and redevelopment of already developed parcels under the Land Use Element/Zoning Code Amendments and the road improvements and MUPs identified in the Mobility Element Update are primarily within the UGB of the Town. Although biological resources are present within these areas, the majority of project-related construction activities would occur within areas that are already developed and/or disturbed. Nonetheless, a number of mitigation measures are proposed to protect special-status plant and wildlife species, jurisdictional features and wetlands, and healthy trees that occur within the Town. With the implementation of these mitigation measures and compliance with policies outlined in the General Plan and design features, the biological resources within the Town would be protected. In addition to this Project, there are a total 26 related projects currently in the Town of Mammoth Lakes. The related projects are primarily within the Town's UGB and would be subject to the same policies contained in the General Plan. As such, impacts from the Project would not be considered cumulatively significant.

## 5. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the implementation of MM BIO-1 through MM BIO-4 as well as Policies R.1.B, R.1.C, and R.1.J in the General Plan, impacts to special-status plant and wildlife species, including willow flycatcher and migratory birds would be reduced to a less than significant level. With respect to special-status habitats and drainage-

<sup>71</sup> *Town of Mammoth Lakes. 2007. Section 4.3, Biological Resources, General Plan Update EIR. pp. 4-86 – 4-87.*

<sup>72</sup> *USFWS. 1998. Owens Basin Wetland and Aquatic Species Recovery Plan Inyo and Mono Counties, California. Portland, Oregon.*

<sup>73</sup> *USFWS. 2007. Recovery Plan for the Sierra Nevada Bighorn Sheep. Sacramento, California.*

<sup>74</sup> *Riparian Habitat Joint Venture. 2004. Version 2.0. The Riparian Bird Conservation Plan: a Strategy for Reversing the Decline of Riparian Associated Birds in California. California Partners in Flight. Stinson Beach, California.*

<sup>75</sup> *Sage-Grouse Conservation Team. 2004. Greater Sage-Grouse Conservation Plan for Nevada and Eastern California, First Edition.*

associated vegetation under CDFW jurisdiction, with implementation of a Section 1602 Permit and compliance with MM BIO-5 and Policies R.1A and R.1.D in the General Plan, impacts would be reduced to a less than significant level. With regard to federally protected wetlands and other drainage features under ACOE/RWQCD jurisdiction, with implementation of Section 404/401 Permits and compliance with MM BIO-6 and Policies R.2.B, R.2.C, R.2.D, R.3.A, and R.3.C in the General Plan, impacts would be reduced to a less than significant level. Potentially significant impacts to substantial loss of healthy trees within the Town's UGB would be reduced to a less-than-significant level with the incorporation of the adopted mitigation measures and implementation of MM BIO-1. The Project would not result in significant impacts with respect to migratory wildlife or corridors, and no mitigation measures are necessary. The Project would not conflict any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan with respect to migratory wildlife or corridors, and no mitigation measures are necessary.