4.0 ENVIRONMENTAL ANALYSIS

The following is a discussion of potential Project impacts as identified in the Initial Study and Mitigated Negative Declaration. Explanations are provided for each item.

I. AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?		✓		
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?		✓		
c. Substantially degrade the existing visual character or quality of the site and its surroundings?		✓		
d. Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?		✓		

I. a), b), c), d)
Approval of Vesting Tentative Parcel Map and Use Permit (VTPM/UPA) 10-001 is not anticipated to result in significant aesthetic impacts to the community or effects on scenic resources. VTPM/UPA 10-001 proposes to subdivide one parcel and create four single-family lots, which ultimately are intended to be developed with single-family homes, which is a use that is consistent with the Bluffs subdivision and with the Rural Residential (RR) Land Use zone as described by Municipal Code 17.16.020.A. The Project site is located on top of and below a prominent bluff in the Bluffs subdivision. Proposed Project Parcel 1 sits on top of the bluff and future development of this parcel requires a use permit and design review by the Planning Commission Design Committee to ensure compliance with Municipal Code Section 17.16.040.C.8. as it relates to the mitigation of potential off-site visual impacts as described in the Bluffs EIR.

The proposed lot dimensions and development density resulting from the proposed Project are consistent with that permitted in the RR zone, and with other existing neighboring development. The RR zone permits limited lot coverage (a maximum of 30% for all structures, paved areas, etc.) and restricts building height to 35 feet.

As specified in AES-1, any future structures will be required to adhere to the Town's Design Guidelines, which include standards for materials, color, and design that will result in buildings that are harmonious with the natural landscape and are visually unobtrusive. Also, as mentioned, additional review by the Planning Commission's Design Committee shall be conducted for future development of proposed Parcel 1 to ensure compliance with Municipal Code Section 17.16.040.C.8. as it relates to the mitigation of potential off-site visual impacts as described in the Bluffs EIR.

Construction activities and future structures on the Project parcels will be required to comply with Municipal Code Section 17.34 requirements for outdoor lighting, which regulate light and glare. Short-term light and glare impacts associated with construction activities would likely be limited to nighttime lighting in the evening hours.

The Project, including the public parking area and off-site turnout improvements to Tamarack Street, will involve a minimal amount of tree and/or brush removal and will be required to comply with Town standards regarding tree and vegetation preservation and replacement, as established in Municipal Code Section 12.08.

Implementation of these requirements will ensure that the Project and future development related to approval of the project will result in a less than significant impact to scenic resources, creation of light and glare, and degradation of the visual quality of the site and its surroundings. Nonetheless, the following mitigation measures are included to minimize potential impacts related to aesthetic resources:

Mitigation Measures:

AES-1: Future structures will be required to adhere to the Town's Design Guidelines, which include standards for materials, color, and design that will result in buildings that are harmonious with the natural landscape and are visually unobtrusive. Additional review by the Planning Commission's Design Committee, in conjunction with a use permit application, will be required for future development of proposed Parcel 1 to ensure compliance with Municipal Code Section 17.16.040.C.8. as it relates to the mitigation of potential off-site visual impacts as described in the Bluffs EIR.

AES-2: All appurtenances (i.e. meters, roof vents, and electrical equipment shall be screened or placed in areas that are not highly visible, where feasible.

AES- 3: The landscaping for each Project parcel, when developed, shall enhance the character of the on-site development and shall be compatible with, and complementary to, the natural environment in Mammoth Lakes and the surrounding region. All building sites and graded areas shall be revegetated to blend with existing native landscape consistent with firesafe requirements. Native plant materials shall be utilized whenever possible.

AES-4: Existing trees and vegetation shall be preserved to the maximum extent possible. No live trees over six inches in diameter shall be removed without prior approval of the Community Development Director. As mitigation for tree removal, the Community Development Director may require replacement plantings. Required replacement shall not exceed a total trunk diameter equal to that removed and shall be limited to plantings in areas suitable for tree replacement.

AES-5: Construction equipment staging areas shall use appropriate screening (i.e., temporary fencing with opaque material) to buffer views of construction equipment and material, when feasible. Staging locations and screening techniques shall be indicated on grading permit plans and shall be approved by the Community Development Department prior to permit issuance.

AES-6: All outdoor lighting related to the development of the Project parcels, including construction, shall comply with Municipal Code Section 17.34, which regulates light and glare. In addition, an outdoor lighting plan shall be submitted in conjunction with a use permit application for the future development of proposed Parcel 1 in accordance with Municipal Code Section 17.34.060.

AES-7: All utilities shall be placed underground.

Therefore, the impacts in all areas would be ***less than significant with mitigation incorporated.***

II. AGRICULTURE AND FOREST RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				✓
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d. Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

II. a), b), c), d), e)

Approval of VTPM/UPA 10-001 is not anticipated to pose any adverse agricultural or forest resource impacts. The RR zone is designated for development of single-family residential home sites and does not contain any designated agricultural land or forest land that meets the definitions described above. No land within the Town's Urban Growth Boundary (UGB) is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, is subject to the Williamson Act, nor is it zoned as "forest land" as defined by the Public Resource Code. Therefore, there is ***no impact*** to agriculture or forest resources.

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?		✓		
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?		✓		
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?		✓		
d. Expose sensitive receptors to substantial pollutant concentrations?		✓		
e. Create objectionable odors affecting a substantial number of people?		✓		

III. a), b), c), d), e)

Approval of VTPM/UPA 10-001 would result in the creation of three additional single-family residential lots in Mammoth Lakes, which, due to the scale and type of the Project, would not, in and of itself, conflict with the applicable air quality plan, violate air quality standards, result in cumulatively considerable net increase of PM10, create objectionable odors affecting a substantial number of people, or expose sensitive receptors to substantial pollutant concentrations. However, future development of the Project parcels may have a limited impact to air quality as described below.

Although the three additional single-family lots, if developed, would contribute to an increase in the cumulative vehicle trips (approximately 39 additional daily trips and 14 peak hour trips) and Vehicle Miles Traveled (VMT) within the Town of Mammoth Lakes, the increase is anticipated to be de minimis, and would not cause roadway capacity impacts or cause the VMT to exceed the 106,600 VMT threshold established by the Air Quality Management Plan (AQMP) and Particulate Emissions Regulations of the Town Municipal Code Section 8.30.

The public parking area, which is proposed with the Project, would include the construction of a maximum of six parking spaces, including one ADA space. The public parking lot is intended to

serve existing demand by recreational users who access the nearby USFS lands. While it is unlikely that the construction of a formalized parking area would create a much greater parking demand than that which already exists, it is possible that an increase in trips could occur along Tamarack Street; however this is expected to represent a de minimus increase in trips. The off-site turnout improvements to Tamarack Street are not expected to increase vehicle trips, since they are intended to improve access and safety for emergency vehicles and existing users of Tamarack Street.

Provision of the non-motorized access easement is consistent with the Town's adopted 1991 Trail System Plan and its 2009 Draft Trail System Master Plan, both of which aim to reduce overall vehicle trips in the Town by providing an extensive system of pedestrian and recreational trails.

Additionally, future development of the lots must conform to the requirements of the AQMP and Municipal Code section 8.30 with regard to particulate matter (PM10), which is the pollutant of greatest concern to the Town. Municipal Code Section 8.30 limits the number of solid fuel burning appliances in new dwelling units.

Construction dust control measures would be implemented during site grading including continuous water spraying or other approved methods, stabilization and re-seeding of exposed soil areas, and the removal and disposal of unsuitable soil materials at approved sites designated by the Town, as required by the Municipal Code Section 12.08 related to land clearing, earthwork, and drainage facilities.

The following mitigation measures are included to minimize potential air quality impacts:

Mitigation Measures:

AQ-1: In order to reduce emissions associated with both mobile and stationary sources (i.e., wood burning stoves and fireplaces), the Project shall adhere to the regulations contained in the Air Quality Management Plan (AQMP) and Particulate Emissions Regulations of the Town Municipal Code Section 8.30.

AQ-2: In order to reduce fugitive dust emissions, each Project parcel shall obtain permits, as needed, from the Town and the State Air Pollution Control District (APCD) and shall implement measures during grading and/or construction of the individual parcels to ensure compliance with permit conditions and applicable Town and APCD requirements.

a. The individual parcels shall comply with State, APCD, Town, and Uniform Building Code dust control regulations, so as to prevent the soil from being eroded by wind, creating dust, or blowing onto a public road or roads or other public or private property.

b. Adequate watering techniques shall be employed on a daily basis to partially mitigate the impact of construction-generated dust particulates.

c. Clean-up on construction-related dirt on approach routes to the Project parcels shall be ensured by the application of water and/or chemical dust retardants that solidify loose soils. These measures shall be implemented for construction vehicle access, as directed by the Town Engineer. Measures shall also include covering, watering or otherwise stabilizing all inactive soil piles (left more than 10 days) and inactive graded areas (left more than 10 days).

d. Any vegetative ground cover to be utilized on the individual Project parcels shall be planted as soon as possible to reduce the amount of open space subject to wind erosion. Irrigation shall be installed as soon as possible to maintain the ground cover.

e. All trucks hauling dirt, soil or other loose dirt material shall be covered.

AQ-3: To reduce the potential of spot violations of the CO standards and odors from construction equipment exhaust, unnecessary idling of construction equipment shall be avoided.

AQ-4: The Project shall contribute on a fair share basis through payment of Development Impact Fees to the Town's street sweeping operations in order to reduce emissions and achieve the required Federal standard.

Therefore, approval of VTPM/UPA 10-001 is anticipated to result in a ***less than significant impact with mitigation incorporated*** on Air Quality.

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or indirectly through habitat modifications on any species identified as candidate, sensitive or special status species in local or regional plans, policies, or regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		✓		
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act?				✓
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or established native resident or migratory wildlife corridors, or impede the use of native wildlife nurseries?		✓		
e. Conflict with any local policies or ordinances protecting biological resources such as a tree preservation policy or ordinance?		✓		
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan?				✓

IV. a), b), c), d), e), f)

The Project site is generally undisturbed and covered by two primary vegetation types: montane chaparral and great basin sagebrush. The site is generally devoid of trees, however there are a few red fir, Jefferey pine and lodgepole pine scattered throughout the area, including a giant red fir north of the Project site. There are no wetlands present on the Project site.

Based on a biological review conducted for the Project site and surrounding area, the Project, which is consistent with the zoning of the property and surrounding properties, is not expected to result in a significant impact to biological resources with mitigation measures incorporated. Additionally, the Project does not conflict with any adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional or state habitat conservation plan.

The Bluffs EIR analyzed potential biological resource impacts within the Bluffs study area that would result from infrastructure development related to the Bluffs subdivision. However, the analysis did not include areas below the bluff, including those areas that are part of the subject Project site. Therefore, the Town contracted with Resource Concepts, Inc. (RCI) to conduct a site

specific biological review for the Project site and surrounding property and review and determine the applicability of and conformance with the impact analysis and mitigation measures identified in the Bluffs EIR. The biological study prepared by RCI is included in Appendix A.

RCI completed a search of the California National Diversity Database (CNDDB) to update the list of any known occurrences of special status plant and animal species or critical habitats with potential to occur within the vicinity of the Project site. A list of species was compiled from the CNDDB for the Mammoth Mountain, Bloody Mountain, Old Mammoth and Crystal Crag USGS 7.5 minute quadrangles and was confirmed by the California Department of Wildlife. RCI also consulted with the US Fish and Wildlife Service, who reviewed species records and did not find any federally listed, proposed, or candidate species or critical habitat within the vicinity of the Project site.

On September 8, 2010, two RCI biologists completed a detailed review of habitat requirements and a field review of the Project site and vicinity, including the area studied in the Bluffs EIR, in reference to the potential species list compiled through the CNDDB. Table 1 provides a summary of the potential occurrence of various plant species on the Project site, while Table 2 provides a summary of the potential occurrence of various animal species on the Project site.

Table 1: CNDDB Identified Plant Species

Common Name	***Scientific Name***	**Potential to Occur**
Long Valley milkvetch	*Astragalus johannis-howellii*	NO
Mono milkvetch	*Astragalus monoensis*	NO
Smooth saltbush	*Atriplex pusilla*	NO
Bolander's bruchia	*Bruchia bolanderi*	NO
Western single-spiked sedge	*Carex scirpoidea ssp. pseudoscirpoidea*	NO
Fell-fields claytonia	*Claytonia megarhiza*	NO
Hall's meadow hawksbeard	*Crepis runcinata* ssp. *hallii*	NO
Canescent draba	*Draba cana*	NO
Sweetwater Mtn. draba	*Draba incrassata*	NO
Spear-fruited draba	*Draba lonchocarpa* var. *lonchocarpa*	NO
Tall draba	*Draba praealta*	NO
Scribner's wheatgrass	*Elymus scribneri*	NO
Subalpine fireweed	*Epilobium howellii*	NO
Short-leaved hulsea	*Hulsea brevifolia*	NO
Seep kobresia	*Kobresia myosuroides*	NO
Mono Lake lupine	*Lupinus duranii*	NO
Inyo phacelia	*Phacelia inyoensis*	NO
Robbin's pondweed	*Potamogeton robbinsii*	NO
Short-fruited willow	*Salix brachycarpa* ssp. *brachycarpa*	NO

As shown in Table 1, none of the potential plant species identified through the CNDDB have a potential for occurrence on the Project site, as determined through the biological review conducted by RCI, because the required habitat for each species is not present on the site. The RCI biological report does recommend however, that the best practices for soil and vegetation preservation as required by Municipal Code Section 12.08, as well as those outlined in the below mitigation measures, should be implemented as part of any future grading permit(s) for the Project parcels.

Table 2: CNDDB Identified Animal Species

Common Name	***Scientific Name***	**Potential to Occur**
Yosemite toad	*Bufo canorus*	NO
Sierra Nevada yellow-legged frog	*Rana sierrae*	NO
Paiute cutthroat trout	*Oncorhynchus clarkii seleniris*	NO
Owen's sucker	*Catostomus fumeiventris*	NO
Northern goshawk	*Accipiter gentilis*	Potential Incidental Fly-over
Great Gray owl	*Strix nebulosa*	Not Likely
California wolverine	*Gulo gulo*	NO
Western white-tailed jackrabbit	*Lepus townsendii townsendii*	Not Likely
Sierra marten	*Martes americana sierrae*	NO
Pacific fisher	*Martes pennanti (pacifica) DPS*	NO
Mt. Whitney pika	*Ochotona princeps albata*	NO
Yosemite pika	*Ochotona princeps muiri*	NO
Gray-headed pika	*Ochotona princeps schisticeps*	NO
Mt Lyell shrew	*Sorex lyelli*	NO
Sierra Nevada red fox	*Vulpes vulpes necator*	NO
Silver-haired bat	*Lasionycteris noctivagans*	NO
Long-eared myotis	*Myotis evotis*	Possible
Long-legged myotis	*Myotis volans*	Potential Incidental Use
Yuma myotis	*Myotis yumanensis*	NO

As shown in Table 2, the majority of potential animal species identified through the CNDDB do not have a potential for occurrence on the Project site, as determined through the biological review conducted by RCI, because the required habitat for each species is not present on the site. Also, while pika and Sierra marten were identified in the Bluffs EIR project area, the RCI study determined that there is no potential habitat for these species on the Project site since there are no riparian areas, meadows, or boulder outcrops. For this reason, there is also no potential for Mt. Lyell Shrew. Also determined through the biological review is that the Project site is unlikely to provide habitat for the northern goshawk and the great grey owl due to a lack of forested area;

however, the report notes that there is a potential for these species to fly over the Project site while foraging because there is forested area nearby.

Although there have been two historic sightings of the western white-tailed jackrabbit in the vicinity of the Project (Lake Mary in 1950 and Casa Diablo Hot Springs in 1955), the biological study determined that occurrence of this species on or near the Project site is unlikely, given that there is no suitable grassland habitat. The biological review also determined that the Project site may provide potential habitat for both the long-eared myotis and the long-legged myotis. These species are listed in the CNNDB, but are not designated as special status species.

The Bluffs EIR also contained detailed analysis of potential impacts to critical mule deer migration routes and holding areas that are adjacent to the Bluffs subdivision area, as well as the proposed Project site. The Bluffs EIR established a series of specific mitigation measures to reduce, to the extent possible, potential impacts to mule deer from habitat alteration, habitat removal, human intrusion, and direct mortality. The biological review conducted by RCI determined that a number of the Bluffs EIR mule deer mitigation measures are applicable to the proposed Project and should be implemented with future grading and or building on the Project parcels. These mitigation measures are included below.

Additionally, the Project, including the public parking area and off-site turnout improvements to Tamarack Street, will involve a minimal amount of tree and/or brush removal and will be required to comply with Town standards regarding tree and vegetation preservation and replacement, as established in Municipal Code Section 12.08.

The following mitigation measures are included to minimize potential impacts to biological resources:

Mitigation Measures: Also refer to Mitigation Measures AES-3, AES-4, AES-7 and AQ-2

BIO-1: Grading permits required for the Project shall include, but not be limited to, the following where applicable:

a. Stockpile and protect topsoil removed during the construction phase of the Project.

b. Reapply topsoil to cleared and graded surfaces as soon as feasible and prevent unnecessary soil compaction.

c. Terrace cleared slopes and apply protective mulch.

d. Select species for planting that satisfy the project's landscaping goals, yet are suited for the existing environmental conditions.

e. Plantings should be healthy individuals grown under field conditions.

f. Plant shrubs and trees in late spring or early summer after threat of snow and heavy frost is past.

g. Fertilize plants sparingly or not at all.

h. Provide for irrigating young plants using a drip irrigation system for approximately two years, or until establishment is certain.

BIO-2: All newly disturbed areas shall be immediately revegetated, preferably with native plant materials, to minimize loss of wildlife habitat and to reduce weed species invasion.

BIO-3: Construction shall be limited to 7:00 AM to 7:00 PM in accordance with the Bluffs subdivision EIR, to minimize noise impacts to wildlife, and in particular to mule deer.

BIO-4: In accordance with Municipal Code Section 12.08.090, during construction, dust controls shall be instituted to reduce wildlife impacts. Such controls are to include watering and mulching of disturbed areas; initiation of revegetation efforts shall commence as soon as practical after construction.

BIO-5: Night lighting shall be limited in both amount and intensity of fixtures to a level adequate for safety purposes, so as to reduce impacts to nocturnal wildlife species, particularly mule deer.

BIO-6: Dogs shall not be permitted to roam freely; dogs, including during the construction phase, must be on a leash or within an enclosure.

BIO-7: To reduce the spread of insect pests, trees and other large plants in close proximity to construction sites shall be protected by erecting barriers (e.g. plastic flagging) and to avoid root, stem, or trunk damage.

BIO-8: To reduce impacts on mule deer, construction activities shall be scheduled to minimize disturbance to migratory deer; that is, not during the spring and fall migration/holding periods. Major construction activities (e.g. earthmoving, paving, extensive exterior building work, etc.) shall be scheduled between November 1 – April 1 and June 1 – October 1.

BIO-9: Fences generally should be discouraged. Otherwise, any fences shall follow United States Forest Service guidelines for fencing that allow for easier deer movement. All proposed fencing shall be approved by the Community Development Department.

BIO-10: Any other impediments to deer movement (such as soil piles, open ditches and cut-fills) shall be avoided. Such impediments shall be rectified as soon as possible to reduce wildlife/deer movement, interference and danger.

BIO-11: Disturbance of habitat in the areas adjacent to the development shall be limited to that which is necessary to accomplish necessary work. Limits of disturbance shall be established in accordance with Town engineering standards.

Therefore, approval of VTPM/UPA 10-001 is anticipated to have a ***less than significant impact with mitigation incorporated*** on biological resources.

V. Cultural Resources

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in 14 California Code of Regulations Section 15064.5?		✓		
b. Cause a substantial adverse change in the significance of a unique archaeological resource as defined in 14 California Code of Regulations 15064.5?		✓		
c. Directly or indirectly destroy a unique paleontological resource or unique geologic feature?		✓		
d. Disturb human remains including those interred outside of formal cemeteries?		✓		

V. a), b), c), d)

Historical resources consist of cultural resources listed on the California Register of Historical Resources (CRHR) and resources determined to be eligible for listing on the CRHR by the CEQA lead agency based upon substantial evidence (14 California Code of Regulations Section 15064.5). A substantial adverse change occurs when the significance of the resource is damaged by alteration of the resource or its setting in a manner that impairs the significance or integrity of the resource.

Cultural resources consist of historic-era and prehistoric archaeological sites, dwellings, and structures that may be significant for their data potential, architectural merit, or association with important persons or themes. Engineered works may also be significant for their design or workmanship. Paleontological resources consist of fossils, including the remains or traces of prehistoric animal or plant life. Fossils are typically associated with geological formations that are contemporaneous with the preserved animal or plant remains.

Prehistoric archaeological sites are common within the Mono Basin and Long Valley region, with the prehistoric occupation beginning in the early Holocene (circa 10,000 years ago). Some prehistoric sites tend to be clustered near obsidian sources, such as Casa Diablo, but are also found in other locations. Other sites, such as occupation deposits, temporary encampments, and resource procurement stations, also occur across the biotic communities within the region.

An archaeological review of the Project site and surrounding property was performed by Trans-Sierran Archaeological Research (TSAR) between July and September 2010. TSAR's review

consisted of a comprehensive ground survey of the property and analysis of two presumed gravesites and two previously identified archaeological sites, which according to the TSAR report, "appeared to meet the criteria for 'sparse lithic scatters," as defined by the 'California Archaeological Resource Identification and Data Acquisition Program: Sparse Lithic Scatters (CARIDAP:SLS)." The cultural resources report prepared by TSAR is provided in Appendix B.

Gravesites ("Plum-1")

The two gravesites, which are referred to in the TSAR report as "Plum-1," are clearly marked by headstones but are not part of a formal cemetery. The headstones are protected with a (20-foot by 20-foot) conservation easement, in accordance with Section 815 of the California Civil Code, that was granted to the Town of Mammoth Lakes in 1991 and requires that neither the two headstones, nor the graves presumably located below, are to be disturbed or impacted in any way and are to be left in their current existing state, subject to only normal wear and tear over time. The easement description also specifies that nothing shall be done within the easement boundaries which may indirectly compromise the integrity of the headstones or gravesites.

TSAR reviewed the existing easement in relation to the proposed Project and determined that future development of the single-family home sites and public parking area that may occur as a result of the approval of VTPM/UPA 10-001 will not impact the existing presumed gravesites because no development or disturbance shall be permitted within the easement and that the easement is located an adequate distance from the anticipated future single-family home building locations. The report recommended as an additional measure of protection, that the gravesites be enclosed with a low, permanent fence constructed of weather-resistant materials (e.g. wrought iron, or stone pillars and wooden rails). The report suggested that the fence could either be placed along the easement boundary, or alternatively, be placed in a 7-foot by 8-foot boundary around the gravesites as described in Figure 17 of the report. This recommendation is included as Mitigation Measure CUL-1 and will be included as a condition of approval for the Project and will be required to be in place prior to grading or building permit issuance.

Lithic Scatter Sites ("Plum-2" and "Plum-3")

One of the archaeological sites reviewed by TSAR was identified in a previous environmental study conducted for the Snowcreek development project (Leonard 1974). The site, which is referred to as "Plum-2" in the cultural resources report prepared by TSAR, is approximately 110 by 65 meters (5,200 square meters) in size and is located near the southeastern corner of the Project site and straddles the boundary into USFS land. The report states:

> The site includes several hundred obsidian flakes, including biface retouch flakes, an Elko Eared projectile point, and a biface midsection. Approximately 1,200 square meters of the site lie within the Plum property, but the densest concentration of artifacts (up to 8 flakes per square meter), the projectile point, and the biface midsection are on public land administered by the Forest Service. (12)

The final archaeological site reviewed by TSAR for the Project was one of several sites that were previously identified in the archaeological review performed for the Bluffs EIR (Burton 1982). The

site, which is referred to as "Plum-3" in the TSAR report, is a small, sparse lithic scatter area covering an area about 90 by 45 meters (3,400 square meters) and is located at the west upper end of the Project site, on top of the bluff. The report notes that only about 1,000 square meters of the archaeological site lie within the Project boundary and that about 50 obsidian flakes were recorded across the archaeological site as a whole.

For this site, as well as two other sites identified in the Bluffs EIR, mitigation measure G.1. required additional subsurface testing prior to any construction activities to determine potential archaeological significance. Although no construction or grading is being proposed as part of the Project at this time, the Town requested that additional subsurface testing to determine potential significance, in accordance with the Bluffs EIR, be performed for both the "Plum-2" and "Plum-3" sites.

Subsurface testing, as well as collection and analysis of artifacts, was performed following the CARIDAP:SLS protocol for sparse lithic scatters. The TSAR report notes that the CARIDAP:SLS protocol was developed by the California Office of Historic Preservation in partnership with federal agencies to identify and manage sparse lithic scatters and to efficiently recover the limited but useful information they can provide. The CARIDAP:SLS protocol, which was developed to fulfill requirements of the National Historic Preservation Act, can also be used to manage sparse lithic scatter sites in accordance with CEQA guidelines, since CEQA parallels the federal legislation in the evaluation and treatment of archaeological sites. (5)

The results of the implementation of the CARIDAP:SLS protocol for both "Plum-2" and "Plum-3" sites determined that no further archaeological work is necessary because the sites do not appear to offer any further significant information potential beyond what was analyzed. The report states, "The effects of the proposed project have been mitigated through site testing and collection, and analysis of artifacts as prescribed in the CARIDAP:SLS protocol."

While there is no further analysis necessary, as determined by TSAR, the following mitigation measures are recommended to reduce any potential impacts to cultural or historic resources to a less than significant level:

Mitigation Measures:

CUL-1: A low, permanent fence of weather-resistant materials (e.g. wrought iron, or stone pillars and wooden rails) shall be constructed around the gravesites. The fence can either be constructed along the easement boundary, or be placed in a 7-foot by 8-foot boundary around the gravesites, as recommended in the cultural resources study.

CUL-2: Additionally, in accordance with State law and the Bluffs EIR, in the event that a material of potential cultural significance is uncovered during grading and/or construction, including grading and construction of the parcels, public parking area, and off-site turnout improvements to Tamarack Street, all work in the area of the uncovered material shall cease, the Town notified, and an archaeological monitoring program should be implemented. The monitoring program shall be managed by an archaeologist

who meets the *Secretary of the Interior's Professional Qualification Standards*. The archaeological monitoring program shall include provisions for an archaeological monitor; assessing the significance of archaeological finds; consideration of avoidance and minimization of impacts to significant archaeological resources (in consultation with the Town); mitigation measures including archaeological excavation, laboratory analysis, reporting, and curation; and consultation with Indian Tribes if resource is prehistoric in nature.

CUL-3: If any human remains are encountered during construction, all work in the vicinity of the discovery must be halted and the Town notified in accordance with State of California Public Resources Health and Safety Code § 7050.5-7055 and § 5097.98). The Professional Guide for the Preservation of Native American Remains and Associated Grave Goods shall be utilized to protect Native American burial sites should they be discovered.

Therefore, approval of VTPM/UPA 10-001 is anticipated to result in a ***less than significant impact* with *mitigation incorporated*** on Cultural Resources.

VI. Geology and Soils

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			✓	
ii) strong seismic ground shaking			✓	
ii) seismic-related ground failure, including liquefaction, or;			✓	
iv) landslides?			✓	
b. Result in substantial soil erosion or loss of topsoil?		✓		

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c. Be located on a geologic unit or soil that is unstable or would become unstable as a result of the project?		✓		
d. Be located on an expansive soil as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?		✓		
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available?				✓

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

- **i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**
- **ii) Strong seismic ground shaking**
- **iii) Seismic-related ground failure, including liquefaction or**
- **iv) Landslides?**

The Town of Mammoth Lakes is situated on the eastern flank of the Sierra Nevada mountain range along a system of normal faults that produced the Owens Valley. The Long Valley Caldera, a remnant valley formed by a volcanic event 760,000 years ago, occurs to the north of the Town of Mammoth Lakes. The vicinity is still volcanically active on geological time scales, with at least 30 volcanic events in the last 2,000 years. The Mono Lake and Long Valley region is one of the most seismically active regions in the United States. Low and moderate earthquakes are occasionally felt by local residents. The main sources of seismic activity (earthquakes) consist of tectonic fault movement and magma movement under the Long Valley Caldera and associated geological systems.

A geotechnical investigation was prepared for the Project site by Sierra Geotechnical Services, Inc. in November of 2003, which is provided in Appendix C. A follow-up report was conducted in May 2010, which confirmed the findings of the original study. The soils report cited that there are no known active, potentially active, or inactive faults that transect the subject site but that seismic hazards at the site may be caused by ground shaking during seismic events on regional active faults, or seismic events produced by volcanic unrest in the area. The nearest known active regional fault is the Hartley Springs fault located approximately 2 km northwest of the subject site. The Hartley Springs fault is classified as a Type "B" seismic source capable of producing a magnitude 6.6 (Mw)

earthquake. Although future construction of single-family homes on the newly created lots, and the addition of a public parking area to serve people wishing to access the adjacent public lands, could expose people to risks associated with seismic activity present in the region, those specific risks would not be exacerbated by, nor would they be greater than the general level of geologic risk associated with any new construction in the town.

As stated in the geotechnical investigation, liquifiable soils typically consist of cohesionless sands and silts that are loose to medium-dense and saturated. To liquefy, these soils must be subjected to a ground shaking of sufficient magnitude and duration. The potential for liquefaction to occur on the Project site is considered remote, given the lack of water table and the medium-dense nature of bearing soils on the site.

As report also notes that there is no evidence of the occurrence of past landslides or rockfalls on the site. However, the Project area is located in close proximity to relatively steep, moderately fractured, volcanic slope area to the west of the site and therefore there is a moderate potential for rockfalls to affect the site as a result of environmental conditions or the design level earthquake.

The Project is subject to compliance with the drainage and erosion design standards specified in the Municipal Code Section 12.08. Further, the Project is subject to the requirements set forth in the National Pollutant Discharge Elimination System (NPDES) Storm Water General Construction Permit for construction activities.

It should be noted that the soils report focused specifically on the soils condition with respect to the proposed roadway alignment accessing the Project site. The soils report did not assess potential impacts to people or structures since the Project does not propose any development or construction at this time. Prior to grading or building permit issuance for the individual single-family lots, a soils report for the proposed building foundations will be required and any recommendations or mitigation measures specific to those foundations shall be incorporated and shall be assured by the Community Development Director and Town Engineer, in accordance with Municipal Code Section 12.08.090 and Mitigation Measure GEO-1 and GEO-2.

Additionally, the Town has adopted an emergency response plan to respond to any potential seismic or volcanic hazard. Based on the above analysis, approval of VTPM/UPA 10-001 would not result in increased exposure to risks of hazards associated with geologic, soils or seismic conditions, and impacts would be ***less than significant with mitigation incorporated.***

b) Result in substantial soil erosion or loss of topsoil? Also refer to AQ-2.
Erosion prone soils occur variably throughout the Town, where loose sandy soils are unconsolidated by vegetation or steep slopes make exposed landforms more erosion prone. The soils report prepared for the Project site provided a number of recommendations to mitigate soil erosion on the site with respect to the proposed Project roadway alignment. As stated in Mitigation Measure GEO-1, a soils report for the proposed building foundations will be required prior to grading or building permit issuance and any recommendations or mitigation measures specific to those foundations shall be incorporated and shall be assured by the Community Development Director

and Town Engineer. Therefore, the impact is ***less than significant with mitigation incorporated.***

c) Be located on a geologic unit or soil that is unstable or would become unstable as a result of the project?
See response to VI. a) and b). Additionally, all new construction is required by State and local building codes to be built in accordance with the requirements of the Uniform Building Code for Seismic Zone IV as specified in Mitigation Measures GEO-1, GEO-2, and GEO-3. Therefore, the impact is ***less than significant with mitigation incorporated.***

d) Be located on an expansive soil as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property? See response to VI. a), b) and c). Therefore, the impact is ***less than significant with mitigation incorporated.***

e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste disposal systems where sewers are not available?
The soils report cited that groundwater was not encountered during the field investigation and concluded that groundwater is not anticipated to be encountered during site development due to the location of the site with regard to overall drainage. Additionally, the Project includes utility connections to the municipal wastewater system, and would not utilize a septic system for wastewater disposal. Therefore, there is ***no impact***.

Mitigation Measures: Also refer to Mitigation Measure AQ-2

GEO-1: Prior to grading or building permit issuance for the individual single-family lots, a soils report for the proposed building foundations will be required and any recommendations or mitigation measures specific to those foundations shall be incorporated and shall be assured by the Community Development Director and Town Engineer.

GEO-2: The Project shall obtain a Engineered Grading Permit from the Town in accordance with the erosion and drainage design standards outlined in Municipal Code Section 12.08.

GEO-3: Construction shall be consistent with the Town of Mammoth Lakes Seismic Zone IV standards.

In conclusion, approval of VTPM/UPA 10-001 is anticipated to result in ***a less than significant impact with mitigation incorporated*** on geology and soils***.***

VII. Greenhouse Gas Emissions

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions either directly or indirectly that may have a significant impact on the environment?		✓		
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emission of greenhouse gases.		✓		

VII. a), b) Also refer to Mitigation Measures AQ-1, AQ-3, and AQ-4

Greenhouse gases (GHGs) consist of gases that increase heat trapped by the earth's atmosphere that is not radiated back out into space. For municipalities, the largest single-source (by mass) of GHGs consists of carbon dioxide (CO2) emissions. Municipal sources of CO2 emissions include energy production; this energy is consumed by all developed land-use types, vehicles used for personal travel and transportation of goods, and construction-related emissions from heavy equipment.

Approval of VTPM/UPA 10-001 would result in the creation of three additional single-family residential lots in Mammoth Lakes, which if developed, would contribute to an insubstantial increase in GHG emissions, associated with construction, heating and energy use by the future homes, as well as vehicle trips to and from the homes by their residents (approximately 39 additional daily vehicle trips and 14 peak hour vehicle trips). The levels of GHG emissions are presumed to be typical of other single-family homes and, relative to the GHG contribution from the overall projected development of the community, to represent a de minimis increase.

Additionally, although not required, the Project proposes to provide a public parking area with a maximum of six spaces (including one ADA space) and a non-motorized access easement through the property to provide recreational users access to the USFS lands to the south of the property. While it is unlikely that the construction of a formalized parking area would create a much greater parking demand than that which already exists, it is possible that an increase in trips could occur along Tamarack Street; however, this is expected to represent a de minimus increase in trips and GHG emissions. Provision of the non-motorized access easement is consistent with the Town's adopted 1991 Trail System Plan and its 2009 Draft Trail System Master Plan, both of which aim to reduce overall GHG emissions in the Town by providing an extensive system of pedestrian and recreational trails. Nonetheless, Mitigation Measures AQ-1, AQ-3, and AQ-4 should be implemented to reduce potential GHG emission impacts.

Therefore, impacts related to GHG emissions would be ***less than significant with mitigation incorporated.***

III. Hazards and Hazardous Materials

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
b. Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous chemicals into the environment?			✓	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5, and as a result, would it create a significant hazard to the public or environment?				✓
e. For a project located within an airport land use plan, or where such plan has not been adopted, within two miles of a public or private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
g. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			✓	
h. Expose people or structures to a significant risk of loss, injury or death involving avalanches?		✓		

VIII. a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? and b) Create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous chemicals into the environment?
The Project involves the subdivision of one existing single-family residential lot into four single-family lots, in which it is anticipated that future construction of single-family homes would occur. Future on-site uses may handle materials that are considered to be hazardous, though these materials would be limited to solvents, paints, and chemicals used for cleaning and maintenance, consistent with other single-family homes. Uses consistent with the development of future single-family homes are not anticipated to be involved in transport or exposure to hazardous materials. Therefore, impacts are expected to be ***less than significant.***

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
See response VIII a) and b). Additionally, the Project site is not located within one-quarter mile of an existing or proposed school. Therefore, there is ***no impact.***

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5, and as a result, would it create a significant hazard to the public or environment?
No identified hazardous materials sites are located within or in proximity to the Project site. Therefore, there is ***no impact.***

e) For a project located within an airport land use plan, or where such plan has not been adopted, within two miles of a public or private airstrip, would the project result in a safety hazard for people residing or working in the project area?
See response VIII a) and b). Additionally, the Project site is not located within two miles of a public or private airstrip. Therefore, there is ***no impact.***

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Project improves emergency vehicle access by improving the currently substandard access street (Tamarack Street). The Project proposes to widen the pavement in three areas to create turn-out locations which will allow for safer passage of emergency vehicles and other vehicles on the roadway and would improve the ability to evacuate in the event of an emergency. The Project would therefore have a beneficial impact with regard to implementation of the Town's adopted emergency response plan. Therefore, approval of VTPM/UPA 10-001 would have a ***less than significant impact.***

g) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Wildland fires in the vicinity of the Town pose a risk to public safety because of the Town's proximity to heavily wooded National Forest lands and the extensive interface between the urban environment and forest vegetation. Due to these local conditions, the entire Town has been designated as a Very High Fire Severity Hazard Zone by the California Department of Forestry, meaning that the community is very susceptible to wildland fire risk. The Project site is located on the southern boundary of the Town's UGB and abuts United States Forest Service (USFS) lands. Although the Project may result in the construction of three additional single-family homes in the Project area, the Project also includes improvements to emergency access through improvement to the substandard access street (Tamarack Street) and installation of a new fire hydrant on Tamarack Street. The Project also includes installation of two new fire hydrants along the private driveway to serve the future home sites and nearby homes. These latter components of the Project would improve conditions relative to wildland fire hazard by providing additional fire fighting access and hydrant access.

Fire risk is managed by public information strategies such as the Eastern Sierra Region Fire Safe Council (ESRFSC) and the mandates of state law, such as California Public Resources Code Section 4291 which provides fuel break standards for residences and other fire-risk reduction measures. These measures are enforced locally by the Mammoth Lakes Fire Protection District and by the Town as part of the development review process. The Project, once developed, will be regulated by these standards and will be subject to existing fire risk reduction strategies. Therefore, approval of VTPM/UPA 10-001 would have a ***less than significant impact***.

h) Expose people or structures to a significant risk of loss, injury or death involving avalanches?

As discussed in the Town's General Plan EIR, winters in the Mammoth Lakes region can produce 20 feet or more of snow per year in the Town and double that in the mountains. Winter storms in the area can be of very high and prolonged snowfall and precipitation intensity, and given the proper storm and snowpack conditions, avalanches can be common in certain areas of town.

Avalanches are defined as a mass of snow moving rapidly downslope that sometimes contains rocks, soil, and ice. Avalanches can break in slabs or in a flume of loose powder snow. Factors contributing to unstable snow conditions include snow pack structure, snow density, temperature fluctuations, wind speed and direction, and precipitation intensity. Avalanche danger can generally be assumed for any slope that has a gradient between 30 and 45 degrees, whether or not timber is present. Steeper gradients would rarely accumulate enough snow to be hazardous. These 30 to 45 degree gradients, however, apply only to avalanche starting zones. The track gradient is not necessarily as steep at 25 to 35 degrees, and the stopping position, or run-out zone, can be gentle or even flat.

As described in the General Plan EIR, structures typically can be built to withstand moderate avalanche hazard by utilizing structural design measures such as reinforced concrete walls without windows, or with shuttered windows, or by constructing wedge-shaped structures that face the hazard prone slopes.

The Town has established an overlay district, called the Snow Deposition Design (SDD) zone (Municipal Code 17.28.700), in areas where avalanche potential has been found to exist after specific investigation and study in order to minimize health and safety hazards. The SDD zone was designated based on a 1997 study (Avalanche Hazard Change Resulting from 'The Bluffs,' Mammoth Lakes, California) prepared for the Town by Arthur I. Mears, an expert avalanche hazard consultant, to analyze potential avalanche impacts, hazards and mitigation related to the Bluffs subdivision. The SDD designates areas located immediately above, adjacent to, or within 150 feet of the 30 degree point of an avalanche starting zone. (Mammoth Lakes 2007, Section 4.5, *Public Safety and Hazards*).

The Project site, which is approximately 4.39 acres, sits both atop and below Mammoth Bluff in the Bluffs subdivision. The western portion of the Project site that sits atop the bluff is located within the SDD overlay zone, and the eastern portion of the site that sits below the bluff includes areas that were identified as run-out zones in the 1997 Arthur Mears report (Figure 1, Avalanche Hazard Change Resulting from 'The Bluffs,' Mammoth Lakes, California, Mears, 1997).

No development, including construction and subdivision of land, within the SDD zone shall be permitted without first obtaining a conditional use permit, which shall include certification by a recognized expert in the field of avalanche occurrence, force and behavior that there will be no greater snow deposition in the related avalanche starting zones and no overall increase in the avalanche hazard in the balance (Municipal Code 17.28.720.B.).

In accordance with Municipal Code Section 17.28.720, a series of avalanche studies and peer-reviews have been conducted for the proposed Project property, as well as property to the north of the Project site that is also owned by the applicant. These studies include avalanche hazard analysis related to development on top of the bluff, which may impact avalanche starting zones in the SDD, as well as avalanche hazards related to development below the bluff, which are located within the identified run-out zones. The studies, including the 1997 report by Arthur I. Mears prepared for the Bluffs subdivision, are provided in Appendix E.

In 2003, Arthur I. Mears prepared an analysis of avalanche hazards for the subject property under a previous development concept (Avalanche Mitigation Analysis, Tamarack Road Lots, Mammoth Lakes, California, November 4, 2003). The previous development concept was similar to the currently proposed Project, however the extension of Tamarack Street was proposed to be placed in the middle of the site, between the base of the bluff and the proposed home sites, and would have required access to the future home sites to occur on the uphill-facing (west-facing) side of the bluff (i.e. with higher exposure to avalanche hazard), whereas the current development concept proposes that the Tamarack Street extension be placed on the eastern edge of the project site, with future home access occurring on the downhill-facing (east-facing) side of the bluff (i.e. with lower exposure to avalanche hazard).

The 2003 Mears report recommended that future homes should include structural reinforcement of the uphill-facing (west-facing surfaces) to withstand calculated loads for the design magnitude avalanche (100-year return period avalanche) and that a number of factors should be considered

when designing future structures to withstand the potential avalanche impact. These factors are described in Mitigation Measure HHM-3.

Following the 2003 study by Mears, Larry Heywood, a ski and snow consultant used by the applicant and a previous property owner, prepared a subsequent avalanche hazard analysis for the property in 2006. The analysis was based on a redesigned development concept that included realignment of the Tamarack Street extension to the eastern edge of the project site with access to future homes from the downhill-facing side (east-facing), consistent with the current Project proposal. Mr. Heywood's analysis concluded that the redesigned development plan was superior to the previous concept because it offered greater protection to users of the Tamarack Street extension by placing the homes between the bluff and the street, and also increased protection of users accessing the future homes. The report also confirmed that the future homes should be designed and constructed to withstand the avalanche impact loads calculated in the 2003 Mears report.

Potential impacts to avalanche starting zones within the SDD were also analyzed in the 2006 Heywood report. The report concludes that development within the SDD would not increase the avalanche hazard risk to properties below the bluff if structures within the SDD are properly designed and properly placed in relation to avalanche starting zones. The report states,

> Although there may be some argument that certain types of activities within the Bluffs could increase avalanche frequency from the avalanche paths to the north and east, such activity will not increase the size of avalanches from these paths. It has been my position that properly placed structures within the SDD will in fact decrease both the frequency and size of avalanches which originate from the paths below the Bluffs. (1)

The report recommends a number of criteria for proper placement of future structures in the SDD zone. These recommendations are included in Mitigation Measure HHM-3.

Also in 2006, a peer-review of the Larry Heywood report was prepared by John Moynier, an avalanche consultant retained by the Town. The peer-review concurred with the analysis provided in Larry Haywood's report and noted that, "…if the proposed…recommended design criteria are followed, most (in not all) of the potential avalanche hazard will be reduced or removed."

More recently, Larry Heywood prepared an updated avalanche hazard analysis (dated April 23, 2010), in which the currently proposed Project was analyzed. Because the overall development concept was unchanged, the conclusions of the study remained the same. Therefore, the following mitigation measures, which are developed based on the series of avalanche hazard studies described above, are included to reduce potential avalanche hazards. These measures will be included as conditions of project approval and shall be ensured at the time of grading and/or building permit by the Community Development Department.

Mitigation Measures:

HHM-1: Structures within the identified run-out zone shall be designed and constructed to meet the required design-year avalanche impacts as specified in the November 4, 2003 Arthur I. Mears report entitled, Avalanche Mitigation Analysis, Tamarack Road Lots, Mammoth Lakes, California.

HHM-2: Structures within the Snow Deposition Design (SDD) shall be designed meet the following minimum criteria:

a. Structures shall be located a minimum of 30 feet to the windward of the point at which the slope steepens to 30 degrees.

b. Structures shall be located at a minimum of 1.5 times their height above grade to the windward of the point at which the slope steepens to 30 degrees. Should the structures be multilevel, each level shall conform to this 1.5 times factor.

c. Roof, walkways, and driveways shall be located or positioned such that shedding snow or plowed snow is not directed toward the starting zones.

HHM-3: The following factors should be considered when designing avalanche mitigation into future structures to be built on Project parcels.

a. Windows and doors exposed to avalanche shall be designed for avalanche impact.

b. Alternate entrances safe from avalanches shall be included.

c. Final loads may require adjustment by an impact factor.

d. Building orientation, shape, or other factors could change the loads.

e. Impact decreases linearly with height.

HHM-4: Prior to grading permit and/or building permit issuance for each Project parcel, an assessment of the proposed building site orientation and structure design shall be assessed by a certified structural engineer and/or avalanche consultant to ensure that all avalanche hazard mitigation design requirements are met.

Therefore, approval of VTPM/UPA 10-001 would have a ***less than significant impact with mitigation incorporated*** in this area.

IX. Hydrology and Water Quality

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Violate any water quality standard or waste discharge requirements?		✓		
b. Substantially deplete groundwater supplies or interfere with groundwater recharge?		✓		
c. Substantially alter drainage patterns or result in erosion?		✓		
d. Substantially increase flooding via alterations of drainage or surface runoff patterns?		✓		
e. Create or contribute to runoff which could exceed existing or foreseeable stormwater drainage systems?		✓		
f. Otherwise substantially degrade water quality?		✓		

IX. a), b), c), d), e), f)

The Project would create three additional single-family lots that would allow for the development of new single-family residences. Each of these new homes would be required to connect to the municipal wastewater system, which is governed by applicable State and federal regulatory standards for waste discharge. Development of the individual parcels will require compliance with Town policies and best management practices for hydrology and water quality protection, including during construction. Conditions of Approval for the Town's standard engineered grading permit require installation of siltation control devices and other Best Management Practices intended to reduce water quality impacts, as specified in Municipal Code Section 12.08.090.

The total area of disturbance related to future development will be limited by the RR zoning, which prohibits lot coverage greater than 30%, thus minimizing the potential for expansive paved areas that would contribute to additional runoff, effects on groundwater recharge, or effects on- and off-site drainage patterns. The Project includes drainage infrastructure designed to capture stormwater run-off from the Project and surrounding area, including a 3 to 4-foot wide drainage swale, a 36-inch retention pipe, and level spreader to disperse storm-water discharge.

Additionally, compliance with the Town's adopted Storm Drainage Master Plan will be required of future development of the Project site, and a Stormwater Pollution Prevention Plan and a NPDES Construction Stormwater Permit shall be approved by the Lahontan Region of the California

Regional Water Quality Control Board, which develops and enforces water quality objectives and implementation plans that safeguard the quality of water sources in Mammoth Lakes and the region.

The following mitigation measures are included to reduce potential impacts to hydrology and water quality:

Mitigation Measures: Also refer to Mitigation Measures BIO-1, BIO-4, and GEO-2

HWQ-1: A Engineered Grading Plan shall be submitted for grading activities. The Project shall comply with the National Pollution Discharge Elimination System (NPDES) requirements for construction projects, the MOU between the Town of Mammoth Lakes and Lahontan Regional Water Quality Control Board (LRWQCB), and the Town Municipal Code. Construction activities subject to these requirements shall include clearing, grading, and disturbances to the ground such as stockpiling or excavation, but not including regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Grading Plan shall be designed and incorporate Best Management Practices (BMPs) into plans and Storm Water Pollution Prevention Plan (SWPPP) as required. All temporary off-site Best BMPs are required to be removed in the Town right-of-way after October 15th or before April 30th each year. The applicant shall maintain the BMP's on-site at all times and shall conform to the permits during construction.

Therefore, based on the above information, approval of TPM/UPA 10-001 would have a ***less than significant impact with mitigation incorporated*** to hydrology and water quality.

X. Land Use and Planning

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Physically divide an established community?				✓
b. Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project, adopted for the purpose of avoiding or mitigating an environmental effect?				✓

X. a), b)

Approval of VTPM/UPA 10-001 would subdivide one existing lot into four lots for the development of single-family homes, which is a use that is consistent with the Bluffs subdivision and the RR zoning designation and does not conflict with any applicable Town of Mammoth Lakes land

use plan, policy or regulation. The proposed lot dimensions and development density resulting from the proposed Project are consistent with that permitted in the RR zone, and with other existing neighboring development. The RR zone permits limited lot coverage (a maximum of 30% for all structures, paved areas, etc.) and restricts building height to 35 feet.

The Project borders the southern boundary of the Town's UGB and abuts USFS land. The Project proposes to improve the existing Tamarack Street, provide a parking area for users of a trailhead accessing Forest Service land, and to provide a pedestrian easement, thus resulting in improved connectivity and access. Thus there would be ***no impact*** to land use and planning as a result of the Project***.***

XI. Mineral Resources

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				✓
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use planning document?				✓

XI. a), b)

The potential impacts on mineral resource extraction and availability, as well as geothermal energy development associated with buildout of the General Plan, were analyzed in the General Plan EIR (Mammoth Lakes 2007, Section 4.4, *Geology, Seismicity, Soils and Mineral Resources*). Per the General Plan EIR, there are no significant mineral resources located within the Urban Growth Boundary or on the Project site. Therefore, approval of the Project would have ***no impact*** to mineral resources.

XII. Noise

Would the project result in:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
b. Exposure of persons to or generate excessive groundborne noise or vibration levels?		✓		
c. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
d. For a project within an airport land use plan or within two miles of an airport where such a plan has not been adopted would the project expose people to excessive noise levels?				✓

XII. a), b), c), d)

The Project is not located within an airport land use plan or within two miles of an airport. Future development of the individual single-family home parcels will produce periodic increases in local noise during construction. However, all future construction that may occur on the Project site, including site grading, will be subject to the Bluffs EIR, which includes noise and work hour restrictions of 7:00 AM to 7:00 PM daily with work on Sundays and town-recognized holidays to be approved in advance by the Town Manager or designee), as well as the Town's Noise Ordinance as described in Municipal Code Section 8.16.

The RR zone requires substantial setbacks between properties, which would further reduce the effects of construction noise on adjacent residential properties. No pile-driving or other construction activities that would result in groundbourne vibration or noise are anticipated as part of these future construction activities.

The following mitigation measure is included to reduce potential impacts from noise:

Mitigation Measures: Also refer to Mitigation Measures BIO-3

N-1: Prior to grading operations, the Project shall demonstrate, to the satisfaction of the Town of Mammoth Lakes Community Development Department, that the project

complies with the following through a construction management plan reviewed and approved by the Town:

a. All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.

b. Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.

c. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receptors.

d. During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise sensitive receptors.

e. Operate earthmoving equipment on the construction site as far away from vibration sensitive areas as possible.

f. A project sign shall be clearly posted at the primary construction entrance as an information source for surrounding property owners and residents. The sign shall include the following minimum project information: project name, general contractor, normal construction hours, normal workdays, and local telephone number of job superintendent. If the Town of job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the Town Community Development Department.

Therefore, there would be a ***less than significant impact with mitigation incorporated*** with regard to noise.

XIII. Population and Housing

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly or indirectly?			✓	

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				✓
c. Displace substantial numbers of people, necessitating the construction of housing elsewhere?				✓

XIII. a), b), c)

Approval of VTPM/UPA 10-001 would subdivide one existing vacant lot into four lots for the development of single-family homes, which is a use and density that is consistent with the RR zoning designation. Because the existing lot is vacant, there would be no displacement of existing housing or people. The population growth associated with the development of the three additional single-family lots would be consistent with the development of other typical single-family homes and would produce an insubstantial population increase of approximately 7.2 persons, based on the Town's average household size of 2.4 persons for households occupied by permanent residents. Therefore, there would be a ***less than significant impact*** to population and housing.

XIV. Public Services and Parks and Recreation

Would the project result in the need for new facilities or infrastructure the construction of which could have significant environmental effects, including the following services:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Fire protection?			✓	
b. Police protection?			✓	
c. Schools?			✓	
d. Parks or recreation?			✓	
e. Snow removal operations			✓	

XIV. a), b), c), d), e)

The Mammoth Lakes Fire Protection District (MLFPD) provides fire protection and emergency response within the Town of Mammoth Lakes, including the Project site. The Project site is approximately 1.0 mile southwest of Fire Station No. 2, which is located at 1574 Old Mammoth Road. Police protection and law enforcement in the Town are provided by the Mammoth Lakes Police Department (MLPD), the Mono County Sheriff's Department (MCSD), and the California Highway Patrol (CHP). The MLPD provides all non-traffic related services for the areas within the Town, including the Project site.

While the Project could result in an increase in the quantity of emergency calls received by the MLFPD and MLPD, if and when the development of the individual single-family parcels occurs, it is not anticipated to increase significantly to the total quantity of calls; furthermore, the type of development to occur would not be unique to the area. In addition, the Town currently collects development impact fees for public services, which are used to mitigate potential impacts to fire and police services.

Additionally, the Project improves emergency vehicle access by improving the currently substandard access street (Tamarack Street). The Project proposes to widen the pavement in three areas to create turn-out locations which will allow for safer passage of emergency vehicles and other vehicles on the roadway. The Project also includes the addition of one new fire hydrant on Tamarack Street, as well as two new fire hydrants on along the private driveway to serve the future homesites and nearby homes, which will provide for greater fire fighting capability within the vicinity and against fires that may occur on USFS lands south of the site.

The Town is located within the jurisdiction of the Mammoth Unified School District (MUSD). The MUSD provides education to students in grades kindergarten (K) through grade 12 with facilities that include Mammoth High School, Mammoth Middle School, Mammoth Elementary School, Sierra High School, and the Mammoth Olympic Academy for Academic Excellence. Pursuant to Government Code Section 65995, the Town requires all new development to pay all legally established fees for the acquisition and development of school sites, as required by the local school district.

The Town collects development impact fees for all new residential development that are sufficient to mitigate potential impacts to recreation and park facilities. Additionally, there are numerous recreational opportunities in the vicinity of the Town and the Project, including both commercial and public resources such as Mammoth Mountain Ski Area and the adjacent USFS lands. As noted previously, the proposed Project would include improvements intended to enhance and facilitate access to recreation and open space lands beyond the Town's UGB by providing a non-motorized public access easement across the property to USFS lands.

The Town currently provides snow removal services on Tamarack Street and within the Bluffs subdivision (funded through a maintenance assessment district). The Town currently uses a small area directly north of the Project site, at the end of Tamarack Street, to deposit snow cleared from the street. Although not required, the Project proposes to dedicate approximately 0.25 acres of land to the Town, part of which would continue to be used as snow storage for Town winter maintenance operations. The Project will also contribute to snow removal operations through the payment of development impact fees, as well as through the annexation of the three new parcels in the Bluffs subdivision maintenance assessment district.

Therefore, approval of VTPM/UPA 10-001 would have a ***less than significant impact*** to public services and parks and recreation.

XV. Transportation and Traffic

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with policies, plans or regulations establishing measures for the effectiveness of the circulation system?			✓	
b. Conflict with congestion management programs including level of service standards?			✓	
c. Substantially increase hazards due to a design feature (such as sharp roadway curves) that are incompatible for planned or foreseeable uses?			✓	
d. Result in inadequate emergency access?			✓	
e. Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or decrease the performance of such facilities?				✓

XV. a), b), c), d), e)

The Bluffs EIR included a traffic impact analysis for the 79-90 single-family home lots within the Bluffs subdivision, including the lot that is proposed to be subdivided under the proposed Project. Because the Project proposes to create an additional three single-family homes, all of which will access Tamarack Street, a traffic impact analysis for Tamarack Street was prepared by Town staff and is provided in Appendix E. The traffic analysis estimated the cumulative vehicle trips on

Tamarack Street, with and without the Project, and assessed the potential roadway capacity impacts that may result from the three additional single-family homes, as well as the proposed public parking area (maximum of 6 spaces).

Single-Family Home Trip Generation

The traffic analysis estimated the number of vehicle trips on Tamarack Street under cumulative conditions by applying the Institute of Transportation Engineers (ITE) standard trip generation rate (daily and peak hour) for a single-family home to the number of existing single-family home parcels (built and vacant) accessing Tamarack Street. Using this method, the estimated number of cumulative daily trips on Tamarack Street without the Project is 549 and the estimated number of peak hour trips is 55. The three additional single-family homes that are proposed to access Tamarack Street are estimated to produce 39 daily trips and 14 peak hour trips, bringing the total estimated cumulative daily trips on Tamarack Street to 588 and the total peak hour trips to 69.

Proposed Public Parking Area Trip Generation

The Project also proposes to provide a maximum of six public parking spaces to accommodate existing parking use. While it is unlikely that the construction of a formalized parking area would create a much greater parking demand than that which already exists, the traffic impact analysis included an estimation of potential new vehicle trips associated with the proposed public parking area.

The analysis assumed that each parking space would turnover three times per day, adding a total of 18 daily trips and 4 peak hour trips to Tamarack Street. Also included was an estimation of potential new "drop-off" trips created by recreational users who drop one vehicle off at a trailhead and then drive to another trailhead location in order to do a loop trip. The analysis assumed that approximately four "drop-offs" may occur at the Project location and that each of these "drop-offs" would create 4 trips for a total of 16 additional vehicle trips. Therefore, the total trips on Tamarack Street under cumulative conditions, including the Project, are estimated to be 622 daily trips and 75 peak hour trips.

Tamarack Street Roadway Capacity

The cumulative vehicle trips were then compared to the roadway capacity of Tamarack Street. As noted in the traffic impact analysis, the roadway capacity for a typical secondary two-lane residential street is usually considered to be approximately 4,000 to 6,000 vehicles per day, as defined by accepted transportation engineering sources (Transportation Research Board, American Association of State Highway and Transportation Officials, Institute of Transportation Engineers, etc.).

However, it is often appropriate in roadway capacity analyses, to utilize a lower roadway capacity threshold (between 1,500 and 2,000 vehicles per day) for roadways that are physically constrained and/or are residential in nature. This lower and more conservative capacity threshold is sometimes

called a "livability" capacity, and is intended to represent a maximum number of vehicles that can be accommodated on a roadway, while still maintaining safety and "livability." For this reason, a "livability" capacity of 1,500 vehicles per day and 150 peak hour trips was used to analyze potential roadway capacity impacts on Tamarack Street.

Results

In conclusion, the traffic impact analysis determined that there are no roadway capacity impacts to Tamarack Street because the total estimated cumulative trips, including the Project (622 daily and 75 peak-hour trips), are well within the established "livability" capacity for the roadway (1,500 daily and 150 peak hour). A peer-review, conducted by LSC Transportation Consultants, Inc., concurred with the methodology and results of the analysis. The peer-review letter is provided in Appendix E.

Following the preparation of the initial traffic impact analysis and peer-review by LSC, Inc., Town staff collected existing "on-the-ground" volume data on Tamarack Street to verify the trip estimates used in the initial traffic impact analysis. A tube-counter was installed on Tamarack Street between Friday, July 30, 2010 and Tuesday, August 10, 2010 (12 days, 24 hours per day).

Results from the tube-counter indicate that the existing average daily traffic (ADT) was 247 vehicles and that the peak daily traffic during the study period was 312 vehicles (occurring on Friday, August 6, 2010). The peak-hour traffic volume during the study period was 38 vehicles and occurred between 11:45 AM and 12:45 PM on the peak day. As shown through the collected data, the existing volumes on Tamarack Street are significantly less than the volumes estimated in the traffic analysis using standard ITE trip rates for the existing single-family home parcels (built and vacant) accessing Tamarack Street (312 daily and 38 peak-hour vs. 549 daily and 55 peak-hour trips).

In summary, existing traffic as measured "on-the-ground," plus future traffic related to the Project, and future traffic resulting from the development of currently vacant parcels accessing Tamarack Street is less than the trip generation assumed in the initial traffic impact analysis. Therefore, the initial traffic impact analysis represents a conservative analysis of the cumulative trips on Tamarack Street with the Project, and shows that there would be a less than significant impact to roadway capacity on Tamarack Street as a result of a the Project.

Given that future Project trips will utilize Old Mammoth Road to access Tamarack Street, the potential for roadway capacity impacts on this street was also reviewed. The capacity of Old Mammoth Road in the vicinity of Tamarack Street, which is functionally classified as a collector street, is approximately 6,000 to 8,000 vehicles per day. Existing volumes on Old Mammoth Road in the vicinity of Tamarack Street are approximately 1,600 vehicles per day and cumulative volumes without the Project are expected to be approximately 1,500 to 2,000 trips per day per the Town's traffic model. Therefore, the roadway capacity impact to Old Mammoth Road is expected to be less

than significant since there is sufficient capacity on Old Mammoth Road in the existing and cumulative conditions, with and without the Project.

The Project does not include transportation design features that are hazardous or incompatible with future foreseeable uses and the Project improves emergency vehicle access by improving the currently substandard access street (Tamarack Street). The Project proposes to widen the pavement in three areas to create turn-out locations which will allow for safer passage of emergency vehicles and other vehicles on the roadway.

Additionally, the Project proposes to provide a non-motorized access easement through the property to provide recreational users access to the USFS lands to the south of the Project. Provision of the non-motorized access easement is consistent with the Town's adopted 1991 Trail System Plan, the 2009 Draft Trail System Master Plan, and the General Plan in terms of circulation system goals. Therefore, approval of VTPM/UPA 10-001 would have a ***less than significant impact*** to traffic and transportation.

XVI. Utilities and Service Systems

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Exceed the wastewater treatment capacity of the applicable Regional Water Quality Control Board?			✓	
b. Require or result in the construction of new water or wastewater treatment facilities or storm water drainage facilities which could cause significant environmental effects?			✓	
c. Result in a determination by the wastewater treatment provider that it has adequate capacity to serve the project's projected demand in addition to existing commitments?			✓	
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new entitlements required?			✓	

Would the project:	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
f. Comply with federal, state and local statutes related to solid waste?			✓	

XVI. a), b), c), e), f)
The proposed subdivision would allow for the construction of three additional single-family residential units, which would require water, sewer, and solid waste service, thus increasing demands on these utilities systems and services. However, the three new units would represent a de minimis increase in utilities service demands. Under current conditions, there is sufficient water supply, wastewater infrastructure, solid waste and storm drain capacity to serve the three additional residential units that could be built as a result of the proposed subdivision, which would be built at the density permitted within the RR zone.

The Mammoth Community Water District (MCWD) owns, operates, and maintains the water treatment and delivery, and sewage collection and treatment systems for the Town. Water supply is provided by local surface water as well as groundwater sources. Surface water within the Mammoth Basin is generally supplied by snowmelt. In 2006, based on actual water supply, about 67 percent of potable water for the community came from surface water diverted from the Mammoth Creek watershed and 33 percent came from groundwater pumped from wells, located within Town boundaries. When lower than normal precipitation years are experienced, the use of groundwater is increased, as less surface water supply is available. As growth in the community occurs, the District will become more dependent on the use of groundwater supplies to meet future increased demand for water. The MCWD has water entitlements from Mammoth Creek for domestic uses, storage rights in Lake Mary, and operates eight groundwater production wells within the MCWD service area. MCWD has provided a "will-serve" letter to the Town of Mammoth Lakes, indicating that if the proposed Project is approved and development of single-family homes on the approved parcels occurs, they will have sufficient water supply and wastewater capabilities to provide service to those homes.

The Project includes drainage infrastructure designed to capture stormwater run-off from the Project and surrounding area, including a 3 to 4-foot wide drainage swale, a 36-inch retention pipe, and level spreader to disperse storm-water discharge. These improvements are consistent with the Town's adopted Storm Drainage Master Plan and Municipal Code Section 12.08 regarding erosion and drainage. The Project shall obtain a Engineered Grading Permit from the Town in accordance with Municipal Code Section 12.08.

Solid waste collection service for the Town is provided under a franchise agreement with Mammoth Disposal, Incorporated. Solid waste collection service is provided via community trash bins at a centralized collection station on Commerce Drive and by individual customer pickup by Mammoth Disposal, Incorporated. All solid waste generated by the Town is transferred to the Benton Crossing Landfill for disposal. The General Plan EIR analyzed the potential for the buildout of the growth template in the General Plan to result in impacts on utilities and service systems (Mammoth Lakes 2007, Section 4.11, *Public Utilities*).

With the existing capacity in the Benton Crossing Landfill, as well as the option for disposal for five years at the Pumice Valley Landfill, there is adequate landfill capacity for the population that would occur as a result of buildout of the General Plan (Mammoth Lakes 2007:4-282), including development of three additional residential units as a result of the proposed Project subdivision. Solid waste generated by the new development would be handled by Mammoth Disposal, whose operations are regulated by and are consistent with applicable federal, state and local laws related to solid waste disposal. Mammoth Disposal has provided a "will-serve" letter to the Town of Mammoth Lakes, indicating that if the proposed Project is approved and development of single-family homes on the approved parcels occurs, they will provide solid waste service to those homes.

Therefore, based on the above information, the impact to utilities and service systems would therefore be ***less than significant.***

XVII Mandatory Findings of Significance

Mandatory Findings of Significance	**Potentially Significant Impact**	**Less Than Significant Impact With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✓		

Mandatory Findings of Significance	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			✓	
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

XVII. a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?
Based on the analysis contained in this Initial Study, potential impacts to biological and cultural resources would be reduced to a less than significant level with mitigation incorporated. Refer to Responses IV, *Biological Resources*, and Responses V, *Cultural Resources*.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?
The proposed Project seeks to subdivide one parcel and create four single-family lots, which ultimately are intended to be developed with single-family homes. The Project would not exceed the allowable density for the site and is consistent with the Rural Residential Land Use zone and the Bluffs subdivision.

In accordance with CEQA Guidelines Section 15183, this environmental analysis was conducted to determine if there were any Project-specific effects that are peculiar to the Project or its site. No Project-specific significant effects peculiar to the project or its site were identified that could not be mitigated to a less than significant level.

The proposed Project could contribute to environmental effects in the areas of aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gases, hazards and hazardous materials, hydrology and water quality, and noise. Mitigation measures incorporated herein, however, mitigate any potential incremental effect of the Project to cumulative impacts associated with past projects, current projects, and probable future projects to a less than significant level. Additionally, any future project that may contribute to potential cumulative impacts would be required to prepare the appropriate CEQA and/or NEPA documentation.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Previous sections of this Initial Study/Mitigated Negative Declaration reviewed the proposed Project's potential impacts related to aesthetics, air pollution, noise, public health and safety, traffic and other issues. As concluded in these previous discussions, the proposed Project would result in less than significant environmental impacts with implementation of the recommended mitigation measures. Therefore, the proposed Project would not result in environmental effects that would cause substantial adverse effects on human beings.

5.0 REPORT PREPARATION PERSONNEL

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6.0 INVENTORY OF MITIGATION MEASURES

Aesthetics

AES-1: Future structures will be required to adhere to the Town's Design Guidelines, which include standards for materials, color, and design that will result in buildings that are harmonious with the natural landscape and are visually unobtrusive. Additional review by the Planning Commission's Design Committee, in conjunction with a use permit application, will be required for future development of proposed Parcel 1 to ensure compliance with Municipal Code Section 17.16.040.C.8. as it relates to the mitigation of potential off-site visual impacts as described in the Bluffs EIR.

AES-2: All appurtenances (i.e. meters, roof vents, and electrical equipment shall be screened or placed in areas that are not highly visible, where feasible.

AES- 3: The landscaping for each Project parcel, when developed, shall enhance the character of the on-site development and shall be compatible with, and complementary to, the natural environment in Mammoth Lakes and the surrounding region. All building sites and graded areas shall be revegetated to blend with existing native landscape consistent with firesafe requirements. Native plant materials shall be utilized whenever possible.

AES-4: Existing trees and vegetation shall be preserved to the maximum extent possible. No live trees over six inches in diameter shall be removed without prior approval of the Community Development Director. As mitigation for tree removal, the Community Development Director may require replacement plantings. Required replacement shall not exceed a total trunk diameter equal to that removed and shall be limited to plantings in areas suitable for tree replacement.

AES-5: Construction equipment staging areas shall use appropriate screening (i.e., temporary fencing with opaque material) to buffer views of construction equipment and material, when feasible. Staging locations and screening techniques shall be indicated on grading permit plans and shall be approved by the Community Development Department prior to permit issuance.

AES-6: All outdoor lighting related to the development of the Project parcels, including construction, shall comply with Municipal Code Section 17.34, which regulates light and glare. In addition, an outdoor lighting plan shall be submitted in conjunction with a use permit application for the future development of proposed Parcel 1 in accordance with Municipal Code Section 17.34.060.

AES-7: All utilities shall be placed underground.

Air Quality

AQ-1: In order to reduce emissions associated with both mobile and stationary sources (i.e., wood burning stoves and fireplaces), the Project shall adhere to the regulations contained in the Air Quality Management Plan (AQMP) and Particulate Emissions Regulations of the Town Municipal Code Section 8.30.

AQ-2: In order to reduce fugitive dust emissions, each Project parcel shall obtain permits, as needed, from the Town and the State Air Pollution Control District (APCD) and shall implement measures during grading and/or construction of the individual parcels to ensure compliance with permit conditions and applicable Town and APCD requirements.

a. The individual parcels shall comply with State, APCD, Town, and Uniform Building Code dust control regulations, so as to prevent the soil from being eroded by wind, creating dust, or blowing onto a public road or roads or other public or private property.

b. Adequate watering techniques shall be employed on a daily basis to partially mitigate the impact of construction-generated dust particulates.

c. Clean-up on construction-related dirt on approach routes to the Project parcels shall be ensured by the application of water and/or chemical dust retardants that solidify loose soils. These measures shall be implemented for construction vehicle access, as directed by the Town Engineer. Measures shall also include covering, watering or otherwise stabilizing all inactive soil piles (left more than 10 days) and inactive graded areas (left more than 10 days).

d. Any vegetative ground cover to be utilized on the individual Project parcels shall be planted as soon as possible to reduce the amount of open space subject to wind erosion. Irrigation shall be installed as soon as possible to maintain the ground cover.

e. All trucks hauling dirt, soil or other loose dirt material shall be covered.

AQ-3: To reduce the potential of spot violations of the CO standards and odors from construction equipment exhaust, unnecessary idling of construction equipment shall be avoided.

AQ-4: The Project shall contribute on a fair share basis through payment of Development Impact Fees to the Town's street sweeping operations in order to reduce emissions and achieve the required Federal standard.

Biological Resources

BIO-1: Grading permits required for the Project shall include, but not be limited to, the following where applicable:

a. Stockpile and protect topsoil removed during the construction phase of the Project.

b. Reapply topsoil to cleared and graded surfaces as soon as feasible and prevent unnecessary soil compaction.

c. Terrace cleared slopes and apply protective mulch.

d. Select species for planting that satisfy the project's landscaping goals, yet are suited for the existing environmental conditions.

e. Plantings should be healthy individuals grown under field conditions.

f. Plant shrubs and trees in late spring or early summer after threat of snow and heavy frost is past.

g. Fertilize plants sparingly or not at all.

h. Provide for irrigating young plants using a drip irrigation system for approximately two years, or until establishment is certain.

BIO-2: All newly disturbed areas shall be immediately revegetated, preferably with native plant materials, to minimize loss of wildlife habitat and to reduce weed species invasion.

BIO-3: Construction shall be limited to 7:00 AM to 7:00 PM in accordance with the Bluffs subdivision EIR, to minimize noise impacts to wildlife, and in particular to mule deer.

BIO-4: In accordance with Municipal Code Section 12.08.090, during construction, dust controls shall be instituted to reduce wildlife impacts. Such controls are to include watering and mulching of disturbed areas; initiation of revegetation efforts shall commence as soon as practical after construction.

BIO-5: Night lighting shall be limited in both amount and intensity of fixtures to a level adequate for safety purposes, so as to reduce impacts to nocturnal wildlife species, particularly mule deer.

BIO-6: Dogs shall not be permitted to roam freely; dogs, including during the construction phase, must be on a leash or within an enclosure.

BIO-7: To reduce the spread of insect pests, trees, and other large plants in close proximity to construction sites shall be protected by erecting barriers (e.g. plastic flagging) and to avoid root, stem, or trunk damage.

BIO-8: To reduce impacts on mule deer, construction activities shall be scheduled to minimize disturbance to migratory deer; that is, not during the spring and fall migration/holding periods. Major construction activities (e.g. earthmoving, paving, extensive exterior building work, etc.) shall be scheduled between November 1 – April 1 and June 1 – October 1.

BIO-9: Fences generally should be discouraged. Otherwise, any fences shall follow United States Forest Service guidelines for fencing that allow for easier deer movement. All proposed fencing shall be approved by the Community Development Department.

BIO-10: Any other impediments to deer movement (such as soil piles, open ditches, and cut-fills) shall be avoided. Such impediments shall be rectified as soon as possible to reduce wildlife/deer movement, interference and danger.

BIO-11: Disturbance of habitat in the areas adjacent to the development shall be limited to that which is necessary to accomplish necessary work. Limits of disturbance shall be established in accordance with Town engineering standards.

Cultural Resources

CUL-1: A low, permanent fence of weather-resistant materials (e.g. wrought iron, or stone pillars and wooden rails) shall be constructed around the gravesites. The fence can either be constructed along the easement boundary, or be placed in a 7-foot by 8-foot boundary around the gravesites, as recommended in the cultural resources study.

CUL-2: Additionally, in accordance with State law and the Bluffs EIR, in the event that a material of potential cultural significance is uncovered during grading and/or construction, including grading and construction of the parcels, public parking area, and off-site turnout improvements to Tamarack Street, all work in the area of the uncovered material shall cease, the Town notified, and an archaeological monitoring program should be implemented. The monitoring program shall be managed by an archaeologist who meets the *Secretary of the Interior's Professional Qualification Standards*. The archaeological monitoring program shall include provisions for an archaeological monitor; assessing the significance of archaeological finds; consideration of avoidance and minimization of impacts to significant archaeological resources (in consultation with the Town); mitigation measures including archaeological excavation, laboratory analysis, reporting, and curation; and consultation with Indian Tribes if resource is prehistoric in nature.

CUL-3: If any human remains are encountered during construction, all work in the vicinity of the discovery must be halted and the Town notified in accordance with State of California Public Resources Health and Safety Code § 7050.5-7055 and § 5097.98). The Professional Guide for the Preservation of Native American Remains and Associated Grave Goods shall be utilized to protect Native American burial sites should they be discovered.

Geology and Soils

GEO-1: Prior to grading or building permit issuance for the individual single-family lots, a soils report for the proposed building foundations will be required and any recommendations or mitigation measures specific to those foundations shall be incorporated and shall be assured by the Community Development Director and Town Engineer.

GEO-2: The Project shall obtain a Engineered Grading Permit from the Town in accordance with the erosion and drainage design standards outlined in Municipal Code Section 12.08.

GEO-3: Construction shall be consistent with the Town of Mammoth Lakes Seismic Zone IV standards.

Hazards and Hazardous Materials

HHM-1: Structures within the identified run-out zone shall be designed and constructed to meet the required design-year avalanche impacts as specified in the November 4, 2003 Arthur I. Mears report entitled, Avalanche Mitigation Analysis, Tamarack Road Lots, Mammoth Lakes, California.

HHM-2: Structures within the Snow Deposition Design (SDD) shall be designed meet the following minimum criteria:

a. Structures shall be located a minimum of 30 feet to the windward of the point at which the slope steepens to 30 degrees.

b. Structures shall be located at a minimum of 1.5 times their height above grade to the windward of the point at which the slope steepens to 30 degrees. Should the structures be multilevel, each level shall conform to this 1.5 times factor.

c. Roof, walkways, and driveways shall be located or positioned such that shedding snow or plowed snow is not directed toward the starting zones.

HHM-3: The following factors should be considered when designing avalanche mitigation into future structures to be built on Project parcels.

a. Windows and doors exposed to avalanche shall be designed for avalanche impact.

b. Alternate entrances safe from avalanches shall be included.

c. Final loads may require adjustment by an impact factor.

d. Building orientation, shape, or other factors could change the loads.

e. Impact decreases linearly with height.

HHM-4: Prior to grading permit and/or building permit issuance for each Project parcel, an assessment of the proposed building site orientation and structure design shall be assessed by a certified structural engineer and/or avalanche consultant to ensure that all avalanche hazard mitigation design requirements are met.

Hydrology and Water Quality

HWQ-1: A Engineered Grading Plan shall be submitted for grading activities. The Project shall comply with the National Pollution Discharge Elimination System (NPDES) requirements for construction projects, the MOU between the Town of Mammoth Lakes and Lahontan Regional Water Quality Control Board (LRWQCB), and the Town Municipal Code. Construction activities subject to these requirements shall include clearing, grading, and disturbances to the ground such as stockpiling or excavation, but not including regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Grading Plan shall be designed and incorporate Best Management Practices (BMPs) into plans and Storm Water Pollution Prevention Plan (SWPPP) as required. All temporary off-site Best BMPs are required to be removed in the Town right-of-way after October 15th or before April 30th each year. The applicant shall maintain the BMP's on-site at all times and shall conform to the permits during construction.

Noise

N-1: Prior to grading operations, the Project shall demonstrate, to the satisfaction of the Town of Mammoth Lakes Community Development Department, that the project complies with the following through a construction management plan reviewed and approved by the Town:

a. All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.

b. Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.

c. During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receptors.

d. During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise sensitive receptors.

e. Operate earthmoving equipment on the construction site as far away from vibration sensitive areas as possible.

f. A project sign shall be clearly posted at the primary construction entrance as an information source for surrounding property owners and residents. The sign shall include the following minimum project information: project name, general contractor, normal construction hours, normal workdays, and local telephone number of job superintendent. If the Town of job superintendent receives a complaint, the superintendent shall investigate, take appropriate corrective action, and report the action taken to the Town Community Development Department.