Final Supplement to Subsequent Environmental Impact Report (SSEIR)

Mammoth Yosemite Airport Expansion Project
Mammoth Yosemite Airport
(SCH # 2000 034005)

March 2002

Town of Mammoth Lakes
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List of Abbreviations/Acronyms

ACDP	Airport Commercial Development Plan
ADD	Airport Development District
AFB	Air Force Base
AFM	Aircraft Flight Manual
AIA	Airport Improvement Act
AIP	Airport Improvement Program
ALUC	Airport Land Use Commission
APCD	Air Pollution Control District
AQMD	Air Quality Management District
ARB	Air Resources Board
ARFF	Airport Rescue and Fire Fighting
BA	Biological Assessment
BASH	Bird Aircraft Strike Hazard
BCA	Benefit Cost Analysis
BLM	Bureau of Land Management
CAA	Clean Air Act
CCAA	California Clean Air Act
CALTRANS	California Department of Transportation
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNEL	Community Noise Equivalent Level
DBO	Date of Beneficial Occupancy
DOD	Department of Defense
EA	Environmental Assessment
EDMS	Emissions Dispersion Modeling System
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FBO	Fixed Base Operator
FONSI	Finding of No Significant Impact
GPS	Global Positioning System
GSE	Ground Support Equipment
IFR	Instrument Flight Rules
INM	Integrated Noise Model
LADWP	Los Angeles Department of Public Works
NAAQS	National Ambient Air Quality Standards
NDDB	National Diversity Database
NEPA	National Environmental Policy Act
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRS	Natural Reserve System
OHV	Off highway Vehicle
OTR	Ozone Transport Region
PAPI	Precision Approach Path Indicator
PFC	Passenger Facility Charge

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PUD	Planned Unit Development
REIL	Runway End Identifier Lights
ROG	Reactive Organic Gases
RPZ	Runway Protection Zone
RSA	Runway Safety Area
RWQCB	Regional Water Quality Control Board
SEIR	Subsequent Environmental Impact Report
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SNARL	Sierra Nevada Aquatic Research Laboratory
SSEIR	Supplement to Subsequent Environmental Impact Report
SWPPP	Storm Water Pollution Prevention Plan
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VFR	Visual Flight Rules
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

Summary of Proposed Project and its Consequences

California Environmental Quality Act (CEQA) Guidelines §15123 requires an Environmental Impact Report ("EIR") to "contain a brief summary of the proposed actions and its consequences." The summary shall identify:

- Each significant effect with proposed mitigation measures and alternatives that would reduce or avoid the effect.
- Areas of controversy including issues raised by agencies and the public.
- Issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.

Project Description

The overall proposed project is known as the Mammoth Yosemite Airport Expansion Project. The revisions to the proposed project[1] that are the subject of this Supplement to Subsequent Environmental Impact Report (SSEIR) generally include four components: extension of the runway by 1,200 feet (rather than 2,000 feet as originally proposed), widening the runway from 100 feet to 150 feet, replacement of an existing 4.8-foot barbed wire fence with an 8-foot chain link security fence, and construction of a new package wastewater treatment plant (instead of a new leach field as originally proposed).

This SSEIR will also analyze any impacts relating to the updated aviation demand forecast, and the relocation or replacement of "Green Church" building formerly used by the High Sierra Community Church.

Project Objectives

Following are the Project Objectives for the proposed Mammoth Yosemite Airport Expansion Project.

1. Amend the runway characteristics to enhance safety for narrow body air carrier aircraft up to the size of a Boeing 757-200 to operate at the Airport.
2. Provide a transportation alternative to the private automobile for residents of and visitors to Mammoth Lakes.
3. Reduce adverse vehicular air emissions associated with visitors to Mammoth Lakes and the vicinity by replacing some of the vehicle trips with air passenger trips.
4. Maintain eligibility for the Town of Mammoth Lakes to receive Airport Improvement Program (AIP) funds from the Federal Aviation Administration (FAA) or to impose Passenger Facility Charges to assist in funding some of the proposed improvements.

[1] The proposed project was initially proposed and environmentally reviewed under State and federal regulations in the *Environmental Impact Report and Environmental Assessment Mammoth/June Lakes Airport Land Use Plan*, State Clearinghouse No. 86060901 (1986 EIR/EA). It was then revised and reviewed again in 1997 in the *Mammoth Lakes Airport Expansion, Subsequent Environmental Impact Report and Updated Environmental Assessment, State Clearinghouse No. SCH 96112089 (C1-23)* (1997 SEIR/EA)

Commercial airline service to the Mammoth Yosemite Airport is scheduled to resume during the winter season of 2002/2003 with Boeing 757 aircraft serving Dallas/Fort Worth International and Chicago O'Hare International airports. This service is anticipated to expand, in the following years, to include air carrier and commuter service to other regional and national destinations such as Los Angeles.

Environmental Impacts and Mitigation Measures

Table ES-1 contains a brief summary of the anticipated environmental impacts associated with the proposed project as identified and analyzed in Section III of this SSEIR, the significance of those impacts and any mitigation measures that are proposed in the current document or were part of the proposed project under the 1997 SEIR/EA evaluation and are still applicable. After application of mitigation measures, no significant adverse environmental impacts are anticipated from the Mammoth Yosemite Airport Expansion Project.

Project Alternatives

A total of ten alternatives including one No-Project alternative were initially identified for consideration in the SSEIR by the lead agency, Town of Mammoth Lakes. Keeping the project objectives in mind, an aircraft performance analysis was conducted to determine the potential for providing air service to various markets from Mammoth Yosemite Airport. On the basis of this aircraft performance analysis and airport design criteria, four alternatives were retained for future consideration with runway lengths ranging from 8,200 to greater than 9,000 feet and various airfield improvements, in addition to the No Project alternative (retain the 7,000-foot runway). The runway extensions, evaluated in the retained alternatives, could be accomplished both to the east and to the west.

The other five alternatives, which included widening the existing 7,000-foot runway, widening the runway without shifting the runway 25 feet to the south, developing another Airport in the region, using alternate modes of transportation, and developing a new Airport in the region at a different site were excluded from further evaluation. Section IV of the SSEIR contains a more detailed analysis of all the alternatives.

Alternative 1 – 7,000 Foot Runway (No Project)

Due to lack of any environmental impacts, Alternative 1 (No Project) would be environmentally superior to the proposed project. However, the No-Project Alternative is rejected from further consideration on the basis that it would not meet any of the proposed project objectives.

Alternative 2 – 8,200-Foot Runway (Proposed Project)

The proposed project meets all the project objectives and was analyzed in Section III of this SSEIR. There are no new significant environmental impacts compared with those in the 1997 SEIR associated with the proposed project other than the relocation or replacement of "Green Church" from its present location to the Sierra Nevada Aquatic Research Laboratory (SNARL) facilities in the public services category.

Alternative 3 – 9,000-Foot Runway

Alternative 3 would have environmental impacts that are greater than the proposed project in the Soil/Land transformation, Hydrology and Water Quality, and Biological Resources categories as more land would need to be cleared and graded and there would be greater storm water runoff due to increase in pavement area. The alternative would require the use of additional U.S. Forest Service land west of existing Airport property for the runway safety area, which would potentially affect

additional mule deer and sage grouse habitat compared with the proposed project. Impacts similar to the proposed project (i.e., no new significant impacts) would occur in the categories of Aesthetics/Light and Glare, Air Quality, Traffic, Noise, Public Services, and Utilities. This length of the runway was approved in the 1986 EIR/EA and 1997 SEIR/EA, the only changes to the previously approved project needed to meet the project objectives include the widening of the runway from 100 to 150 feet and relocation of 'Green Church".

Alternative 4 – Extend Runway Beyond 9,000 Feet

Alternative 4 would generate impacts that are greater than the proposed project and likely to be significant in the categories of Soil/Land transformation, Hydrology and Water Quality, and Biological Resources. This alternative would meet all the project objectives but would result in a greater environmental impact than the proposed project due to an increase in the amount of land that would need to be cleared and graded along with greater storm water runoff due to a greater increase in pavement area. The additional runway length would also potentially affect additional mule deer and sage grouse habitat. Impacts similar to the proposed project (i.e., no new significant impacts) would occur in the categories of Aesthetics/Light and Glare, Air Quality, Traffic, Noise, Public Services, and Utilities. This alternative was rejected because Alternative 2 (proposed project) provides an environmentally superior alternative and meets all the project objectives at a lesser cost.

Alternative 5 – Extend Runway to the East

Alternative 5 is the extension of Runway 9-27 to the east to achieve possible runway lengths of 8,200, 9,000, or greater than 9,000 feet. Alternative 5 would generate impacts that are greater than the proposed project and likely to be significant in the categories of Soil/Land transformation, Hydrology and Water Quality, Traffic, and Biological Resources depending on the runway length constructed. This alternative would meet all the project objectives but would result in a greater environmental impact than the proposed project due to an increase in the amount of land that would need to be cleared and graded along with greater storm water runoff due to a greater increase in pavement area. The additional length of the runway would also potentially affect additional mule deer and sage grouse habitat and the dry meadow area located east of the Airport rather than the already disturbed land west of the Airport that is currently used as a paved stopway. Benton Crossing Road would have to be relocated, because it would conflict with associated safety areas or aeronautical pavement.

Environmental Impacts similar to the proposed project (i.e., no new significant impacts) would occur in the categories of Aesthetics/Light and Glare, Air Quality, Noise, Public Services, and Utilities. This alternative was rejected because alternative 2 (proposed project) provides an environmentally superior alternative and meets all the project objectives at a lesser cost.

Table ES-1: Mammoth Yosemite Airport Mitigation Measures - Monitoring and Reporting Plan

This table provides a summary of the proposed mitigation measures. The column labeled "Implementation" identifies the responsible entity and the development/approval stage for the verification of compliance. Mitigation measures from both the 1997 Subsequent EIR and this Supplement are included.

CEQA Category	Significance	Mitigation Measure	Description	Implementation
1.1 Aesthetics				
Proposed project would have potential impacts if it - Has a substantial adverse effect on a scenic vista; - Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a scenic highway; - Substantially degrades the existing visual character or quality of the site and its surrounding.	Not significant with mitigation.	1. Perimeter Fence Design	1. The eight-foot security fence required under FAA regulations will be installed without barbed wire. The fence will be constructed of chain link material to enhance through-vision and minimize view obstruction. Neutral or dark colored, non-reflective fencing will be employed (2002 SSEIR).	1. Town of Mammoth Lakes - Building Permit
		2. Design, color, and materials for all buildings, aircraft hangers fences, and appurtenant structures	2. Earth tone colors and natural materials will be emphasized to enhance compatibility with the natural setting (2002 SSEIR). Metal aircraft hangars shall be painted with non-reflective colors to blend with the natural environment. (1997 SEIR/EA)	2. Town of Mammoth Lakes - Building Permit Design Review Approvals/Permits
		3. Signs	3. All signs shall be strictly regulated (number, location, appearance) by the Town of Mammoth Lakes design review and permit process (1997 SEIR/EA, 2002 SSEIR).	3. Town of Mammoth Lakes - Design Review Approvals/Permits
		4. Landscaping Installation	4. Indigenous plant species will be used to re-vegetate disturbed sites where appropriate to blend with the natural environment (1997 SEIR/EA).	4. Town of Mammoth Lakes - Grading Plan Approval
		5. Site Design	5. The location and design of new structures shall be sensitive to the climate, topography, and lighting of the surrounding environment (1997 SEIR/EA).	5. Town of Mammoth Lakes - Building Permit
		6. Parking Design	6. The visual impacts of automobile parking areas viewed from U.S. Highway 395 shall be minimized through the use of landscaping and site layout (1997 SEIR/EA).	6. Town of Mammoth Lakes – Building Permit.
		7. Utilities Installation	7. All new utilities shall be installed underground (1997 SEIR/EA).	7. Town of Mammoth Lakes – Building Permit
		8. New Road Construction	8. Except for construction of the new service road for safety purposes, existing roads shall be utilized wherever possible. Construction of other new roads shall be avoided except where necessary for public health and safety, or for the efficient operation of the Airport (1997 SEIR/EA).	8. Town of Mammoth Lakes - Building Permit
		9. Landscaping	9. Grass, trees or other vegetation (using native species) shall be used to enhance the appearance of the Airport commercial development area (1997 SEIR/EA).	9. Town of Mammoth Lakes – Grading Plan Approval
1.2 Light and Glare				
Proposed project would have potential impacts if it creates a new source of substantial light or glare, which would adversely affect day or nighttime views in the area.	Not significant.	1. General Exterior Lighting[1]	1. All exterior lighting sources shall conform to Town of Mammoth Lakes lighting regulations for shielding to prevent glare and direction downward to prevent light trespass. The minimum level of lighting shall be used as necessary for security and safety (2002 SSEIR).	1. Town of Mammoth Lakes - Building Permit
		2. Aviation Aircraft Parking Lighting[1]	2. The existing lights will be replaced with new shielded-lights resulting in a substantial glare reduction for drivers on U.S Highway 395 (2002 SSEIR).	2. Town of Mammoth Lakes - Building Permit

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2. Air Quality				
Proposed project would have potential impacts if it - Results in increased aircraft related pollutant emissions (operational emissions). - Will generate dust and exhaust emissions from construction activity (construction emissions) resulting in short-term localized air quality impacts.	Not significant. Not significant with mitigation.	1. Dust Control	1. Dust control measures, including the use of watering trucks and/or pumped systems, will be continuously implemented throughout the construction period. All exposed soil areas would be stabilized and re-seeded in accordance with an approved landscape/re-vegetation plan as soon as feasible. All soil stockpiles will be covered during construction and subsequently removed and disposed of at approved sites designated by the Town of Mammoth Lakes following the completion of construction (2002 SSEIR).	1. Town of Mammoth Lakes, Great Basin Unified Air Pollution Control District (GBVAPCD) - Grading Plan Approval
3. Biological Resources				
Proposed project would have potential impacts if it - Substantially degrades the quality of the environment. - Substantially reduces the habitat of fish or wildlife species, causes a fish or wildlife population to drop below self-sustaining levels, threatens to eliminate a plant or animal community, reduces the number or restrict the range of an endangered, rare, or threatened species; - Directly or through habitat modifications has a substantial adverse effect on any species identified as a candidate, sensitive or special status species in local or regional plans; - Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS, - Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impedes the use of native wildlife nursery sites; - Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; - Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional or State habitat conservation plan.	Not significant.	1. Wildlife 1a. Sage Grouse i. Perimeter Fence Design[1] ii. Potential Breeding Area Assessment[2] 1b. Mule Deer i. Perimeter Fence Design[1] ii. Habitat Replacement[2] iii. Highway Crossing[1] 1c. Raptors i. Perimeter Fence, Power Pole, and Light Standard Design[1]	1a. Sage Grouse i. The security fence installed around the runway shall be constructed of chain link fence. The portion of the fence situated along the north side of the runway, and east and west of existing buildings, shall be constructed using methods developed in consultation with the USFS and CDFG and will be designed and constructed to minimize raptor perching opportunities. ii. The number of acres of sagebrush scrub winter habitat lost as a result of implementing the proposed project shall be mitigated off site via the mule deer habitat restoration (2002 SSEIR). 1b. Mule Deer i. To reduce the potential for deer mortality on runway, a fence shall be constructed around the Airport in consultation with a deer biologist. The fence shall be regularly maintained by the project proponent (2002 SSEIR). ii. Based upon consultation with the USFS and the CDFG, the number of acres of high-quality mule deer habitat lost as a result of implementing the proposed project shall be replaced by restoration of habitat at or near the Airport. Compensation for the habitat loss shall occur at a ratio of one acre for every one acre of degraded deer habitat (2002 SSEIR). iii. The Town of Mammoth Lakes shall coordinate with Caltrans, CDFG and the USFS on the fence design. (2002 SSEIR). 1c. Raptors i. Fences, power poles, and light standards shall be designed and constructed to minimize perching opportunities through the use of rounded or pointed caps. (2002 SSEIR).	1a.i. Town of Mammoth Lakes - Building Permit 1a.ii. Town of Mammoth Lakes - See 1b.ii below 1b.i. Town of Mammoth Lakes - Building Permit 1b.ii. Town of Mammoth Lakes - Grading Plan Approval 1b.iii. Town of Mammoth Lakes – Building Permit 1c.i. Town of Mammoth Lakes - Building Permit
4. Transportation / Traffic				
Proposed project would have potential impacts if it - Causes an increase in traffic which is substantial in relation to the existing traffic load and capacity of street system (i.e., result in substantial increase in either the number of vehicle trips, the volume to capacity ration on roads, or congestion at intersections.) - Exceeds, either individually or cumulatively, a	Not significant with mitigation.	1. U.S. 395 / Hot Creek Hatchery Road Intersection Improvements 2. Long Term Improvements	1. As part of the proposed project, minor improvements will be made at the U.S. Highway 395 intersection with Hot Creek Fish Hatchery Road. If future modifications are made to the intersection of U.S. Highway 395 and Hot Creek Road, a new Access Control Agreement between Caltrans and Mono County would be required (2002 SSEIR). 2. Additional improvements will be constructed when all three proposed projects (including the Airport Commercial Development Plan and Sierra Business Park)	1. Town of Mammoth Lakes - Terminal Occupancy Permit 2. Town of Mammoth Lakes - Timing of construction as warranted

level of service standard established by the county congestion management agency for designated roads or highways. - Causes an increase in traffic which is substantial in relation to the existing traffic load and capacity of street system (i.e., result in substantial increase in either the number of vehicle trips, the volume to capacity ration on roads, or congestion at intersections.)			are built and level of service (LOS) at the intersection falls below Level D. (2002 SSEIR).	based upon monitoring
5. Soil/Land Transformation				
Proposed project would have potential impacts if it - Results in substantial soil erosion or the loss of top soil. - Causes soil to become unstable and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Not significant with mitigation.	1. Minimize Land Disturbance	1. All grading and earthwork activities must be conducted in accordance with a construction grading plan approved by the Town of Mammoth Lakes. The grading plan must include a detailed project schedule that provides for stabilization in a single construction season, and clear delineation of the limits of construction to avoid unnecessary disturbance of adjacent soils and vegetation. Bonds or other security shall be required to guarantee performance of the required work within the time periods delineated in the project schedule (2002 SSEIR).	1. Town of Mammoth Lakes - Grading Plan Approval
		2. Erosion and Sediment Control Measures	2. A comprehensive plan to minimize soil erosion and sediment transport will be submitted to the California Regional Water Quality Control Board, Lahontan Region (LRWQCB). This plan will involve the implementation of temporary best management practices (BMPs) during construction activities (i.e. stockpile management, perimeter protection against sediment transport, dust control, siltation basins, and runoff diversion as required) and permanent BMPs (including final soil stabilization) following the completion of construction. All temporary and permanent BMPs shall be monitored and maintained (2002 SSEIR).	2. Town of Mammoth Lakes, LRWQCB - NPDES Permit, Grading Plan Approval
		3. Stormwater Management	3. The project shall be designed to retain and infiltrate all runoff from the 20-year, one-hour design storm event. Existing drainage patterns shall not be significantly modified and drainage concentrations shall be avoided. Permanent drainage collection, retention, and infiltration facilities shall be constructed and maintained to prevent waste discharges from the completed site (2002 SSEIR).	3. Town of Mammoth Lakes, LRWQCB - NPDES Permit, Grading Plan Approval
		4. Limit Work to the Dry Season	4. Construction activities involving earthwork will provide for winterization between November and May (2002 SSEIR).	4. LRWQCB, Town of Mammoth Lakes - NPDES Permit, Grading Plan Approval
6. Hydrology, Water Supply, and Water Quality				
Proposed project would have potential impacts if it - Creates or contributes runoff which would exceed the capacity of existing or planned storm-water drainage systems or provide substantial additional sources of polluted runoff; - Violates applicable water quality standards or water discharge requirements; - Substantially depletes groundwater resources or interfere with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of a local groundwater table level. - Substantially alters the existing drainage network. - Place within a 100-year flood hazard area, structures which would impede or redirect flood	Not significant with mitigation.	1. Wastewater Treatment and Disposal	1. All wastewater treatment and disposal systems shall be designed and maintained in accordance with the requirements of the Lahontan RWQCB and the Town of Mammoth Lakes. Permits shall be obtained prior to installation of wastewater facilities as required by both agencies. Facilities shall be sized to accommodate future projected enplanements at the Airport (2002 SSEIR).	1. Town of Mammoth Lakes, LRWQCB - NPDES Permit, Grading Plan Approval
		2. Groundwater Monitoring	2. Groundwater sampling wells shall be provided to monitor the performance of the centralized subsurface disposal systems and to assess potential adverse water quality impacts. Sampling shall be performed by the operator of the sewage disposal system with reports submitted to LRQWCB. The size, location and numbers of sampling wells shall conform to LRWQCB requirements (2002 SSEIR).	2. Town of Mammoth Lakes, LRWQCB - NPDES Permit, Grading Plan Approval
		3. Limited Roadway Deicing	3. The use of sand, cinders, and chemicals for roadway deicing shall be minimized. (2002 SSEIR)	3. Town of Mammoth Lakes, Mono County - Roadway Maintenance
		4. Spill Prevention	4. To address accidental spills of fluids such as aviation fuel, the Town has adopted a Spill Prevention, Control and Countermeasure Plan for the Airport.	4. Town of Mammoth Lakes All Phases

flows. - Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.		5. Runoff Management	Best Management Practices (BMPs) will be used to mitigate potential water quality impacts (2002 SSEIR). 5. All development shall conform to LRWQCB requirements for runoff control. A Stormwater Pollution Prevention Plan (SWPPP) will be prepared and implemented for all construction activities in accordance with Regional Board regulations. Grading/drainage and erosion control plans will be submitted to the Regional Board as part of the SWPPP (2002 SSEIR). Temporary and permanent BMPs shall be implemented and maintained as described in the 2002 SSEIR.	5. Town of Mammoth, Lakes, LRWQCB - SWPPP, Grading Plan Approval
7. Noise Proposed project would have potential impacts if it - Results in 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. - Results in a substantial temporary, periodic or permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	Not significant.	1. Noise Abatement[3]	1. For reduction in existing noise levels due to noise reflection off Doe Ridge towards SNARL facility, a new mid-field run up area will be constructed in conjunction with the first phase of Airport improvements. (2002 SSEIR)	1. Town of Mammoth Lakes - Grading Plan Approval
8. Public Services Proposed project would have potential impacts if it - Results in the need for new or physically altered services, or the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for the following public services: Fire Protection, Police Services, Schools, Parks & Recreational Facilities, Roads, Health Care Facilities.	Not significant.	1. Emergency Response Plan[1] 2. Fire Fighting Capabilities[1] 3. Public Meeting Space[1]	1. The Town of Mammoth Lakes will develop an emergency response plan to address the proposed project, as well as existing and future commercial development on Airport property (2002 SSEIR). 2. The Town of Mammoth Lakes will purchase another Airport Rescue and Fire Fighting (ARFF) vehicle to support air carrier operations. The capital improvement plan for the Airport currently includes the acquisition of this additional vehicle to meet FAA Part 139 certification requirements for air carrier operations (2002 SSEIR). 3. The Sierra Nevada Aquatic Research Laboratory (SNARL – University of California at Santa Barbara) meeting facility at the "Green Church" would be replaced with similar facilities at another location on the site of the main SNARL campus in accordance with the Uniform Relocation Assistance and Real Acquisition Policies Act of 1970. (2002 SSEIR)	1. Town of Mammoth Lakes - Terminal Certificate of Occupancy 2. Town of Mammoth Lakes - Terminal Certificate of Occupancy 3. Town of Mammoth Lakes - Building Permit
9. Utilities Proposed project would have potential impacts if it - Substantially increases the demand for utilities such that existing or planned capacity or distribution systems or available supply would be exceeded. The utilities include Water Supply, Power and Natural Gas, Sanitary Sewage and Solid Waste Disposal.	Not significant.	No mitigation measures.		
10. Agricultural Resources Proposed project would have potential impacts if it - Converts prime farmland, unique farmland or farmland of statewide importance to non-	Not significant.	No mitigation measures.		

agricultural uses. - Conflicts with existing zoning from agricultural use. - Involves other changes in the existing environment which, due to their location or nature, could result in conversion of farmland, to non-agricultural use?				
11 Geology				
Proposed project would have potential impacts if it - Exposes people or structures to adverse effects, including the risk of loss, injury, or death involving seismic and volcanic events.	Not significant.	No mitigation measures.		
12. Historical, Architectural, Archaeological, and Cultural Resources				
Proposed project would have potential impacts if it - Causes a substantial adverse change in the significance of a historic or archaeological resource.	Not significant.	1. Construction Monitoring[1]	1. The Town of Mammoth Lakes will have a qualified archeologist to monitor land excavation. Should any cultural remains be uncovered, construction in the vicinity of those remains would be halted immediately. The FAA and the State Historic Preservation Officer (SHPO) would be notified for evaluation of the situation by a qualified professional (2002 SSEIR).	1. Town of Mammoth Lakes - Building Permit
13. Hazards and Hazardous Material				
Proposed project would have potential impacts if it - Creates a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. - Emits hazardous emissions or handles hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. - Impairs implementation of or physically interferes with an adopted emergency response plan or emergency evacuation plan.	Not significant.	No mitigation measures.	1. Compliance with Spill Prevention, Control, and Countermeasure Plan. (2002 SSEIR)	1. Town of Mammoth Lakes, Mono County Health Department, Lahontan Regional Water Quality Control Board - All Phases
14. Mineral Resources				
Proposed project would have potential impacts if it - Results in loss of availability of a known mineral resource or a mineral resource recovery site that would be of value to the region and the residents of the state.	Not significant.	No mitigation measures.		
15. Population and Housing				
Proposed project would have potential impacts if it - Causes a substantial alteration in the location, distribution, density, or growth rate of population for the area. - Affects existing housing, or creates a demand for additional housing; - Has an impact on the available rental housing in the community; or - Displaces existing residences.	Not significant.	No mitigation measures.	1. Compliance with the Town of Mammoth Lakes Housing Mitigation Regulations (2002 SSEIR)	1. Town of Mammoth Lakes - Building Permit

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16. Recreation		
Proposed project would have potential impacts if it - Project increases the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.	Not significant.	No mitigation measures.

1. These measures would be undertaken as part of the project to make it compliant with local and State regulations but have no effect on the significance of environmental impacts of the proposed project in that environmental category.
2. The environmental impact is not significant and these measures are voluntarily undertaken by Town of Mammoth Lakes. They do not change the significance of the impacts in this environmental category.
3. The conclusion regarding noise impacts due to the proposed project has changed from significant to less-than-significant since the 1997 SEIR/EA. This is due to a reduction in the proposed runway length and different operational procedures undertaken as part of the proposed project that will reduce potential noise impacts.

Source: Ricondo & Associates, Inc.
Prepared By: Ricondo & Associates, Inc.

AR 001028

Introduction

This Supplement to a previously certified Subsequent Environmental Impact Report (SSEIR) is prepared by the Town of Mammoth Lakes, California to review the environmental effects of proposed changes to the previously approved plans for expansion of the Mammoth Yosemite Airport (Airport). The Airport serves the Town of Mammoth Lakes, California and other Eastern Sierra communities. The Town of Mammoth Lakes lies within Mono County, which is located in the Eastern Sierra Nevada Mountain Range. The Town operates the Airport, which predominantly serves general aviation aircraft. The airfield accommodates approximately 40 based aircraft and approximately 6,000 annual operations.

The Airport has a single runway, designated as Runway 9-27, which is 7,000 feet long by 100 feet wide. A full parallel taxiway system, 50 feet in width, supports this runway. Apron and hangar facilities are available for both based and transient aircraft.

The primary proposed changes to the Airport under consideration in this SSEIR include:

- Extension of the runway by 1,200 feet – the proposed project in the 1986 Environmental Impact Report/Environmental Assessment (EIR/EA) and the Subsequent EIR/EA in 1997 included a runway extension of 2,000 feet.
- Increase in the runway width from 100 feet to 150 feet – the proposed project in the 1986 EIR/EA and 1997 SEIR/EA retained the runway width of 100 ft.
- Replacement of an existing 4.8-foot barbed wire fence with an 8-foot chain link security fence – the proposed project in the 1986 EIR/EA and 1997 SEIR/EA did not include replacing the perimeter security fence.
- Construction of a new package wastewater treatment plant – the proposed project in the 1986 EIR/EA and the 1997 SEIR/EA included a new leach field as part of the project.
- Relocation or Replacement of Green Church - the proposed project in the 1986 EIR/EA and the 1997 SEIR/EA did not include relocating or replacing the Green Church.

Prior approvals and environmental documentation have allowed for lengthening of the runway to 9,000 feet to accommodate narrow body air carrier jet aircraft. These approvals have been in place since 1978. The major change now proposed is a widening of the runway to meet the operational and safety requirements of many air carriers, including the carrier planning to operate at Mammoth Yosemite Airport as well as a reduction in the length of the runway extension to 1,200 feet from the original 2,000 feet to result in a runway length of 8,200 feet.

Table 1 includes a comparison of the proposed project with the previously certified projects.

The following components of the project remain the same as approved under the 1986 EIR/EA and the 1997 SEIR/EA.

- Strengthen the runway and taxiways to accommodate narrow body jet aircraft.
- Extend the parallel taxiway to match the runway extension.

Table 1 (1of 2)

Mammoth Yosemite Airport – Airport Development Analysis

Item	1986 Report		1997 Report		2002 Report	
	Existing	Planned/ Forecast	Existing	Planned/ Forecast	Existing	Planned/ Forecast
Runway 9-27	7,000' x 100'	9,000' x 100'	7,000' x 100'	9,000' x 100'	7,000' x 100'	8,200' x 150'
Cross Wind Runway	-	5,000' x 100'	-	-	-	-
Taxiway A (Parallel to RW 9-27)	7,000' x 50'	9,000' x 50'	7,000' x 50'	9,000' x 50'	7,000' x 50'	8,200' x 75'
Cross Taxiways (to Taxiway A)	5 - 225' x 50'	6 - 225' x 50'	5 - 225' x 50'	6 - 225' x 50'	5 - 225' x 50'	3 - 205' x 50'
						3 - 205' x 75'
Taxiway B (Parallel to Cross Wind RW)	-	5,000' x 50'	-	-	-	-
Cross Taxiways (to Taxiway B)	-	5 – 225' x 50'	-	-	-	-
Aircraft Tie Downs						
- Permanent	35	75	35	52	35	52
- Transient	50	125	95	100	95	100
Aircraft Apron						
- Main Ramp (Acres)	3.9	7.9	3.9	8.6	3.9	8.6
- West Ramp	3.8	4.1	3.8	-	3.8	-
- East Ramp (Acres)	-	3.9	-	6.8	-	6.8
- Air Carrier Ramp (Acres)	2.1	2.9	2.1	4.6	2.1	4.6
- Corporate Ramp (Acres)	-	-	-	2.7	-	2.7
Hangars						
- Transient (Units)	5	10	5	10	5	10
- Permanent (Units)	20	106	20	135	20	135
Passenger Terminal Building (sq. ft.)	4,000	20,000	4,000	25,000	4,000	25,000
FBO Building (sq. ft.)	2,000	2,000	2,000	10,000	2,000	10,000
Fire Crash & Snow Plow Storage Building (sq. ft.)	7,200	7,200	7,200	7,200	7,200	7,200
Restaurant (Seats)	-	In Hotel	-	300	-	300
Hotel Condominium (Units)	-	150	-	250	-	250
Service Station/Market Retail (Acres)	-	-	-	2.0	-	2.0
Access Road (ft.)	24' x 7,700'	24' x 7,700'	24' x 7,700'	24' x 14,500'	24' x 7,700'	24' x 14,500'
Automobile Parking Stalls (each)						
- Employee			10	20	10	20
- Passenger Terminal			26	294	26	294
- Transient			20	30	20	30
- Hotel/Restaurant			0	350	0	350
Total	56	310	56	694	56	760
Golf Course (Acres)	-	120	-	-	-	-

Source: *Mammoth/June Lakes Airport, Environmental Impact Assessment, July 1986*, Hodges and Shutt and *Mammoth/June Lakes Airport, Master Plan Report, Mono County, California, December, 1988*, Hodges and Shutt. *Mammoth Lakes Airport Expansion, Subsequent Environmental Impact Report and Updated Environmental Assessment*, Reinard W. Brandley, March 1997. *Mammoth Yosemite Airport Expansion Project, Final Environmental Assessment*, December 2000. Ricondo & Associates, Inc.

Prepared By: Ricondo & Associates, Inc.

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Table 1 (2of 2)

Mammoth Yosemite Airport – Airport Development Analysis

Item	1986 Report		1997 Report		2002 Report	
	Existing	Planned/ Forecast	Planned/ Existing	Planned/ Forecast	Existing	Planned/ Forecast
Luxury RV Parking						
- Sites	-	-	-	100	-	100
Based Aircraft	35	75	35	75	35	75
Transient Tie Downs	50	125	50	100	50	100
Passengers – Enplanement[4]	5,200	310,000	0	125,000	0	333,000
Aircraft Operations – Annual	13,000	30,000 (1995)	18,000	34,000 (2015)	6,000	23,650 (2022)
R/W 9-27 Capacity						
- Annual Operations	90,000	95,000	90,000	95,000	90,000	95,000
- Hourly Operations	85	85	85	85	85	85
Population						
- Permanent	4,600	8,000	5,500	10,000	5,500	10,000
- Service and Visitors	-	-	30,000	42,000	30,000	42,000

1. The forecasts shown in the 1986 Report are for the year 1995.
2. The forecasts shown in the 1997 Report are for the year 2015.
3. The forecasts shown in the 2002 Report are for the year 2022.
4. The passengers – enplanement numbers are for commercial enplanements only.

Source: *Mammoth/June Lakes Airport, Environmental Impact Assessment, July 1986*, Hodges and Shutt and *Mammoth/June Lakes Airport, Master Plan Report, Mono County, California, December, 1988*, Hodges and Shutt. *Mammoth Lakes Airport Expansion, Subsequent Environmental Impact Report and Updated Environmental Assessment*, Reinard W. Brandley, March 1997. *Mammoth Yosemite Airport Expansion Project, Final Environmental Assessment*, December 2000. Ricondo & Associates, Inc.

Prepared By: Ricondo & Associates, Inc.

- Add an air carrier apron for three air carrier aircraft with expansion capabilities to accommodate up to six air carrier aircraft.
- Construct Airport access road improvements.
- Expand the automobile surface parking facilities.
- Acquire land to the east of the Airport that is currently leased from the Los Angeles Department of Public Works (LADWP) for Airport use.
- Construct a passenger terminal complex and related support areas.

Purpose of this Supplement to the Subsequent EIR

This SSEIR has been prepared by the lead agency, the Town of Mammoth Lakes, in compliance with the California Environmental Quality Act (CEQA, Cal. Pub. Res. Code §§ 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, §§ 15000-15387). CEQA applies to "discretionary projects proposed to be carried out or approved by public agencies." CEQA, § 21080(a). CEQA § 21151; State CEQA Guidelines §§ 15060, 15063. The purpose of an EIR in general is to "inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects and describe reasonable alternatives to the project." State CEQA Guidelines § 15121(a). The EIR is the heart of CEQA, whose purpose is to "compel government at all levels to make decisions with environmental consequences in mind." *Bozung v. Local Agency Formation Commission,* 13 Cal. 3d 263, 283 (1975). State CEQA Guidelines § 15162 provides that when an EIR has been previously certified or a negative declaration adopted for a project, "no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more

significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative..."

A lead agency may choose to prepare a supplement to an EIR instead of a subsequent EIR if: any of the above conditions would require preparation of a subsequent EIR, but that only "minor additions or changes would be necessary to make the previous EIR adequately apply to the project under the changed situation." CEQA Guidelines §15163. The Town of Mammoth Lakes has determined that the proposed changes to the Airport would require minor changes to two previously certified EIRs and that a supplement to the previously certified Subsequent EIR/EA would be required.

Previous Environmental Review

The Town of Mammoth Lakes certified an EIR and a Subsequent EIR on earlier planned changes to the Mammoth Yosemite Airport. These EIRs, a summary of the projects evaluated in them, and the environmental issues previously evaluated are summarized below.

- The Mono County Airport Land Use Commission (ALUC) prepared an Environmental Impact Report (EIR) entitled, *Environmental Impact Report and Environmental Assessment Mammoth/June Lakes Airport Land Use Plan,* State Clearinghouse No. 86060901 (1986 EIR/EA) [I-1]. The project evaluated was an airfield improvement program initiated by Mono County in 1983, which partly relied upon funds to be received under the Airport Improvement Program. As such, the project required environmental review under both CEQA and the National Environmental Policy Act (NEPA) and the Federal Aviation Administration (FAA) was the designated federal lead agency. The document was certified by the Mono County Board of Supervisors in 1986.

  The project evaluated in the 1986 EIR/EA included an Airport Land Use Plan (ALUP) for the Airport and creation of an Airport Development District (ADD) for the Airport and surrounding land. The ADD planned developments included the continuation of improvements contemplated under the 1978 Mammoth/June Lake Airport Master Plan including the construction of a runway 7,000 feet in length by 100 feet in width which was underway but had not yet been completed, a 5,000 foot by 100 foot cross wind runway, additional taxiways, and additional aircraft support facilities, a new passenger terminal, an airport hotel, a 120-acre golf course, and extensive infrastructure improvements. The ADD also planned light industrial, manufacturing, warehousing, and similar economic development uses and, potentially, low intensity recreational uses. Under the ALUP, land use policies were developed to protect public welfare and the safety of aircraft operations including policies regarding airport safety zones, overflight zones and traffic patterns, height restrictions and noise.

  The key environmental topics evaluated in the 1986 EIR/EA included: soils/land transformation; geologic/volcanic hazards; hydrology/water resources; water quality; mineral/energy resources; air quality; visual/aesthetic resources; biological resources; archaeological/cultural resources; regional planning and population; employment and

economic development; traffic and transportation; noise; safety and welfare; cumulative impacts and other CEQA-required topics.

- The Town of Mammoth Lakes purchased the Airport from Mono County in September 1992. A 1997 Airport expansion program was environmentally reviewed in a 1997 EIR entitled *Mammoth Lakes Airport Expansion, Subsequent Environmental Impact Report and Updated Environmental Assessment, State Clearinghouse No. SCH 96112089 (C1-23)* (1997 SEIR/EA) [I-2]. This report evaluated environmental issues relative to changes in the project proposal, and substantial new information or changes in conditions since 1986. The Town of Mammoth Lakes certified the 1997 SEIR/EA as adequate. There was no FAA action taken at that time.

  The Airport development reviewed in the 1997 SEIR/EA included both airside and landside developments by a private developer. Airside improvements included the extension of the current Runway 9-27 from 7,000 feet to 9,000 feet, strengthening the runway and associated taxiways to accommodate air carrier aircraft and a proposed construction of up to approximately 135 private and public use hangars, an aviation fuel storage complex and facilities for the operation of a fixed base operator (FBO). The crosswind runway and the 120-acre golf course were eliminated from the originally proposed project along with the 120-acre golf course. Landside development included a hotel and residential condominium complex, retail development, a restaurant complex and a recreational vehicle park. The 1997 SEIR/EA also included evaluation of the right to construct an access road from Benton Crossing Road to the Airport and signage on Town property along Highway 395. Initial construction of this project began shortly after the SEIR certification and has continued to date.

  The key environmental issues evaluated in the 1997 SEIR/EA included: noise; special-status species and wetlands; cultural resources; airport facilities; drainage; airport land use planning; and additional visual impact analysis.

In addition to the certified environmental documents summarized above, the FAA prepared a *Mammoth Yosemite Airport Expansion Project Final Environmental Assessment* in December 2000 (2000 EA) [1-3]. This document contains an environmental evaluation of the currently proposed project. As permitted under State CEQA Guidelines § 15150, relevant data and findings from the 2000 EA are incorporated by reference in this SSEIR where applicable.

Scope of this Supplement to the Subsequent EIR (SSEIR)

The Town of Mammoth Lakes determined that the proposed project would require an SSEIR, thereby bypassing the need for preparation of an Initial Study for determination of any significant adverse impact on the environment. Pursuant to CEQA Guidelines §§ 15060(d), 15063(a), if the lead agency can determine that an EIR will be clearly required for a project, an Initial Study is not required and the agency may skip further initial review of the project and immediately commence with the EIR process. As the State CEQA Guidelines §15082(a) provide, the Town of Mammoth Lakes circulated a Notice of Preparation (NOP) for the current proposed project to "responsible" and other interested agencies on April 16, 2001 and the comment period was open until May 15, 2001. The NOP is included as Appendix B. The Town of Mammoth Lakes received eight comment letters in response to the NOP. These comment letters are included as Appendix C.

Issues raised in these comment letters were related to the following topics or desired evaluations:

- Number of daily enplanements at the Airport.
- Construction of a new Airport Road access road to connect both Hot Creek Hatchery Road and Benton Crossing Road from the east/back side of the Airport facility and traffic mitigation measures.
- Convict Lake Access to the Airport facilities.
- Extension of left turn pocket at U.S. Highway 395 south and Hot Creek Hatchery Road intersection and a new left turn pocket at U.S. Highway 395 south and Hot Creek Hatchery Road intersection.
- Development and implementation of a traffic and deer monitoring program.
- Future traffic mitigation measures and collection of developer fees fund.
- Requirement of a State Airport Permit.
- Comprehensive traffic analysis concerning potential impacts to the existing road system.
- Record search for cultural resources and provisions for accidental discovery of archeological resources or Native American human remains.
- Cumulative effects of development on water quality.
- Environmental site assessment regarding past site contamination.
- Wetlands site assessment.
- Design and construction of industrial stormwater runoff system to handle higher runoff during times of greater than 20-year storm.
- Septic system impacts.
- Hazardous material storage and spill issues.
- Evaluation of potential overdraft and recharge (water balance), as it relates to protection of beneficial uses.
- Alteration of stream or drainage course(s).
- Increased noise and adjacent use impacts to Department of Fish and Game's hatchery operations and residences at the Hot Creek Fish Hatchery.
- Direct loss of important wildlife habitat for mule deer, sage grouse, and mountain lion.
- Indirect impacts to sage grouse as a result of project fencing.
- Disturbance to deer migration areas and increased road kills from project-related facilities and operation.
- Disruption of seasonal foraging areas and patterns for raptors including the bald and golden eagle, northern harrier, American peregrine falcon, Swainson's hawk, prairie falcon, American kestrel, red-tailed hawk, ferruginous hawk, rough-legged hawk, and other raptors.
- Disturbance to nesting water fowl and other aquatic and riprarian birds.
- Alteration to the quality of surface or ground water, including impacts to spring flow, habitat for Owens tui chub, and domestic water supply for Fish Hatchery residences.
- Effects of widening the runway from 100 feet to 150 feet on the south side of the runway.
- Effect on visual quality objectives on National Forest lands by placement of security fencing to meet FAA standards.
- Analysis of effects of off-site mitigation for wildlife enhancement purposes on United States Forest Service (USFS) land in the vicinity of the gravel pit.
- Analysis of amount and type of habitats that may be affected by the proposed project or project alternative, along with quantitative and qualitative information concerning fish and wildlife resources associated with each habitat type.

- A list of federal, candidate, proposed or listed threatened and endangered species, State listed species, and locally declining or sensitive species that are found at or near the project site. A detailed discussion of these species, focusing on their site-related distribution and abundance and the anticipated effects of the project on these species.
- Assessment of the effects on biological resources, including those which are direct, indirect, and cumulative.
- Analysis of the effects of the project on the hydrology of associated drainages, and any other riprarian or wetland communities within the sphere of influence of the project.
- Specific plans to offset project-related effects, including cumulative habitat loss, degradation, and modification resulting from the direct, indirect and cumulative consequences of the project.

After lead agency consideration of the environmental evaluations for the Mammoth Yosemite Airport project contained within the 1986 EIR/EA and 1997 SEIR/EA, and review of agency comments responding to the NOP, the Town of Mammoth Lakes determined that the following additional environmental impact areas will be analyzed in this SSEIR.

- Aesthetics/Light and Glare - related to the replacement of an existing fence.
- Air Quality – with respect to the updated aviation demand forecast, construction, and vehicular emissions.
- Biology - update to respond to comments and address grading and replanting on area of land, which would require issuance of a revised special use permit from the United States Forest Service (USFS).
- Traffic – with respect to the updated aviation demand forecast and cumulative effects of other proposed projects.
- Soils/Land Transformation – regarding the construction of a package wastewater treatment plant and grading and replanting an area of land, which would require issuance of a revised special use permit.
- Hydrology and Water Quality - regarding the construction of a package treatment plant instead of the previously planned and evaluated septic system/leach field, use of an oil/water separator, and the extension of the runway by 1,200 feet rather than 2,000 feet and the increase in the runway width to 150 feet.
- Noise – with respect to the updated aviation demand forecast.
- Public Services and Utilities - regarding relocation or replacement of the Green Church and construction of a package wastewater treatment plant instead of previously evaluated septic system/leach field.

The following categories were not included in the SSEIR, as they were all previously evaluated in 1986 EIR/EA and the 1997 SEIR/EA and there have been no changes in the environmental impacts from the changes in the proposed project under the criteria set forth by CEQA Guidelines § 15162.

- Agricultural Resources
- Geology
- Historical, Archeological and Cultural Resources
- Hazards and Hazardous Material
- Land Use and Planning
- Mineral Resources
- Population and Housing

- Recreation

A summary of the evaluations of impacts relative to each of these categories, the significance of their impacts, and proposed mitigation measures from the 1986 EIR/EA and the 1997 SEIR/EA are included as Appendix A.

Table 2 lists the environmental categories (based on CEQA Guidelines Appendix G [3-1]) that are addressed in this SSEIR because changes in the proposed project along with those other categories that are not affected by the changes in proposed project for which the previous certified analysis documented in *Environmental Impact Report and Environmental Assessment Mammoth/June Lakes Airport Land Use Plan,* (1986 EIR/EA) and *Mammoth Lakes Airport Expansion, Subsequent Environmental Impact Report and Updated Environmental Assessment,* (1997 SEIR/EA) is deemed adequate.

Table 2

List of Environmental Categories Analyzed in SSEIR

Changes in the Proposed Project between this Supplemental EIR and the proposed project certified in 1986 EIR/EA and 1997 SEIR/EA.

1. Extension of Runway 9-27 by 1,200 feet (rather than 2,000 feet) and increase in its width to 150 feet.
2. Replacement of an existing 4.8-foot barbed wire perimeter security fence with an 8-foot chain link security fence.
3. Construction of a new package wastewater treatment plant (instead of a new leach field).
4. Updated aviation demand forecasts
5. Relocation or replacement of Green Church to Sierra Nevada Aquatic Research Laboratory (SNARL) campus.

CEQA Environmental Impact Category	Level of Analysis in 2002 SSEIR
1. Aesthetics/Light and Glare	Environmental Impacts analyzed due to Changes 1,2 , and 3.
2. Agricultural Resources	No new significant environmental impacts from the proposed changes.
3. Air Quality	Environmental Impacts analyzed due to Change 4.
4. Biological Resources	Environmental Impacts analyzed due to Change 1, 2, 3, and 4.
5. Cultural Resources	No new significant environmental impacts from the proposed changes.
6. Geology and Soils	No new significant environmental impacts for Geology from the proposed changes. Environmental Impacts for Soil/Land transformation analyzed due to Changes 1 and 3.
7. Hazards and hazardous materials	No new significant environmental impacts from the proposed changes.
8. Hydrology and Water Quality	Environmental Impacts analyzed due to Changes 1 and 3.
9. Land use and Planning	No new significant environmental impacts from the proposed changes.
10. Mineral Resources	No new significant environmental impacts from the proposed changes.
11. Noise	Environmental Impacts analyzed due to Changes 1 and 4.
12. Population and Housing	No new significant environmental impacts from the proposed changes.
13. Public Services	Environmental Impacts analyzed due to Change 5.
14. Recreation	No new significant environmental impacts from the proposed changes.
15. Transportation/Traffic	Environmental Impacts analyzed due to Change 4.
16. Utilities	Environmental Impacts analyzed due to Change 3.

Source: Ricondo & Associates, Inc.
Prepared By: Ricondo & Associates, Inc.

Public Review and Environmental Approval Process

This SSEIR is an informational document for both Town of Mammoth Lakes decision makers and the public. "Public review is an essential part of the CEQA process." State CEQA Guidelines § 15201. Pursuant to CEQA Guidelines §15082(a), the Town of Mammoth Lakes circulated a Notice

of Preparation (NOP) describing the proposed project to "responsible" and other interested agencies from April 16, 2001 to May 15, 2001. The NOP is included as Appendix B. The Town of Mammoth Lakes received 8 comment letters in response to the NOP. These comment letters are included as Appendix C. The Town considered the NOP comment letters during preparation of this SSEIR.

The Draft SSEIR was circulated for public review and comment from October 9th through November 26, 2001, a total of 48 days. The Draft SSEIR was sent to the State Clearing House (SCH # 2000034005) for distribution to public agencies. The distribution list of the SSEIR is provided in Appendix B. The draft SSEIR was also made available at the Town of Mammoth Lakes offices for individuals. During this period, the Town of Mammoth Lakes solicited comments on the Draft SSEIR from other agencies and from the public.

The Town of Mammoth Lakes, as the CEQA Lead Agency, received 32 comment letters on the Draft SSEIR from public agencies, organizations, and individuals. In accordance with CEQA Guidelines § 15088, the Town of Mammoth Lakes evaluated the comments and prepared written responses to each pertinent comment related to the adequacy of the environmental analysis contained in the Draft SSEIR or to the environmental issues related to the proposed project. A list of the persons and agencies, that commented on the Draft SSEIR, and the written responses to comments are included as Appendix N of this Final SSEIR.

The written responses were provided to the responsible and trustee agencies, that had commented on the Draft SSEIR from February 22, 2002 to March 6, 2002 for review. The Town Council certified the SSEIR on March 6, 2002. In a separate action from the certification of the Draft SSEIR, the Town Council will consider approving the changes to the proposed project since the previous environmental document was certified.

Approvals and Entitlements For Which This SSEIR Will be Used

The intended use of this SSEIR is to assist Town of Mammoth Lakes in making decisions with regard to the Mammoth Yosemite Expansion Project. This SSEIR shall be used in connection with all permits and other approvals necessary for the construction and operation of the proposed project. No final actions (approval, denial, or amendment) will be taken on the project requests until the Final SSEIR has been reviewed, certified as complete and considered by the appropriate decision-makers. This SSEIR may be used by the following public bodies in the approval, construction and development of the Expansion project: Great Basin United Air Pollution Control District, Lahontan Regional Water Quality Control Board; California Department of Transportation (Caltrans), United States Forest Service, Los Angeles Department of Public Works, and all other public agencies which must approve activities undertaken with respect to the project.

Background

Mammoth Yosemite Airport was originally constructed by the United States (U.S.) Army for use as an auxiliary landing strip during World War II. The original dimensions of the landing strip were less than 4,000 feet in length by 30 feet in width. Mono County acquired the airfield from the U.S. Army after the war and renamed it Long Valley Field. The runway was an unpaved dirt strip and the Airport was a seasonal facility closed by winter snows until the runway was paved in 1959. The Airport was operated as an unattended landing strip until the early 1960s.

Mono County transferred the property to the U.S. Forest Service in 1965 with the understanding that Airport facilities would be improved and expanded. Mono County then contracted with private interests for improvement and expansion of airfield facilities. In 1965, the runway was extended to 5,000 feet and widened to 100 feet. Also at this time, the runway was relocated 300 feet to the north to accommodate the future widening of U.S. Highway 395, which runs adjacent to the Airport. The Airport was renamed Mammoth Lakes Airport and private interests operated the airfield, under U.S. Forest Service special use permits.

Mammoth Sky Lodge Corporation, then the Airport operator, extended the runway to 6,500 feet in 1971. A terminal building and an Airport office were constructed in 1972. During this time, the Airport became formally known as Mammoth-June Lakes Airport. In 1973, Sierra Pacific Airlines initiated service using Convair 440 aircraft and served Mammoth Lakes until 1980.

Mono County entered into an agreement with Mammoth Sky Lodge Corporation to acquire the Airport facilities in 1978; however, the acquisition of the Airport was not consummated until 1980. During the intervening time, Mono County prepared an Environmental Impact Report for the acquisition of the Airport and extension of the runway. Mono County re-established public operation of the Airport in 1980.

Mono County began an airfield improvement program in 1983. Using grant funds received under the Airport Improvement Program, a new runway, 7,000 feet by 100 feet, was constructed. This new runway began 3,400 feet east of the west end of the previous runway in order to provide the required line of sight along the runway's length. The western 3,400 feet of pavement of the previous runway became the present day paved overrun. In 1985, Trans World Express began commuter service to Los Angeles and San Francisco using 19-seat Beechcraft 1900 turboprop aircraft. Airport development and land use changes were proposed by Mono County in 1986 that included a plan for a 5,000-foot by 100-foot crosswind runway, additional supporting taxiways, and a 120-acre golf course.

The 1986 proposed improvements required the preparation of environmental documents under the California Environmental Quality Act (CEQA). Mono County commissioned the preparation of an Environmental Impact Report (EIR) entitled, *Environmental Impact Report and Environmental Assessment Mammoth/June Lakes Airport Land Use Plan.* The EIR document was certified as adequate by the unanimous action of the Mono County Board of Supervisors in 1986.

Royal West Airlines began seasonal winter service only for the 1987 ski season, using British Aerospace Bae 146 turbojet aircraft, but ceased all operations in 1988.

The Town of Mammoth Lakes purchased the Airport from Mono County in September 1992. United Express operated flights from Mammoth Lakes to Fresno, using 19-seat Jetstream 31 turboprop aircraft for the winter seasons of 1993 and 1994. Service reliability problems associated with overbooking the 19 seat Jetstream aircraft led to passenger dissatisfaction causing United Express to discontinue service.

Additionally, Trans World Express terminated flight operations in 1995 due to reorganization of its major code share partner, Trans World Airlines. This reorganization of Trans World Airlines was required under Chapter 11 of the Federal Bankruptcy Code.

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In 1997, new development was proposed for the airfield. Previous plans for the crosswind runway and supporting taxiways and the golf course were eliminated. An extension of the current Runway 9-27 from 7,000 feet to 9,000 feet was proposed as was the construction of a hotel/condominium complex. The elimination of both the crosswind runway and golf course from the airport development plan resulted in much less land disturbance, as the majority of the project would remain within the current boundaries of the Airport.

The 1997 Airport expansion program was environmentally reviewed in the 1997 EIR *Mammoth Lakes Airport Expansion, Subsequent Environmental Impact Report and Updated Environmental Assessment* [I-2]. This report re-examined the 1986 *Environmental Impact Report and Environmental Assessment Mammoth/June Lake Airport Land Use Plan* [I-1] for environmental impacts that had arisen or changed since 1986. The Town of Mammoth Lakes certified the 1997 SEIR/EA as completed in compliance with CEQA.

The new Airport development reviewed in the 1997 SEIR/EA included both airside and landside developments by a private developer. Airside improvements included the construction of approximately 135 private and public use hangars, an aviation fuel storage complex and facilities for the operation of a fixed base operator (FBO). Landside development would consist of a hotel and residential condominium complex, retail development, a restaurant complex and a recreational vehicle park. Also included in the new Airport development reviewed in the 1997 SEIR/EA was the right to construct an access road from Benton Crossing Road to the Airport and signage on Town property along U.S. Highway 395. The above projects received environmental clearance upon 1997 certification of the SEIR. Initial construction began shortly after the SEIR certification and has continued to date. This project, having previously been environmentally reviewed, is not the subject of this SSEIR.

In 2000 the Town of Mammoth Lakes changed the name of the Airport from Mammoth Lakes Airport to Mammoth Yosemite Airport and an Environmental Assessment was prepared for the current proposed expansion project. This environmental review for the project was conducted under NEPA guidelines and had been prepared to provide the community full disclosure of the proposed project and potential environmental impacts of the development alternatives. The FAA issued a Finding of No Significant Impact (FONSI) for the project in December 2000.

Development at the Airport that would improve the airfield's ability to safely and efficiently accommodate commercial airline service is currently being proposed. This development differs in certain respects from development plans analyzed in the past, principally because it calls for less land disturbance. The current plan would extend the current runway from the existing 7,000 feet to 8,200 feet rather than the previously approved length of 9,000 feet. The project proposal also includes widening the runway by 50 feet on the south side of the runway to obtain a runway width of 150 feet.

Commercial airline service to the Mammoth Yosemite Airport is scheduled to resume during the winter season of 2003/2004 with Boeing 757 aircraft serving Dallas/Fort Worth and Chicago O'Hare International airports. This service is anticipated to expand, in the following years, to include air carrier and commuter service to other regional and national destinations.

I. Description of the Project

The overall proposed project is known as the Mammoth Yosemite Airport Expansion Project. The revisions to the proposed project that are the subject of this Supplement to the Subsequent Environmental Impact Report (SSEIR) generally include four components: extension of the runway by 1,200 feet (rather than 2,000 feet as approved in 1997), increase in the width of the runway from 100 feet to 150 feet (no change in the runway width was proposed in 1997), replacement of an existing 4.8-foot barbed wire fence with an 8-foot chain link security fence (no changes in the fence were approved in 1997), and construction of a new package wastewater treatment plant (instead of a new septic system and leach field). The impacts of an updated aviation demand forecast, and relocation or replacement of "Green Church" are also analyzed in this SSEIR.

The following section describes the project's (1) location and boundaries, (2) statement of project objectives, and (3) planning, construction, and operation.

1.1 Location and Boundaries

Mammoth Lakes, California, is a resort town located in the Eastern Sierra Nevada Mountain Range approximately 170 miles south-southeast of Reno, Nevada. The Airport is located approximately seven miles east of the Town of Mammoth Lakes. The Airport property is not contiguous to the community of Mammoth Lakes. Unincorporated portions of Mono County border the Airport property on all sides. The Airport location and vicinity are depicted on **Exhibit I-1**.

The Airport is situated on the north side of U.S. Highway 395 with primary access from U.S. Highway 395 to Hot Creek Hatchery Road west of the Airport and Airport Road, which runs along north side of the Airport. U.S. Highway 395 provides access to the Mammoth Lakes area and the Reno/Lake Tahoe region to the north, and to Crowley Lake, Bishop, and Southern California to the south. Hot Creek Hatchery Road is an undivided, two lane road with an at-grade intersection with U.S. Highway 395. A new Airport access road along the northern side of the Airport is planned to connect with Benton Crossing Road east of the Airport. Benton Crossing Road connects to U.S. Highway 395 on the eastern side of the Airport.

The Airport is surrounded by Inyo National Forest land (U.S. Forest Service) to the north, south and west. A small private landholding is located near the west end of the Airport and across U.S. Highway 395. The eastern end of the Airport is located on City of Los Angeles (Los Angeles Department of Public Works - LADPW) property. Land administered by the U. S. Department of the Interior Bureau of Land Management is adjacent to the northeastern end of the Airport.

1.2 Purpose and Need of the Proposed Project

The Mammoth Lakes region has year-round recreational attractions consisting of skiing in the winter and numerous outdoor recreational opportunities in the spring, summer, and autumn, which include major attractions such as Yosemite National Park, Mono Lake, June Lake, and Devil's Postpile National Monument. Winter skiing at Mammoth Mountain attracted nearly 1.0 million skier days during the 1998/99-winter season. Based on statistics provided by the California Department of Transportation (Caltrans), approximately 1.5 million summer tourists visit the Mammoth Lakes region annually. Nearly 6.0 million tourists visited nearby Yosemite, and Death Valley National Parks in 1998.

The nearest commercial service airport to the Mammoth Lakes area is in Reno (170 miles). The next closest commercial service airports are in Fresno, California (190 miles), Sacramento, California (230 miles), the three San Francisco, California Bay Area airports (San Francisco/Oakland/San Jose, about 250 miles), Las Vegas, Nevada (310 miles), and Los Angeles, California (320 miles).

Mammoth Lakes' location with respect to these cities is depicted on **Exhibit I-2**. Most travelers from outside of the California and Nevada areas fly to either Reno or Los Angeles and drive to the Mammoth Lakes area via U.S. Highway 395. For tourists living west of the Sierra Nevada Mountains in the San Jaoquin Valley, the shortest route to Mammoth Lakes is via the Tioga Pass through Yosemite National Park. However, heavy snows cause closure of this highway between November and May every year. Northern California visitors travel by automobile to Mammoth Lakes via U.S. Highways 50 and 395. Visitors from Southern California use U.S. Highway 395 to Mammoth Lakes.

Mammoth Lakes was one of the most frequented ski resorts in North America during the 1980s. However, direct flights into other western U.S. ski resorts drew visitors away from the Mammoth Lakes area in the 1990s. It has been determined through market research that one of the methods of improving service and regaining the market share in the region would be by reducing visitor travel times to the Mammoth Lakes area. The development of airport facilities to accommodate commercial airline and charter operations would allow direct access to the region, thereby reducing visitor travel time. The introduction of airline service would further the Town's goal of reducing vehicular traffic to the area and meet transportation needs of residents and visitors.

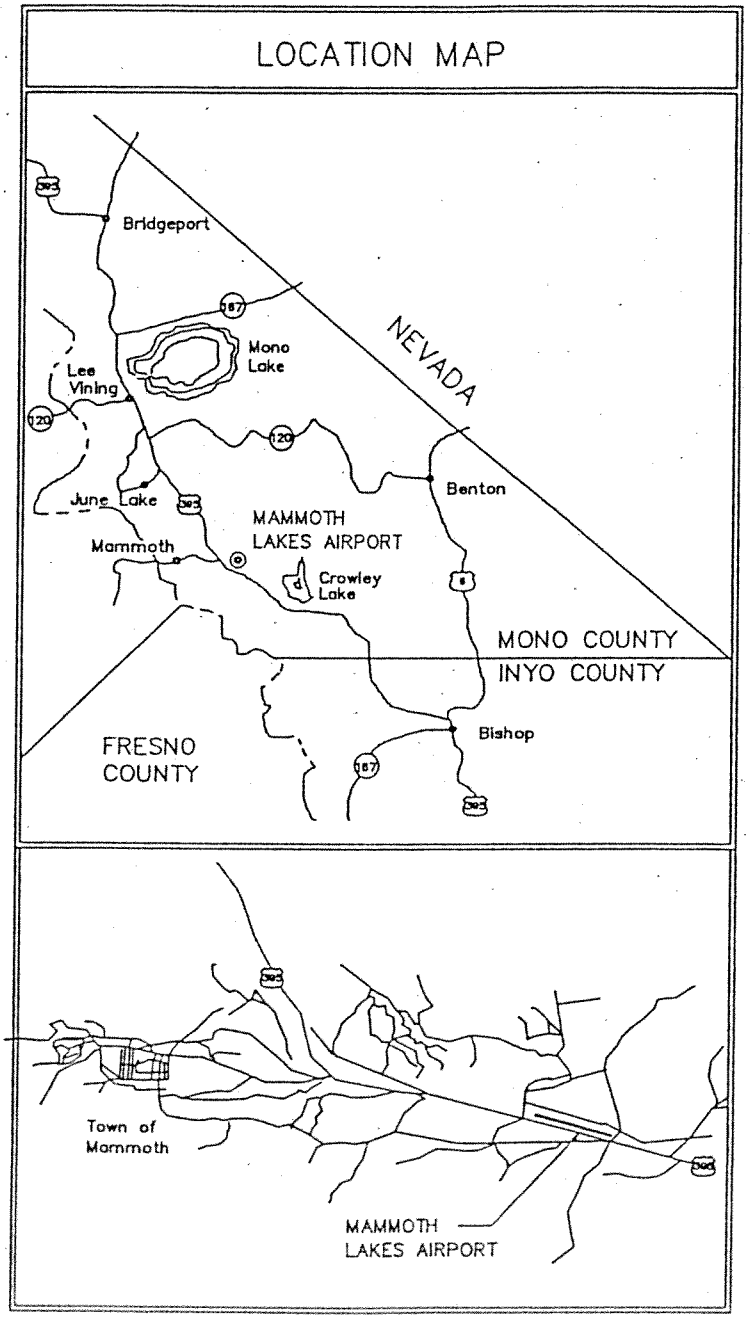
Assuming the proposed project is approved and constructed, commercial airline service to the Mammoth Yosemite Airport is scheduled to begin during the winter season of 2002/2003 and would include air carrier service to and from Dallas/Fort Worth International Airport and Chicago O'Hare International Airport using narrow-body turbojet aircraft up to the size of the Boeing 757-200. Commuter and regional jet aircraft service is also anticipated in future years to other regional markets such as the Los Angeles and San Francisco areas.

1.2.1 Project Objectives

As required by CEQA Guidelines § 15124, "a clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary."

The context for the Project Objectives of the Mammoth Yosemite Airport Expansion Project are described in the Purpose and Need of the Proposed Project (Section 1.2). Following are the Project Objectives for the proposed Mammoth Yosemite Airport Expansion Project.

1. Change runway characteristics to enhance safety for narrow-body air carrier aircraft up to the size of a Boeing 757-200 to operate at the Airport.
2. Provide an alternative to the private automobile for transportation of residents of and visitors to Mammoth Lakes.
3. Reduce adverse vehicular air emissions associated with travel by visitors to Mammoth Lakes and vicinity by replacing some of the vehicle trips with air passenger trips.
4. Maintain eligibility for Airport Improvement Program (AIP) funds from the FAA or impose Passenger Facility Charges to assist in funding some of the proposed improvements.



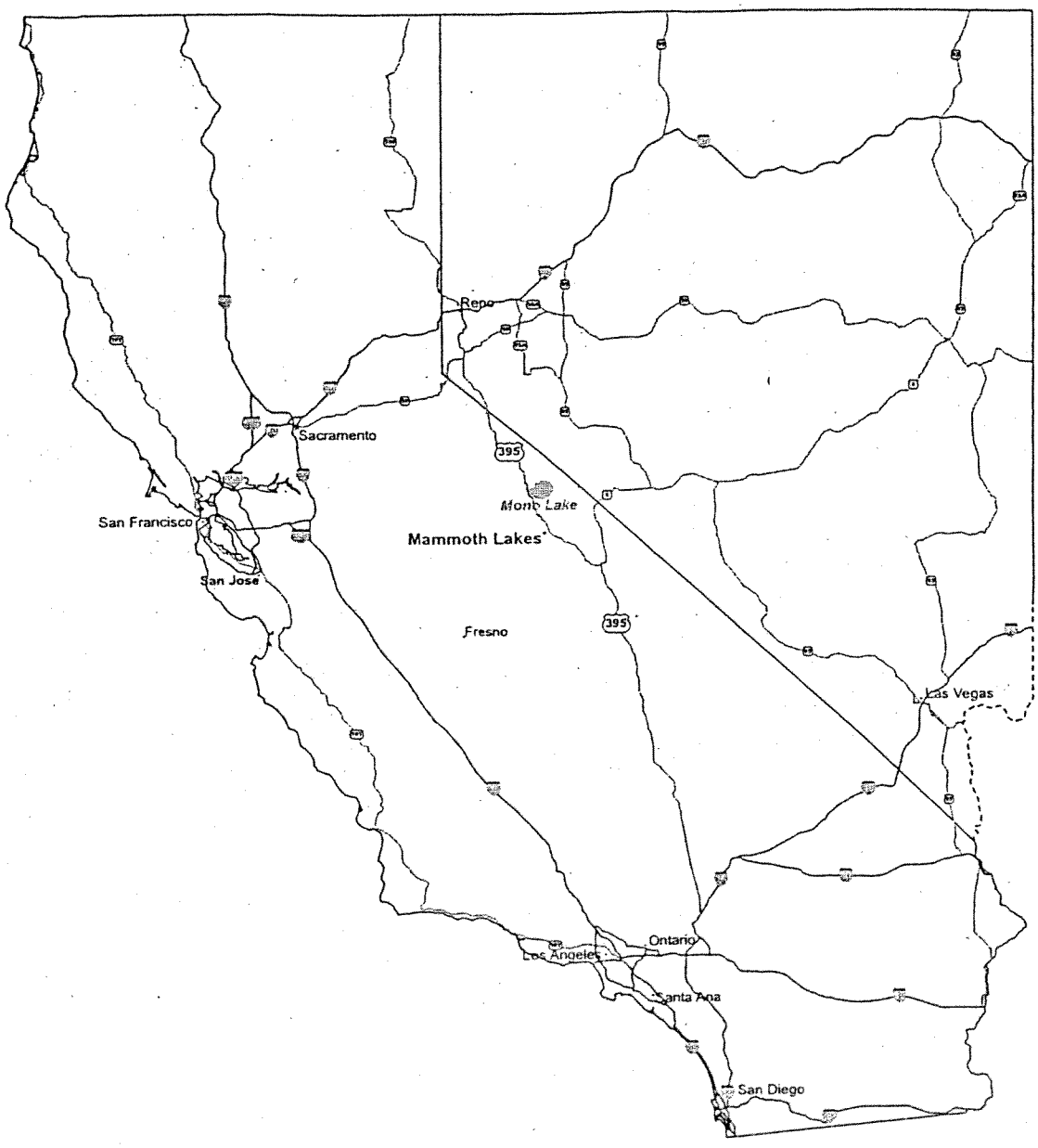
AR 001044

Source: Reinard W. Brandley, Engineer.
Prepared by: Ricondo & Associates, Inc.

Exhibit I-1

NOT TO SCALE north

Airport Location and Vicinity



AR 001045

Source: Cartesia Software, MapArt Geopolitical Deluxe - USA, Version 2.0, 1998
Prepared by: Ricondo & Associates, Inc.

Exhibit I-2

0 100 miles north

Town of Mammoth Lakes
Location and Vicinity

1.2.2 Updated Forecast of Aviation Demand

Updated forecast levels of aviation demand were based on available data and on forecasts provided and prepared by the Town of Mammoth Lakes. Forecasts of commercial airline demand for the Airport were projected through the year 2022, 20 years from the start of air carrier operations, including passenger enplanements and airline operations. The airline forecasts provide the basis for proposed future Airport development over the 20-year planning horizon. Airport operational levels allow for estimates of the timing of certain events, and thereby serve as the basis for effective planning and decision making. Appendix H contains the analysis of the updated aviation demand forecast for Mammoth Yosemite Airport.

Table I-1 summarizes projected general aviation and airline activity, in terms of passenger enplanements and aircraft departures, for the Airport. The following points summarize key findings with regard to projected airline activity:

- In order to provide a basis for the potential for air carrier service at Mammoth Yosemite Airport, historical activity, local demographics and tourism-related visitor statistics were reviewed at five comparable airports, as prescribed in the FAA's Benefit-Cost Analysis Guidance. The five comparable airports selected for Mammoth Yosemite Airport include:

    - Yampa Valley Regional Airport (Steamboat Springs, CO)
    - Vail/Eagle County Airport (Vail, CO)
    - Aspen-Pitkin County Airport (Aspen, CO)
    - Jackson Hole Airport (Jackson, WY)
    - Glacier Park International Airport (Kalispell, MT)

- For the purpose of developing the initial enplanement projections, ski visitor statistics were used as the basis for projecting winter season enplanements at the Airport. Skier-days represent the total number of days visitors skied at the ski resort. The number of skier-days was found to have a strong correlation to the activity levels at each comparable airport.

- A number of scenarios were examined for the Airport to give an idea of the range of enplanement activity that might occur at the Airport. The enplanement projections were based on a relationship of skier-days to annual enplanements at several comparable airports.

- It is anticipated that the Airport would not immediately realize its full demand potential. As a result, the rate of growth in activity at the Airport during the first five years of operation is expected to be strong until the market's full potential is realized. Once the market matures, the rate of growth in activity at the Airport is expected to slow to more typical levels as experienced at airports throughout the U.S. This high initial growth is best illustrated by examining the enplanement growth that occurred at Vail/Eagle County Airport. During the first five years of operations from 1990 to 1995, enplanements at Vail/Eagle County Airport increased at an annual compounded growth rate of over 67 percent per year. From 1995 to 1998, however, enplanement growth at the airport slowed to an annual compounded growth rate of 27 percent per year. While this rate of growth is still much higher than that of the U.S. overall, it is lower than exhibited during the initial startup of service at the Airport.

Table I-1

Summary of Forecast Aviation Activity at Mammoth Yosemite Airport

	Annual Airline Enplanements					
	1999	2003	2007	2012	2017	2022
Enplanements	–	37,000	159,900	242,700	287,500	333,800
	Annual Aircraft Operations					
Air Carrier	–	600	2,420	3,800	4,360	5,000
Regional/Commuter/RJ	–	1,480	4,080	5,040	5,800	6,600
General Aviation/Military	6,050	6,650	7,650	8,950	10,350	12,050
Total Operations	6,050	8,730	14,150	17,790	20,510	23,650

Note: Enplanements represent passengers boarding an aircraft. Total passengers are twice that number. Aircraft operations refer to total takeoffs and landings. It should also be noted that these forecasts are estimates assuming that there are no limitations to accommodating demand and that airline service could be accommodated as early as 2003. The actual numbers may be materially different than those indicated.

Source: Ricondo & Associates, Inc., July 2000.
Prepared by: Ricondo & Associates, Inc., October 2000.

- Under the Base Case Scenario, the number of enplanements at the Airport were projected to increase from approximately 37,000 in 2003 (the anticipated first full year of operation), to approximately 333,800 per year in 2022, representing an annual compounded growth rate of 12.3 percent overall. Estimated winter enplanements per ski visitor day for the Airport are projected to increase from a ratio of approximately 0.035 winter enplanements per skier day in 2003 to approximately 0.085 winter enplanements per skier day by 2022. Winter enplanements were projected to represent 100 percent of the Airport's enplanements in 2003, with their share decreasing thereafter to approximately 60 percent of total enplanements at the Airport by 2022.

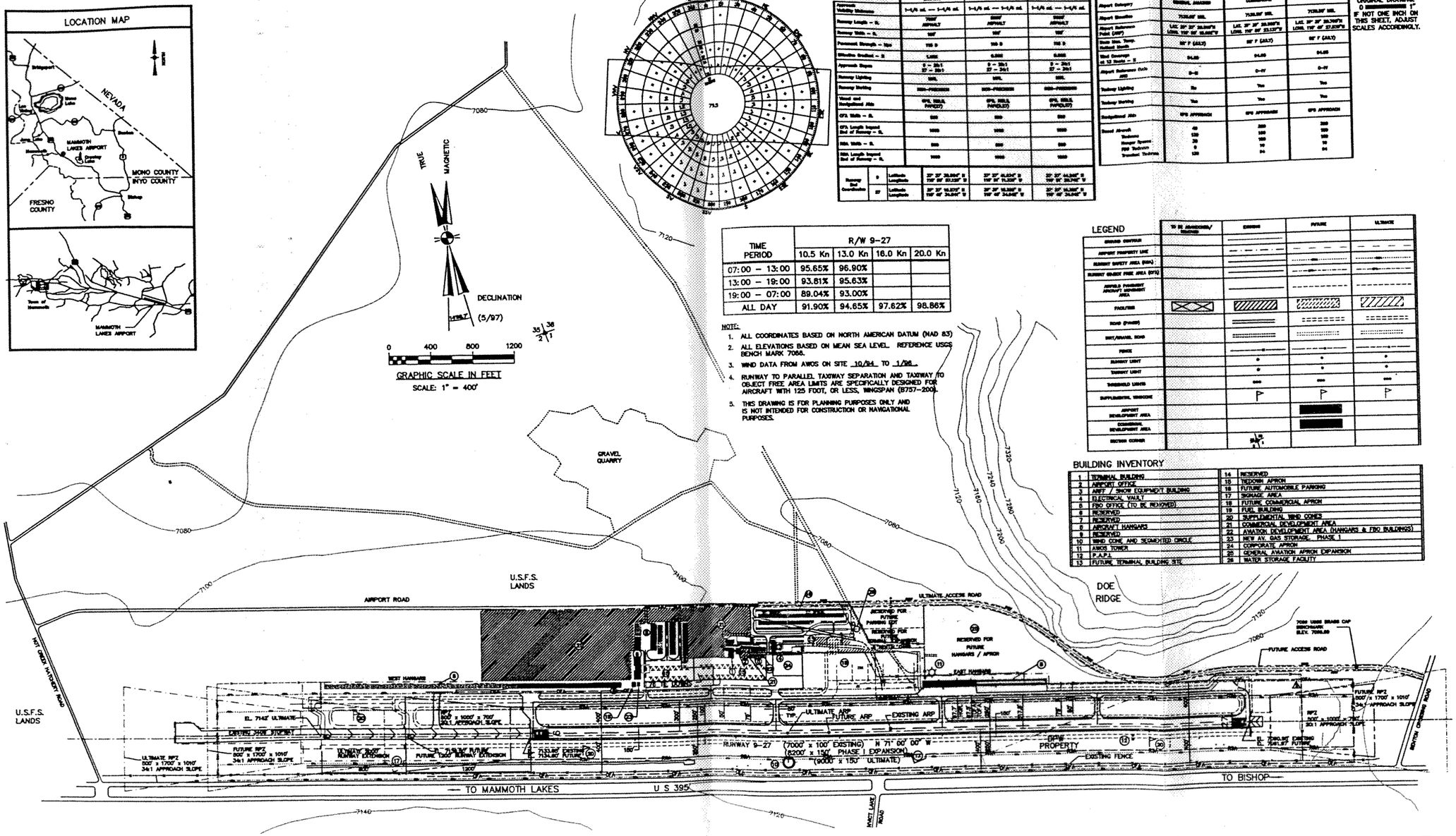
1.3 Existing Facilities

The current Airport facilities include a 7,000-foot by 100-foot runway, a parallel taxiway system, general aviation hangars, tie-down, support facilities, and limited landside passenger processing facilities. These facilities are depicted on the previously approved FAA Airport Layout Plan, which is presented on **Exhibit I-3**.

The Airport has a Global Positioning System (GPS) non-precision instrument approach to Runway 27. Aircraft executing this approach but then landing on Runway 9 must circle north of the airfield due to rising terrain south of the Airport. It has been determined that modifications to the Airport facilities would be required to comply with Airport Design Standards and commercial airline operating policy for safe and efficient flight operations and for accommodation of the projected air service. An evaluation of the airfield design requirements is provided in Appendix E.

Calculations for runway length were conducted using the methodology prescribed in the FAA approved Aircraft Flight Manual (AFM) for the B757-200. The calculations were based on operations from Mammoth Yosemite Airport to Dallas-Ft. Worth and to Chicago-O'Hare International Airports. It was determined that on the maximum mean temperature of the hottest month, the runway length required for a full passenger and baggage load on the aircraft is 9,000 feet.

LOCATION MAP



RUNWAY DATA

	RUNWAY 9 – 27		
	EXISTING	FUTURE	ULTIMATE
Approach Visibility Minimums	1-1/4 mi. — 1-1/4 mi.	1-1/4 mi. — 1-1/4 mi.	1-1/4 mi. — 1-1/4 mi.
Runway Length – ft.	7000' ASPHALT	8200' ASPHALT	9000' ASPHALT
Runway Width – ft.	100'	150'	150'
Pavement Strength – Max	110 S	110 S	110 S
Effective Gradient – %	1.00%	0.55%	0.55%
Approach Slopes	9 – 20:1 27 – 20:1	9 – 20:1 27 – 34:1	9 – 20:1 27 – 34:1
Runway Lighting	MIRL	MIRL	MIRL
Runway Marking	NON-PRECISION	NON-PRECISION	NON-PRECISION
Visual and Navigational Aids	VFR, RSIL, PAPI(2?)	VFR, RSIL, PAPI(2,3?)	VFR, RSIL, PAPI(2,3?)
OFZ Width – ft.	400	400	400
OFZ Length beyond End of Runway – ft.	1000	1000	1000
RSA Width – ft.	500	500	500
RSA Length beyond End of Runway – ft.	1000	1000	1000
Runway End Coordinates 9 Latitude, Longitude	37° 37' 38.95" N 119° 01' 22.33" W	37° 37' 41.03" N 119° 01' 11.33" W	37° 37' 44.94" N 119° 01' 20.74" W
Runway End Coordinates 27 Latitude, Longitude	37° 37' 16.23" N 118° 58' 34.04" W	37° 37' 13.99" N 118° 58' 34.04" W	37° 37' 10.39" N 118° 58' 34.04" W

AIRPORT DATA

	EXISTING	FUTURE	ULTIMATE
Airport Category	GENERAL AVIATION	COMMERCIAL	COMMERCIAL
Airport Elevation	7135.66' MSL	7135.66' MSL	7135.66' MSL
Airport Reference Point (ARP)	LAT. 37° 37' 38.95"N LONG. 119° 01' 22.33"W	LAT. 37° 37' 38.95"N LONG. 119° 01' 22.33"W	LAT. 37° 37' 38.95"N LONG. 119° 01' 22.33"W
Mean Max. Temp. Hottest Month	80° F (AUG)	80° F (AUG)	80° F (AUG)
Wind Coverage at 12 Knots – %	94.86	94.86	94.86
Airport Reference Code (ARC)	B-II	C-II	C-II
Taxiway Lighting	No	Yes	Yes
Taxiway Marking	Yes	Yes	Yes
Navigational Aids	GPS APPROACH	GPS APPROACH	GPS APPROACH
Based Aircraft	49	300	300
Business	120	120	120
Passenger Business	30	180	180
FBO Business	0	12	12
Transient Tiedowns	120	24	24

VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING. IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

TIME PERIOD	R/W 9–27			
	10.5 Kn	13.0 Kn	16.0 Kn	20.0 Kn
07:00 – 13:00	95.65%	96.90%		
13:00 – 19:00	93.81%	95.63%		
19:00 – 07:00	89.04%	93.00%		
ALL DAY	91.90%	94.65%	97.62%	98.86%

NOTE:

1. ALL COORDINATES BASED ON NORTH AMERICAN DATUM (NAD 83)
2. ALL ELEVATIONS BASED ON MEAN SEA LEVEL. REFERENCE USGS BENCH MARK 7088.
3. WIND DATA FROM AWOS ON SITE 10/94 TO 1/96.
4. RUNWAY TO PARALLEL TAXIWAY SEPARATION AND TAXIWAY TO OBJECT FREE AREA LIMITS ARE SPECIFICALLY DESIGNED FOR AIRCRAFT WITH 125 FOOT, OR LESS, WINGSPAN (B757-200).
5. THIS DRAWING IS FOR PLANNING PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION OR NAVIGATIONAL PURPOSES.

LEGEND

	TO BE ABANDONED/ REMOVED	EXISTING	FUTURE	ULTIMATE
GROUND CONTOUR				
AIRPORT PROPERTY LINE				
RUNWAY SAFETY AREA (RSA)				
RUNWAY OBJECT FREE AREA (ROFA)				
AIRFIELD PAVEMENT AIRCRAFT MOVEMENT AREA				
FACILITIES				
ROAD (PAVED)				
DIRT/GRAVEL ROAD				
FENCE				
RUNWAY LIGHT		•	•	•
TAXIWAY LIGHT		•	•	•
THRESHOLD LIGHTS		▪▪▪	▪▪▪	▪▪▪
SUPPLEMENTAL WINDCONE		P	P	P
AIRPORT DEVELOPMENT AREA				
COMMERCIAL DEVELOPMENT AREA				
SECTION CORNER		SEC. 12		

BUILDING INVENTORY

1	TERMINAL BUILDING	14	RESERVED
2	AIRPORT OFFICE	15	TIEDOWN APRON
3	ARFF / SNOW EQUIPMENT BUILDING	16	FUTURE AUTOMOBILE PARKING
4	ELECTRICAL VAULT	17	SIGNAGE AREA
5	FBO OFFICE (TO BE REMOVED)	18	FUTURE COMMERCIAL APRON
6	RESERVED	19	FUEL BUILDING
7	RESERVED	20	SUPPLEMENTAL WIND CONES
8	AIRCRAFT HANGARS	21	COMMERCIAL DEVELOPMENT AREA
9	RESERVED	22	AVIATION DEVELOPMENT AREA (HANGARS & FBO BUILDINGS)
10	WIND CONE AND SEGMENTED CIRCLE	23	NEW AV. GAS STORAGE, PHASE 1
11	AWOS TOWER	24	CORPORATE APRON
12	P.A.P.I.	25	GENERAL AVIATION APRON EXPANSION
13	FUTURE TERMINAL BUILDING SITE	26	WATER STORAGE FACILITY

AR 001048

Exhibit I-3

0 1000 north

Approved Airport Layout Plan

The land that is owned at the Airport allows the construction of an 8,200-foot runway. Additional runway length could be obtained by acquiring additional land to the west. Therefore, the Master Plan depicted an ultimate runway length of 9,000 feet. While a 9,000-foot runway was previously evaluated in the 1997 SEIR/EA and approved by the Town, it was not constructed. The current project proposal is to extend the runway to 8,200 feet (rather than 9,000 feet) and to widen the runway by 50 feet on south side, thereby shifting the runway center line 25 feet to the south.

Calculations were made to determine the allowable load factors for a B757-200 flying from Mammoth Yosemite Airport to Dallas-Ft. Worth and Chicago-O'Hare at the maximum mean temperature. The results of these studies indicate that the B757-200 flying to Dallas-Ft. Worth can operate at 100 percent load factor; whereas, the B757-200 operating to Chicago-O'Hare must download to 94 percent load factor at the maximum mean temperature.

Consultation with the airlines and the Town indicated that there would be no time in the winter and only a very few days in the summer that would require a load factor of less than 100 percent to fly the B757-200 to Chicago-O'Hare with an 8,200-foot runway. From economic and environmental considerations it was agreed that the first stage runway length of 8,200 feet would be adequate for development of the Mammoth Yosemite Airport to serve the B757-200 type aircraft with reasonable load factors and stage lengths. Appendix E contains the load factor and ranges calculations.

The safety criteria for certifying airports for commercial service are contained in the Federal Aviation Regulations (FAR) Part 139. FAR Part 139 prohibits an airport from serving any scheduled passenger operation of an airline operating an aircraft with a seating capacity of more than 30 passengers if all criteria are not met. The certification process ensures that the safety of the airport environment is adequate for the proposed operation, considering such items as safety areas, pavement condition, obstructions, lighting, and aircraft rescue and firefighting capabilities. Mammoth Yosemite Airport currently only possesses a limited FAR Part 139 certificate, which would not allow the operation of a commercial airline operating aircraft with more than 30 seats on scheduled basis. The commercial airline service scheduled for the 2002/2003 winter season would use narrow body jet aircraft up to the size of a Boeing 757-200, which has a capacity of 176 seats.

The proposed project is needed to bring the current airfield facilities into compliance with Airport Design Standards to allow the safe operation of commercial airline narrow-body aircraft up to the size and seating capacity of a Boeing 757-200. The proposed project will adequately address the facility requirements of the FAR Part 139 certification process.

1.4 Description of the Proposed Project

The changes in the proposed project for which this SSEIR was performed include extension of Runway 9-27 to the west to a length of 8,200 feet (rather than the previously approved 9,000 feet) and an increase in the width of the runway from 100 feet to 150 feet, replacement of an existing 4.8-foot barbed wire fence with an 8-foot chain link security fence, construction of a new package wastewater treatment plant (instead of a new leach field), and relocation or replacement of "Green Church". The Airport facility changes to the proposed project are depicted in **Exhibit I-4**. The Town of Mammoth Lakes would be required to obtain a special use permit from the United States Forest Service (USFS) for an additional 25 feet of land along the length of the runway to the south and west.

1.5 Description of Planning, Construction and Operational Characteristics

The following is a general description and background of the planning, construction, and operation of the Mammoth Yosemite Airport Expansion Project.

1.5.1 Planning Characteristics

The Mammoth Yosemite Airport Expansion Project is subject to the planning criteria established in FAA Advisory Circulars 150/5360-13, *Planning and Design Guidelines for Airport Terminal Facilities*, and 150/5300-13, *Airport Design*. FAA Advisory Circular 150/5300-13 provides terminal facility design guidance such as design methodologies, functional relationships and terminal concepts, terminal apron areas, building space and facility guidelines, ADA accessibility features, and airport access systems. Among other guidance, FAA Advisory Circular 150/5360-13 provides FAA direction on airport geometry, runway design, taxiway and taxilane design, surface gradient and line of sight, site requirements for navigational aids, the effects of jet blast, wind analysis, and airplane types and characteristics.

In addition to the FAA guidelines, the proposed project is subject to local, State and federal code provisions and approvals. The State, federal and local provisions are reviewed in Section II, Brief Overview of the Project's Environmental Setting and, as applicable, in Section III, Environmental Impacts of the Proposed Project.

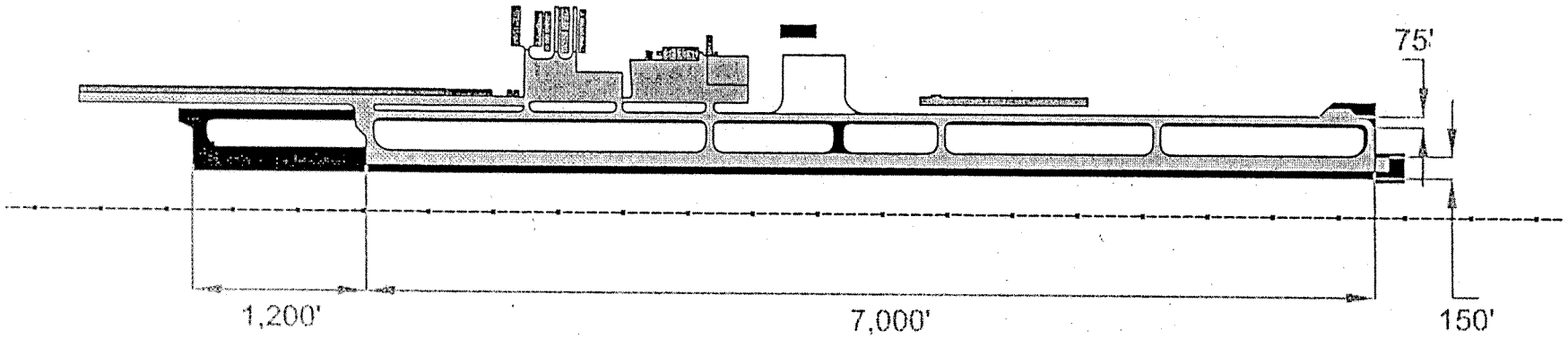
1.5.2 Construction Characteristics

The proposed project is to be phased with a Date of Beneficial Occupancy (DBO) estimated to be the winter of 2002/2003. A DBO is defined as "the date at which the Primary facilities can accommodate the air carrier operations and initiation of such operations".

Construction is planned to occur in multiple phases (clearing and grubbing, excavation, sub-grade-scarify and recompact, aggregate subbase, aggregate base, heater remix, bituminous surface course, Portland cement concrete pavement, saw and seal pavement, groove runway, marking: remove old marking, paint new marking, drainage, lighting, structures construction, and terminal construction), commencing in 2002. The overall duration of construction is anticipated to occur over approximately one year. Construction would commence with clearing and grubbing and excavation for the runway modifications and proceed sequentially as follows: runway pavement construction, marking runways, runway lighting and terminal construction. It is anticipated that an average of approximately 130-150 construction workers will be working over the duration the duration of construction. Appendix G contains details regarding the construction equipment is anticipated to be used.

The construction of the Mammoth Yosemite Airport Expansion Project is subject to all Town, State, and federal applicable standards. The following is a list of laws, regulations, permits, and agreements to be obtained for the proposed project:

- Industrial plant operations, including airports, are required to obtain storm water permits under the 1987 amendments to the *Clean Water Act* [I-4]. A National Pollution Discharge Elimination System (NPDES) permit would be required. As part of the NPDES permit, all contracts prepared for construction of this project will include a requirement for the contractor to develop a Storm Water Pollution Prevention Plan (SWPPP) and submit this plan and have it approved prior to



Source: Reinard W. Brandley, Engineer / Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Exhibit I-4

0 1,200 ft.

north

Legend

Existing Airfield

Potential Airport Improvement

--x-- Perimeter Fence

Proposed Project

the start of any construction. The plan will be submitted for review by the California Regional Water Quality Control Board. This plan will include grading, drainage, and erosion control plans. The plan will be enforced on the contractor by the Town of Mammoth Lakes Project Manager.

- Air quality and water quality certifications required by the State of California.
- The acquisition of land from the Los Angeles Department of Public Works that is used by the Airport is in progress.
- An easement from the Los Angeles Department of Public Works for land east of the Airport within the runway safety area.
- A revised special use permit from the U.S. Forest Service for the land within the runway safety area including a strip of land 25 feet wide on the south side of the Airport and an additional strip of land 25 feet wide on the west side of the Airport.
- A building permit and grading permit from the Town of Mammoth Lakes.
- If future modifications are made to the intersection of U.S. Highway 395 and Hot Creek Hatchery Road, a new Access Control Agreement between Caltrans and Mono County would be required.
- An encroachment permit for any work required in the State right-of-way for U.S. Highway 395 would require an Encroachment Permit.
- A new State Airport Operating Permit from Caltrans Division of Aeronautics prior to resumption of commercial air service at Mammoth Yosemite Airport

Construction contract specifications would be subject to provisions of the FAA Advisory Circular 150/5370-10, *Standards for Specifying Construction of Airports*, (Change 10), notably Item P-156, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control, and 150/5320-5B, *Airport Drainage*.

1.5.3 Operational Characteristics

The completion of the Expansion Project would allow the operation of commercial airline service to the Mammoth Yosemite Airport, which were scheduled to begin during the winter season of 2002/2003 with Boeing 757 aircraft serving Dallas/Fort Worth International Airport and Chicago O'Hare International Airport.

Given historic operation of the Airport, air passenger demand is anticipated to be greatest during the winter ski season (generally between late November and early April). As discussed in Section 1.2.2 (Summary of Aviation Demand Forecast), total enplanements are projected to increase from approximately 37,000 in 2003 to 333,800 by 2022. This would include the introduction of about 48,000 summer enplanements in 2007. Total operations are forecast to increase from 8,730 in year 2003 to 23,650 in year 2022. The air passenger service is also scheduled to include expansion of air carrier and commuter service to other regional and national destinations. The current runway field length does not allow for narrowbody turbojet aircraft, such as the Boeing 757 and Boeing 737, to operate efficiently to major airports such as Dallas/Fort Worth, Denver, or Chicago O'Hare. Therefore, the primary purpose of the proposed project is to enable air carrier jet service, using aircraft up to the size of a Boeing 757, to safely and efficiently operate at the Airport.

The Airport serves piston prop, turboprop and turbine powered aircraft operating under both visual flight rules (VFR) and instrument flight rules (IFR). Pilots of aircraft arriving and departing under

VFR navigate visually using prominent easily identifiable land marks such as U.S. Highway 395 north and south of the Airport and Crowley Lake to the south of the Airport. VFR operational procedures at the Airport would remain unchanged by the expansion project.

Pilots of aircraft operating under IFR would follow the published non-precision instrument approach procedures to Runway 27. Pilots of aircraft executing this approach currently would land straight in on Runway 27, or would visually circle north of the Airport to Runway 9 should wind conditions preclude the use of Runway 27. The non-precision approach procedure described uses the U.S. Department of Defense (DOD) Global Positioning System (GPS) satellite navigation system. Non-precision GPS procedures of this type do not require supporting terrestrial navigational aid. Boeing 757 aircraft operating between Dallas/Fort Worth International Airport, Chicago O'Hare International Airport and Mammoth Lakes would use onboard Flight Management Systems (FMS) that would derive the required navigational information from both satellites and terrestrial navigational aids. The terrestrial navigational facility that would be used by the commercial operators FMS is currently located in Bishop, California and would not need to be relocated for service to Mammoth Lakes.

Pilots of aircraft departing from Mammoth Yosemite Airport under IFR flight plans receive clearance and initial departure instructions from the FAA Flight Service Station located in Riverside California. The proposed project would not change the current instrument departure procedures.

Airport management indicates that there have been only three times over the past three years when aircraft have required deicing services. Deicing, when required, would generally be accomplished by the use of glycol diluted to a 50 percent solution by water. While it is not anticipated that a large quantity of deicing fluids will be used on aircraft, it will be necessary that facilities be available on site when needed. All aircraft would be deiced at the same location on the commercial airline apron. The area on which the aircraft would park during the deicing operations would be graded such that all of the runoff from this area would be collected at one drop inlet. The pipes from this inlet would be constructed such that in normal operations, without any deicing fluid, the stormwater runoff would be discharged into the oil/water separator. When deicing operations are being performed, the valves would be set such that all of the deicing fluids would be diverted to a holding tank. The runoff would be collected in the holding tank and removed from the site and disposed in a suitable fashion.

The current aircraft fueling plan calls for a capacity of 20,000 to 24,000 gallons in existing above ground storage tanks. On airfield fuel trucks would deliver fuel from the storage areas to the aircraft. The fuel supplier to the Airport currently utilizes an 8,000-gallon transport that makes deliveries to the Airport two times a month. Under the anticipated operation at the Airport, the daily fuel uplift requirements for the initial year of operation would be estimated to range from 7,400 gallons to 9,000 gallons, and 14,800 gallons to 18,000 gallons are estimated by 2007. The largest transport available from the current fuel supplier is 14,000 gallons. Depending on the size of the vehicle and the actual demand, 1 to 2 daily round trips would be anticipated.

The Airport currently possesses a limited Federal Aviation Regulation (FAR) Part 139 certificate for operations. A limited FAR Part 139 certificate allows the Airport to be able to accept air carrier aircraft into the airfield on an unscheduled (i.e. charter) basis. Should operators of aircraft with a passenger seating of more than 30 seats elect to provide regularly scheduled service to the Airport in the future, Mammoth Yosemite Airport would have to fulfill the obligations and requirements of full FAR Part 139 certification. An important part of meeting FAA safety regulations for scheduled

operations is the required security fencing and a secure terminal building for the Airport. Before scheduled operations could start, the Town of Mammoth Lakes would have to install improved security fencing and a terminal building that meets FAA security regulations. The fencing requirement is a function of both safety/operations as well as security. The fence is required as a means of protecting the public from the hazards associated with the Airport, under FAR Part 139 as well as providing secure operations under FAR Part 107. The current 4.8-foot barbed wire fence would need to be replaced with an eight-foot chain link fence. This fence would be in the same area as the existing fence on the south side of the runway (running east-west). To minimize any institutional look to the facility, an eight-foot chain link fence without the barbed wire is recommended. The chain link security fence can be seen through, and therefore, minimizes obstruction of the viewshed. The use of neutral colored fencing material would aid in making the fence more aesthetically pleasing and it is recommended that this be incorporated into the specifications.

II. Brief Overview of the Project's Environmental Setting

The following section discusses, as required by CEQA § 15125, (1) the existing physical environmental conditions in the vicinity of the project, (2) a list of projects related to the proposed project, and (3) applicable general, specific, and regional plans.

2.1 Existing Conditions

The following is a brief overview of the environment in the vicinity of and as it exists prior to commencement of the proposed project from both a local and a regional perspective.

The Airport is located approximately seven miles east of Town of Mammoth Lakes. The Airport property is not contiguous to the community, but is incorporated as an island. Unincorporated portions of Mono County borders the Airport on all sides.

2.1.1 Existing Land Use

The Airport environs are primarily undeveloped open spaces used for agriculture, natural resource management, recreation, and stream conservation. Small parcels are used for public agency purposes, industrial/manufacturing, and residential uses. Existing land use is depicted on **Exhibit II-1.**

The Hot Creek Ranch, a privately owned family fly fishing camp, is located approximately one mile north of the Airport along Hot Creek. The facility has nine cabins for rent and the Ranch retains ownership of the two and a half acres of the stream that the facility occupies.

The U.S. Forest Service (USFS) gravel/borrow pit lies to the north of the current Airport Access Road by approximately one-quarter mile. Most resource extraction has stopped and the site is currently being used for the disposal of non-organic waste, principally rock, soil, concrete, and asphalt.

The remaining portions of the abandoned Mammoth Lakes Elementary School is located approximately one and one-half miles northwest of Mammoth Lakes Airport on Hot Creek Hatchery Road. Most of the structure has been demolished.

Northwest of the Airport approximately, one and one-half miles along Hot Creek, is the Hot Creek Fish Hatchery. The Fish Hatchery produces approximately 11 million trout eggs annually, which are distributed to other fish hatcheries in the State of California.

The Mammoth Geothermal Project is located approximately two miles northwest of the Airport. This facility generates electricity for the regional power grid.

To the east of the airfield, on either side of Benton Crossing Road, lies the Whitmore Hot Springs Recreational Area and the Mono County Animal Shelter. These facilities are located approximately one mile from the Airport. The recreation area consists of various athletic fields and a swimming pool. The animal shelter facility makes abandoned companion animals available for adoption, controls pet over-population, and assists in other animal welfare issues.

The Sierra Nevada Aquatic Research Laboratory (SNARL) is located about one-mile southeast of the Airport and south of U.S. Highway 395. It is a unit of the University of California's Natural Reserve System (NRS). The campus provides lab office and computer facilities to researchers studying stream ecology. Part of off campus SNARL facilities is the former High Sierra Community Church. Known locally as the "Green Church," it is located across U.S. Highway 395 from the SNARL facility, southeast of the Airport at the northeast corner of U.S. Highway 395 and Benton Crossing Road. SNARL uses this building as a large classroom and lecture hall.

The California Department of Transportation (Caltrans) Maintenance Station and Bureau of Land Management (BLM) Gravel Pit are located approximately two miles and one and one-half miles, respectively, southeast of the airfield along U.S Highway 395. The Caltrans Maintenance Station provides state road right-of-way maintenance and snow removal services.

Approximately one and one-half miles due south of the Airport is Convict Lake Recreational Area. Campground facilities, fishing, and water activities are available to users.

Approximately three miles west of the Airport, along U.S. Highway 395, are the Mono County Sheriff Substation and Mono County Government Center. These buildings were abandoned in the early to mid 1990s due to health and welfare concerns. The County governmental units moved to the Town of Mammoth Lakes, while the Mono County Sheriff moved to facilities at Crowley Lake.

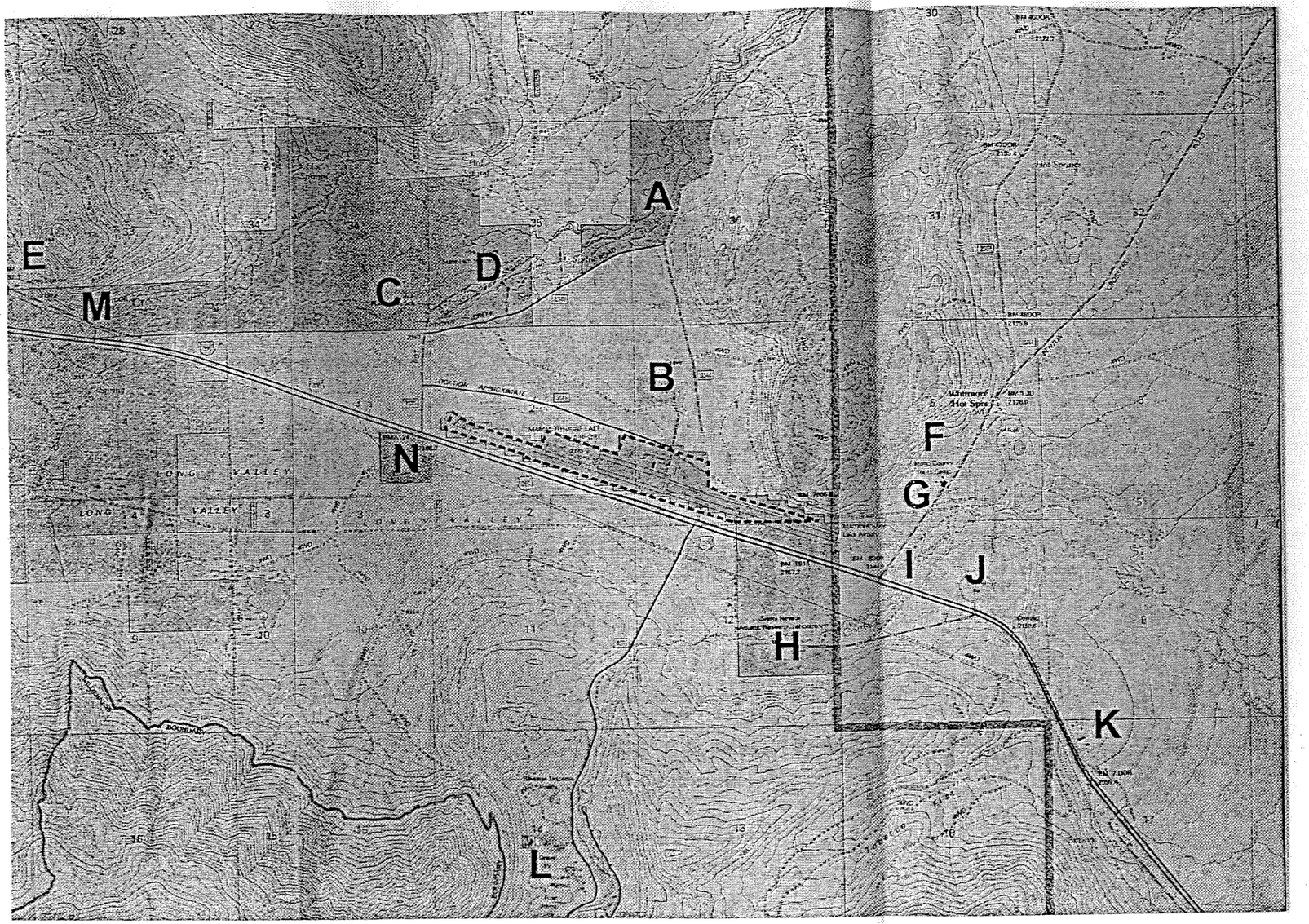
Sierra Quarry is located south of the intersection of U.S. Highway 395 and Hot Creek Hatchery Road. A portion of this site is currently seasonally leased for a dog sled concession, which consists of a domestic water well and miscellaneous buildings used for office, storage, and kennel space. A concrete batch plant that has been in operation since 1995 is also located at the quarry site. The remainder of this property is unused.

2.1.2 Land Ownership

The ownership of the land around Mammoth Yosemite Airport is an important factor in the existing and planned land use. Existing land ownership in the Airport vicinity is shown on **Exhibit II-2**. Most of the land surrounding the Airport is in public ownership. There are only two small privately owned parcels of land in the vicinity of the Airport property.

The area north and northwest of the Airport is owned by the United States government and administered by USFS (Inyo National Forest) and includes the area occupied by the USFS gravel/borrow pit and a portion of the Mammoth Geothermal Project. Two of the three generating plants of the facility are situated on privately held land. The City of Los Angeles owns land west and northwest of the Airport beyond land administered by the USFS, on which the abandoned Mammoth Lakes Elementary School and Hot Creek Fish Hatchery are situated. The land on which Hot Creek Ranch lies is privately owned. A large area northeast of the Airport is owned by the BLM and is undeveloped.

The area immediately east and southeast of the Airport is owned by the City of Los Angeles. This land contains the Green Church, the Whitmore Hot Springs Recreational Area, the Mono County Juvenile Probation Facility, and the Mono County Animal Shelter. The eastern portion of the Airport, including portions of the runway, is on land owned by and leased from the City of Los Angeles Department of Public Works (LADWP). The Town of Mammoth Lakes is currently in the process of acquiring that land for Airport use.



Legend

- A Hot Creek Ranch
- B USFS Gravel / Borrow Pit
- C Mammoth Lakes Elementary School (abandoned)
- D Hot Creek Fish Hatchery
- E Mammoth Geothermal Project
- F Whitmore Hot Springs Recreational Area
- G Mono County Animal Shelter
- H Sierra Nevada Aquatic Research Laboratory (SNARL)
- I Green Church
- J BLM Gravel Pit
- K CalTrans Maintenance Station
- L Convict Lake Recreational Area
- M Mono County Sheriff Substation / Government Center (Abandoned)
- N Sierra Quarry, Proposed Site for Morgan Industrial Park
- --- Existing Property Line

AR 001058

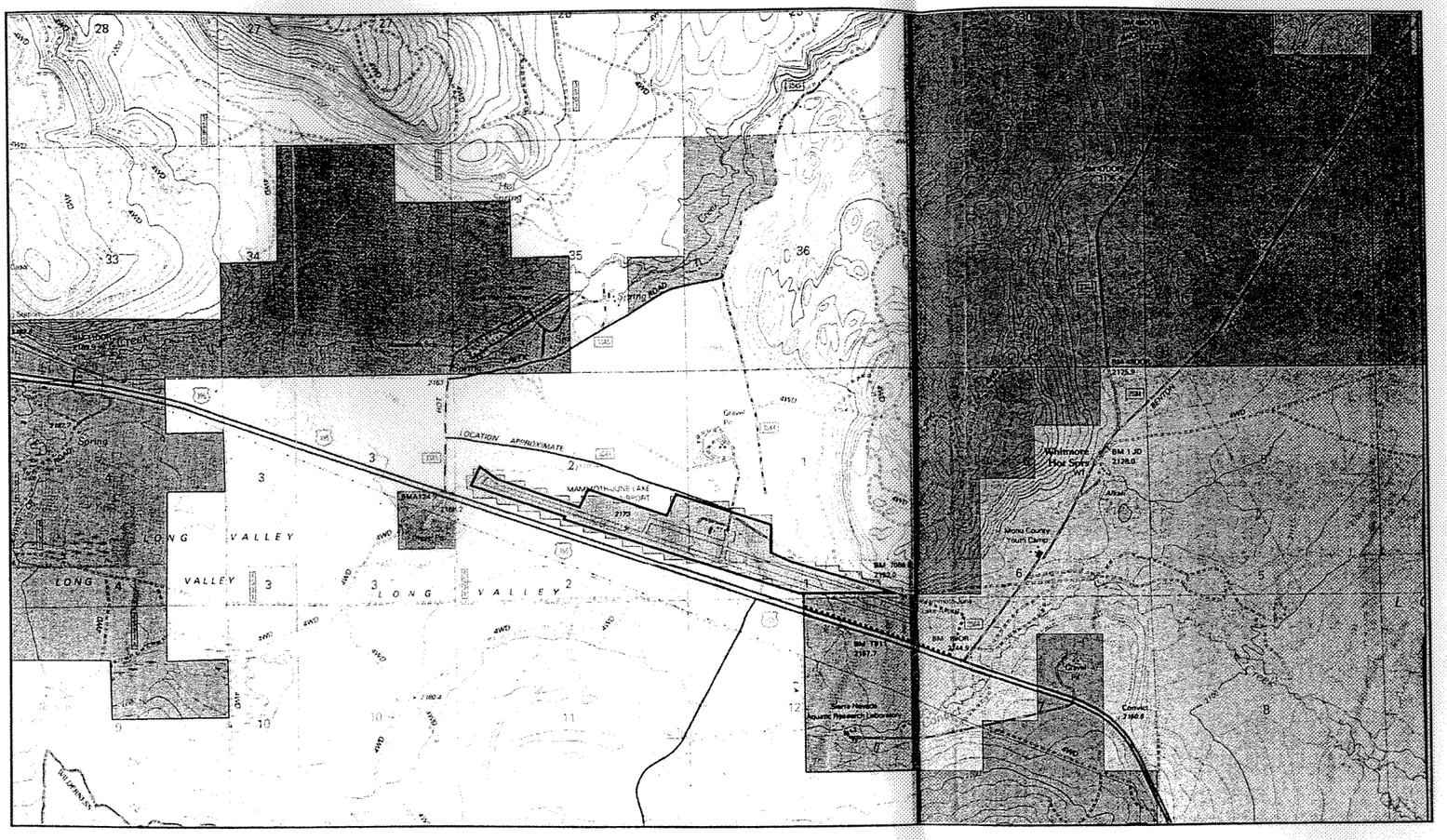
Source: U.S. Geological Survey; Mammoth Lakes Airport Expansion Subsequent EIR and Updated EA, March 1997.
Prepared by: Ricondo & Associates, Inc.

Exhibit II-1

north

Scale 1" = 3,700'

Existing Land Use



Legend

- Town of Mammoth Lakes
- City of Los Angeles
- INYO National Forest
- Bureau of Land Management
- Private
- Current Airport Property Line
- Proposed Airport Property Line

Source: U.S. Geological Survey Revised: U.S. Forest Service
Prepared by: Ricondo & Associates, Inc.

Exhibit II-2

north

Scale 1" = 3,700'

Area Land Ownership

The land southeast of the Airport, on which the Caltrans Maintenance Station and Gravel Pit are located, is owned by the BLM. The City of Los Angeles also owns the land to the southeast where the SNARL facilities are located, while the USFS owns land to the south, which contains the Convict Lake Recreational Area.

The Mono County Sheriff Substation and Mono County Government Center are on land owned by the City of Los Angeles. The second private land parcel is occupied by the Sierra Quarry just west of the Airport.

2.1.3 Zoning

The Airport is situated approximately seven miles east of the community of Mammoth Lakes and is not contiguous with the Town of Mammoth Lakes proper. Unincorporated Mono County surrounds the Airport. Therefore, the various land uses designated in the Airport Land Use Plan are intended to be consistent with either the provisions of Title 19, Mono County Zoning and Development Code [2-1] or Title 17 of The Town of Mammoth Lakes General Plan [5-1] as appropriate. The land use areas, as prescribed by these two governmental bodies, are depicted in **Exhibit II-3**.

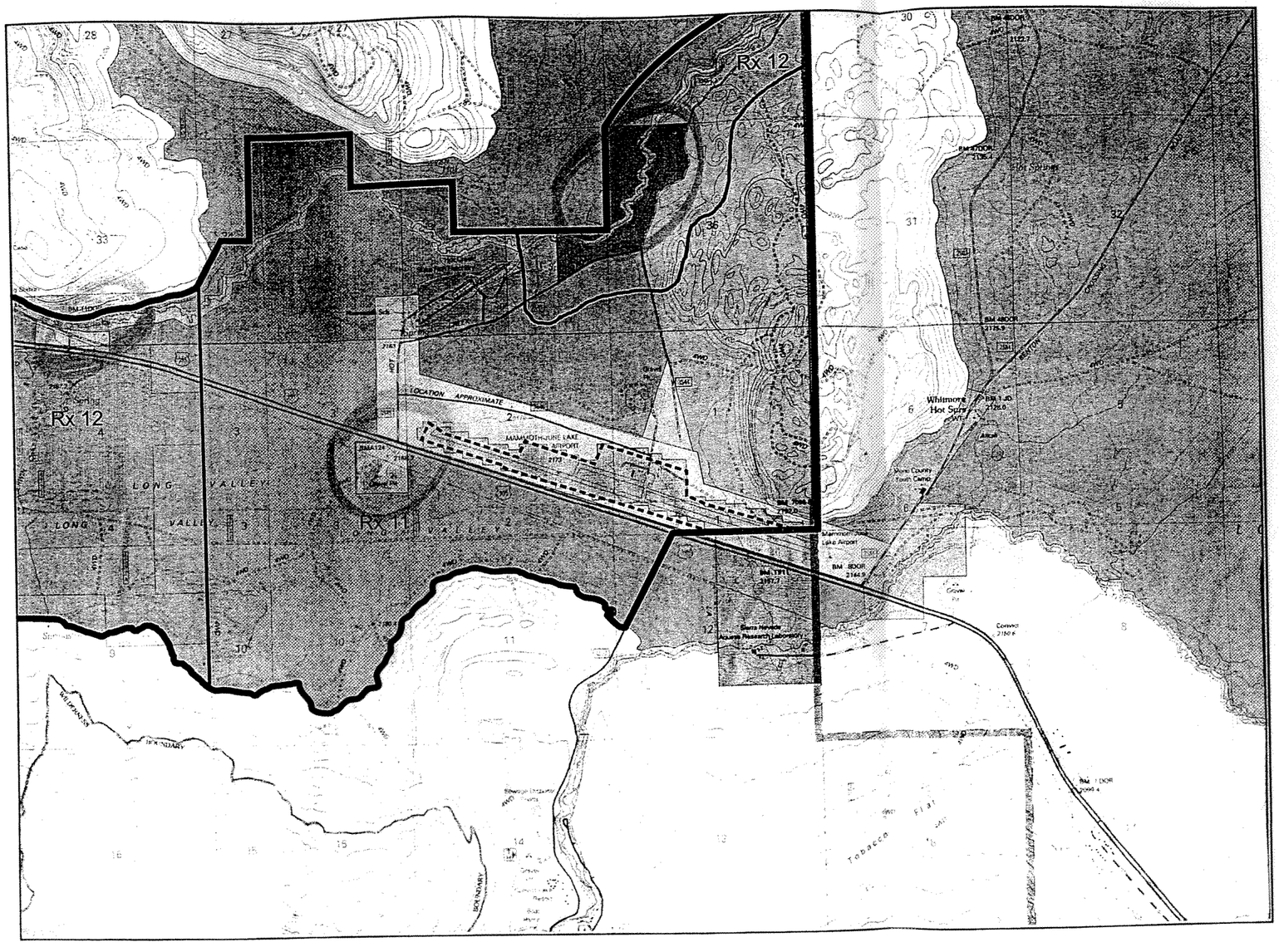
The open area (OA) designation is intended to protect and preserve those lands that provide low-intensity recreational opportunities, visual open space, habitat for wildlife resources, open range, and permitted land uses as defined in Chapter 19.18 of the Zoning Code. Residential land uses are not permitted in the OA district. An additional identifier has been utilized to specify acceptable uses of open area lands, subject to use permit procedures, as follows:

- OA-A indicates open space land that is presently utilized for non-intensive agricultural uses. The designation primarily includes Inyo National Forest, BLM, and City of Los Angeles range lands utilized for stock grazing.
- OA-M indicates open space land that requires resource management for the protection of visual quality, wildlife habitat, and wilderness value. The designation primarily includes Inyo National Forest and BLM lands under federal jurisdiction.
- OA-R indicates open space land that provides specific low-intensity recreational opportunities. The designation reflects existing picnic, day use, hot springs facilities along Hot Creek, and an existing campground adjacent to Convict Creek. The westerly portion of the ridge northeast of the Airport, Doe Ridge, is designated for future recreational uses including Nordic and cross-country ski trails and equestrian facilities.
- OA-SC designates stream conservation zones along Mammoth Creek/Hot Creek and Convict Creek for the protection of water quality, riparian vegetation, and fishery resources. The conservation zones extend 100 feet on each side of all stream channels. No significant grading alterations, vegetative removals, or building structures are permitted within the stream conservation zone.
- The institutional/public land (PA) designation is intended to define those public lands that are utilized for regional recreational, natural resource development, institutional, and governmental service purposes. The PA District is described in Chapter 19.0 of the Zoning Code, which emphasizes resource development and recreational land uses. The chapter notes that the County may not have permitting authority over lands under State or federal jurisdiction, but indicates the intent of the County to review development proposals within the PA zone on the basis of the code.

- Industrial/Manufacturing (I) designation conforms with Chapter 19.17 of the Mono County Zoning and Development Code. Virtually all uses within this category are subject to use permit procedures due to the inherent potential for environmental impacts, safety hazards, and nuisances. Lands considered suitable for industrial and manufacturing uses are limited to two existing sites in the Airport planning area: the Sierra Quarry private property and the USFS gravel pit on Inyo National Forest land.
- The use of the Planned Unit Development (PUD) designation is for resort land uses subject to natural resource protection requirements and environmental constraints. Maximum overall development density within the zone is equivalent to one residential unit per acre. The intent of the PUD zoning designation is to require the approval of an overall master plan for the property prior to any additional development. Criteria applicable to such development includes the preservation of open space areas, conservation of sensitive riparian and stream zones, and clustering of proposed resort residential uses to minimize environmental disturbances and impacts. The 130-acre Hot Creek Ranch property is the only site within the planning area that is designated for Planned Unit Development land use.
- The intent of the Airport Development District (ADD) designation is to permit the development of appropriate commercial, industrial, airport facilities, and other related uses on lands adjacent to the Mammoth Yosemite Airport. The ADD was specifically created to recognize the economic development potential associated with the expansion of services and facilities at the Airport site. Although light industrial, manufacturing, and warehousing developments are necessary for economic stability and growth, these land uses are frequently incompatible with recreational, residential, and agricultural land uses. This inherent incompatibility has limited the land resources available for economic development within the Mono County. Subject to the constraints associated with the proximity of aircraft activities, the following land uses are appropriate for the Airport Development District:

  Airport operational facilities
  Aviation products and services
  Housing for Airport employees
  Hotel and residential condominium developments
  Light industrial and warehousing
  Office, business, and commercial
  Public buildings
  Retail sales and services ancillary to airport terminal or hotel/motel facilities
  Automobile service stations
  Recreational vehicle park
  Low intensity recreational development

The USFS has instituted a land management plan for the Inyo National Forest. The plan described in *Inyo National Forest Land and Resource Management Plan* [2-2] divides the forest into various Management Areas. The Management Areas are contiguous areas for planning to which one or more sets of management practices, called "prescriptions," are applied to attain specific objectives. These management prescriptions are written as a result of allocating solutions to specific Management Areas and imposing identified standards and guidelines.



Legend

OA-A	Open Space-Agriculture
OA-M	Open Space-Resource Management
OA-R	Open Space-Recreation
OA-SC	Open Space-Stream Conservation
ADD	Airport Development District
I	Industrial/Maufacturing
PA	Institutional/Public Land
PUD	Planned Unit Development
	Existing Property Line
	Management Area Boundary
	Prescription Area Boundary
Rx 11	Range Emphasis
Rx 12	Concentrated Recreation Area

Source: U.S. Geological Survey Revised: U.S. Forest Service, Mammoth Lakes Airport Land Use Plan
Prepared by: Ricondo & Associates, Inc.

Exhibit II-3

north

Scale 1" = 3,700'

Planned Land Use

March 2002

The Airport is located within Management Area #9. The Management Area and prescription area boundaries are depicted on Exhibit II-3. The Airport lies with prescription area 11, which has been designated as Range Emphasis. Prescription areas designated for Range Emphasis are areas, which are readily accessible, have available water and would be given priority to be used for grazing before livestock would graze in other areas. Prescription area 12 lies both north and west of the Airport. This prescription area is designated a Concentrated Recreation Area. Areas with this prescription currently receive or would potentially receive high-density recreation use.

2.1.4 Planned Land Use

Because of the public ownership of most of the land surrounding the Airport, planned land use does not significantly differ from the existing land use.

There is currently no known development planned for the privately owned parcel of land that contains Hot Creek Ranch. The owner of other privately owned parcel has plans for the development of an industrial park. This proposed project, named the Sierra Business Park, is located on a 36-acre parcel that formerly was used by the Sierra Quarry. The developers propose to subdivide the parcel into 37 smaller parcels to be used for industrial use. The use of the individual lots will be pursuant to the requirements of the individual lot purchasers. The individual lots will be developed by the respective lot purchasers.

The Town of Mammoth Lakes has entered into a public-private partnership with a local developer with the goal of making the Airport a self-sustaining and profitable enterprise that would provide substantial long-term benefits to the local economy and traveling public. A phased airside development is planned to add additional aircraft hangars, a general aviation terminal, and fuel storage facilities. Planned landside improvements could include a hotel/condominium complex, a recreational vehicle park, restaurants and retail facilities. This development is proposed to remain within Airport property.

2.2 Related Projects

As defined in Section 15355 of the CEQA Guidelines, a cumulative impact consists of "two or more individual effects, which considered together are considerable" or "compound or increase other environmental impacts." Pursuant to Section 15130(a) of the aforementioned Guidelines, "An EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(c)." Section III of this SSEIR provides a cumulative impact assessment for each applicable environmental impact category affected by the changes in the proposed project.

As discussed above, a cumulative impact involves two or more individual effects. Such effects can be internal to, and confined solely to, a proposed project itself, or also be attributable to other external projects, producing a related or cumulative effect. Per CEQA Guidelines Section 15130, the discussion shall be guided by the standards or practicality and reasonableness. The following elements are necessary in an adequate discussion of cumulative impacts:

1. Either:
   a. A list of relevant past, present and probable future projects producing related or cumulative impacts, if necessary, including those projects outside the control of the Agency, or

b. A summary of projections contained in an adopted General Plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact;

2. A summary of the expected environmental effects associated with those projects with specific reference to additional information stating where that information is available;
3. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable feasible options for mitigation or avoiding the project's contribution to any significant cumulative effects; and
4. With some projects, the feasible mitigation for cumulative impacts may involve the adoption of ordinance or regulation rather than the imposition of conditions on a project-by-project basis.

Exhibit II-4 shows the other projects currently proposed in the region. These include:

- Intrawest Development
- Eastern Sierra College
- Sherwin Bowl Ski Area
- Sierra Business Park
- Mammoth Lakes Airport Commercial Development Plan located at Mammoth Yosemite Airport
- Inaja Ranch Land Company
- Lake Ridge Ranch
- Rimrock Ranch
- Pacifica Residential Development

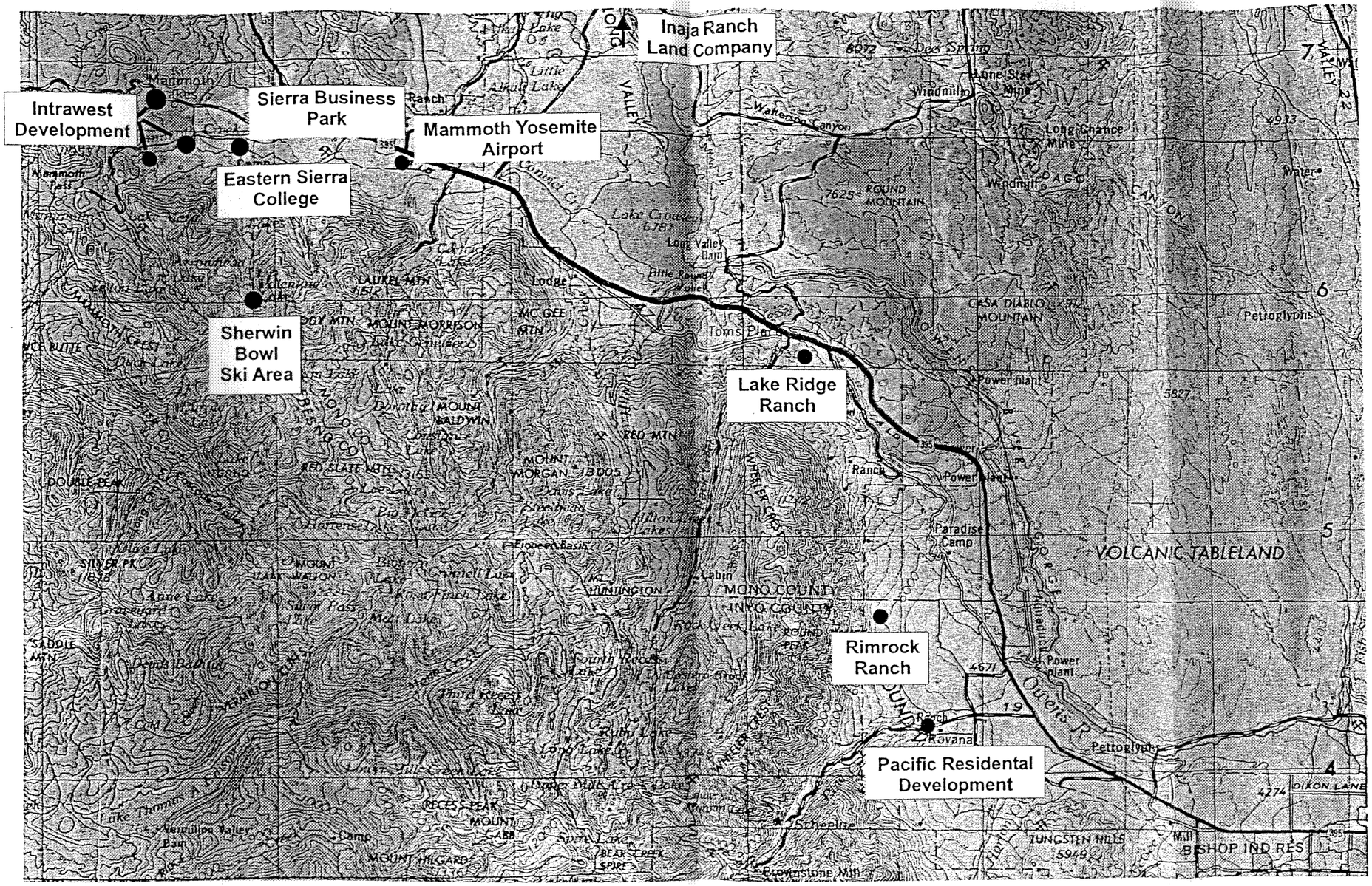
After analyzing the possible impacts of these projects in conjunction with the changes to the proposed project and its cumulative impacts, the Town of Mammoth Lakes determined that there are two projects currently under consideration in the vicinity of the Airport that need to be considered part of the cumulative impact. These two projects are discussed in this section.

2.2.1 Mammoth Yosemite Airport Commercial Development Plan

The commercial development area proposed at Mammoth Yosemite Airport would encompass 25.6 acres of land within the Airport boundary. Apart from the proposed changes to the proposed project in Section I of this SSEIR, the Airport Commercial Development plan was environmentally reviewed for full buildout in 1997 pursuant to the CEQA Guidelines Section 15162. The development is proposed to take place in four phases.

Phase I development would consist of the construction of both Airport infrastructure improvements and 30 commercial aircraft hangars, a gas storage building consisting of aboveground storage tanks and associated structures, and a general aviation terminal consisting of building improvements normally associated with the operations of a fixed base operator.

Proposed Phase I commercial development would consist of a minimum of 60 units of time-share, hotel, condominium, or commercial lodging facilities for transient guests. Construction of a retail building, signage directing visitors to or advertising the development, and remodeling of existing terminal buildings is also proposed.



AR 001065

Source: Mammoth Mountain
Prepared by: Ricondo & Associates, Inc.

Exhibit II-4

north

Not to Scale

Other Projects

Under the agreement with the Town of Mammoth Lakes, the developer has the right, but not the obligation, to develop Phase II, Phase III, and Phase IV. Possible additional commercial development that may occur in Phase II could be the construction of a 300-seat restaurant complex, additional lodging units similar to those constructed in Phase I, and a recreational vehicle park with a capacity of up to 100 vehicles. Phase II airfield development could consist of two additional community hangars for maintenance and aircraft storage and additional individual aircraft hangars. Phase III and Phase IV could include additional lodging units and additional individual hangars.

The developer has retained the right to construct an additional access road from Benton Crossing Road to the Airport. Portions of this access road could be constructed on lands owned and/or administered by the City of Los Angeles, the Bureau of Land Management and the USFS. Rights of way, easements, or grants would have to be obtained from these entities.

2.2.2 Sierra Business Park

The proposed Sierra Business Park site is located on a 36-acre site along U. S. Highway 395 west of Mammoth Yosemite Airport. The site was originally established as the Sierra Quarry, which was a surface mining site for the extraction and processing of raw material for the production of sand and aggregate product.

Resource extraction and manufacturing operations ceased in 1984. The present owner purchased the property in 1994 for the construction of a concrete batch plant and industrial park subdivision. The proposed plan calls for the property to be subdivided into 37 parcels to be used for industrial use. The project would be constructed in two phases. Phase I will consist of the construction of 24 lots, utilities, and an access road on the property. Construction of Phase I is currently scheduled to begin in the summer or fall of 2000. Phase II, the construction of the remaining 12 lots, will begin at a unspecified future date.

The uses of the subdivided lots will be pursuant to the needs of the individual lot purchasers as allowed under the Mono County Code, Section 19.17.020 and 19.17.030, as applicable. The current owner would not develop the individual lots. Each purchaser, in accordance with applicable laws and regulations, would develop their respective lots.

The Sierra Business Park was environmentally reviewed under CEQA Guidelines 15162 and has received certification for the project. [3-2].

2.3 Applicable General, Specific, and Regional Plans

Applicable planning documents include (1) Mono County General Plan, (2) Town of Mammoth Lakes General Plan, (3) the Air Quality Management Plan, (4) the Water Quality Plan, (5) Mammoth Lakes Noise Ordinance, (6) Bishop Resource Management Plan, and (7) Inyo National Forest Land and Resource Management Plan.

2.3.1 Mono County General Plan

The purpose of the Mono County General Plan [2-3] is to establish policies that will guide decisions on future growth, development, and conservation of natural resources on private lands in the unincorporated area of the County through the year 2010 in the manner required by law. An effort has been made through the public review process to make the policies in this plan consistent with the desires of County residents.

Government Code § 65300 requires each county to "adopt a comprehensive long-term general plan for the physical development of the county." The general plan must contain a statement of development policies, including diagrams or maps and text, setting forth objectives, principles, standards, and plan proposals. The plan must include the following elements: land use, conservation, open space, circulation, housing, noise, and safety. Section 65301 (a) allows local agencies to adopt a general plan in any format "deemed appropriate or suitable... including the combining of elements." Accordingly, the Conservation and Open Space Elements have been combined in the Mono County General Plan. The Mono County General Plan also includes the Hazardous Waste Management Element required by State law.

The 1992 Mono County General Plan is a revision of previously adopted general plan elements; it supercedes and replaces those elements. In adopting the 1992 update of the General Plan, the Mono County Board of Supervisors repealed the following elements of the prior plan: Seismic Safety, Geothermal, Public Facilities, Recreation and Scenic Highways. The policies contained in the repeated elements were incorporated as necessary into appropriate elements of the 1992 plan.

2.3.2 Town of Mammoth Lakes General Plan

Adopted in 1987, the Town of Mammoth Lakes General Plan [5-1] contains the State-mandated elements that govern all development on private property, including residential, commercial, and industrial uses over a 20-year planning horizon. The elements included in the General Plan include the following: Land Use (including Public Facilities), Transportation and Circulation, Housing, Conservation and Open Space, Safety (including seismic safety), Noise and Parks and Recreation. Each element is described in terms of policies and objectives.

2.3.3 The Air Quality Management Plan

The following is a brief description of air quality regulations that apply to Mammoth Yosemite Airport and the existing air quality conditions in the region of the proposed project.

2.3.2.1 Regulatory Setting

Air quality is regulated by federal, State, and local laws that include the federal Clean Air Act and the California Clean Air Act.

Federal Clean Air Act

On November 15, 1990, the most recent amendments to the federal Clean Air Act [2-3] were signed into law. The federal Clean Air Act Amendments (CAAA) of 1990 [2-4] require all air quality planning regions in the country to be designated according to the National Ambient Air Quality Standards (NAAQS) for criteria air pollutants, i.e. pollutants causing human health impacts due to their release from numerous sources. If air pollutant concentrations in these regions do not exceed the NAAQS for any of the criteria pollutants, they are designated attainment areas. If such concentrations do exceed the NAAQS for one or more of the criteria pollutants they are designated nonattainment areas. The following criteria pollutants have been identified: ozone, particulate matter less than 10 microns in diameter (PM_{10}), carbon monoxide, lead, nitrogen dioxide, and sulfur dioxide. The CAAA also mandates that states submit and implement State Implementation Plans (SIPs) for regions not meeting the NAAQS for one or more of the criteria pollutants. The SIP must include a pollution control plan, which demonstrates how and when the standards will be met. The Town of Mammoth Lakes is within the Great Basin Valley Air Basin, which has been designated a non-attainment area for PM_{10}.

AR 001067

The CAAA identify specific emission reduction goals for regions not meeting the NAAQS, and require both a demonstration of reasonable further progress toward attainment and the incorporation of additional sanctions into the SIP for failure to attain or to meet interim milestones.

California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the California ambient air quality standards by the earliest practical date. California ambient air quality standards are similar to those of the CAAA, with notable differences. Local air quality management districts regulate air pollution from commercial and industrial facilities. As in the CAAA, air pollution control districts have been formally designated as attainment or nonattainment. Nonattainment designations are further categorized into four levels of severity: (1) moderate, (2) serious, (3) severe, and (4) extreme.

The Great Basin Unified Air Pollution Control District

The State of California is divided into Air Pollution Control Districts (APCDs) and Air Quality Management Districts (AQMDs). These agencies are County or regional governing authorities that have primary responsibility for controlling air pollution in California's air basins. Their primary responsibility is preparing State Implementation Plans (SIPs) and/or air quality management plans for nonattainment areas under their jurisdiction.

Air quality in the Great Basin Valleys air basin is managed by the Great Basin Unified Air Pollution Control District (GBUAPCD). In 1990, the GBUAPCD prepared an air quality management plan for the Town of Mammoth Lakes and its vicinity to address PM-10 pollution in the region. [3-4] The plan contains several control measures geared to improve air quality in the region. The plan also contains air quality modeling information for the region, including PM-10 emissions factors. To date, the GBUAPCD has not developed an air quality management plan to address ozone pollution in the region.

2.3.4 Water Quality Plan

The following is a brief description of water quality regulations that apply to Mammoth Yosemite Airport.

The *Federal Water Pollution Control Act of 1972* (also known as the Clean Water Act) [1-4] was instituted to protect the nation's water resources. A major component of the Clean Water Act involved the establishment of regulations designed to prohibit the discharge of pollutants into waters of the United States from any point source unless the discharge is in compliance with National Pollutant Discharge Elimination System (NPDES) standards. Initially, this legislation established a permitting program for industrial process and municipal sewage discharges. However, with the passage of the *Water Quality Act of 1987* [2-6], the Clean Water Act was revised to include permit requirements for storm water discharges as well.

In the State of California, the permitting of surface water discharges is administered by the California Environmental Agency through Regional Water Quality Control Boards (RWQCB). The RWQCB has assumed the responsibility of implementing the Clean Water Act in California including issuing discharge permits and setting water quality standards. Mammoth Yosemite Airport is in the RWQCB Lahontan region.

In 1975, the RWQCB prepared a comprehensive Water Quality Control Plan for the South Lahontan Basin Area, which includes the Airport. The Plan outlines a coordinated program for water quality protection in accordance with the policy of non-degradation. This policy states that the existing level of water quality resources shall be maintained unless potential beneficial uses are unreasonably affected.

2.3.5 Mammoth Lakes Noise Ordinance

Chapter 8.16 of the Town of Mammoth Lakes Municpal Code [2-7] pertains to the regulation of excessive noise from existing uses. Section 8.16.070 (exterior noise limits) of the Municipal Code establishes noise levels that may not be exceeded based upon the nature of the receiving land use, the time of day that the noise occurs and the statistical distribution over time of the noise levels generated by the source of concern. Section 8.16.090 of the Noise Ordinance specifically addresses noise from construction activities.

2.3.6 Bishop Resource Management Plan

Bishop Resource Management Plan (RMP) provides a comprehensive framework for managing public lands administered by the BLM Bishop Resource Area. [2-8] Located in the eastern Sierra region of California in Inyo and Mono Counties, the Bishop Resource Area encompasses 750,000 acres of public land and about 9,000 acres of federal mineral estate under private land. The area office also administers mineral leases on 2 million acres of the Inyo and Toiyabe National Forests. Less than 15 percent of the total land base in the resource area is in private ownership. Significant resources and program emphasis include recreation, wildlife, locatable and salable minerals, realty, livestock grazing, and cultural resources.

2.3.7 Inyo National Forest Land and Resource Management Plan

The Inyo National Forest Land and Resource Management Plan was approved on August 12, 1988. [2-2] The purpose of the Plan is to provide integrated, multiple resource management direction far all Forest resources. The Plan prescribes management direction for the most suitable combination of management practices, sets ten to fifteen year objectives, provides for the multiple use and sustained yield of goods and services, maximizes long term net public benefits, proposes environmentally sound management, and responds to major public issues and management concerns.

In September 1984 Congress designated the Mono Basin, National Forest Scenic Area, which encompasses approximately 116,000 acres of land within the Inyo National Forest boundary. Resource and development planning for the Scenic Area is being conducted under a separate planning process. The new Comprehensive Management Plan for the Scenic Area will be incorporated into the Forest Plan.

III. Environmental Impacts of Proposed Project

Under CEQA, an EIR should identify and analyze the possible significant environmental impacts of a proposed project. CEQA § 21100(b)(1); CEQA Guidelines §§ 15126(a), 15126.2(a). A "Significant effect on the environment means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance..." In addition, "a social or economic change related to a physical change may be considered in determining whether the physical change is significant." CEQA Guidelines § 15382. "The significant effects should be discussed with emphasis in proportion to their severity and probability of occurrence. CEQA Guidelines § 15143; see also CEQA §§ 21002.1(e), 21100(c); CEQA Guidelines § 15128. Analysis should therefore contain a discussion of the environmental setting, to "constitute the baseline physical conditions by which a lead agency determines whether an impact is significant." CEQA Guidelines § 15125(a). For the purpose of this study, the baseline conditions are the existing Airport infrastructure, the environmental setting (as described in Section II), and additional existing setting information provided throughout Section III. "A lead agency shall find that a project may have a significant effect on the environment and thereby require an EIR to be prepared for the project." CEQA Guidelines § 15065. "Drafting an EIR...necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." CEQA Guidelines § 15144.

The EIR should also identify feasible mitigation measures and feasible project alternatives for the agency's consideration. CEQA §§ 21002, 21081(a); CEQA Guidelines §§ 15002(a)(3), 15021(a)(2), 15091(a)(1). The EIR should describe those significant environmental impacts that cannot be avoided because there are no feasible mitigation measures or because feasible measures cannot mitigate the impacts to a less than significant level. CEQA Guidelines §§ 15126(b), 15126.2(b). If such unmitigatable significant impacts can be avoided by adopting an alternative design, the EIR must describe the "implications" of not adopting that alternative. CEQA Guidelines § 15126(b); CEQA § 21100(b)(2)(A). The EIR should additionally identify "cumulative impacts," defined as "two or more individual effects which, when considered together, are considerable or...compound or increase other environmental impacts." CEQA Guidelines § 15355. Cumulative impacts take into account the project's impacts combined with the impacts of other projects in the study area. CEQA Guidelines § 15130(a)(1).

State CEQA Guidelines § 15162 provides that when an EIR has been previously certified or a negative declaration adopted for a project, "no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project that would require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken that would require major revisions of the previous EIR or Negative Declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the Negative Declaration was adopted, shows any of the following:

    a. The project will have one or more significant effects not discussed in the previous EIR or Negative Declaration;

    b. Significant effects previously examined would be substantially more severe than shown in the previous EIR;

    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative..."

After lead agency consideration of the environmental evaluations for the Mammoth Yosemite Airport project contained within the 1986 EIR/EA and 1997 SEIR/EA, and review of agency comments responding to the NOP for the SSEIR, the Town of Mammoth Lakes determined that the following environmental impact areas meet the above mentioned criteria to be included in this SSEIR and will be analyzed:

- Aesthetics/Light and Glare - related to the replacement of an existing fence.
- Air Quality - regarding the modified aviation demand forecast, construction, and vehicular emissions.
- Biological Resources - update to respond to comments and address grading and replanting and area of land, which will be issued a revised special use permit from the United States Forest Service (USFS).
- Traffic - regarding the modified aviation demand forecast and cumulative effects of other proposed projects.
- Soils/Land Transformation – regarding construction of a package wastewater treatment plant and grading and replanting an area of land, which would be issued a revised special use permit.
- Hydrology and Water Quality - regarding the construction of a package treatment plant instead of the previously evaluated septic system/leach field, use of an oil/water separator, and the extension of the runway by 1,200 feet rather than 2,000 feet and the increase in the runway width from 100 to 150 feet.
- Noise - regarding modified aviation demand forecast.
- Public Services and Utilities - regarding relocation or replacement of the Green Church and construction of a package wastewater treatment plant instead of previously evaluated septic system/leach field.

The following categories were eliminated from the SSEIR, as they were all previously evaluated in 1986 EIR/EA and the 1997 SEIR/EA and there have been no changes in the environmental impacts from the changes in the proposed project under the criteria set by CEQA Guidelines § 15162. A

summary of these categories, the significance of their impacts, and proposed mitigation measures from the 1997 SEIR/EA (which incorporated the 1986 EIR/EA) is included as Appendix A.

- Agricultural Resources
- Geology
- Historical, Archeological and Cultural Resources
- Hazards and Hazardous Material
- Mineral Resources
- Population and Housing
- Recreation

3.1 Aesthetics/Light and Glare

The aesthetics/light and glare effects of the Airport improvements have been evaluated in the previously certified 1986 EIR/EA and the 1997 SEIR/EA documents. Please refer to Appendix A for the summary of aesthetics/light and glare impacts, their significance, and mitigation measures from the 1997 SEIR/EA (which incorporated the 1986 EIR/EA).

This section discusses potential environmental impacts with respect to aesthetics/light and glare as a result of the proposed modifications to the Airport, which were not previously evaluated. The changes in the current Airport proposal which may impact aesthetics/light and glare include construction of a new package wastewater treatment plant (instead of a new leach field), the extension of the runway by 1,200 feet (rather than 2,000 feet) and increase in its width from 100 feet to 150 feet, and the replacement of an existing 4.8 feet barbed-wire perimeter security fence with an 8 foot chain link fence. No other changes are proposed to the Airport, which would result in aesthetic/light and glare effects that have not already been evaluated. Moreover, all previously required mitigation measures would still apply to the proposed project.

3.1.1 Environmental Setting

3.1.1.1 Aesthetics

The portion of U.S. Highway 395 between Long Valley Resort, which is 3 miles south east of the Airport to 1.1 mile north of State Route 203, which is 5 miles north of the Airport, was designated as a State Scenic Highway in November 1971 by California Department of Transportation (Caltrans). In the summer of 2000, an additional portion of U.S. Highway 395 starting approximately 21 miles south of the Airport at the Inyo County limit and ending near Long Valley Resort was also designated as State Scenic Highway. The State of California's Scenic Highway program preserves and protects scenic highway corridors from development that would diminish the aesthetic value of the natural landscape and scenic quality of that landscape.

The local agency responsible for protecting this corridor is Mono County. In 1981, Mono County adopted a Scenic Highways Element for the countywide general plan. The portion of U.S. Highway 395 south of the Airport has been considered a scenic highway since 1981. The Scenic Highway Element establishes policies and requirements for all development located within 1,000 feet of the designated scenic highways.

The existing setting is largely characterized by expansive views of the Sierra Nevada and Long Valley. The area adjacent to U.S Highway 395 in the immediate vicinity of the Airport is characterized by sagebrush and bitterbrush with virtually no trees to obstruct views from the highway. Drivers on U.S Highway 395 approaching the Airport from the east first view the Airport from approximately one mile east of the eastern threshold of the runway. The primary views approaching the Airport from the east are due west to Mammoth Mountain, the Minarets, and Mounts Ritter and Banner. Mount Morrison and Laurel Mountain are on the left (south). The Airport parallels the Highway on the north for a distance of approximately two miles. Beyond the Airport to the north are low hills with the Glass Mountains and Bald Mountain forming the distant horizon. Approaching the Airport from the west, low rises intermittently block visibility of the Airport until approximately one the half mile west of Hot Creek Hatchery Road. The primary views from this direction are Sierra Nevada on the right, the White Mountains in the distance to the east/northeast, and the Glass Mountains to the north with low hills in the middle ground. The only structures readily

visible from this segment of the Highway are the improvements at the Airport, the old elementary school, the Green Church, the Sierra Nevada Research Labs, power lines paralleling the south side of the Highway, and the Sierra Quarry. None of the existing improvements block any view from U.S Highway 395 to the mountains beyond.

3.1.1.1 Light and Glare

The major sources of light emissions at the Airport are the runway lights, airfield lights, terminal building, the parking lot, and buildings. The existing airfield lighting consists of the following:

- Runway
  a. Runway Edge Lights – There is a row of medium intensity runway edge lights along each side of the existing Runway 9-27. The lights are 45 watts. They are located 30 inches above the ground and situated at an approximately 200-foot spacing.
  b. Threshold Lights – Eight threshold lights are located at each end of Runway 9-27. These lights are 45 watts with red/green color lenses and are located 30 inches above the ground.
  c. Precision Approach Path Indicator (PAPI) – Two-box PAPI units are located at each end of the runway. These lights are split lens with the upper portion white and the lower portion red. The chain link security fence would act as a shield between the PAPI units and drivers on the highway. The PAPI units are located on the edge of the runway approximately 500 feet from the runway threshold.
  d. Runway End Identifier Lights (REIL) – At the end of Runway 27 REILs exist. These lights are white strobe lights.
- Apron - The general aviation apron is lighted with floodlights on poles.
- There are also some automobile parking lot lights and building lights.

3.1.2 Significant Environmental Impacts

3.1.2.1 Aesthetics

Based upon CEQA Guidelines, Appendix G [3-1], a project is considered to have significant impact with respect to aesthetics if the project:

- Has a substantial adverse effect on a scenic vista;
- Substantially damages scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway;
- Substantially degrades the existing visual character or quality of the site and its surrounding.

Virtually all of the Airport is within the scenic viewshed of U.S. Highway 395. Drivers and passengers passing by the Airport at approximately 65 miles per hour can see the Airport for approximately two minutes. The primary views approaching the Airport from the east are due west to Mammoth Mountain, the Minarets, and Mounts Ritter and Banner. Mount Morrison and Laurel Mountain are on the left (south). The primary views approaching the airport from the west are Sierra Nevada on the right, the White Mountains in the distance to the east/northeast, and the Glass Mountains to the north with low hills in the middle ground. From this direction, low rises intermittently block visibility of the Airport until approximately one half mile west of the Hot Creek Fish Hatchery Road. Most of the land uses visible to drivers along U.S. Highway 395 have been in existence for many years. The current proposed modifications to the Airport would not alter any of

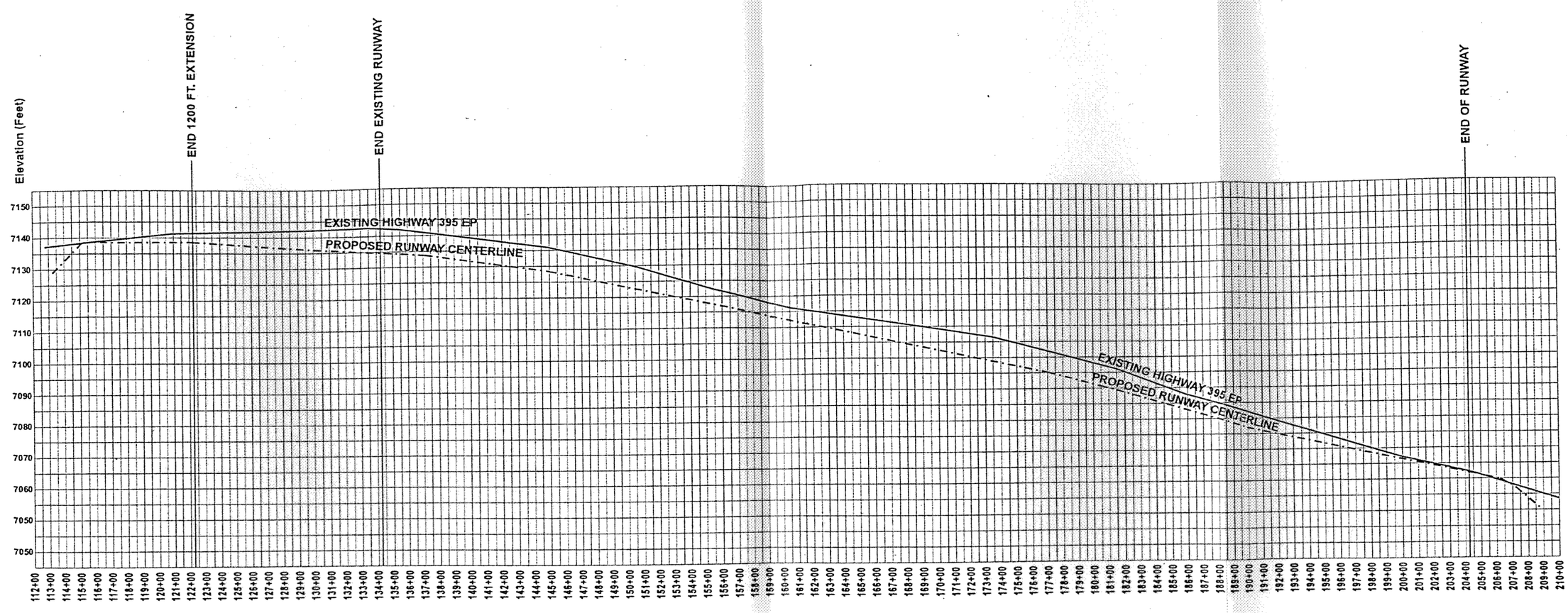
the existing on-Airport structures or substantially modify previously approved changes to existing structures on the Airport. Instead, the current proposal includes the following physical changes to the Airport: lengthen the existing runway from 7,000 feet to 8,200 feet rather than to 9,000 feet as previously approved; widen the runway to 150 feet; replace an existing 4.8 foot barbed wire perimeter security fence with a 8 foot chain link fence. The package wastewater treatment plant would likely not be visible from U.S. Highway 395.

As shown on **Exhibit III-1**, the elevation of the runway would not be higher than the elevation of the roadway, and any difference between the elevations would not be significant over any extended distance. The embankment required for the extension of the runway would be at or below the roadway elevation and would be contoured and planted to appear natural. The embankment for the currently proposed 8,200-foot runway would also be lower than the embankment for the 9,000-foot runway proposed in the 1986 EIR/EA and 1997 SEIR/EA. The final appearance of the embankment area would be similar to the Moraine east of the Airport. Therefore, the runway alteration would not significantly obstruct scenic views of the area, substantially damage scenic resources, or substantially degrade the existing visual character or quality of the site and its surrounding.

There would be periods of time when air carrier aircraft would be parked on the Airport ramp. Initial ramp development could support up to three air carrier aircraft with expansion capability of the ramp area of up to six aircraft. These aircraft would typically only be parked on the apron for the period of time it requires to unload disembarking passengers and load embarking passengers, fuel and provisions. The air carrier aircraft at the Airport would be visible to drivers along U.S. Highway 395 but only for a short duration of time as are the existing general aviation aircraft. Because the runway itself would not be substantially visible to passersby on U.S. Highway 395, and the embankment would be completed with natural looking landscaping and aircraft on the new runway extension would be limited in number and in the duration of time sitting on the runway, the extension of the runway would result in less than significant impacts regarding scenic mountain vistas, scenic visual resources within a scenic highway, and degradation of the existing visual character of the Airport and its surrounding.

As requested by FAA regulations, a security fence around the airfield is required around the perimeter of the airfield. This fence could be either a six-foot chain link (also referred to as cyclone) fence topped with three stands of barbed wire or an eight-foot chain link fence without barbed wire. This fence would replace an existing 4.8-foot barbed wire fence in the same location. Fencing would be designed to meet State Highway Standards as set forth in Highway Design Manual Topic 201 and 14 CFR Part 107 FAA requirements for Airport security. Fences would not be located on the Highway right of way and would be placed far enough away from the road to protect against damage from snow accumulation resulting from snow removal operations. Exhibit I-4 shows the location of the current and planned security fence south of the runway.

Due to the type of existing fencing, views of existing terrain and vegetation around the Airport is unobstructed, albeit views are through a "manmade" fence. Replacement of the barbed-wire fence with a taller cyclone fence would result in a fence similar in nature to the existing fence in that it would not obstruct views on and around the Airport.



Legend

——— Existing Highway 395 edge of pavement profile

– · – · – Proposed runway centerline profile

AR 001077

Source: Reinard H. Brandley, Consulting Engineer.
Prepared by: Ricondo & Associates, Inc.

Exhibit III-1

Elevation Profiles of Proposed Runway and U.S. Highway 395

To minimize any institutional look of the facility, the eight-foot chain link fence without the barbed wire is recommended. The use of neutral-colored fencing material would aid in making the fence more aesthetically pleasing. **Exhibit III-2** and **Exhibit III-3** are photographs with digital representations of neutral colored fencing material superimposed. These digital representations have been reviewed with the U.S. Forest Service, whose land the fence would lie on, and are acceptable to that Agency. A copy of that coordination appears in Appendix D.

Because existing views would remain largely unchanged with the replacement of the security fencing, it would also result in less than significant impacts regarding scenic mountain vistas, scenic visual resources along a segment of a scenic highway, or degradation of the existing visual character of the Airport and its surrounding.

3.1.2.2 Light and Glare

Based on CEQA Guidelines, Appendix G [3-1], a project is considered to have significant impact with respect to Light and Glare if the project creates a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Nighttime air carrier operations are not anticipated. Therefore, light emissions would be minimized. As the length of the runway has decreased to 8,200 feet from 9,000 feet as proposed in 1997 EIR, the light and glare effects would be reduced as a result of the reduction in the number of runway light over the length of the proposed runway extension. Property lighting and signs would be designed to conform to State Highway Standards as set forth in the Caltrans Highway Design Manual Topic 207 [3-28] and the Vehicle Code Section 21466.5 unless superceded by FAA requirements for security and safety.

The following characteristics were incorporated in the design for the proposed facilities to conform with the Town of Mammoth Lakes' design review requirements for lighting:

- Lighting needs to direct downward so that there is no direct light shining up into the sky.
- All lights need to be shielded so that no source of the light is visible from offsite.

The new lighting and modified existing lighting required with the airfield modifications would consist of the following:

- Runway – The runway edge lights would be extended approximately 1,200 feet to the west to provide lights on the runway extension. These would be the 45-watt lamps located 30 inches above the ground and spaced at approximately 200-foot centers. The threshold lights on Runway 9 would be moved 1,200 feet to the west. The existing runway lights, the PAPI for Runway 27 and the REIL for Runway 27 would be moved 25 feet to the south to accommodate the widening of the runway.
- Apron – New floodlights would be added for the terminal apron. There would be new building lights associated with the construction of the new terminal building and new parking lot lights associated with the new parking lot. These lights would be located on 40 to 60 foot high poles and would be 150 to 400 watt high pressure sodium lamps. All flood lights would be shielded with metal cut offs such that the lamp and reflector would not be visible from the runway or U.S. Highway 395.

A new 8-foot chain link fence would be constructed around the Airport perimeter for security. The fence would be sufficiently high in all locations so that the line of sight from the driver in the vehicle on U.S. Highway 395 to all of the runway lights would be below the top of the fence. As a result, the fence would partially block the vision to the existing and relocated runway lights for all small angle views from the normal straight ahead vision of the driver, but the side view would be unobstructed.

The existing general aviation aircraft parking lighting is a legal non-conforming use to current local zoning ordinances. When the new terminal and air carrier ramp areas are constructed, these ramp lights would be replaced with the new state-of-the-art shielded lights and the additional lights would be shielded as well. The overall result would be less intrusive lights for drivers on U.S Highway 395 compared with existing conditions

As these replacement and additional light sources would not create a new source of substantial light or glare, that would adversely affect day or nighttime views in the area due to lamp shields and other design improvements, there would be no new significant environmental impacts in terms of light and glare.

3.1.3 Mitigation Measures

The aesthetic/light and glare impacts of the proposed modifications to the Airport would be less than significant, and therefore, no mitigation measures would be required for aesthetics/light and glare.

3.1.4 Unavoidable Significant Impacts

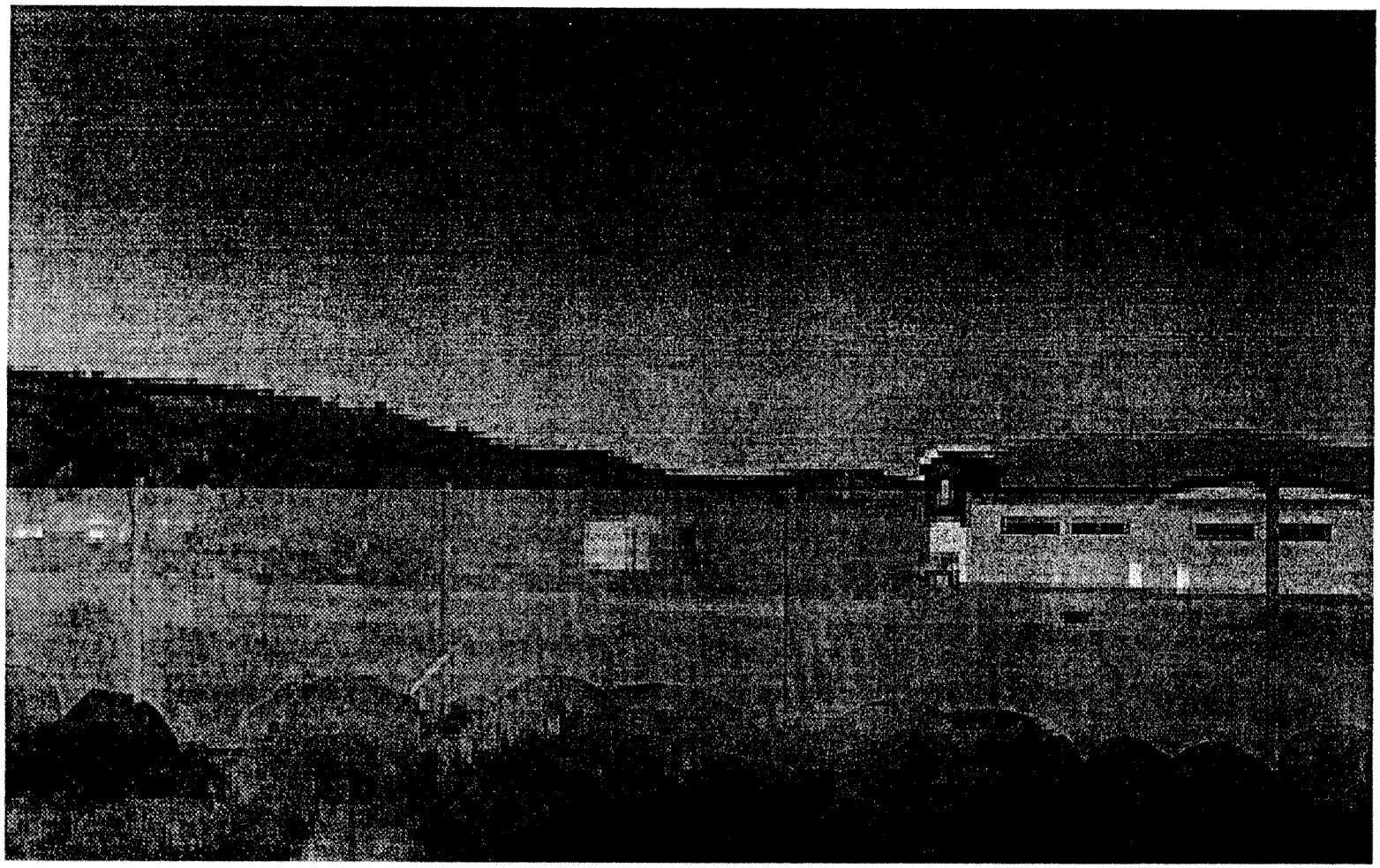
With respect to aesthetics/light and glare, no new significant impacts would be anticipated with the proposed project, and therefore no new unavoidable significant impacts would be expected to occur.

3.1.5 Cumulative Impacts

3.1.5.1 Aesthetics

There are two other projects under development in the vicinity of the proposed project. Both, the Airport Commercial Development Area and Sierra Business Park, will be designed to blend into the local environment. Certain requirements for building separation, external colors and appearance, building and tower heights would be applied to those projects to minimize the the effects of the cumulative projects to the viewshed of the surrounding natural landscape. For example, usage of earth tone colors and wood and rock as building materials would be preferred.

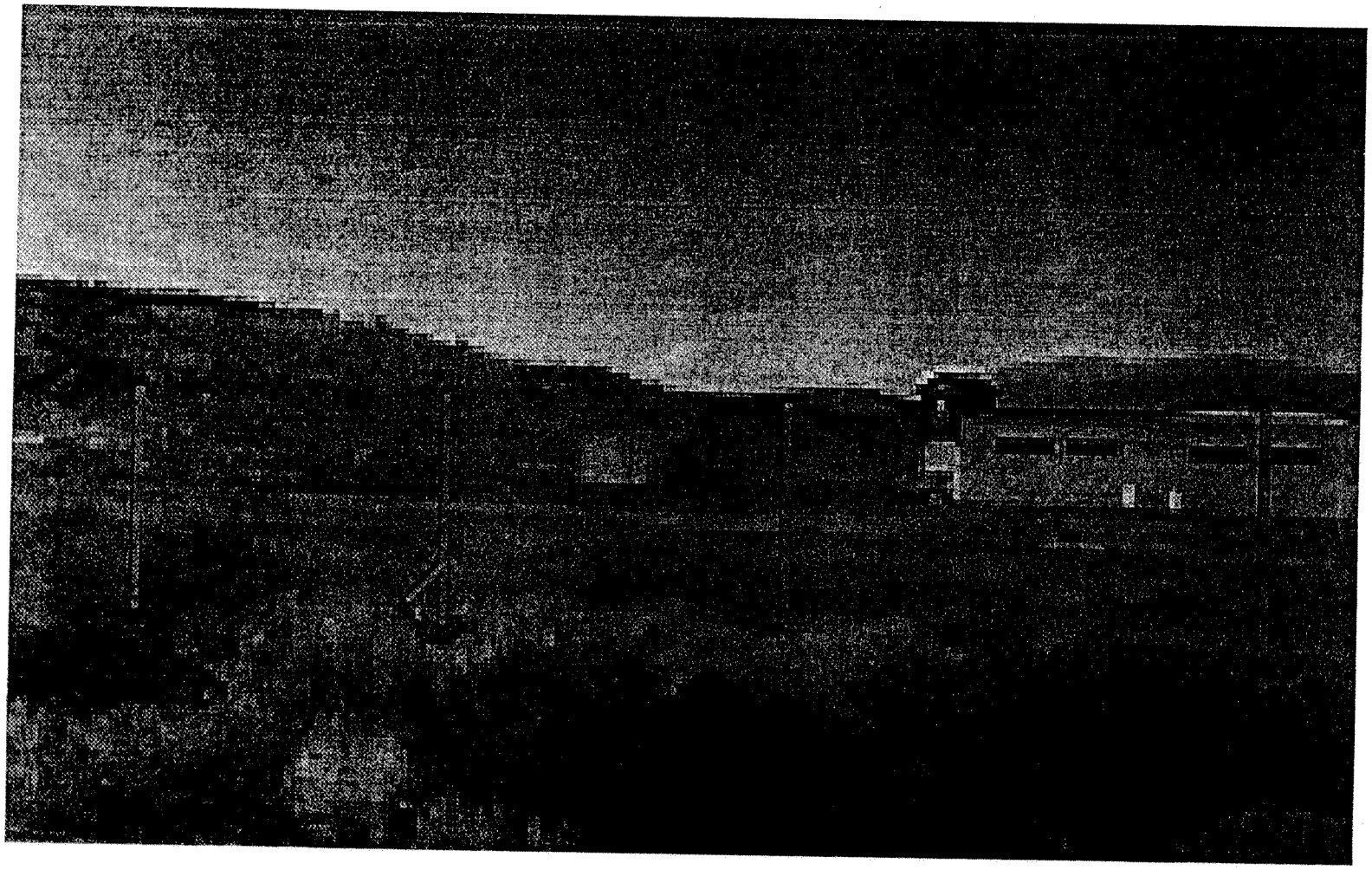
The 1997 SEIR/EA concluded that the Mammoth Lakes Airport Commercial Development Plan could result in significant and unavoidable visual impacts even with extensive mitigation measures applied to the project. "Visual impacts are subjective...A number of mitigation measures have been added to those proposed in the 1986 Report [i.e., 1986 EIR/EA], and construction must comply with Town of Mammoth Lakes building design standards. In addition, landscaping will be utilized which is consistent with natural surroundings." However, "it is possible that visual impacts would not be reduced to less than significant levels."



Source: Mammoth Mountain Ski Area
Prepared by: Ricondo & Associates, Inc.

Exhibit III-2

Fence Alternative 1- Tan Color



Source: Mammoth Mountain Ski Area
Prepared by: Ricondo & Associates, Inc.

Exhibit III-3

Fence Alternative 2- Green Color

The Sierra Business Park, located across U.S. Highway 395 approximately 1 mile west of the Airport terminal, is a previously disturbed site occupying approximately 36 acres. This property has been used for sand and gravel mining. This type of mining use is frequently noticeable and not considered "aesthetically" pleasing to most passers by on U.S. Highway 395. Since the cessation of mining activity, the site has not been used. The Sierra Business Park project structures would be visible to the southbound motorists on U.S. Highway 395 but would have less than significant impact as certified in the Sierra Business Park Specific Plan and EIR [3-2]. Flat-roof structures would pose the greatest visual impact on the unity of the visual field along the scenic corridor. Project elevations would have little impact on aesthetic values as seen from the east, including views from U.S. Highway 395 for north bound motorists.

Based upon the conclusion of the 1997 SEIR/EA that significant visual impacts may result from the Mammoth Lakes Airport Commercial Development Plan, and because the proposed Sierra Business Park would add new urban development close to the Airport, expansion of the Airport together with other cumulative development would contribute to a significant and unavoidable cumulative aesthetic impact. However, based upon the scope of changes to the Airport expansion being evaluated in this SSEIR, and the fact that existing views would remain largely unchanged as set forth above, the modifications evaluated in this Supplement would not result in a new significant cumulative impact or a substantially more severe significant cumulative impact.

3.1.5.2 Light and Glare

The cumulative impacts of the proposed project and the Mammoth Lakes Airport Commercial Development Plan on light and glare were reviewed in the 1986 EIR/EA and 1997 SEIR/EA and were considered not significant.

The light and glare impacts of the Sierra Business Park were environmentally reviewed in Sierra Business Park Specific Plan and EIR [3-2] which concluded that the effects of the Sierra Business Park project were less than significant with the implementation of mitigation measures.

The proposed project, Mammoth Lakes Airport Commercial Development Plan, and Sierra Business Park would require appropriate shielding of lighting for all the structures and parking lots. This lighting would be appropriately shielded and as indirect as possible consistent with security and public safety requirements.

Based on the conclusion of the 1997 SEIR/EA that light and glare impacts of the overall project would not be significant, the conclusion of the Sierra Business Park EIR that its light and glare impacts will be mitigated, and the conclusion in this SSEIR that the project changes would not result in any significant light and glare impacts, the conclusion that the overall project would not result in significant cumulative impacts on light and glare remains valid, and the changes in the project evaluated in this SSEIR would not result in any new significant impacts or substantially more severe significant impacts relating to light and glare

AR 001082

3.2 Air Quality

The air quality effects of the Airport and planned future uses have been evaluated in the previously certified 1986 EIR/EA and 1997 SEIR/EA documents. Please refer to Appendix A for a summary of the conclusions from these previous analyses.

This air quality analysis is provided to address changes to the Mammoth Yosemite Airport or its circumstances since approval of the 1997 Airport project, for which these changes were not previously evaluated. The changes in the current Airport proposal, which may impact air quality include construction emissions from the construction of a new package wastewater treatment plant (instead of a new leach field), the extension of the runway by 1,200 feet (rather than 2,000 feet) an increase in its width to 150 feet, and the updated aviation demand forecast. No other changes are proposed to the Airport, which would result in air quality effects, which have not already been evaluated. Moreover, all previously required mitigation measures would still apply to the proposed project.

The federal *Clean Air Act* [2-2], as amended, requires states to identify those areas where the National Ambient Air Quality Standards (NAAQS) are not met for specific air pollutants. The U.S. Environmental Protection Agency (EPA) has designated such areas as nonattainment areas. A state with a nonattainment area must prepare a State Implementation Plan (SIP) that details the programs and requirements that will be used in order to meet the NAAQS by the deadlines specified in *Clean Air Act Amendments of 1990* (CAAA). [2-3]

Additionally, the Clean Air Act, as amended, requires that federal projects be found in conformity with State Implementation Plans (SIPs). Projects not in conformity with the applicable SIP may not be eligible for federal funding. The EPA has published a final rule regarding conformity determinations [3-3]. The final rule includes annual emission thresholds for nonattainment areas and maintenance areas that trigger the need for a conformity determination. Generally, to comply with the basic conformity requirements, two criteria must be met: (1) it must be shown that total direct and indirect pollutant emissions resulting from a project are below *de minimis* emissions levels, and (2) it must be demonstrated that pollutant emissions from the project would not be regionally significant (i.e., the project would not contribute 10 percent or more of the region's total emissions for a criteria pollutant).

3.2.1 Environmental Setting

The Town of Mammoth Lakes is located in a valley on the eastern slopes of the Sierra Nevada Mountains at an approximate elevation of 7,800 feet. The Airport is located approximately eight miles outside of the Town at an elevation of approximately 7,100 feet. The Town, which was incorporated in 1984, has grown steadily in the past four decades from a population of 390 in 1960 to a population of approximately 5,400 in 2000. The region in and around Mammoth Lakes, attracts several million visitors to the area every year.

Most homes and rental units in the vicinity of Mammoth Lakes have wood stoves or fireplaces. Temperature inversions during the winter season cause a buildup of wood smoke in the stagnant valley air. Particulate emissions from resuspended road dust and cinders add significantly to the particulate emissions problem in the area.

Currently, the Great Basin Valleys airshed, which encompasses Mono County and within which Mammoth Yosemite Airport is situated, is designated a nonattainment area for particulate matter less than 10 microns in diameter (PM-10) under federal and State standards. Mono County is also designated a nonattainment area for the State ozone standard. Mono County is currently designated an ozone transport region (OTR).

3.2.1.1 Jurisdictional Control

Jurisdictional control of air pollution is divided among federal, State, and local authorities. Over the past several decades, both the State and federal governments have set, and periodically revised, ambient air quality standards for the six criteria pollutants with the greatest health risks. These standards encompass the most common varieties of airborne materials that may pose a health hazard.

Federal Clean Air Act (CAA)

Title I of the CAA identifies attainment, nonattainment, and unclassifiable areas with regard to the criteria pollutants, and sets deadlines for all areas to reach attainment for the following criteria pollutants: ozone, nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulates (PM_{10}), carbon monoxide, and lead (Pb). The CAA requires each state with one or more nonattainment areas to prepare a State Implementation Plan (SIP) to describe how and when each area of the state will meet attainment for all criteria pollutants.

Title II of the CAA contains a number of provisions with regard to mobile sources, including requirements for reformulated gasoline, new tailpipe emission standards for cars and trucks, nitrogen oxides (NO_x) standards for heavy-duty vehicles, and a program for cleaner fleet vehicles. Identification and regulation of hazardous air pollutants are addressed in Title III. Under Title V, conditions for operating permits are specified. In 1997, EPA promulgated new ambient air quality standards for fine particulates ($PM_{2.5}$) and ozone. The implementation guidelines, including deadlines, are under development.

California Clean Air Act (CCAA)

The CCAA designates air basins as either in attainment or nonattainment for State air quality standards. The CCAA set specific targets for achieving clean air, including an annual five-percent reduction in pollutants (averaged every five consecutive three-year periods) until attainment is reached. It also incorporates the permit programs of the CAA, including New Source Review (NSR) of stationary sources, and requires a mandatory vehicle inspection program for vehicles registered in nonattainment areas (smog check).

The Great Basin Unified Air Pollution Control District

The State of California is divided into Air Pollution Control Districts (APCDs) and Air Quality Management Districts (AQMDs). These agencies are county or regional governing authorities that have primary responsibility for controlling air pollution in California's air basins. Their primary responsibility is preparing State Implementation Plans (SIPs) and/or air quality management plans for nonattainment areas under their jurisdiction.

Air quality in the Great Basin Valleys air basin is managed by the Great Basin Unified Air Pollution Control District (GBUAPCD). In 1990, the GBUAPCD prepared an air quality management plan [3-4] for the Town of Mammoth Lakes and its vicinity to address PM-10 pollution in the region. The plan contains several control measures geared to improve air quality in the region. The plan also

contains air quality modeling information for the region including PM-10 emissions factors. To date, the GBUAPCD has not developed an air quality management plan to address ozone pollution in the region.

3.2.1.2 Standards and Pollutants

As discussed above, The Clean Air Act establishes federal air quality standards for six "criteria" pollutants. The "criteria" pollutants include the following: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), sulfur dioxide (SO_2), lead (Pb), and particulate matter less than 10 microns in diameter (PM-10). The California Clean Air Act establishes State standards for the six criteria pollutants and also promulgates standards for visibility reducing particulates, sulfates, and hydrogen sulfide. Federal and State air quality standards are summarized in **Table III-1**. Descriptions of the pollutants evaluated in the air quality analysis performed for Mammoth Yosemite Airport (PM-10 and ozone) are described below.

Table III-1

Ambient Air Quality Standards

Pollutant	Averaging time	Federal Standard	California Standard
Ozone	1-hour	0.12 ppm	0.09ppm
Carbon Monoxide	8-hour	9.0 ppm	9.0 ppm
	1-hour	35.0 ppm	20 ppm
Nitrogen dioxide	Annual	0.05 ppm	None
	1-hour	None	0.25 ppm
Sulfur dioxide	Annual	0.03 ppm	None
	24-hour	0.14 ppm	0.04 ppm
	3-hour	0.50 ppm	None
	1-hour	None	0.25 ppm
PM-10	AGM	50 ug/m3	30 ug/m3
	24-hour	150 ug/m3	50 ug/m3
Lead	Calendar quarter	150 ug/m3	1.5 ug/m3
Visibility Reducing Particulates	8 hour (10 a.m. to 6 p.m., PST)	None	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer due to particles when the relative humidity is less than 70 percent
Sulfates	24 hour	None	25 ug/m3
Hydrogen Sulfide	1 hour	None	0.03 ppm

AGM = Annual geometric mean
Ug/m3 = Micrograms per cubic meter
Ppm = Parts per million

Sources: U.S. Congress, Clean Air Act Amendments of 1970 (Public Law 91-604, 109 and 110) and Table of Standards, Title 17, Section 70200, California Code of Regulations
Prepared by: Ricondo & Associates, Inc.

Particulate Matter Less than 10 microns in Diameter (PM-10)

Particulate matter consists of solid and liquid particles of dust, soot, aerosols, and other matter small enough to remain suspended in the air for a long period of time. PM-10 is particulate matter less than 10 microns in diameter, which is the portion of particulate matter thought to represent the greatest hazard to public health.

A portion of the particulate matter in the air comes from natural sources, such as windblown dust and pollen. Manmade sources include combustion, automobiles, field burning, factories, unpaved roads, and photochemical reactions in the atmosphere.

The effects of high concentrations of PM-10 on humans include the aggravation of chronic disease and heart/lung disease symptoms. Non-health effects include reduced visibility and soiling of surfaces.

Ozone

Ozone is produced by chemical reactions involving nitrogen oxides (NOx) and reactive organic gases (ROG) and/or volatile organic compounds (VOC) that are triggered by sunlight. NOx is created during combustion of fuels, while VOC/ROG are emitted during combustion and evaporation of organic solvents. As ozone is not directly emitted to the atmosphere but is formed as a result of photochemical reactions, it is considered a secondary pollutant. Ozone is a seasonal problem occurring primarily during the summer months as a result of abundant sunlight and warmer temperatures, two factors required for enhanced photochemical reactions in the atmosphere.

Ozone is a strong irritant that attacks the respiratory system, and leads to lung tissue damage. Asthma, bronchitis, and other respiratory ailments, as well as cardiovascular diseases, are aggravated by exposure to ozone. A healthy person exposed to high concentrations of ozone may become nauseated or dizzy, may develop a headache or cough, or may experience a burning sensation in the chest.

3.2.2 Significant Environmental Impacts

Based upon CEQA Guidelines, Appendix G [3-1], a project is considered to have significant impact with respect to air quality if the project:

- Conflicts with or obstructs implementation of the applicable air quality plan;
- Violates any air quality standard or contributes substantially to an existing or projected air quality violation;
- Results 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 thresholds for ozone precursors);
- Exposes sensitive receptors to substantial pollutant concentrations;
- Creates objectionable odors affecting a substantial number of people.

Because the proposed project is located in a nonattainment area, approval of the proposed project is subject to an evaluation of the project's conformity with the air quality management plan for the Great Basin Unified Air District. Under the general conformity regulations [3-38] issued by U.S. Environmental Protection Agency (EPA), if the total of direct and indirect emissions resulting from the project are less than the *de minimis* thresholds given in 40 CFR 51.853, then the project is presumed to conform and no further conformity review is required. Total direct and indirect emissions are the sum of the emissions increases and decreases from the proposed project, or the "net" change in emissions anticipated to occur as a result of the proposed project (40 CFR 93.152). The *de minimis* thresholds that apply to PM-10 nonattainment areas, including the Mammoth Lakes

region, are 100 tons per year. The *de minimis* thresholds that apply to ozone transport regions are 50 tons per year of VOCs and 100 tons per year of nitrogen oxides (NO_x).

Potential emissions associated with the proposed project generally fall into the following two categories: construction related emissions and operational emissions. **Table III-2** summarizes emissions sources that fall into each category.

Based on available information, it is anticipated that construction of the improvements recommended in the proposed project would occur in 2002 and that introduction of air carrier activity and the corresponding change in Airport operations levels and the aircraft fleet mix would not occur until 2003. Consequently, operational emissions and construction emissions are not expected to be cumulative. Regardless, the proposed project is not expected to result in direct or indirect emissions that exceed applicable *de minimis* thresholds. Operational emissions and construction emissions are discussed in further detail in the following sections.

Table III-2

Emission Sources

Operational Emissions Sources	Construction Emissions Sources
Aircraft engines	Construction employee vehicles (gasoline)
Passenger and employee motor vehicles	Diesel and gasoline-powered trucks
Aircraft ground support equipment	Diesel and gasoline-powered construction equipment
Stationary sources/point sources	

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

3.2.2.1 Operational Emissions

This section documents the results of an emissions analysis conducted for Mammoth Yosemite Airport for the base year (1999) and future years (2003, 2007, and 2022). An emissions inventory was prepared for the proposed project. It was developed using the FAA's Emissions and Dispersion Modeling System (EDMS) and other standard air quality modeling techniques. Pollutant emissions were calculated for all Airport-related sources of pollution including: aircraft, airport motor vehicle traffic (on roads and in parking areas), ground support equipment (GSE), and stationary sources (generators, fuel tanks, etc.). Emissions from these sources were then added together to determine total emissions for the proposed project. Total emissions for the proposed project, Alternative 2, were compared to the no action alternative, Alternative 1, to determine the change in operational emissions.

Aircraft landing takeoff cycles (LTOs) information and other data used to calculate aircraft emissions are summarized in **Tables III-3 and III-4**. Ground vehicle traffic volumes and vehicle miles traveled (VMT) for the proposed project are summarized in **Table III-5**. For the ground vehicle emissions inventories it was assumed that all passenger vehicles originating at the Airport would travel a roundtrip distance of approximately 19 miles (i.e., to and from the Town of Mammoth Lakes). The number of vehicle trips modeled included direct vehicle trips that would originate or terminate at the Airport.

Default EDMS emissions factors were used to calculate emissions of CO, NO_x, VOC, and SO_x. PM-10 emissions factors for ground vehicles are based on information contained in the document *Air*

Quality Management Plan for the Town of Mammoth Lakes. [3-4] As discussed in the AQMP, cars and other on-road motor vehicles on average generate approximately 36 grams of resuspended road cinders per vehicle mile traveled. Motor vehicle exhaust and tire-wear also contribute to PM-10 pollution in the Mammoth Lakes region. Vehicle tail pipe and tire-wear emissions factors are summarized below.

- Light Duty Passenger 5.0×10^{-4} lbs/VMT
- Light Duty Trucks 4.9×10^{-4} lbs/VMT
- Medium Duty Trucks 5.8×10^{-4} lbs/VMT
- Heavy Duty Diesel 4.8×10^{-3} lbs/VMT

EDMS Version 3.23 is not capable of predicting PM-10 emissions for aircraft; however, the U.S. EPA has developed some guidance for calculating aircraft PM-10 emissions. Aircraft PM-10 emissions factors were derived from information contained in the U.S. EPA document, *AP-42, Compilation of Air Pollutant Emissions Factors, Volume II: Mobile Sources, Fourth Edition (September 1985).* [3-39] AP-42 contains detailed information regarding fuel flow rates and pollutant emissions (CO, NO_x, SO_x, HC, and PM-10) for a variety of aircraft engines. However, AP-42 contains particulate emissions factors for only nine types of commercial aircraft engines. **Table III-6** lists the particulate emissions factors (expressed in kg/hr) for the nine different engine types. The emissions factors are broken down into the four modes that comprise a landing/take-off cycle (LTO).

Table III-3

1999 Aircraft Landing Takeoff Cycles – Mammoth Lakes Airport

INM Aircraft Type	EDMS Type	EDMS Engine	PM-10 Engine	Annual Operations	LTO Cycles
Gulfstream/Challenger	Gulfstream	RDA7	SPEY MK511	60	30
Lear 35	Lear 35/36	TFE 731-2-2B	SPEY MK511	270	135
Citation	Cessna Citation	JT15D-1	SPEY MK511	270	135
Twin Turboprop	KingAir 200	PT6A-41	TPE331-3	270	135
Twin Prop	Navajo	TIO-540-J2B2	TPE331-3	1130	565
Large single engine prop	Cherokee Six	TIO-540-J2B2	TPE331-3	2000	1000
Small single engine prop	Cessna 150	0-200	TPE331-3	2000	1000
Total				6000	3000

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

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Table III-4

Aircraft Landing Takeoff Cycles – Proposed Project

INM Aircraft Type	EDMS Type	EDMS Engine	PM-10 Engine	Annual operations	LTO Cycles
2003					
B-757-200	B-757-200	RB211-535e4	CF6-50C	600	300
B-737-800/A-319	B737-800	CFM56-3C-1	CF6-50C	0	0
BAE-146	BAE 146	LF507 Series	CF6-50C	0	0
Regional jet	Embraer	PT6A-27	CF6-50C	0	0
30 seat commuter	DHC-8	PW120	TPE331-3	780	390
19 seat commuter	DHC-6	PT6A-27	TPE331-3	700	350
Gulfstream/Challenger	Gulfstream	RDA7	SPEY MK511	70	35
Lear 35	Lear35/36	TFE 731-2-2B	SPEY MK511	300	150
Citation	Cessna Citation	JT15D-1	SPEY MK511	300	150
Twin turboprop	KingAir 200	PT6A-41	TPE331-3	300	150
Twin prop	Navajo	TIO-540-J2B2	TPE331-3	1240	620
Large single engine prop	Cherokee Six	TIO-540-J2B2	TPE331-3	2200	1100
Small single engine prop	Cessna 150	0-200	TPE331-3	2200	1100
Total				8690	4345
2007					
B-757-200	B-757-200	RB211-535e4	CF6-50C	860	430
B-737-800/A-319	B737-800	CFM56-3C-1	CF6-50C	780	390
BAE-146	BAE 146	LF507 Series	CF6-50C	290	145
Regional jet	Embraer	PT6A-27	CF6-50C	490	245
30 seat commuter	DHC-8	PW120	TPE331-3	2040	1020
19 seat commuter	DHC-6	PT6A-27	TPE331-3	2040	1020
Gulfstream/Challenger	Gulfstream	RDA7	SPEY MK511	80	40
Lear 35	Lear35/36	TFE 731-2-2B	SPEY MK511	340	170
Citation	Cessna Citation	JT15D-1	SPEY MK511	340	170
Twin turboprop	KingAir 200	PT6A-41	TPE331-3	340	170
Twin prop	Navajo	TIO-540-J2B2	TPE331-3	1430	715
Large single engine prop	Cherokee Six	TIO-540-J2B2	TPE331-3	2530	1265
Small single engine prop	Cessna 150	0-200	TPE331-3	2530	1265
Total				14090	7045
2022					
B-757-200	B-757-200	RB211-535e4	CF6-50C	1800	900
B-737-800/A-319	B737-800	CFM56-3C-1	CF6-50C	1600	800
BAE-146	BAE 146	LF507 Series	CF6-50C	750	375
Regional jet	Embraer	PT6A-27	CF6-50C	850	425
30 seat commuter	DHC-8	PW120	TPE331-3	3300	1650
19 seat commuter	DHC-6	PT6A-27	TPE331-3	3300	1650
Gulfstream/Challenger	Gulfstream	RDA7	SPEY MK511	120	60
Lear 35	Lear35/36	TFE 731-2-2B	SPEY MK511	540	270
Citation	Cessna Citation	JT15D-1	SPEY MK511	540	270
Twin turboprop	KingAir 200	PT6A-41	TPE331-3	540	270
Twin prop	Navajo	TIO-540-J2B2	TPE331-3	2270	1135
Large single engine prop	Cherokee Six	TIO-540-J2B2	TPE331-3	4020	2010
Small single engine prop	Cessna 150	0-200	TPE331-3	4020	2010

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc

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Table III-5

Ground Vehicle Trips – Mammoth Lakes Airport

	Total Vehicles	Vehicle Miles Traveled
1999		
Buses	n.a.	0
Shuttle vans	n.a.	7,335
Rental cars	n.a.	0
Cabs	n.a.	58,721
Private vehicles, parking	n.a.	146,822
Private vehicles, dropoff/pickup	n.a.	39,284
total	n.a.	252,181
2003		
Buses	1,505	28,018
Shuttle vans	623	11,594
Rental cars	3,736	69,563
Cabs	2,283	42,511
Private vehicles, parking	2,076	38,646
Private vehicles, dropoff/pickup	1,071	19,941
Indirect vehicle trips	0	0
total	11,294	210,273
2007		
Buses	4,565	84,984
Shuttle vans	1,889	35,166
Rental cars	11,333	210,995
Cabs	6,926	128,941
Private vehicles, parking	6,296	117,219
Private vehicles, dropoff/pickup	3,249	60,485
Indirect vehicle trips	0	0
total	34,257	637,790
2022		
Buses	9,177	170,865
Shuttle vans	3,798	70,703
Rental cars	22,785	424,215
Cabs	13,924	259,243
Private vehicles, parking	12,658	235,675
Private vehicles, dropoff/pickup	6,532	121,608
Indirect vehicle trips	0	0
Total	68,875	1,282,309

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

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Table III-6

Particulate (PM-10) Emissions Factors by Aircraft Engine Type and Mode

	Particulate Emissions Factors By Mode (kg/hr)			
Engine Type	Approach	Climbout	Takeoff	Taxi/Idle
CF6-50C	0.20	0.24	0.24	0.02
CF6-6D	0.20	0.24	0.24	0.02
F100-PW-100	0.50	3.90	0.00	0.05
JT3D-7 SERIES	3.60	3.90	3.70	0.20
JT8D-17	0.68	1.20	1.70	0.16
JT9D-7	1.00	1.80	1.70	1.00
JT9D-70A	1.00	1.80	1.70	1.00
SPEY MK511	0.68	4.50	7.30	0.08
T56-A-7	1.40	1.40	1.70	0.70
TPE331-3	0.27	0.27	0.36	0.14

Source: *AP-42, Compilation of Air Pollutant Emission Factors, Volume II: Mobile Sources, Fourth Edition.* September 1985
Prepared by: Ricondo & Associates, Inc.

The annual emissions inventories are presented in **Table III-7**. As shown in Table III-7, the primary source of particulate emissions at the Airport are ground access vehicles (including passenger vehicles, courtesy shuttles, taxis, etc.) on roadways and in parking areas. Emissions of ozone precursor pollutants (VOCs and NO_x) are predominantly generated by aircraft and ground support equipment. Motor vehicles are also significant sources of NO_x emissions.

Implementation of the proposed project would increase NO_x and VOC emissions in the region due to additional aircraft activity at the Airport and the introduction of ground support equipment. Introduction of air carrier service at the Airport would also increase the number of ground motor vehicle trips originating at the Airport and hence could cause additional particulate emissions. However, while introducing air carrier service to Mammoth Yosemite Airport would increase aircraft-related pollution in the future, as demonstrated in Table III-8 it could significantly reduce "highway" related emissions in the region as more people access the region by air in the long term.

As presented in **Table III-8**, it is expected that the change in operational emissions associated with the implementation of the proposed project would fall below established *de minimis* thresholds for ozone precursors and PM-10. The introduction of air carrier jet operations into Mammoth Yosemite Airport would increase aircraft NO_x emissions and VOC emissions, however the project emissions are expected to be below *de minimis* thresholds.

[The Mammoth region is currently in attainment of the federal and State NAAQS for CO and SO_x. CO and SO_x emissions are presented in Table III-7 for informational purposes only.]

Table III-7

Airport Emissions Inventories – 1999, 2003, 2008, and 2022

Year and Source	CO (tons/yr)	VOC (tons/yr)	NOx (tons/yr)	SOx (tons/yr)	PM-10 (tons/yr)
1999					
Aircraft	81.44	2.16	0.16	0.02	0.07
GSE (a)	6.09	0.13	0.32	0.01	0.01
Roadways and Parking (b)	3.20	0.82	0.69	0.03	10.07
Stationary Sources	0.00	0.31	0.00	0.00	0.00
Total	94.08	3.42	1.18	0.06	10.15
2003 Proposed Project					
Aircraft	87.71	2.50	9.20	0.28	0.12
GSE (a)	13.94	0.31	0.85	0.03	0.03
Roadways and Parking (b)	4.55	0.63	0.53	0.03	8.40
Stationary Sources	0.00	0.31	0.00	0.00	0.00
Total	106.20	3.74	10.58	0.34	8.55
2007 Proposed Project					
Aircraft	121.66	6.69	20.29	0.84	0.24
GSE (a)	78.36	1.81	6.59	0.17	0.22
Roadways and Parking (b)	12.55	1.75	1.48	0.08	25.47
Stationary Sources	0.00	0.31	0.00	0.00	0.00
Total	212.57	10.57	28.37	1.09	25.93
2022 Proposed Project					
Aircraft	200.00	11.27	41.44	1.67	0.44
GSE (a)	138.44	3.21	11.55	0.30	0.38
Roadways and Parking (b)	20.68	2.72	2.86	0.16	51.21
Stationary Sources	0.00	0.31	0.00	0.00	0.00
Total	359.12	17.52	55.85	2.13	52.03

(a) EDMS default GSE settings used .
(b) PM-10 emissions include exhaust, tire wear, break wear, and entrained road dust.

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Table III-8

Changes in Operational Emissions for the Proposed Project and De Minimis Criteria (Tons per year)

	PM-10	VOC	NOx
2003 Operational Impacts			
No Project	20.02	3.64	1.23
Proposed Project	8.55	3.74	10.58
Change in Emissions	(-11.47)	(+ 0.10)	(+ 9.4)
2007 Operational Impacts			
No Action	52.06	4.05	1.33
Proposed Project	25.93	10.57	28.37
Change in Emissions	(-26.13)	(+ 6.52)	(+ 27.04)
2022 Operational Impacts			
No Project	86.53	5.94	2.07
Proposed Project	52.03	17.52	55.85
Change in Emissions	(-34.50)	(+ 11.58)	(+ 53.78)
De minimis criteria	100	50	100

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

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3.2.2.2 Construction Emissions

Under the General Conformity regulations, emissions associated with construction activities must be calculated, added to operational period emissions directly or indirectly attributable to the project, if appropriate, and the total compared to the annual *de minimis* standards/levels for criteria pollutants. As discussed earlier in this section, the Airport is located in a nonattainment area for PM-10 and an ozone transport region (OTR). Pollutants evaluated in the construction emissions analysis, therefore, included PM_{10} and ozone precursors: volatile organic compounds (VOCs) and oxides of nitrogen (NO_x).

Construction Schedule

Construction schedules for the proposed airfield and terminal facility improvements at Mammoth Yosemite Airport were developed by Ricondo & Associates, Inc. in association with Brandley Engineering and Mammoth Yosemite Airport staff. The construction schedules are estimates of the actual construction sequencing of the proposed project (due to the conceptual level of project design) and were used to determine annual estimates of pollutant emissions for 2002 (the proposed year of construction).

The methodology used to determine annual construction-related emissions estimates is discussed below.

Methodology

Construction related emissions are a factor of: (1) the type and horsepower of the construction equipment, (2) the operating time of the equipment (expressed in annual hours or number of vehicle miles traveled), (3) equipment fuel type, (4) equipment age (newer construction equipment is assumed to be subject to stricter emissions standards) (5) equipment loading (load factor), and (6) local climatologic variables. Construction equipment types, model year, and equipment usage data were developed by Ricondo & Associates. These data are presented in Appendix G.

Emissions caused by non-road equipment (bulldozers, loaders, cranes, etc.), which can not travel on highways and local roadways and by on-road equipment (tractor trailers, light duty trucks, employee travel vehicles, etc.) were evaluated separately to account for national emissions standards that are in place for on-road vehicles. Emissions from these two broad types of construction equipment were then added together to determine total annual construction emissions.

Diesel and Gasoline Engine Non-Road Equipment Emissions

Emissions factors for non-road diesel equipment were derived from the Tier 1 controlled emission standards regulated under *40 CFR, Part 89.112* (USEPA, September 1997) for equipment models built since 1996.

Emissions factors for non-road gasoline equipment were based on the following source:

- Gasoline emission factors in AP-42: Compilation of Air Pollutant Emission Factors, Mobile Sources (April, 1998) [3-39]

Horsepower data for each equipment type were obtained either from the Caterpillar *Performance Handbook* [3-40] or from the USEPA document *Non-road Engine and Vehicle Emission Study - Report* (USEPA, November 1991) and subsequent reports. [3-41]

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Vehicle emission factors, expressed in grams per hour per horsepower, for the three criteria pollutants of interest (VOC, NO_x, and PM_{10}) were multiplied by the estimated running time, load factor, and horsepower for each piece of construction equipment. In this manner, it was possible to calculate the total emissions (in grams) from each piece of equipment for each year of the analysis. Estimates of pollutant emissions were subsequently converted from grams to tons.

USEPA recommends the following technique for calculating hourly emissions from non-road engine sources :

$M_i = N \times HP \times LF \times EF_i$

where:

M_i = mass of emissions of i^{th} pollutants during inventory period;
N = source population (units);
HP = average rated horsepower;
LF = typical load factor;
EF_i = average emissions of i^{th} pollutant per unit of use (e.g., grams per mile).

A sample calculation of NO_x emissions from a grader (CAT 12G-1988 model) that is expected to be used during 12 months of construction is provided below:

Operational hours = 1,040 hours (provided by the contractor)
Total Emissions = 1,040 hours/year x 140 hp x 61% x 9.6 grams/hp-hr
= 852,634 grams/year
= 0.94 tons/12-month

The estimate of non-road equipment emissions for 2002 is presented in Appendix G and summarized in **Table III-9**.

Table III-9

2002 Construction Emissions for the Proposed Project and De Minimis Criteria (Tons per year)

	PM-10	VOC	NOx
Non-road emissions	2.02	1.51	21.83
On-road emissions	56.71	1.41	13.66
Total	58.73	2.92	35.49
De minimis criteria	100	50	100

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates Inc.

Diesel and Gasoline Engine On-Road Equipment Emissions

During construction, a variety of light duty trucks and tractor trailers would be used for moving construction materials and people on and off the project site. Emissions factors for these on-road motor vehicles were determined using the California Air Resources Board's EMFAC7G model. EMFAC, derived from the abbreviation for "**EM**ission **FAC**tor," was used to calculate calendar year specific vehicle emissions factors. The latest release of EMFAC, EMFAC7G, produces emissions factors whose magnitudes are a function of calendar years (1970 through 2020), seasons (summer & winter), processes (exhaust and evaporative), pollutants (Total Organic Gases, Reactive Organic Gases, Hydrocarbons, Volatile Organic Compounds, Carbon Monoxide, Oxides of Nitrogen, Carbon

Dioxide, exhaust particulate matter, particulate matter-tire wear, and particulate matter-break wear), vehicle class/technologies, speeds, temperature, and soak times. Assumptions used in the on-road vehicle emissions analysis for the Town of Mammoth Lakes are described in detail in Appendix G.

Emissions factors calculated by EMFAC7G are supplied in the form of grams per mile traveled. For the construction emissions analysis, the number of vehicle miles traveled in a year by each piece of on-road construction equipment was multiplied by the EMFAC7G emissions factor to calculate the total pollutant emissions by equipment (in grams per year). This figure was then multiplied by a conversion factor to convert from grams to tons.

The following formula details the process of calculating pollutant emissions associated with on-road construction equipment.

$M_i = N \times DY \times EF_i$

where:

M_i = mass of emissions of i^{th} pollutants during inventory period;
N = source population (units);
DY = distance traveled per year;
EF_i = average emissions of i^{th} pollutant per unit of use (e.g., grams per horsepower-hour).

A sample calculation of NO_x emissions from two trucks that would be used during 12 months of construction is provided below:

Operational miles = 1,040 miles (provided by the contractor)
Total Emissions = 2 Trucks x 1,040 miles/year x 1.35 grams/mile
= 2,808 grams/year
= 6.19 tons/12-month

The estimate of on-road equipment emissions for 2002 is presented in Appendix G and summarized in Table III-9.

3.2.2.3 Project Related Emissions and De Minimis Threshold Criteria

Total project related emissions (construction and operational) for the proposed project are summarized in **Table III-10**. Based on the preceding analyses, it is expected that *de minimis* thresholds for criteria pollutants being analyzed in this SSEIR would not be exceeded in any year if the proposed project is implemented.

As discussed in the air quality management plan for the Town of Mammoth Lakes, particulate emissions in the Mammoth Lakes region are predominantly caused by woodburning stoves and motor vehicle traffic. As shown in Table III-10, introduction of commercial air service to Mammoth Lakes Yosemite Airport is expected to reduce particulate emissions in the region when compared to the no project alternative. In summation the proposed project would have a beneficial impact to air quality in the region. As discussed in Appendix N, Response to Comments FF-2, and Tables N-2 and N-3, the proposed project would reduce visitor vehicle miles traveled (VMT) as more people are accommodated in higher occupancy vehicles. It is noted that reduction/control of VMT in and around the Town of Mammoth Lakes is a stated goal in SIP.

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Vehicle emission factors, expressed in grams per hour per horsepower, for the three criteria pollutants of interest (VOC, NO_x, and PM_{10}) were multiplied by the estimated running time, load factor, and horsepower for each piece of construction equipment. In this manner, it was possible to calculate the total emissions (in grams) from each piece of equipment for each year of the analysis. Estimates of pollutant emissions were subsequently converted from grams to tons.

USEPA recommends the following technique for calculating hourly emissions from non-road engine sources :

$M_i = N \times HP \times LF \times EF_i$

where:

- M_i = mass of emissions of i^{th} pollutants during inventory period;
- N = source population (units);
- HP = average rated horsepower;
- LF = typical load factor;
- EF_i = average emissions of i^{th} pollutant per unit of use (e.g., grams per mile).

A sample calculation of NO_x emissions from a grader (CAT 12G-1988 model) that is expected to be used during 12 months of construction is provided below:

Operational hours	=	1,040 hours (provided by the contractor)
Total Emissions	=	1,040 hours/year x 140 hp x 61% x 9.6 grams/hp-hr
	=	852,634 grams/year
	=	0.94 tons/12-month

The estimate of non-road equipment emissions for 2002 is presented in Appendix G and summarized in **Table III-9**.

Table III-9

2002 Construction Emissions for the Proposed Project and De Minimis Criteria (Tons per year)

	PM-10	VOC	NOx
Non-road emissions	2.02	1.51	21.83
On-road emissions	56.71	1.41	13.66
Total	58.73	2.92	35.49
De minimis criteria	100	50	100

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates Inc.

Diesel and Gasoline Engine On-Road Equipment Emissions

During construction, a variety of light duty trucks and tractor trailers would be used for moving construction materials and people on and off the project site. Emissions factors for these on-road motor vehicles were determined using the California Air Resources Board's EMFAC7G model. EMFAC, derived from the abbreviation for "EMission FACtor," was used to calculate calendar year specific vehicle emissions factors. The latest release of EMFAC, EMFAC7G, produces emissions factors whose magnitudes are a function of calendar years (1970 through 2020), seasons (summer & winter), processes (exhaust and evaporative), pollutants (Total Organic Gases, Reactive Organic Gases, Hydrocarbons, Volatile Organic Compounds, Carbon Monoxide, Oxides of Nitrogen, Carbon

Dioxide, exhaust particulate matter, particulate matter-tire wear, and particulate matter-break wear), vehicle class/technologies, speeds, temperature, and soak times. Assumptions used in the on-road vehicle emissions analysis for the Town of Mammoth Lakes are described in detail in Appendix G.

Emissions factors calculated by EMFAC7G are supplied in the form of grams per mile traveled. For the construction emissions analysis, the number of vehicle miles traveled in a year by each piece of on-road construction equipment was multiplied by the EMFAC7G emissions factor to calculate the total pollutant emissions by equipment (in grams per year). This figure was then multiplied by a conversion factor to convert from grams to tons.

The following formula details the process of calculating pollutant emissions associated with on-road construction equipment.

$M_i = N \times DY \times EF_i$

where:

M_i = mass of emissions of i^{th} pollutants during inventory period;
N = source population (units);
DY = distance traveled per year;
EF_i = average emissions of i^{th} pollutant per unit of use (e.g., grams per horsepower-hour).

A sample calculation of NO_x emissions from two trucks that would be used during 12 months of construction is provided below:

Operational miles = 1,040 miles (provided by the contractor)
Total Emissions = 2 Trucks x 1,040 miles/year x 1.35 grams/mile
= 2,808 grams/year
= 6.19 tons/12-month

The estimate of on-road equipment emissions for 2002 is presented in Appendix G and summarized in Table III-9.

3.2.2.3 Project Related Emissions and De Minimis Threshold Criteria

Total project related emissions (construction and operational) for the proposed project are summarized in **Table III-10**. Based on the preceding analyses, it is expected that *de minimis* thresholds for criteria pollutants being analyzed in this SSEIR would not be exceeded in any year if the proposed project is implemented.

As discussed in the air quality management plan for the Town of Mammoth Lakes, particulate emissions in the Mammoth Lakes region are predominantly caused by woodburning stoves and motor vehicle traffic. As shown in Table III-10, introduction of commercial air service to Mammoth Lakes Yosemite Airport is expected to reduce particulate emissions in the region when compared to the no project alternative. In summation the proposed project would have a beneficial impact to air quality in the region. As discussed in Appendix N, Response to Comments FF-2, and Tables N-2 and N-3, the proposed project would reduce visitor vehicle miles traveled (VMT) as more people are accommodated in higher occupancy vehicles. It is noted that reduction/control of VMT in and around the Town of Mammoth Lakes is a stated goal in SIP.

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Table III-10

Total Project Emissions for the Proposed Project and De Minimis Criteria (Tons per year)

	PM-10	VOC	NOx
2002 Construction Impacts			
No Project	0	0	0
Proposed Project	58.7	2.9	35.5
2003 Operational Impacts			
No Project	20.0	3.6	1.2
Proposed Project	8.6	3.7	10.6
Change in Emissions	(-11.5)	(+ 0.1)	(+ 9.4)
2007 Operational Impacts			
No Action	52.1	4.1	1.3
Proposed Project	25.9	10.6	28.4
Change in Emissions	(-26.1)	(+ 6.5)	(+ 27.0)
2022 Operational Impacts			
No Project	86.5	5.9	2.1
Proposed Project	52.0	17.5	55.9
Change in Emissions	(-34.5)	(+ 11.6)	(+ 53.8)
De minimis criteria	100	50	100
Total Annual Emissions Great Basin Valleys (a)	20,075	4,745 (b)	3,285
Total Annual Emissions Mono County (c)	9,950	2,256 (b)	843

(a) 1996 Estimated Value. Produced by the California Air Resources Board.
(b) Estimate is for Reactive Organic Compounds (ROC)
(c) 2000 Estimated Value. Produced by the California Air Resources Board

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

As discussed above, the Great Basin Valleys Air Basin including Mono County is an ozone transport region. The proposed project would increase emissions of ozone precursor pollutants (NO_x and VOC), however the "net" increase in emissions would not exceed federal and State *de minimis* thresholds. As shown on Table III-10, Airport related emissions of Ozone precursor pollutants associated with the proposed project would also be a fraction of the total pollutant emissions generated in the Great Basin Valleys Region and Mono County and hence would not be regionally significant (would not contribute 10 percent or more of the pollution). Therefore, it is anticipated that the proposed project would no cause any exceedances of State ambient air quality standards (AAQS).

It is also assumed that project-related emissions would not contribute to new violations of the ambient air quality standards for Ozone precursors or otherwise increase the frequency of such violations. Project related emissions of NOx and VOC are expected to be highest during winter months when visitor demand to the region is the highest. As discussed in the report *Second Triennial Review of the Assessment of the Impacts of Transported Pollutants on Ozone Concentration in California* prepared by the Air Resources Board [3-42], historical exceedance events/extreme concentrations measured at the Mammoth Lakes air monitoring site occurred in July and August. It is also noted that the Air Resources Board determined that all violation days in Mono County and in the Great Basin Valleys Air Basin were overwhelmed by transport from the San Joaquin Valley. As stated in the report, "based on the time of day that the violations occurred, the characteristics of the

violations, the predominantly westerly wind patterns, and the comparatively small emissions in the GBVAB, the staff considers these violations to be the result of overwhelming transport from the San Joaquin Valley." In light of these findings it is assumed that the proposed project would not contribute to new violations of the ambient air quality standard for Ozone precursors as the historical violations were overwhelmingly the result of transport from the San Joaquin Valley by westerly winds. It is important to note that the Airport is located east of the Town of Mammoth Lakes and therefore Airport-related emissions would not contribute to concentrations in the Town during an exceedance event because of the predominance of winds blowing from the west to the east.

The proposed project is presumed to conform with air quality standards promulgated in the Clean Air Act and the California Clean Air Act. As the preceding analysis demonstrates, the project would not result in emissions that would exceed the applicable *de minimis* threshold rates, nor would the project be considered "regionally significant" with regard to air pollution emissions because project emissions would represent less than 10 percent of the total emissions in the region. A formal conformity determination, therefore, is not legally required for this project. EPA's rules and guidance are clear that where the net emissions increase resulting from the project do not exceed the applicable threshold rates, there are no further obligations with regard to the conformity rules. Thus, the proposed project is assumed to conform with the SIP and has no unavoidable significant impacts. Because project related emissions of federal and State criteria pollutants are below *de minimus* levels, no new significant impacts to air quality would be expected to result from the proposed project.

3.2.1 Mitigation Measures

3.2.1.1 Operation

Implementation of the proposed project is not expected to result in an increase of emissions that exceed the thresholds as promulgated in the Clean Air Act and the California Clean Air Act. Implementation of the proposed project would potentially reduce particulate emissions in the Mammoth Lakes region as a result of reducing motor vehicle traffic. The proposed project would increase emissions of NO_x and VOC but these emissions increases would be less then *de minimis* levels. Therefore no mitigation measures are required.

Apart from the proposed project the Town of Mammoth Lakes is also examining the feasibility of providing transit service to the Airport with vehicles powered by compressed natural gas or other alternative fuels instead of using existing diesel vehicles.[1] In 1998 the Air Resources Board identified diesel particulates as a toxic air contaminant[2]. The Town of Mammoth Lakes will continue to work with the California Air Resources Board to identify feasible and cost effective measures to reduce any air quality impacts of the proposed project. Conversion of airport ground support equipment to compressed natural gas when and if feasible would also reduce project related emissions of NO_x and VOC. Conversion of the transit system and ground support equipment to alternative fuels would also reduce particulates emitted by diesel fuel engines.

[1] At this time the City of Mammoth Lakes has not made a final determination regarding the feasibility of alternative fueled vehicles.

[2] California Environmental Protection Agency Air Resources Board. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* October 2000. [3-43]

3.2.1.2 Construction

The proposed project and alternatives involve construction activities that may result in temporary environmental impacts, primarily from excavation and subsurface preparation. However there are mitigation measures which can be used to lessen these impacts.

Fugitive dust, which may be emitted during construction as well as a result of wind erosion over exposed earth surfaces, has the greatest nuisance potential. Dust generation is highly variable. The amount of dust generated on a given day depends on the types and amount of construction activity and on meteorological and soil conditions. Although construction activities may have a discernable impact within a short distance from the project site, the potential for nuisance is limited and the impact is temporary, because the impact would cease when construction activity ceases. The most likely impact of construction would be increased dustfall immediately downwind of the area of active construction.

The preliminary design for this runway extension and supporting taxiways keeps a relatively even cut and fill. Consequently significant amounts of cut and fill material would not be required to be transported on or off the project site. Dust control measures, such as watering trucks and/or pumped systems, would be continuously implemented throughout the construction period. All exposed soil areas would be stabilized and re-seeded in accordance with an approved landscape/re-vegetation plan as soon as feasible. All stockpiles of unsuitable soil materials would be removed and disposed of at approved sites designated by the Town of Mammoth Lakes.

Air quality impacts resulting from construction activities can be significantly reduced through the application of the recommendations set forth in FAA Advisory Circular 150/5370-10A, *Standards for Specifying Construction at Airports* [3-5]. These procedures would restrict the emission of dust (particulate matter) and provide a series of measures that can be taken to prevent particulate matter from becoming airborne.

3.2.2 Unavoidable Significant Impacts

Because the proposed project is not expected to result in a new significant impact on regional air quality, no new unavoidable adverse impacts would occur.

3.2.3 Cumulative Impacts

The cumulative environmental impacts of the proposed project and the Airport Commercial Development Plan were reviewed in the 1986 EIR/EA and 1997 SEIR/EA. The airfield improvements analyzed for air quality in the 1986 EIR/EA were more extensive than the current proposed project. The airfield improvements analyzed for air quality impacts in the 1986 EIR/EA included a new crosswind runway and supporting taxiway structure as opposed to just a runway extension sought under the proposed project. The air quality impacts in the 1986 EIR/EA and 1997 SEIR/EA for both the airfield improvements and the Airport Commercial Development Plan were found not to be significant provided that "best management" practices were followed during the construction of the projects and followed the guidelines of the Great Basin Unified Air Pollution Control District (GBAUPCD)

The Sierra Business Park Specific Plan and EIR [3-2] calculates the construction exhaust emissions that are shown to be well below significant thresholds. Dust emissions from grading activities are anticipated to be less than significant provided that best available control measures

are used for dust control. Long-term traffic related emissions are anticipated to be well below relevant thresholds of significance. **Table III-11** summarizes the long-term emissions of the Proposed Project with the anticipated emissions generated by the Sierra Business Park. As shown in Table III-12 the emissions associated with the two projects together do not result in annual emissions above the established de-minimis thresholds.

Table III-11

Cumulative Operational Emissions and De Minimis Criteria (Tons per year)

Project/Year	PM-10	VOC	NOx
Airport Development Plan	24.04	12.92	47.40
Sierra Business Park	7.85	9.13	20.44
Emissions Sub Total	31.89	22.05	67.84
De minimis criteria	100	50	100

Source: Airport Development Plan: 1986 EIR/EA and 2000 EA, Sierra Business Park: Sierra Business Park Specific Plan and Final EIR.
Prepared By: Ricondo & Associates, Inc.

It should be noted that Table III-11 applies the de minimus criteria established for evaluating air quality impacts, which criteria were developed by the U.S. Environmental Protection Agency as part of the general air quality conformity regulations. This reference to *de minimus* criteria does not refer to the separate *de minimus* criteria set forth in the CEQA Guidelines.

Based on the analysis in this SSEIR and the information and conclusions in the prior environmental reviews, the project changes evaluated in this SSEIR would not result in any new significant cumulative impact on air quality or any substantially more severe cumulative impact on air quality.

3.3 Biological Resources

The biological resources impacts of the Airport have been evaluated in the previously certified 1986 EIR/EA and the 1997 SEIR/EA documents. Please refer to Appendix A for the summary of biological resources impacts, their significance, and mitigation measures from the 1997 SEIR/EA (which incorporated the 1986 EIR/EA).

This section discusses potential environmental impacts with respect to biological resources as a result of the proposed modifications to the Airport, which were not previously evaluated. The changes in the current Airport proposal which may impact biological resources include construction of a new package wastewater treatment plant (instead of a new leach field), the extension of the runway by 1,200 feet (rather than 2,000 feet) an increase in it's the runway width to 150 feet, and the replacement of an existing 4.8 feet barbed-wire perimeter security fence with an 8 foot chain link fence. No other changes are proposed to the Airport, that would result in biological resources effects, which have not already been evaluated. Moreover, all previously required mitigation measures would still apply to the proposed project.

A Biological Assessment (BA) for the impacts of the proposed project on special status species was prepared by the office of Jones & Stokes Associates, Sacramento, California to comply with Section 7 of the U.S. Endangered Species Act of 1973 (16 USC 1536). The BA is included as Appendix I, and is entitled Biological Assessment for the Mammoth Yosemite Airport Expansion Project Mono County, California, March 2001 [3-12]. Also a Biological Opinion was issued by the U.S. Fish and Wildlife Service (USFWS) on July 23, 2001 for the FAA activities related to the Final Environmental Assessment for the Mammoth Yosemite Airport Expansion Project. This biological opinion is included as Appendix J.

The following categories of biological resources are discussed: (1) Vegetation, (2) Wildlife, (3) Threatened and Endangered Species, and (4) Water Resources.

3.3.1 Environmental Setting

The project site is located within the Eastern Sierra Nevada Region of the Great Basin Floristic Province at approximately 7,080 to 7,130 feet above sea level. Much of the project area lies close to the Mammoth Yosemite Airport, U.S. Highway 395, and Airport Road, and has been previously disturbed by these developments.

The project site is dominated by big sagebrush scrub, which is mostly disturbed, and includes a non-jurisdictional dry meadow located between the east end of the Airport runway and Benton Crossing Road. Both of these communities are described in detail in Section 3.3.1.1 and in Appendix I. The habitats in the project area were evaluated for their suitability to support feeding, nesting, breeding, and germination habitats for various wildlife and plant species.

3.3.1.1 Vegetation

Two plant communities occur in the project area: big sagebrush scrub and dry meadow. Big sagebrush scrub is the predominant plant community. Much of this community has been disturbed by construction, use and maintenance of the Airport facilities, access roads, and highway facilities.

The big sagebrush scrub community is underlain by a well-drained, sandy to gravely loam substrate with volcanic rock outcrops. This community is dominated by big sagebrush (Artemisia tridentata),

antelope bitterbrush (Purshia tridentata), and rabbitbrush (Chrysothamnus nauseous), with scattered desert peach (Prunus andersonii) and horsebush (Tetradymia canescens). Rabbitbrush is the dominant shrub in localized areas. Common grass species include cheatgrass (Bromus tectorum), needle-and-thread (Hesperostipa comata ssp. comata), Indian ricegrass (Acnatherum hymenoides), and squirreltail (Elymus elymoides). Common native herbs include sulphur buckwheat (Eriogonum umbellatum ssp. Subaridum), buckwheat (E. elatum var. elatum), spurred lupine (Lupinus argenteus), Eriastrum (Eriastrum sparsiflorum), Nuttall's tiquilia (Tiquilia nutallii), mentzelia (Mentzelia sp.), cryptantha (Cryptantha circumcissa), prickly phlox (Leptodactylon pungens), Stansbury's phlox (Phlox stansburyi), groundsmoke (Gayophytum diffusum), nama (Nama sp.), and others. Ruderal non-native species include goosefoot (Chenopodium sp.), amaranth (Amaranthus sp.), and woolly mullein (Verbascum thapsus).

The non-jurisdictional dry meadow is located within the eastern portion of the project area between the east end of the runway and Benton Crossing Road. This community supports hydrophytic vegetation and exhibits low chroma (10YR 2/1), which is a hydric soil indicator. The site lacks primary or secondary indicators of hydrology and, therefore, does not meet the definition of a jurisdictional wetland. Water appears to enter the site in the form of seasonal snowmelt and overland runoff from the adjacent highway and Airport runway surfaces. A small, artificially excavated drainage feature drains surface runoff toward the site from the north margin of U.S. Highway 395. Although the site does not qualify as a jurisdictional wetland, it does perform limited wetland functions such as stormwater sediment and pollution retention, and wildlife forage.

The dry meadow is dominated by native hydrophytic rhizomatous grass and grasslike species, including Baltic rush (Juncus balticus), straight-leaved rush (Juncus orthophyllus), clustered field sedge (Carex praegracilis), Nebraska sedge (Carex nebrascenis), and Kentucky bluegrass (Poa pratensis). Common herbaceous forbs include long-stalked clover (Trifolium longipes), long-stalked starwort (Stellaria logipes var. longipes), Missouri iris (Iris missouriensis), and dandelion (Taraxacum officinale). Also present are a few scattered interior roses (Rosa woodsii) and several small willow shrubs (Salix sp.)

3.3.1.2 Wildlife

The following wildlife species were observed in big sagebrush scrub habitat: gopher snake (Pituophis melanoleucus), sage thrasher (Oreoscoptes montanus), green-tailed towhee (Pipilo chlorurus), common raven (Corvus corax), black-billed magpie (Pica pica), rock wren (Salpinctes obsoletus), Nuttall's cottontail (Sylvilagus nuttallii), and California ground squirrel (Spermophilus beecheyi). Wildlife that prefer big sagebrush scrub habitat include sagebrush lizard (Sceloporus graciosus), Brewer's sparrow (Spizella breweri), black-tailed jackrabbit (Lepus californicus), and mule deer (Odocoileus hemionus).

Wildlife species observed in the dry meadow habitat include killdeer (Charadrius vociferus), western meadowlark (Sturnella neglecta), and sage grouse (Centrocercus urophasianus). Most of the wildlife species found in the adjacent big sagebrush scrub habitat would also forage in the dry meadow habitat.

The project area contains marginally suitable habitat for the white-tailed hare (Lepus townsendii) and the pygmy rabbit (Brachylagus idahoensis). However, these special status species have not been recorded in the project area or vicinity. The northern harrier (Circus cyaneus), golden eagle (Aquila chrysaetas), loggerhead shrike (Lanius ludovicianus), spotted bat (Euderma maculatum), and

Townsend's western big-eared bat (Plecotus townsendii townsendii) are special status wildlife that have not been reported to occur at the project site but may occasionally forage or roost at the site.

A total of seventeen species of diurnal raptors may be found in the Long Valley area. These are listed in **Table III-12**. The osprey (Pandion haliaetus), sharp-shinned hawk (Accipiter striatus), Cooper's hawk (Accipiter cooperii), and California gull (Larus californicus) may occasionally fly over the project site.

Table III-12

Raptor Species present in Long Valley area

Osprey (Pandion haliaetus)	Spring/fall migrants
White Tailed Kite (Elanus leucarus)	Occasional migrant
Bald Eagle (Haliacetus leucocephalus)	Roosting and spring/fall migrants
Northern Harrier (Circus cyaneus)	Resident and spring/fall migrant populations
Sharp-shinned Hawk (Accipiter striatus)	Resident and spring/fall migrant populations
Coopers Hawk (Accipiter cooperii)	Resident and spring/fall migrant populations
Northern Goshawk (Accipiter gentilis)	Resident and spring/fall migrant populations
Red-shouldered Hawk (Buteo lineatus)	Spring/fall migrants
Swainsons Hawk (Buteo swainsoni)	Spring/summer migrant populations
Red-tailed Hawk (Buteo jamaicensis)	Resident and spring/fall migrant populations
Ferruginous Hawk (Buteo regatus)	Winter roosting species
Rough-legged Hawk (Buteo lagopus)	Winter roosting species
Golden Eagle (Aquila chrysaetas)	Resident and spring/fall migrant populations
American Kestrel (Falco sparvarius)	Resident and spring/fall migrant populations
Merlin (Falco columbarius)	Winter migrant
Peregrine Falcon (Falco peregrinus)	Spring/fall migrants
Prairie Falcon (Falco mexicanus)	Resident and spring/fall migrant populations

Source: Written Communication from Floyd F. Berro, Eastern California Research Project. February 2001
Prepared By: Ricondo & Associates, Inc.

Sage Grouse

The sage grouse is a California Department of Fish and Game (CDFG) species of special concern, a U.S. Forest Service (USFS) management indicator species, and a harvest species. It is the largest species of grouse in North America and occurs scattered throughout the sagebrush-dominated rangelands in the western United States. Sage grouse were once abundant throughout their range; however, hunting, drought, and competing land uses, such as livestock grazing, have greatly reduced their numbers.

Sage grouse occur in Long Valley and in the surrounding region. Signs of sage grouse (fecal droppings) were noted on the western boundary of the study area near the Hot Creek Hatchery Road during the June 2000 surveys. One of Long Valley's largest sage grouse lek sites is located approximately three miles east of the Airport along the flight path to Runway 27. This site is identified as Bureau of Land Management (BLM) Lek 2.

Mule Deer

Mule deer are a CDFG species of concern because they are considered an important harvest species. Deer present in the vicinity of the project area are primarily from the Round Valley herd (Kucera 1988 [3-7], Taylor 1988 [3-8], U.S. Forest Service 1990 [3-9]) and Casa Diablo herd. [3-10]

The Round Valley herd has experienced a dramatic decline and fluctuation in population numbers. The number of deer counted on the Round Valley winter range declined from 5,877 deer in 1985 to 939 deer in 1991. In 1993, the number of deer in winter range counts increased to 1,334 (CDFG,

Unpublished data) and deer numbers since 1993 have increased to approximately 2,350 [Bleich personal communication]. The 1985 to 1991 decline in the Round Valley deer herd has been attributed to poor forage conditions on the winter range as a result of drought-induced changes in habitat quality. Intensive livestock grazing, plant succession, predation, road kills, and residential development on the winter range and in the migration corridor have also reduced deer numbers (Thomas 1985 [3-11]).

Field pellet group counts confirmed past survey investigations that deer frequent the project site during spring, summer, and fall. Calculations revealed that the project area supports an estimated 1,025 deer-use days during the spring migration period (early April to early June). Further analysis of pellet-group data revealed that 95 percent of all pellet groups were counted on plots located in the western half of the project area.

Variation in pellet group density between the eastern and western portions of the project area was related to differences in habitat quality. Most deer use was associated with the western half of the project area, which was characterized by dense patches of antelope bitterbrush. Bitterbrush cover provides increased foraging opportunities and visual concealment for deer. Foraging opportunities for mule deer in the eastern half of the study area were greatly reduced due to decreased bitterbrush presence and increased habitat disturbance from roads, Airport facilities, and livestock grazing. Other factors, such as noise, night lighting, and human activities associated with the Mammoth Yosemite Airport, may also contribute to the disproportionate levels of deer use between the eastern and western portions of the project area.

3.3.1.3 Threatened and Endangered Species

Wildlife field surveys were conducted June 1-3, 2000. The field surveys identified and characterized suitable habitat for endangered and threatened species. The survey was conducted by walking the project area using straight line transects. Evaluation of some endangered and threatened species was based on literature reviews, discussions with agency personnel, and knowledge of habitat conditions in the project area.

No records of endangered or threatened wildlife species for the project area or surroundings were identified from the Natural Diversity Data Base 2000 (NDDB) search of the U.S. Geological Survey quadrangles. Based on existing information, distribution data, and communication with agency personnel, three endangered or threatened species were identified as having the potential to occur in the project area: peregrine falcon, wolverine, and bald eagle.

The peregrine falcon has not been reported at the Airport site or vicinity, but could occasionally forage or roost at the site. Suitable habitat for wolverines is not present in the project area or adjacent areas. Wolverines are locally and regionally scarce, and no observations of this species in or near the project area have been recorded.

The Biological Assessment [3-12] determined the effects of the proposed project on species that are listed as endangered or threatened by the United States Fish and Wildlife Service (USFWS). The following species could potentially be affected by the proposed project: Owens tui chub (Gila bicolor snyderi), Lahontan cutthroat trout (Oncorhynchus clarki henshawi), bald eagle (Haliaeetus leucocephalus), and Sierra Nevada bighorn sheep (Ovis canadenis californianus).

Vegetation

The pre-field investigation identified the following three endangered plant species that could exist in the vicinity of the Airport: Long Valley milkvetch (Astragalus johannis-howellii), Mono milkvetch (Astragalus monoensis var. monoensis), and Mono Lake lupine (Lupinus duranii).

Botany field surveys were conducted on June 16, 2000. The field surveys determined the potential presence of special-status plant species, and identified and characterized potentially important natural communities. Meandering transects were used to cover the study area, with survey intensity varying by habitat type. All plant species were identified to the level necessary to determine their legal status. No special status plant species were identified in the project area. No Significant Natural Areas as identified under Chapter 12 of the Fish and Game Code or Rare Natural Communities were located in the project area.

Owens Tui Chub

The Owens tui chub is a federally listed endangered species. Critical habitat for this species was designated on August 5, 1985 (50 Federal Register 31592) and includes two areas: (1) the Owens River and 50 feet of riparian vegetation on either side of the river, from the Long Valley Dam downstream for a distance of eight stream miles, encompassing approximately 97 acres in the Owens Gorge; and (2) two spring provinces, including 50 feet of riparian vegetation on either side of spring brooks, encompassing approximately five acres at Hot Creek Fish Hatchery.

The decline of the Owens tui chub has been attributed to the introduction of the Lahontan tui chub into Crowley Lake. Hybridization of the Lahontan tui chub and the Owens tui chub has spread throughout the lower reaches of the Owens River system. Only those populations of Owens tui chub that are isolated by barriers have not hybridized. Water development, competition and predation by exotic species, and habitat alteration and destruction have also led to the decline of native populations. The nearest occurrence of the Owens tui chub is located at Hot Creek headsprings, approximately 0.75 mile northwest of the Airport runway.

Lahontan Cutthroat Trout

The Lahontan cutthroat trout was federally listed as an endangered species on October 13, 1970, and was reclassified as a threatened species on July 16, 1975. A recovery plan was prepared for the Lahontan cutthroat trout by the USFWS in 1995. The USFWS is in the process of preparing an updated recovery plan.

This cutthroat trout subspecies is endemic to the Lahontan Basin in northern Nevada, eastern California, and Southern Oregon. Reasons for the decline of the Lahontan cutthroat trout include loss of riparian vegetation, channelization, water management practices, and human development. These actions have exacerbated temperature fluctuations as they expose more surface water to solar radiation and to convective heat exchange with the air. Reduced flows have decreased the species' access to spawning habitat.

Lahontan cutthroat have hybridized with Yellowstone cutthroat and rainbow trout so extensively that there are only a few genetically isolated populations with uncertain purity. This hybridization either decreases the pheotypic variability or allows the rainbow trout pheotype to become dominant. In addition, it reduces the Lahontan fitness by producing a less fertile offspring.

Lahontan cutthroat trout inhabit the Lahontan Drainage, with the southern end of its range just below the Walker River. According to the USFS, the closest population of Lahontan cutthroat trout is six miles northwest of the project site in O'Harrel Canyon Creek, which is a tributary to the Owens River.

Bald Eagle

The bald eagle is a federally listed threatened species. Since the population status of the bald eagle has improved in most of the country, the USFWS is considering removing the bald eagle from the threatened species list.

Historically, the bald eagle nested throughout California. However, the current nesting distribution is mostly restricted to mountainous habitats in the northern third of the state, primarily in the northern Sierra Nevada, Cascade, and northern Coast Ranges. As a result of reintroduction programs, bald eagles have recently nested in southern and central California and on Santa Catalina Island. Bald eagles winter at lakes, reservoirs, and along river systems throughout most of central and northern California and in a few southern California localities.

Early declines in bald eagle populations have been attributed to human persecution and disturbance and to destruction of riparian, wetland, and coniferous forest habitats. However, the most important factor that contributed to the decline of bald eagle populations was environmental contamination resulting from the introduction of the agricultural pesticide diphenyl-dichloroethylene (DDE), a metabolite of the agricultural pesticide dichloro-diphenyl-trichloroethane (DDT), into the food chain.

CDFG personnel have observed a pair of wintering bald eagles perched on telephone poles near the project area, at the Hot Creek Fish Hatchery. This pair has also been observed roosting on sagebrush at the hatchery. The pair does not nest at the site, but occasionally roost onsite during other activities, which center on foraging for fish along Hot Creek, the Upper Owens River, and the fish hatchery.

Biologists from the USFS have recorded up to six bald eagles at one time during the winter months at Laurel Pond, located approximately one mile southwest of the project site. The BLM biologists have observed wintering bald eagles foraging in the project vicinity along Convict Creek, Crowley Lake, and the alkali ponds and flats east of the project area. Winter resident bald eagles probably roost at the Alpers Fish Hatchery located approximately seven miles northwest of the project site, Hot Creek gorge approximately two miles north of the Airport, and Convict Lake approximately two miles south of the Airport. No nesting bald eagles have been recorded in the project area or vicinity.

Sierra Nevada Bighorn Sheep

The Sierra Nevada bighorn sheep is a federally listed endangered species. The Sierra Nevada bighorn sheep is one of three bighorn sheep subspecies to occur in California. This subspecies is considered a distinct vertebrate population segment. Although this species pelage exhibits a great deal of color variation, they are similar in appearance to other desert-associated bighorn sheep. They range from almost white to fairly dark brown, with a white rump. Both males and females have permanent horns, with males possessing larger horns and females' horns lacking coiling.

Historically, in California, their range included the eastern slope and a portion of the western slope of the Sierra Nevada from Sonora Pass in Mono County south to Walker Pass in Kern County. Disease is believed to be the main factor responsible for the disappearance of Sierra Nevada bighorn sheep

subpopulations. Today five distinct subpopulations occupy the eastern escarpments of the Sierra Nevada in Mono and Inyo Counties. These populations occur at Lee Vining Canyon, Wheeler Crest, Mount Baxter, Mount Williamson, and Mount Langley.

Currently, the number of Sierra Nevada bighorn sheep comprising these five subpopulations is thought to total no more than 125 animals. Disease, mountain lion predation, and loss of genetic variability because of the small number and isolated nature of the populations threaten the continued existence of the Sierra Nevada bighorn sheep.

The closest populations of bighorn sheep to the project site are located in Lee Vining Canyon and Wheeler Crest. The Lee Vining bighorn sheep population is located approximately 20 miles northwest of the Airport, and the Wheeler Crest bighorn sheep population is located approximately 12 miles southeast of the Airport.

3.3.1.4 Water Resources

Wetlands

Wetlands are those areas that are inundated by surface or ground water with a frequency sufficient to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, rivers, and natural ponds. Moreover, wetlands provide a valuable source of nutrition and habitat for a wide variety of plant and animal life.

A wetlands analysis and delineation was prepared by the office of Jones and Stokes Associates, Sacramento, California along with a special-status species survey in a report entitled Biological Study for the Mammoth Yosemite Airport Expansion Project, September 2000 [3-13]. The results of these studies show that there are no waters of the United States, including wetlands, located on the project site for the proposed Runway 9-27 extension and the Airport development area.

3.3.2 Significant Environmental Impacts

Based upon CEQA Guidelines, Appendix G [3-1], a project is considered to have significant impact with respect to biological resources if the project:

- Substantially degrades the quality of the environment, substantially reduces the habitat of fish or wildlife species, causes a fish or wildlife population to drop below self-sustaining levels, threatens to eliminate a plant or animal community, reduces the number or restrict the range of an endangered, rare, or threatened species;
- Directly or through habitat modifications has a substantial adverse effect on any species identified as a candidate, sensitive or special status species in local or regional plans;
- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS,
- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impedes the use of native wildlife nursery sites;
- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional or State habitat conservation plan.

The following categories of biological resources were analyzed: (1) Vegetation, (2) Wildlife, (3) Threatened and Endangered Species, and (4) Water Resources.

3.3.2.1 Vegetation

Under the proposed project, approximately 10.5 acres of sagebrush scrub habitat would be removed. Sagebrush scrub habitat is locally and regionally abundant. Therefore, the loss of this habitat type is not considered a significant adverse effect.

No significant natural areas of rare natural communities were located in the project area. Therefore, no impacts to these resources would occur from the proposed project.

3.3.2.2 Wildlife

Sage Grouse

Habitat Loss

The dry meadow east of the approach end of Runway 9-27 is suitable habitat for sage grouse winter use and summer foraging. (See Appendix I, Figure 2) It could not be determined during the conduct of the Biological survey if sage grouse were using this area as a lek site. [3-13] A small portion of the dry meadow might be removed or disturbed by construction activities for the proposed project. This small area of the dry meadow would also be disturbed by construction of the proposed security fencing.

Although the dry meadow site could potentially be used as a lek, data on lek locations collected for more than 30 years by agency personnel (e.g., BLM, CDFG) and university researchers (e.g., Dr. Robert Gibson, University of Nebraska) indicates that the dry meadow has never been used by sage grouse as a lek. Therefore, the removal or disturbance of a small portion of the dry meadow habitat is not considered a significant impact.

For the proposed project, an eight-foot high security fence would be constructed around the airfield. Although sage grouse could fly over the fence to use the enclosed sagebrush scrub habitat, the fence could inhibit their use of this habitat. However, data from sage grouse at the Jackson Hole Airport indicates that the chain link fence is unlikely to inhibit grouse use of the habitat. During the summer, sage grouse at the Jackson Hole Airport regularly fly over the chain link fence that surrounds the airport to forage in the meadow habitat at the end of the runway. [3-15]

Fencing

Wire fences may adversely affect sage grouse. Sage grouse mortality from colliding into wire strand fences has been documented by BLM biologists. Sage grouse often fly low when moving short distances, and most likely collide into fences in the dark or at low light levels. Thirty-seven sage grouse mortalities were recorded along the cattle fence located north of Lek 2 between April 1997 and February 1999. [3-37] In the Bodie Hills, sage grouse abandoned a lek after construction of a five-strand wire fence adjacent to the lek site in 1995. Sage grouse returned to the lek in fewer numbers after the fence was relocated, but continued to use other areas as strutting grounds. [3-37]

The eight-foot high security fence that would be constructed for the proposed project would create a barrier with greater visibility to sage grouse than the existing barbed wire fence. The new fence would likely reduce potential mortality to sage grouse from bird-fence collisions. Since 1998, no

radio-collared sage grouse (there are 61 collared birds) have collided with the eight-foot high security fence that surrounds the Jackson Hole Airport, nor have any non-collared birds been found next to the fence. [3-15] It should be noted that four collared roosters have collided with overhead power lines, two of these collisions occurred near the Town of Jackson. As noted above, sage grouse regularly fly in and out of the fenced area that surrounds the Jackson Hole Airport.

Aircraft Flight Path

The telemetry data collected from radio-collared sage grouse reveal two areas east of the Airport where grouse detections are concentrated: Section 4 (Lek 2), approximately three miles east of the Airport, and Section 34 (Lek 4), approximately four miles northeast of the Airport (see **Exhibits III-4** and **III-5**).

This information shows where concentrations of grouse were located during breeding season (lek) and depicts historical lek sites. The telemetry data also provides information on areas of grouse use in the winter.

Wind conditions at the Airport dictate the flight direction of arriving and departing planes. Planes coming from the east will sometimes land at the west end of the Airport, and departing planes traveling east will sometimes take off from the west end of the runway. Under both scenarios, the aircraft will fly north over the western portion of Crowley Lake.

Exhibit III-6 and **III-7** show the location of various lek sites in relation with the proposed aircraft flight tracks for arrivals and departures at Runway 27 and Runway 9 respectively. At its closest point to the existing aircraft landing and departure path, Lek 2 is at a distance of 0.5 miles horizontally and 1,500 to 2,000 feet vertically; Lek 4 is approximately at a distance of 1.5 miles horizontally and 1,500 to 2,000 feet vertically; and Lek 9 is approximately at a distance of seven miles horizontally and 3,500 to 4,000 feet vertically. The existing flight paths would remain the same under the proposed project. Impacts to sage grouse leks from the use of the existing aircraft flight paths would not be adverse.

Because of the elevation of the aircraft, and distance between the leks and flight path, disturbance to grouse on Lek 2 , Lek 4, and Lek 9 is not likely, particularly if flights are at mid-day when birds would be away from the lek sites. According to Holloran [3-15], once male sage grouse establish a territory on a lek, they exhibit little reaction to disturbance. This behavior likely accounts for the continued use of the lek at the Jackson Hole Airport in Wyoming. However, in other cases, such as the upgrade of haul roads associated with surface coal mining activity in Colorado, males on leks were affected by disturbances. One sage grouse lek that was 164 feet from a road became inactive, and another lek approximately 1/3 mile from a road experienced an 83% reduction in the number of displaying cocks within three years post-upgrade [3-16]. The decline was attributed to the absence of yearling cock recruitment.

While males show less response to disturbance, females do appear more sensitive. One study found that road related disturbance during the breeding season results in lower nest initiation rates and greater distances between lek and nests. [3-17] However, once hens initiate nesting they appear more able to tolerate disturbance. Hens have been recorded nesting in the flight path of aircraft at the Jackson Hole Airport. Two nests were located directly outside the airport security fence in a location where aircrafts fly only 160 feet above ground. [3-15]

AR 001108

Nest initiation rates and the distances females move to establish nests could play a role in the long-term viability of the Long Valley sage grouse population. However, little information on the effect of these factors on grouse populations has been collected. The survival of chicks during their first two weeks might also be a significant factor that affects sage grouse population. A decline in the number of males strutting on a lek would indicate a decline in recruitment of yearling cocks. However, the general trend at the Jackson Hole Airport, as elsewhere in the western states, is a decline in grouse numbers that cannot be attributed to one factor and might be the result of cumulative long term impacts such as drought, habitat loss, and harvesting.

Noise

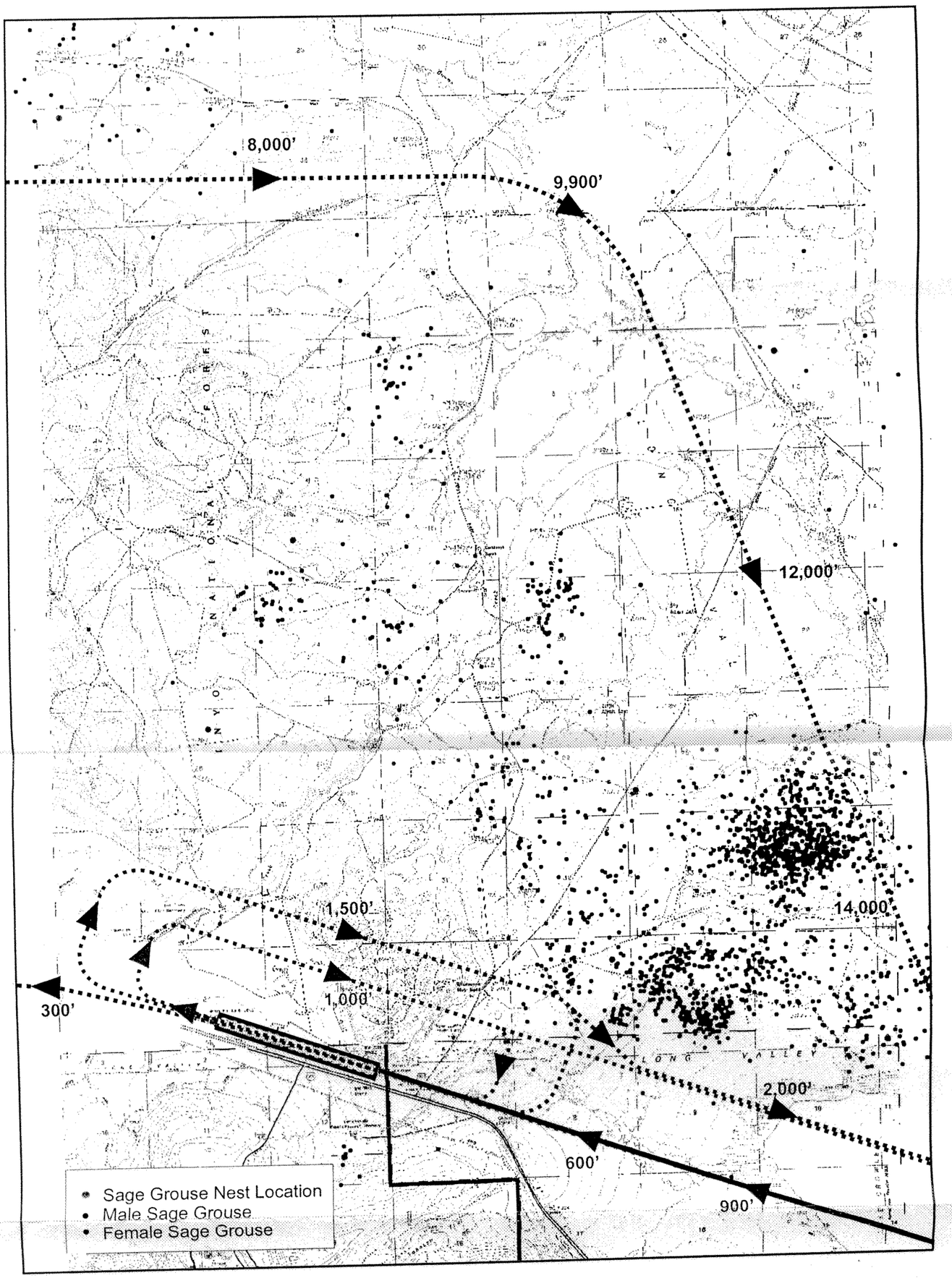
An aircraft noise analysis was also conducted for Leks 2, 7, and 8. Noise levels in the vicinity of Leks 7 and 8, which are north of the Airport, were below 30 CNEL. The air carrier aircraft would not overfly these sites as shown in Exhibits III-6 and III-7. The cumulative aircraft noise level in the vicinity of Lek 2 is anticipated to be CNEL 38 by 2022 with the addition of air carrier operations.

A single-event noise analysis was also conducted for Lek 2. The Lmax metric is "Maximum A-level" and represents the estimated maximum audible noise level (i.e., what a person at the site would experience as the maximum noise level) for a single aircraft overflight. The following is a comparison of the Lmax levels at the Lek 2 site for the primary aircraft noise contributors compared with the B-757:

Aircraft	Lmax
Lear 35 business jet	74 dBA
Twin-engine piston prop	73 dBA
B-757-200	68 dBA

The calculations of noise levels were made using the FAA Integrated Noise Model version 6.0. The B-757 aircraft would produce lower single-event noise than aircraft in the existing fleet following exisitng flight patterns at the Airport. Based on this information, there would be no more significant aircraft noise impact on the lek sites than currently exists under present operations. After project completion, the number of commercial flights would increase from zero to two per day, and are estimated to eventually increase to 14 per day in the year 2022. There are no limits on the number of personal aircraft that can fly into and out of the Airport. It is assumed these numbers would remain the same; therefore, the number of daily commercial flights is not expected to significantly increase disturbance to sage grouse over existing levels.

These conclusions are compatible with information obtained from Wyoming's Jackson Hole Airport, which is also located in a sage grouse habitat and has a lek at the end of the runway, within the security fence. [3-15] The Jackson Hole Airport operates 24 hours per day and personal aircraft can arrive and depart at any suitable time. Operators of variety of personal aircraft use the airport, including operators of Lear jets and Gulf Streams. Commercial aircraft that use the airport include 737, 757, and Brazilia twin engine. The amount of use the airport receives is seasonal. Twenty-eight commercial flights occur each day in summer, including two Boeing 757 flights. Fewer flights occur in winter; no Boeing 757 flights are currently scheduled during winter. The number of commercial flights also decreases during the "shoulder seasons" of spring and fall. The beginning and ending commercial hours of operation remain fairly consistent throughout the year, with the first flight departing at 0615 hours and the last flight departing at 2323 hours. The first arriving flight is at 0900 hours and the last arriving flight is at 2330.



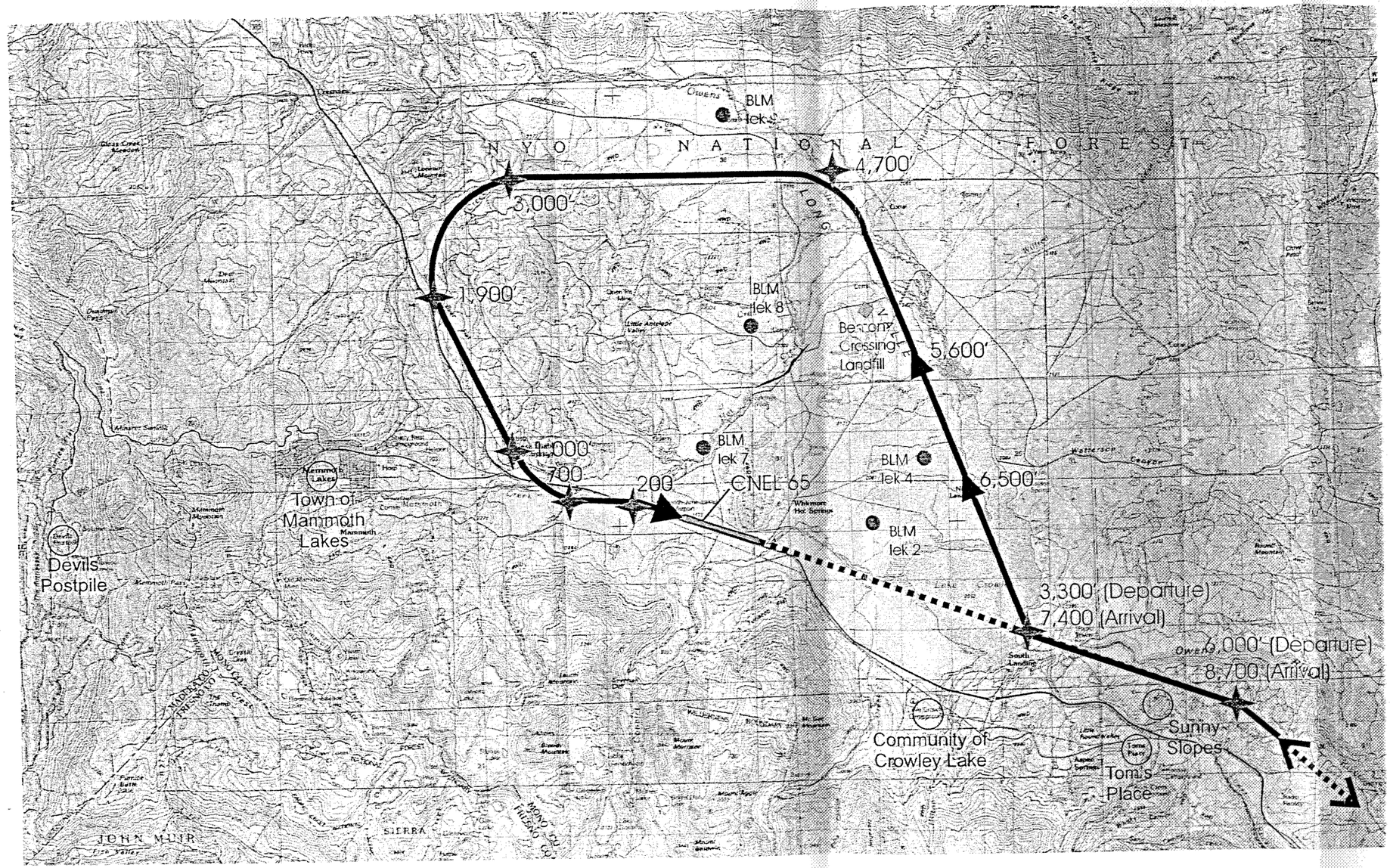
Source: Base Map- United States Geological Survey; Sage Grouse Data- Robert Gibson, Biologist, University of Nebraska;
Flight Tracks- American Airlines, Mammoth Yosemite Airport, and Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Exhibit III-4

north

Flight Tracks in Relation to Sage Grouse Locations Landing and Departing to the West

March 2002



Legend

- Arrival Track
- Departure Track
- Runway
- Way Point (All height are above ground level.)
- BLM lek
- Wild Scenic River Eligible
- 2022 CNEL 65 Noise Exposure Level with Proposed Action
- Landfill

AR 001113

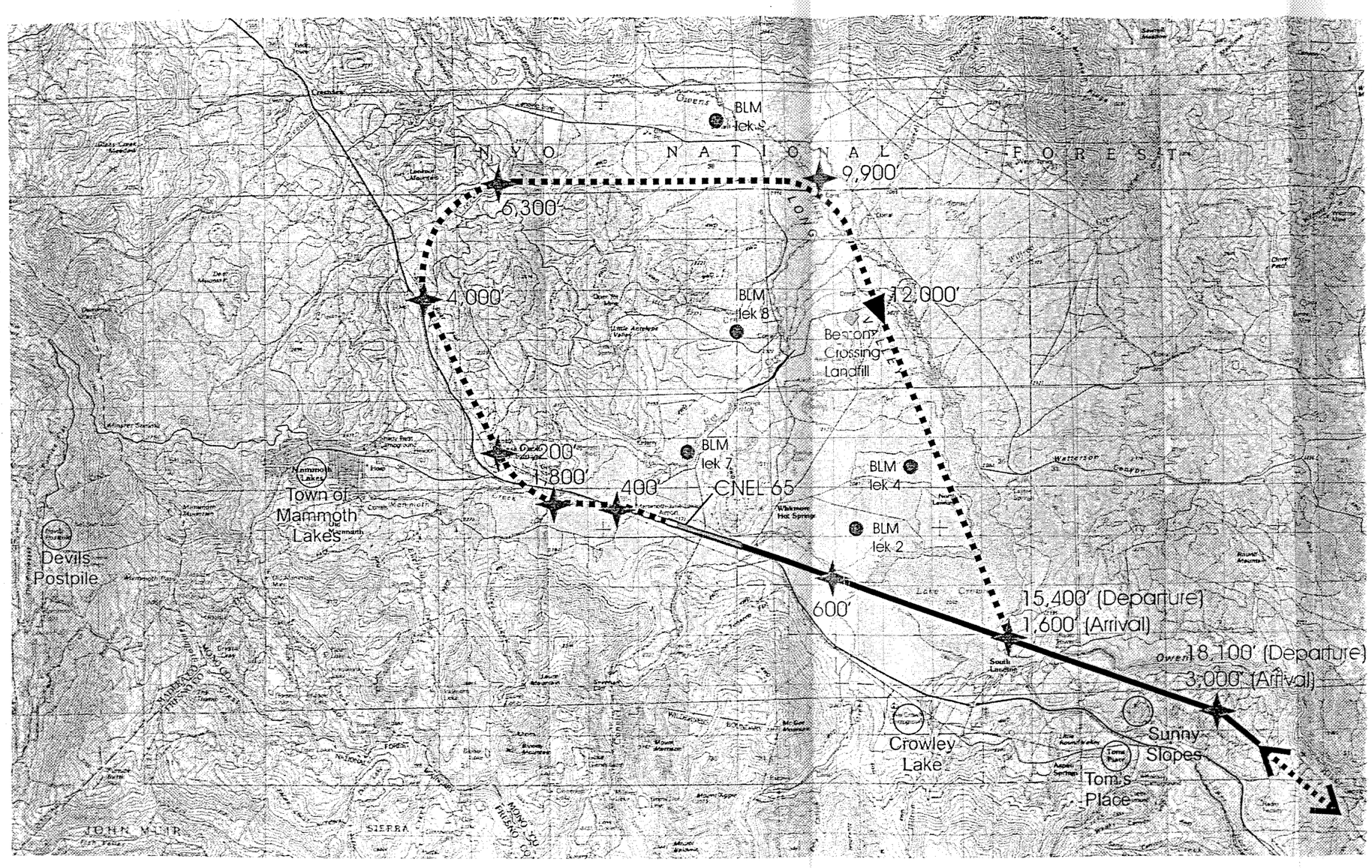
Source: American Airlines Flight Track, Brown-Buntin Associates, Inc. Noise Contours, Bureau of Land Management leks & Wild and Scenic River, Landfill Town of Mammoth Lakes.
Prepared by: Ricondo & Associates, Inc.

Exhibit III-7

north

Scale 1" = 12,000'

Proposed Air Carrier Flight Tracks - Runway 9



AR 001112

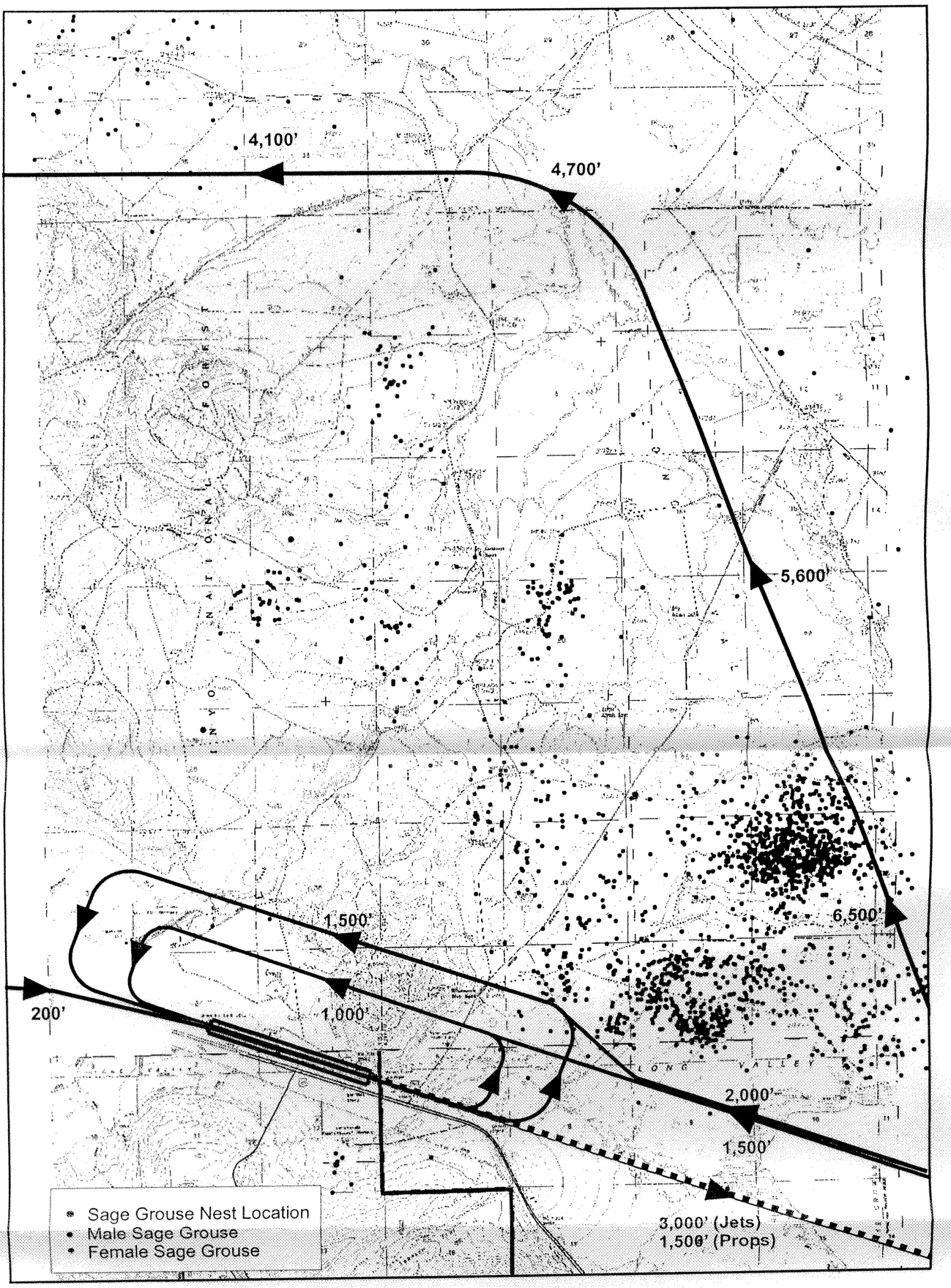
Source: American Airlines Flight Track, Brown-Buntin Associates, Inc. Noise Contours, Bureau of Land Management leks & Wild and Scenic River, Landfill Town of Mammoth Lakes.
Prepared by: Ricondo & Associates, Inc.

Exhibit III-6

north

Scale 1" = 12,000'

Proposed Air Carrier Flight Tracks - Runway 27



Source: Base Map- United States Geological Survey; Sage Grouse Data- Robert Gibson, Biologist, University of Nebraska;
Flight Tracks- American Airlines, Mammoth Yosemite Airport, and Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Exhibit III-5

north

Scale 1" = 4,700'

Flight Tracks in Relation to Sage Grouse Locations Landing and Departing to the East

For the month of April, 13 daily commercial flights are scheduled. Early planes arrive when male grouse are on the lek, at 0615, 0710, 0755, 0813, and 0941 hours. Observations of sage grouse at the Jackson Hole Airport indicate that males are not easily disturbed by aircraft noise while on a lek. Males on the lek at the end of the runway at Jackson Hole Airport will stay on the lek while jet aircraft are performing preflight engine "run-up" tests.

The Jackson Hole Airport has never implemented flight restrictions to protect grouse on leks from aircraft disturbance. In some years, morning commercial flights have been scheduled after strutting males have departed the lek for day use areas, although grouse returning to the lek in late afternoon may be present during aircraft operations. Sage grouse using the Airport area are apparently accustomed to potential disturbance factors related to normal airport operations. Sage grouse have used the Jackson Hole Airport area for strutting activities for over 40 years and have adapted to the development of the Airport as evidenced by the long history of attendance at the site. [3-18] The majority of the mating activity within Jackson Hole Airport property occurs in an area that is over flown by aircraft during landing and takeoff.

Modifications of sagebrush habitat used by sage grouse often lead to reduced bird numbers, most likely because sage grouse are specific in their habitat requirements and cannot tolerate serious alterations of use areas. [3-18] The Jackson Hole Airport lek is somewhat unique in its ability to withstand development pressure. The majority of suitable sage grouse habitat in the Jackson Hole area occurs within the boundary of Teton National Park, which surrounds the Airport. The Park land in the vicinity of the Airport consists of sagebrush scrub. This land has minimal disturbance in the form of recreation, roads, and cattle grazing.

The elevation above ground level of aircraft along the flight path near grouse use areas when operating north of the Airport would be 7,400 descending to 4,700 feet for arriving aircraft as depicted in Exhibit III-6 and 9,900 feet climbing to 15,400 feet for departing aircraft as depicted in Exhibit III-7. Based on these aircraft horizontal and vertical locations, the noise generated by the aircraft is unlikely to increase disturbance to the grouse.

Using the information on Airport use from Jackson, Wyoming, the distance of the flight path from the lek sites, aircraft noise analysis and discussions with Mr. Holloran, it is unlikely that the proposed project would affect sage grouse by causing a disturbance that would lead to a reduction in the local population. Therefore, no significant impact to sage grouse or their habitat is expected to occur as a result of the introduction of commercial aircraft service at Mammoth Yosemite Airport.

Mule Deer

Increased Light, Noise, Airport and Vehicle Traffic, and Human Disturbance

Light emissions could increase somewhat under the proposed project as a result of the increased number of runway lights over the length of the proposed runway extension, airfield apron lighting and parking lot lights. However, the existing ramp lights would be replaced with new state of the art shielded lights, and the new lights would be shielded as well. Since the lights would be shielded, minimal light would be visible offsite. In addition, the lights would be oriented so that there was no direct light shining up into the sky. The additional light emissions would be insignificant and would not adversely affect mule deer use of adjacent habitat.

AR 001114

The increased noise due to additional aircraft landing and departures, and motor vehicle use as a result of the proposed project could disturb sensitive individuals who might be forced farther away from the project area. Some deer use the surrounding habitat for summer habitat foraging, it is assumed that these individuals are adapted to the disturbed nature of the project site and its environs.

The proposed project would generate approximately 898 daily trips and 158 p.m. peak hour trips. Seventy-nine vehicles (shuttles, taxis, buses etc.) would be entering and exiting the Airport once during the p.m. peak hour; each would have an inbound and outbound trip, for a total of 158 trips. The increased vehicle traffic on Airport Road and Hot Creek Hatchery Road would increase the potential for deer vehicle mortality. Proposed mitigation measures would reduce the potential impacts.

The increased use of the project area by people arriving and departing on aircraft would not adversely affect mule deer. It is assumed that people would use the Airport facilities, and would not venture into the unimproved habitat that surrounds the Airport.

Fencing and Habitat Loss

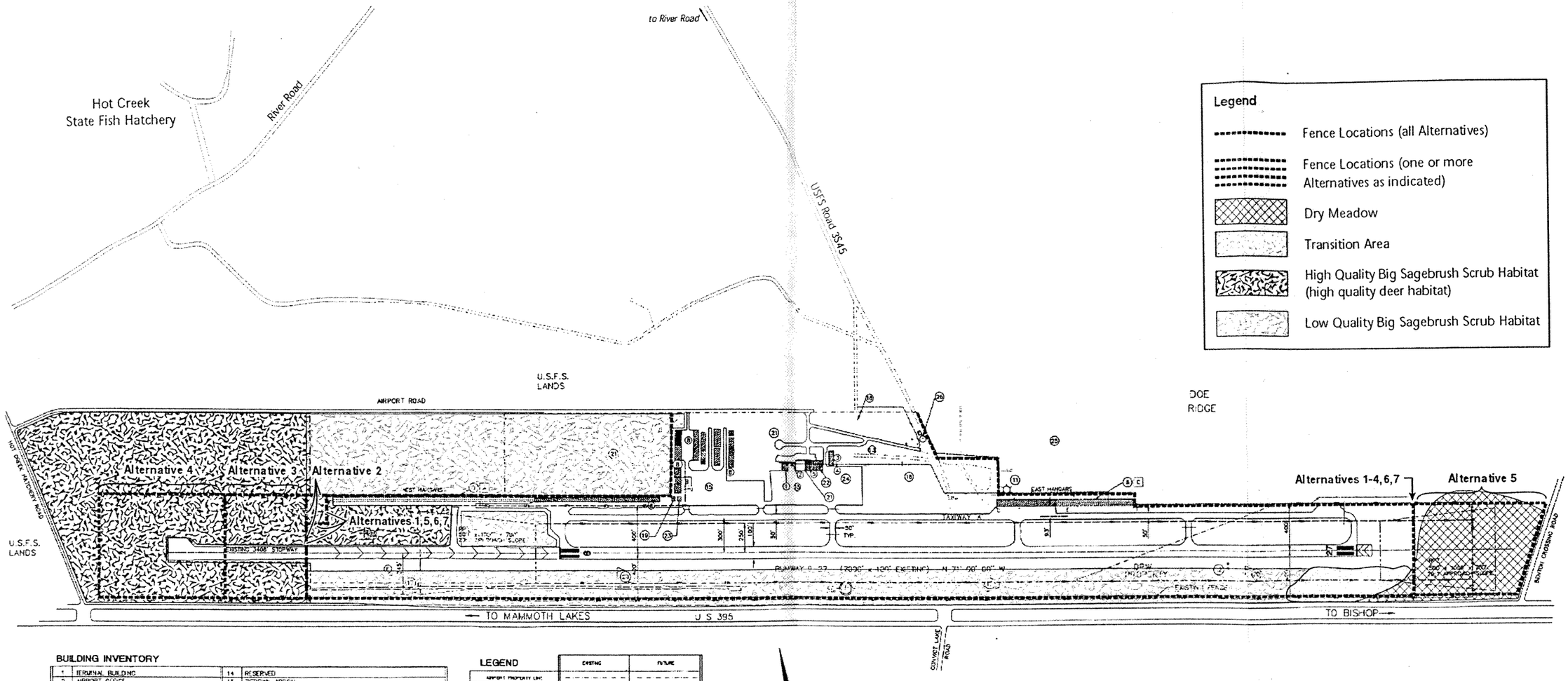
An eight-foot high perimeter security fence would be constructed around the airfield for the proposed project. The FAA Advisory Circular 150/5200-33 Hazardous Wildlife Attractants on or Near Airports [3-19] considers deer hazardous wildlife because they have been associated with wildlife-aircraft strikes. Deer were responsible for 11 percent of the reported damaging strikes to civilian aircraft in the United States between 1993 and 1995. The security fence would reduce wildlife incursions on the runway and taxiway system, thereby increasing aircraft safety.

The eight-foot high security fence would eliminate mule deer use of 9.5 acres of high quality big sagebrush scrub. The location of the fence and the affected deer habitat for the proposed project, Alternative 2, is depicted in **Exhibit III-8**.

The proposed project is not expected to directly impact mule deer migration. The migration corridor for mule deer from the Round Valley herd follows the base of the Sierra Nevada escarpment and passes immediately south of the Mammoth Yosemite Airport. Heavy fall use by deer from this herd occurs west of the Airport in the vicinity of Hot Creek Road, and south and east of the Airport towards Whitmore Road.

The deer migrate north from their winter range in Round Valley and cross the Sierra Crest at four locations. The Hopkins Pass herd segment diverts from the main migration corridor south of the project area near the McGee Creek drainage. The three other herd segments migrate across various passes from the Sherwin Holding Area, which is located on the south side of U.S. Highway 395 from the project area. [3-20] The migratory movements of some deer from the Casa Diablo herd occur across Doe Ridge and continue towards their summer range near June Lake.

Establishment of the security fence around the Airport could disrupt some migratory movements in the vicinity of the Airport. Deer that move from the north to the south would be deflected either east or west of the Airport before crossing U.S. Highway 395. In this case, no additional crossing of U.S. Highway 395 by deer would occur from installation of the security fence. However, the location where some deer cross the highway might be moved to either end of the Airport rather than occurring in the section of U.S. Highway 395 adjacent to the Airport.



BUILDING INVENTORY

1	TERMINAL BUILDING	14	RESERVED
2	AIRPORT OFFICE	15	TIEDOWN APRON
3	ARFF / SNOW EQUIPMENT BUILDING	16	FUTURE AUTOMOBILE PARKING
4	ELECTRICAL VAULT	17	SIGNAGE AREA
5	FBO OFFICE (TO BE REMOVED)	18	FUTURE COMMERCIAL APRON
6	RESERVED	19	FUEL BUILDING
7	RESERVED	20	SUPPLEMENTAL WIND CONES
8	AIRCRAFT HANGARS	21	COMMERCIAL DEVELOPMENT AREA
9	RESERVED	22	AVIATION DEVELOPMENT AREA (HANGARS & FBO BUILDINGS)
10	WIND CONE AND SEGMENTED CIRCLE	23	NEW AV GAS STORAGE, PHASE 1
11	ANOS TOWER	24	CORPORATE APRON
12	P.A.P.I.	25	GENERAL AVIATION APRON EXPANSION
13	FUTURE TERMINAL BUILDING SITE	26	WATER STORAGE FACILITY

LEGEND	EXISTING	FUTURE
AIRPORT PROPERTY LINE		
RUNWAY SAFETY AREA (RSA)		
RUNWAY OBJECT FREE AREA (OFA)		
FACILITIES		
ROAD (PAVED)		
DIRT/GRAVEL ROAD		
FENCE		
SUPPLEMENTAL WIND CONE		

Source: Jones & Stokes, Inc.
Prepared by: Ricondo & Associates, Inc

Exhibit III-8

Security Fencing and Deer Habitat Locations

Deer that cross U.S. Highway 395 from the south to the north in the area adjacent to the Airport would encounter the security fence within approximately 100 feet of the highway. The deer could move parallel to the fence and west to continue their northward movement, or they might cross back over U.S. Highway 395 in order to move north around the Airport. In the latter case, there may be an increase in the number of deer crossings of U.S. Highway 395. This may result in increased deer mortality through encounters with traffic on U.S. Highway 395 adjacent to the Airport.

From 1990 through 2000, a total of 169 deer were reported killed by Caltrans workers along the highway's length from mile post 0.0 to 26.5 in Mono County. Eighteen deer were killed in the vicinity of the project area, from mile post 20.4 to 22.7, which represents 10.6 percent of the deer struck over the ten year period. For the same linear distance of 2.3 miles, 35 deer, or 20.7 percent, were killed south of the project area (mile post 18 to 20.3), and 16 deer, or 9.5 percent, were killed north of the project area (mile post 22.8 to 25.1). Therefore, approximately one to two deer per year are killed by vehicles adjacent to the project area. The number of fatalities and locations (mile posts) represent incidents reported to Caltrans biologists by Caltrans maintenance workers. Certain caveats apply to the data. For example, deer can be fatally struck by a car but still be able to leave the vicinity of the highway system and are therefore, never recorded by Caltrans workers. Complete reporting of all deer removed from the highway by maintenance workers cannot be assumed. The number of dead deer reported at the mile posts does not necessarily reflect migratory crossings of U.S. Highway 395. Topographic features near the highway could cause an increase in deer collisions. The relatively few collisions reported in the vicinity of the project area could be related to the level landscape, which provides motorists with a clear view of the surrounding area.

The number of deer that migrate across U.S. Highway 395 adjacent to the Airport appears to be a small percent of the total number of deer that migrate across U.S. Highway 395 in southern Mono County. Therefore, the potential increase in deer crossings of this area due to the security fence would be limited and less than significant. In addition, the proposed mitigation measures, presented in Section 3.3.3.2, would reduce the potential impacts.

Raptors

A total of seventeen species of diurnal raptors may be found in the Long Valley area. [3-6] These are listed in Table III-14 along with their migration patterns. The bald eagle, Swainson's hawk, and peregrine falcon are listed as threatened or endangered by the State of California or the USFWS. (California Resources Agency, January 2001)

Bird Strikes

Impacts to raptors could result from either collisions with aircraft, or from disturbance caused by aircraft, which would result in a change in raptor behavior. A review of the literature ([3-21], [3-22], [3-23], [3-24]) indicated that aircraft overflights may affect raptors. The most significant effects appear to be at close distances (< 500 feet above ground level) with almost no effect at 2,000 feet or more. No significant effect on nesting or reproductive success was reported in previous analyses as a result of overflights. Other effects included flushing and taking advantage of disturbed prey species for foraging, as well as others. Overall, cited effects to raptors were transient, and did not result in long term behavior changes.

Reports on raptor use in proximity to airports indicate that if an airport installs fences, powerpoles, and similar objects, raptors will use these sites to perch. If the proposed project creates additional

perch sites, it could result in increased raptor use of the site and thus increase the potential for collisions. The proposed mitigation measures would reduce the potential impacts.

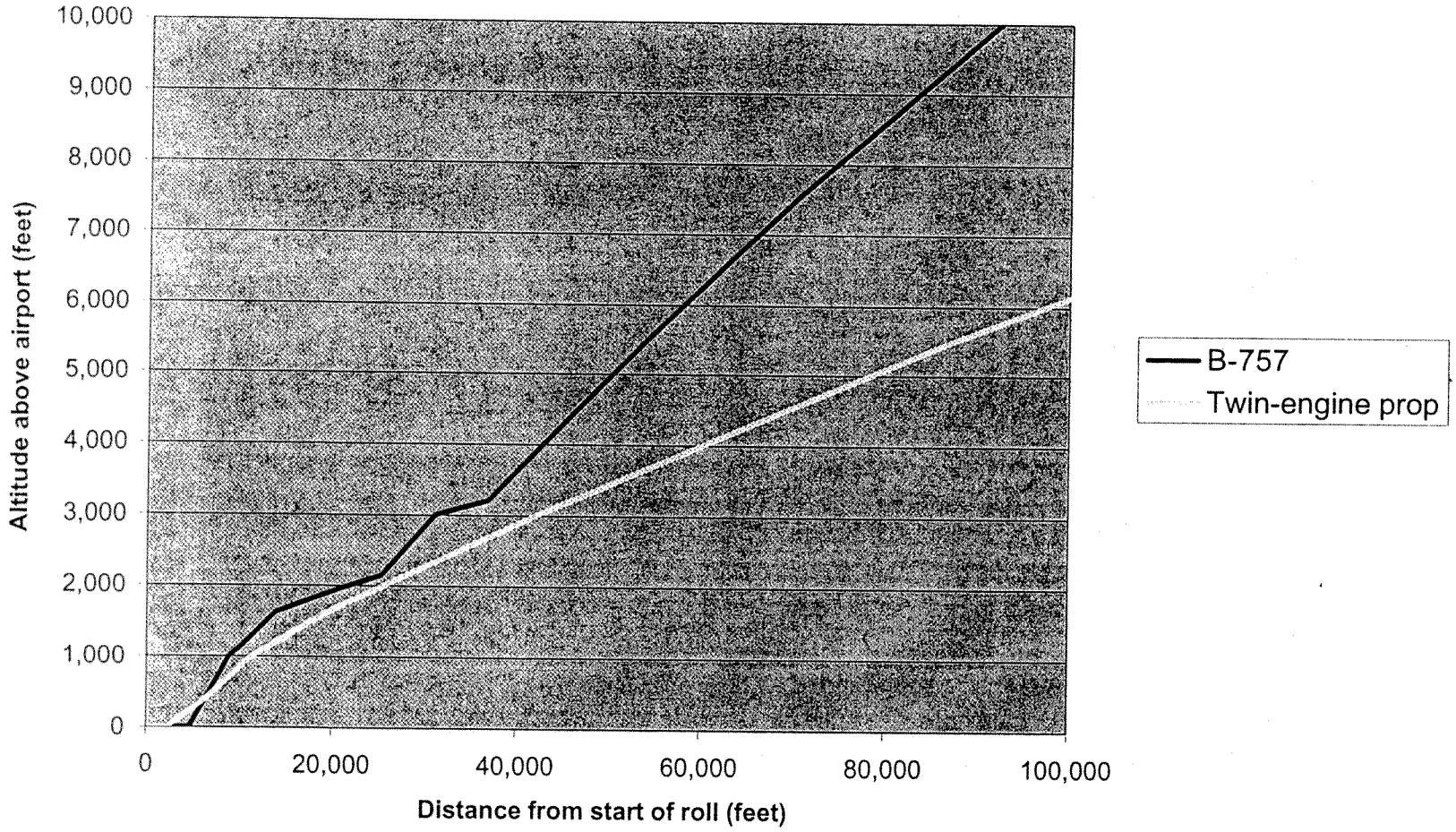
The proposed project site and surrounding area (Long Valley) are not generally considered to have high bird density for an airport in California. Sagebrush scrub is reported to have lower bird densities than other habitat types, such as riparian, wetland, and woodland habitats. The project site and adjacent area lacks substantial riparian habitat compared with other airports in California. Bird densities in the region (e.g., Laurel Pond, Crowley Lake, Mono Lake and Owens River) may increase during winter due to increased waterfowl use, although most of this use is by diving waterbirds, whose abundance decreases as snow and ice accumulate on the local water bodies.

The proposed project would not cause a substantial reduction in local populations of raptors, waterfowl, or other bird species. In general, bird strikes do not constitute a significant source of mortality for bird populations. For example, between 1990 and 1999, an annual average of only 27,433 birds were reported to have collided with civil (i.e., nonmilitary) aircraft in the entire United States (FAA 2000). Based upon FAA statistics (Terminal Area Forecasts), there were an average of 112.6 million civil aircraft operations per year in the U.S. from 1990 through 1999. This correlates to one reported bird strike for every 41,050 operations, roughly five times the annual operations level projected at Mammoth Yosemite Airport in 2003 and twice the annual operations level projected for 2022. Although the nationwide incidence of bird strikes may not directly correlate with the proposed project, the data strongly suggest that bird-aircraft collisions are generally infrequent events.

There have been no reported bird strikes at the Mammoth Yosemite Airport in the last ten years (Federal Aviation Administration 2000). This is likely the result of several factors, including a limited amount of aircraft traffic, low densities of birds, and a lack of weather conditions, such as fog, that tend to increase the risk of bird strikes. The proposed project is projected to result in air carrier aircraft operations initially generating two daily flight operations (takeoffs and landings), increasing to 14 daily operations in 2022. Takeoffs and landings are important when discussing bird strikes because 79 percent of reported bird strikes between 1990 and 1999 occurred below 1,000 feet above ground level; of these, 40 percent occurred on the ground (Federal Aviation Administration 2000). The class of aircraft was not evaluated separately from the FAA's bird strike data. However, the proposed air carrier aircraft has a steeper takeoff path and higher cruising altitude than the majority of small aircraft currently using the Airport as shown on **Exhibit III-9**. Consequently, the proposed air carrier aircraft would spend less time at low altitudes where bird strikes are most likely.

Individual resident birds would be at potentially greater risk from aircraft collisions than would migratory species because of the greater amount of time they are present near the Airport. When both resident and migratory birds are present (i.e., during spring and fall); however, they would be exposed equally to aircraft during the day. Most bird strikes (74 percent) occur during the day and twilight (Federal Aviation Administration 2000). Migratory birds would be exposed to greater risk because they typically migrate during the evening; however, this risk would be reduced because the proposed project would primarily result in an increase in flights during the day. Flights during the evening would account for a very small percentage of the increase in overall flights from the Airport.

To assess bird strikes at the Mammoth Yosemite Airport, Beale Air Force Base (AFB) data were examined. Beale AFB is very different from the Mammoth Yosemite Airport as it is located in the Central Valley just east of Marysville, California, which is considered one of the most heavily used portions of the Pacific Flyway. Beale AFB is located in a region dominated by rice production, and is



Source: Federal Aviation Administration, Integrated Noise Model version 6.0b
Prepared by: Ricondo & Associates, Inc.

Exhibit III-9

Departure Profile Comparison

\Mammoth SSEIR\MMH EIR Exhibits\Exhibit.III-9

in close proximity to the Yuba River, Feather River, Bear River and the Butte Sink wetland. High densities of waterfowl, raptors, and passerine birds travel through this region. Information recorded on Bird Aircraft Strike Hazard incidents at Beale AFB between 1985 and 1995 indicates that an average of 25 bird-aircraft collisions have occurred annually over the 10-year period as shown on **Exhibit III-10**. Sparrows comprised the majority of birdstrike incidents (27 percent). A large percentage of the flying hours included training missions with repeated touch-and-goes at the Base, where collisions are more likely to occur. [3-24] Beale AFB has a high level of annual aircraft use compared with Mammoth Yosemite Airport; however, the annual bird strikes at Beale AFB are very low.

Given the relatively infrequent occurrence of bird-aircraft collisions in areas with substantially higher bird populations, the lack of any bird strikes at Mammoth Yosemite Airport in the last ten years, the small increase in flight operations, the limited amount of time that air carrier aircraft are at low altitudes, the overall low bird densities at the proposed project site and project vicinity, and the ability of populations to sustain low levels of annual mortality without a long-term effect, the proposed project will not result in a significant effect to local and migratory bird populations.

Disturbance to Nesting Raptors

Disturbance to nesting raptors from the proposed project has been cited as a concern for a potential adverse effect. It was suggested that increased aircraft traffic along the approach and departure routes could create additional disturbance during breeding and nesting periods, which occur from about March 1 to mid summer. Such disturbance might preclude successful reproduction for raptors sensitive to this type of disturbance. Of the 17 species of raptors present in the Long Valley area, eight are resident species that might nest in the vicinity of Long Valley. Based upon the analyses below, no significant effects on raptors are expected.

Of the eight raptor species, suitable nesting habitat is not present in the project area for the following seven species: northern harrier, Cooper's hawk, sharp-shinned hawk, northern goshawk, prairie falcon, red-tailed hawk, and golden eagle. The American kestrel, could potentially nest in the project area. American kestrels are cavity nesters. Except for the landscape trees associated with the Airport, no trees (or wooden fence posts) suitable for American kestrel nesting are present in the project area. Additional suitable nesting habitat for American kestrels is located in the forest habitat on Doe Ridge, approximately one mile east of the project area, and in the riparian habitat associated with Hot Creek, which is located approximately one mile north of the Airport. The proposed air carrier flight path does not pass over these areas, although the existing flight paths do pass over this potential nesting habitat. Therefore, nesting American kestrels are unlikely to be adversely affected by the proposed project.

Northern harriers nest on the ground in a variety of sites, but typically nest in marshes or near water. Suitable marsh habitat is not present in the project area. Although this species could potentially nest in the dry meadow located at the eastern end of the runway, nesting habitat with preferred habitat characteristics is common in the general region. Suitable nesting habitat for this species is present two miles east of the Airport near Whitmore Hot Springs, four miles east near Lake Crowley, and four miles northeast in the vicinity of the alkali lakes. No northern harriers have been recorded nesting in the project area. Because the proposed air carrier flight paths are more than one mile above ground level over potential northern harrier nesting habitat, no adverse impacts to nesting success of this species are expected.

The Cooper's hawk, sharp-shinned hawk, and northern goshawk nest in forest habitat. In addition to forests, the Cooper's hawk sometimes nest in forest edges and river groves. Potentially suitable nesting habitat for Cooper's hawk is located in similar areas as that described for the American kestrel. Preferred nesting habitat for both the sharp-shinned and northern goshawk is older-age coniferous, mixed, and deciduous forest habitat. Northern goshawk nesting habitat is characterized by dense canopy closure (50-90%) with mature timber. The closest suitable habitat for these species is located approximately two miles west and northwest of the project area, and south of the project area in the densely forested habitat associated with the Sierra escarpment. Although these two species could fly over the Airport, suitable foraging habitat is not present. The proposed air carrier flight paths do not pass over their potential nesting habitat, nor do they pass over potential Cooper's hawk nesting habitat. Therefore, nesting sharp-shinned hawks, northern goshawks, and Cooper's hawks are unlikely to be adversely affected by the proposed project.

Suitable nesting habitat for prairie falcons is protected cliff ledges. No suitable habitat for this species is present in or immediately adjacent to the project area. The nearest suitable habitat is located in Hot Creek, approximately two miles north of the Airport and in the Owen River Gorge, more than ten miles southeast of the Airport. Red-tailed hawks and golden eagles use similar nesting habitat, although they will also nest on crags and in trees. Potential crag nesting habitat is located in the Owen River Gorge and in Hot Creek. Potential tree nesting habitat is located east on Doe Ridge, two miles west in the forest hills, and south of the project area along the Sierra escarpment. The proposed air carrier flight paths do not pass over these habitats, although the existing flight paths do pass over some of these locations. Therefore, the proposed project is unlikely to adversely affect nesting prairie falcons, red-tailed hawks, and golden eagles. These three species could potentially forage in and near the project area. However, the Airport and its immediate surroundings do not contain key foraging habitat for any raptor species, and given the elevation the air carrier aircraft would be flying, the project is not likely to adversely affect foraging habitat for raptors.

Other Wildlife

Based on the regional abundance of sagebrush scrub habitat, lack of preferred habitat characteristics, and lack of recorded sightings, the minor loss of sagebrush scrub habitat associated with the proposed project does not represent a significant loss of habitat for the white-tailed hare or the pygmy rabbit. The minor loss in extent of sagebrush scrub habitat associated with the proposed project does not represent a significant loss of foraging or roosting habitat for the following special status wildlife species: northern harrier, golden eagle, loggerhead shrike, spotted bat, and Townsend's western big-eared bat.

Although osprey, sharp-shinned hawk, Cooper's hawk, and California gull may occasionally fly over the project site, the minor loss in extent of sagebrush scrub habitat associated with the proposed project does not represent a significant loss of foraging habitat for these species.

No actions associated with the future operation of the proposed project would be expected to further reduce habitat suitability for any of the species discussed above. For these reasons, there is no potential for significant adverse impacts on the above-cited species from the proposed project.

AR 001121

Species/Group[1]	Number of Air Strikes	Summary Group
Pied-billed grebe	1	Nonwading Waterbirds
Great egret	1	Waders
Canada goose	2	Nonwading Waterbirds
American wigeon	3	Nonwading Waterbirds
Duck	1	Nonwading Waterbirds
Mallard	4	Nonwading Waterbirds
Northern pintail	1	Nonwading Waterbirds
Hawk	2	Hawks
Red-tailed hawk	3	Hawks
American kestrel	1	Falcons
Falcon	1	Falcons
Gull	1	Nonwading Waterbirds
Mourning dove	2	Other
Barn owl	3	Owls
Owl	1	Owls
Western screech-owl	1	Owls
Swift	1	Other
Swallow	5	Perching birds
European starling	8	Perching birds
Sparrow	17	Perching birds
Western tanager	1	Perching birds
Blackbird	1	Perching birds
Red-winged blackbird	1	Perching birds
Western meadowlark	4	Perching birds
Subtotal	66	
Unknown species	179	
Total	245	

[1]Bird species or group data were provided by Beale Air Force Base 9th Reconnaissance Wing Safety Office.

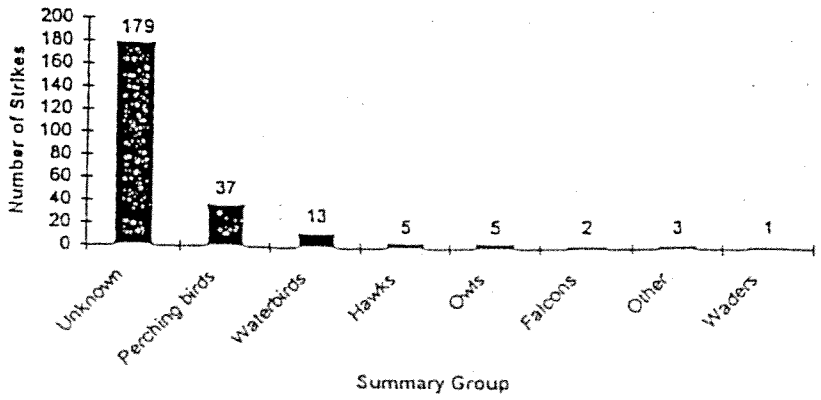


Figure 6. Number of Bird Strikes by Bird Group at Beale AFB between January 1985 and October 1995.

3.3.2.3 Threatened and Endangered Species

A project is considered to have a significant impact to endangered and threatened species if the project has a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS.

Jones and Stokes evaluated the proposed project's potential direct and indirect impacts on federally listed species in the Biological Assessment (BA) prepared for the project. A summary of these potential impacts for the listed species is given below. The report is attached as Appendix I.

The direct impacts are caused by the expansion of the runway, placement of the fence around the Airport, and direct disturbance to these species. Indirect effects of the proposed project include potential contamination of ground water from accidental fuel or chemical spills; ground water pumping at the Airport; potential plane crashes into Hot Creek headsprings or the fish hatchery, which result in fuel spills and ground water contamination; potential fuel spill risk associated with fuel trucks traveling to the Airport; and the potential increase or decrease in the number of automobile travelers on U.S. Highway 395 as a result of a change in travel patterns to the ski resort from automobiles to aircraft.

Vegetation

The three endangered plant species that could potentially occur in the vicinity of the airport, Long Valley milkvetch (Astragalus johannis-howellii), Mono milkvetch (Astragalus monoensis var. monoensis), and Mono Lake lupine (Lupinus duranii), were not located during the field surveys. Therefore, the proposed project would not directly or indirectly affect these species.

Peregrine Falcon

The peregrine falcon has not been reported to occur at the Airport site, but may occasionally forage or roost at the site. Therefore, it would be at lesser risk than resident birds in the project vicinity as discussed in the previous section. The minor loss of sagebrush habitat associated with the proposed project does not represent a significant loss of habitat for this species based on the regional abundance of this habitat type. Therefore, the proposed project is not expected to adversely affect the peregrine falcon.

Wolverine

Suitable habitat for wolverines is not present in the project area or vicinity. Wolverines are locally and regionally scarce, and no observations of this species in or near the project area have been recorded. Therefore, the proposed project would have no direct or indirect effects to the wolverine.

Owens Tui Chub

Construction activities at the Airport would be confined to the Airport runway area. No disturbance to designated critical habitat or other habitat occupied by the Owens tui chub would occur as a result of the project. Therefore, the project would have no direct effect on the Owens tui chub or its habitat.

Ground water flows travel in an easterly direction throughout the project vicinity. The Hot Creek headsprings are located northwest of the Airport. Thus, neither ground water flow or water quality would be affected by Airport operations. Fuel trucks traveling to the Airport would turn off Hot Creek Hatchery Road onto Airport Road. The fuel trucks would not travel past the Hot Creek

Hatchery, which is located approximately 0.75 miles north of the Airport. The probability of an accidental fuel spill from a fuel delivery truck crash is extremely remote. In the unlikely event of a spill along the travel route and if the spill migrated to the ground water, ground water flow would carry any seepage away from the Hot Creek Hatchery springs. Therefore, the project would have no indirect effects on the Owens tui chub or its habitat in relation to ground water.

The biological opinion issued by the USFWS on July 23, 2001 (included as Appendix J) found that the FAA's funding and approval of the Airport expansion, as proposed, is not likely to jeopardize the continued existence of the Owens tui chub and is not likely to destroy or adversely modify designated critical habitat.

The FAA and the Town of Mammoth Lakes have proposed some measures to monitor contamination from Airport operations in surface and ground water and to contain these chemicals during chronic and catastrophic spills. In addition, the project proponents would be subject to and would comply with applicable State and federal regulations to protect surface and ground water.

Lahontan Cutthroat Trout

Construction activities at the Airport would be confined to the Airport runway area and no disturbance to habitat occupied by the Lahontan cutthroat trout would occur as a result of the project. The closest Lahontan cutthroat population is more than six miles from the project site. Therefore, the project would have no direct effects on the Lahontan cutthroat trout or its habitat.

As discussed for the Owens tui chub, ground water flows travel in an easterly direction throughout the project vicinity. because O'Harrel Canyon Creek is more than six miles northwest of the Airport, and is located on the other side of the valley, neither ground water flows nor water quality could be affected by Airport operations.

The flight path at the Airport is approximately two miles from the closest population of Lahontan cutthroat trout. At the closest point to the cutthroat populations, the proposed jet aircraft would be flying at an altitude of 10,000 feet above the ground on departure and 5,000 feet on approach. The potential for an aircraft to crash into O'Harrel Canyon Creek and affect water quality is extremely remote. Therefore, based on the distance of the closest population of Lahontan cutthroat trout from the Airport, and the direction of water flow in Long Valley, the proposed project is unlikely to have any indirect, adverse effects on the Lahontan cutthroat trout or their habitat.

Bald Eagle

Bald eagles do not nest in the project area or its vicinity. During the winter months, up to six bald eagles have been observed at one time within one mile of the project site. Winter use of the project vicinity by bald eagles is largely concentrated north to northeast of the project site and outside the flight path for aircraft. Bald eagles in the vicinity of the project area occur primarily along Hot Creek, the alkali ponds, Laurel Pond, and Crowley Lake Reservoir.

The closest potential roosting area (Hot Creek gorge) is approximately two miles from the project site. No roost sites are known to occur at the project site. The closest likely roost site to the Airport is near Alpers Fish Hatchery, more than seven miles northwest of the project site and outside the aircraft flight path. Bald eagles have been reported perching on telephone poles and sagebrush at the Hot Creek Fish Hatchery, approximately 0.75 mile from the project site. No additional perch areas have been identified in or near the project site.

The proposed project would remove big sagebrush habitat, which may eliminate bald eagle roosting habitat. Because the removal would occur in areas adjacent to areas where existing Airport activity occurs, it is unlikely to disrupt roosting activity in the vicinity of the project area. The habitat type is locally and regionally abundant; therefore, the loss of potential sagebrush roosting habitat would have a negligible effect on bald eagles.

Construction at the Airport is scheduled to occur in summer when bald eagles are not generally present in the project vicinity. Therefore, construction-related activities to expand the Airport runway are unlikely to directly affect the bald eagle.

As described earlier in Section 3.3.2.2 (Bird Strikes), takeoffs and landings are important when discussing bird strikes, including bald eagles. Between 1990 and 1999, 79 percent of reported bird strikes occurred below 1,000 feet above ground, of which 40 percent occurred on the ground.

The class of aircraft was not evaluated separately in the FAA's bird strike data. However, the class of plane in the proposed project, air carrier jet aircraft, has a steeper takeoff path and higher cruising altitude than the majority of small planes currently using the Airport. Thus, the class of plane for the proposed project would spend less time at low altitudes where bird strikes are most common.

Disturbances and response characteristics for 3,122 bald eagle-plane interactions among three types of aircraft (light plane, jet aircraft, and helicopters) were assessed during a study conducted in Arizona (1983-1985) and Michigan (1989-1990). [3-26] The distance of the aircraft to the bald eagles was the most important factor related to disturbance. Bald eagles showed minimal flight response (96 percent were reported not disturbed in Arizona; 95 percent were reported not disturbed in Michigan) when the median distance to aircraft was greater than 1,150 feet. In terms of the proposed project, the closest distance to the nearest potential bald eagle perch site on Hot Creek is 3,960 feet, which is more than twice the distance that showed minimal flight response to in the 1997 study. During the study, no apparent bald eagle strikes occurred.

No bird strikes for any species have been recorded at the Mammoth Yosemite Airport in the last ten years. Aircraft departures and arrivals at Mammoth Yosemite Airport have a low likelihood to strike bald eagles. The proposed project is unlikely to result in any incidental take of bald eagles for the following four reasons: (1) bald eagles occur in low numbers in the project vicinity; (2) the primary locations used by bald eagles are outside the aircraft flight path; (3) the small increase in flight operations; and (4) the limited amount of time the planes are at low altitudes.

Because bald eagles occasionally roost near the project site (Hot Creek) and forage in the project vicinity, the chance of a bald eagle injury or mortality from an aircraft strike, however remote, cannot be ruled out. Therefore, the proposed project may affect, but is not likely to adversely affect, the bald eagle. The project would not affect any designated critical habitat for the bald eagle. No indirect effects on bald eagles, their habitat, or prey are expected to occur as a result of the proposed project.

Sierra Nevada Bighorn Sheep

Utilizing the existing flight path, the closest the air carrier aircraft could come to known Sierra Nevada bighorn sheep habitat is three miles. Jet aircraft would fly at an elevation of approximately 5,000 feet above the runway elevation, 2,500 feet above runway elevation on departure, and 2,500 feet above runway elevation on approach for the portion of the flight path that is closest to the sheep

population. Based on the large distance and elevation of planes approaching and departing from Mammoth Yosemite Airport to the bighorn sheep use areas, it is unlikely that bighorn sheep would be affected by jet aircraft. Therefore, the proposed project would not directly affect the Sierra Nevada bighorn sheep.

Potential indirect effects on Sierra Nevada bighorn sheep include disturbance to sheep and avoidance of preferred use areas due to an increase in the number of tourists arriving by jet aircraft to the Mammoth Lakes area and backpacking into the high Sierras where bighorn sheep occur. However, this indirect effect is unlikely to occur due to the location of the bighorn sheep use areas. The sheep primarily use USFS lands that are designated wilderness areas. The USFS strictly controls the number of back-country permits that are issued for wilderness area travel. The potential increase in the number of tourists arriving at the Mammoth Lakes area would have no effect on the quota of back-country use permits issued by USFS. In addition, to further reduce potential disturbance to sheep the USFS does not permit entry into some bighorn sheep use areas in the Sierra Nevada between July 1 and December 15. Therefore, the proposed project would not indirectly affect Sierra Nevada bighorn sheep or their habitat.

3.3.2.4 Water Resources

Wetlands

A project is considered to have significant impact to wetlands if the project has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

A Jones and Stokes Associates biologist conducted a botany field survey of the project site on June 16, 2000. One of the intents of the field survey was to determine the presence or absence of "Waters of the United States" on the project site including wetlands. Review of the site was conducted in accordance with the United States Army Corps of Engineers' (Corps) Wetlands Delineation Manual (Environmental Laboratory 1987).

The field survey determined that the site did not contain any jurisdictional wetlands. While the survey did identify non-jurisdictional dry meadow habitat, it was determined that the site "lacks primary or secondary indicators of hydrology and therefore does not meet the definition of a jurisdictional wetland." [3-13] If a field survey conducted by a qualified biologist determines that no wetlands are present, verification from the Corps is not required. Therefore, no written concurrence was requested or received.

The proposed project would have no effect on federally protected wetlands through direct removal, filling, hydrological interruption, or other means. Therefore, no significant impacts to wetlands would occur as a result of the proposed project.

3.3.3 Mitigation Measures

3.3.3.1 Vegetation

No special status plant species, Significant Natural Areas, or Rare Natural Communities were identified in the project area. Therefore, no mitigation measures are required.

3.3.3.2 Wildlife

Although the proposed project and alternatives would not significantly impact biological resources; however, the following mitigation measures are proposed to minimize any impacts that may result from the proposed project and alternatives.

Sage Grouse

1) The security fence installed around the runway would be constructed of chain link fence, which should be more visible to sage grouse than single-strand barbed wire (rangeland) fences. No barbed wire would be located at the top of the fence. Fence posts would have rounded or pointed caps to discourage use by raptors and ravens as perch sites. The portion of the fence situated along the north side of the runway, and east and west of existing buildings, would be constructed using methods developed in consultation with the USFS and CDFG to ensure that the fence be visible to grouse. The portion of the fence located along the south side of the runway (adjacent to U.S. Highway 395) would not include any additional fencing material to make it more visible to grouse. The effectiveness of the fence design for reducing raptor and raven perching would be monitored.
2) The number of acres of sagebrush scrub winter habitat lost as a result of implementing the proposed project would be mitigated off site via the mule deer habitat restoration. The revegetation plan for the restoration is partially described under mule deer mitigation and fully described in Appendix K.

Mule Deer

1) To reduce the potential for deer mortality from aircraft-deer collisions, the security fence around the Airport would be constructed as a deer proof fence. The fence would have a minimum height of eight feet. To reduce the potential for deer mortality from vehicle-deer collisions, wing fences of a similar design shall be placed at the east and west ends of the Airport security fence. The CDFG deer biologist and the Caltrans biologists should assist Town of Mammoth Lakes with the placement of these east and west wing fences so that the potential for funneling deer into areas that have the potential to increase deer vehicle collisions is minimized. The fence would be maintained by the project proponent.

   The CDFG deer biologist and the Caltrans biologists should work with the project proponent to continue to evaluate the effects of the fence on mule deer. Based on this evaluation, the project proponent would modify the design of the fence within the parameters of FAA requirements and standards.

2) Based upon consultation with the USFS and the CDFG, the number of acres of high-quality mule deer habitat lost as a result of implementing the proposed project would be replaced by restoration of habitat at or near the Airport. Compensation for the habitat loss would occur at a ratio of one acre for every one acre of degraded deer habitat.

   The Town of Mammoth Lakes, in conjunction with CDFG and USFS, has identified five possible sites for restoration of deer habitat. These sites are:

   1. Runway 9-27 stopway outside of the proposed fence area;
   2. Portions of USFS Road 3S45 north of the airfield;
   3. The USFS gravel pit north of the Airport;
   4. The mule deer holding site southwest of the Airport near the Town of Mammoth Lakes; and

5. The area southwest of the Airport that experienced the 1987 Laurel fire.

Under the proposed project, 10.5 acres of habitat would need to be restored. At least 4.5 acres of the Runway 9-27 stopway is available for restoration through the removal of the existing pavement and reseeding/replanting the area with appropriate species of vegetation. This stopway area is located near the site of the highest identified proportion of deer use. In addition to restoration of the stopway, approximately six acres of additional offsite habitat restoration would need to be designated. The other potential restoration sites listed above have sufficient acreage to meet this need.

The USFS gravel pit located north of the Airport is the primary area being considered for restoration activities for the proposed project. This site currently has little vegetation. Restoration activities, including reseeding and planting of bitterbrush and big sagebrush, would provide additional foraging opportunities for mule deer and sage grouse. The seed mix and method for seeding would be coordinated with the CDFG and the USFS. The revegetation would be monitored to ensure its successful establishment and the area would be reseeded, if necessary.

A specific, detailed mitigation plan for the loss of deer habitat was developed by the USFS botanist (K. Nelson 2/21/01). The revegetation plan (Appendix K) addresses all areas designated as mitigation sites, sources of vegetative material, the schedule for implementation and completion, a monitoring plan, and success criteria.

A temporary fence would be installed around the restoration site to exclude cattle and to allow the establishment of vegetation. The fence design and construction would be coordinated with the USFS and the CDFG to minimize the potential for sage grouse mortality. The fencing would be monitored to determine whether it has any adverse impacts on sage grouse. If substantial adverse effects are identified, the Town of Mammoth Lakes shall consult with CDFG and the USFS on additional mitigation.

Bank swallows (Riparia riparia) are a California state listed threatened species that have been observed nesting in the gravel pit. If the gravel pit is restored, restoration should proceed in a manner such that any bank swallow nest sites are not disturbed, and the habitat is not modified in such a way as to cause future nest failure.

Final approval of the off-site mitigation is the responsibility of the USFS. The restoration site(s) would be managed in perpetuity for the benefit of mule deer and sage grouse.

3) The security fence around the Airport runway could potentially force deer away from the project area during migration periods and could result in an increase in deer-highway fatalities. Caltrans is currently developing a deer fence plan for a deer undercrossing at the Hot Creek underpass. To reduce the potential adverse effect associated with a potential increase in road crossing by mule deer, the Town of Mammoth Lakes shall coordinate with Caltrans, CDFG and the USFS on the fence design and location.

4) There is no posted speed limit on Airport Road, and the straight road invites high speeds. A speed limit with deer crossing signs could slow motorists and alert them to the presence of deer, reducing the potential for deer-vehicle collisions.

Raptors

1) Fences, powerpoles, and light standards would be designed and constructed to minimize perching opportunities.

3.3.3.3 Threatened and Endangered Species

It has been determined that the proposed project would not affect Lahontan cutthroat trout, Sierra Nevada bighorn sheep, or their designated critical habitat. Therefore, no mitigation measures are required.

The biological opinion issued by the USFWS found that the FAA's funding and approval of the Airport expansion, as proposed, is not likely to jeopardize the continued existence of the Owens tui chub and is not likely to destroy or adversely modify designated critical habitat. Mitigation measures proposed by the FAA and the Town of Mammoth Lakes to monitor contamination from Airport operations in surface and ground water, and to contain these chemicals during chronic and catastrophic spills would further protect the Ownes tui chub and its habitat from potential impacts.

Although the proposed project may affect bald eagles due to the remote chance of aircraft-eagle collisions, it is not likely to adversely affect the bald eagle. Therefore, no mitigation measures are needed or proposed.

While no significant effect to the Owens tui chub has been identified, the FWS included in its Biological Opinion the following conservation recommendations:

1. Development of a habitat conservation plan (HCP) to provide protection for the local and regional federally listed species within the sphere of influence of projected growth.

2. Implement a groundwater use monitoring plan as that use may affect the Hot Creek headsprings and implement a protection plan that ensures the long term viability of the Owens tui chub.

3. Assist in the development and implementation of a Service approved plan to establish a transplanted Owens tui chub population away from the area of groundwater downdrafting and potential contamination.

4. Construct and maintain an informational kiosk at the Mammoth Yosemite Airport for public education regarding conservation of endangered and threatened species.

With regard to recommendations 1 and 3, the Town of Mammoth Lakes does not own or have jurisdiction over the lands affected by these proposals. However, the Town through its role in the Mono County Collaborative Planning Team would work with the affected agencies to develop these measures consistent with the management direction of the affected agencies. The Town would install monitoring wells consistent with the direction from the California Regional Water Quality Control Board, Lahontan Region. The Town would construct a kiosk at the Mammoth Yosemite Airport for public education regarding conservation of endangered and threatened species.

3.3.3.4 Water Resources

The proposed project site does not contain any wetlands, therefore no mitigation measures are required.

3.3.4 Cumulative Impacts

3.3.4.1 Vegetation

No special status plant species were identified in the project area, therefore no new cumulative impacts to these resources are expected.

3.3.4.2 Wildlife

Cumulative effects include the effects of future federal, State, local, or private projects that are reasonably certain to occur in the vicinity of the project area. Cumulative effects to wildlife include impacts from the proposed project and from the other projects in the same geographical region.

The following projects are proposed in the general region of the proposed project: Airport Commercial Development Plan, Sierra Business Park, Sherwin/Snowcreek Ski Area, Lakeridge Ranch Estates, Rimrock Ranch, Intrawest Resort Development, and Eastern Sierra College. The latter two projects are within the urbanized area of Mammoth Lakes and are not anticipated to contribute to cumulative effects to wildlife. Development of the Sherwin/Snowcreek Ski Area has an uncertain future and might not be constructed.

The mitigation measures designed for these developments and described in the environmental documents prepared for these projects are assumed to minimize potential effects to wildlife. Such measures include limiting human disturbances during deer migration periods and measures to account for the loss of high quality habitat. For example, the 180 acre Rimrock Ranch project includes the sale of 100 acres of land to the CDFG for habitat purposes with the remaining 80 acres utilized for development. The 100-acre set aside promotes protection of the most valuable habitat on the project site.

The projects closest to the Airport, Sierra Business Park and Airport Commercial Development Plan, are most likely to contribute to the cumulative impacts to wildlife in the project area vicinity. However, the EIR for the Sierra Business Park concluded that the project would not impact existing deer habitat and therefore, would not contribute to cumulative impacts. The proposed light industrial development is located on 36 acres that were previously used as a borrow site. Consequently, the site does not have high value as wildlife habitat.

The Airport Commercial Development Plan (ACDP) was found in 1997 not to have any significant effects on biotic communities. The commercial and residential development proposed for the Hot Creek Resort, which is a portion of the ACDP, could contribute to cumulative effects if the proposed mitigation measures associated with the project are not implemented. For example, uncontrolled dogs from residents could harass deer on summer range and migration corridors. Informal user trails in the vicinity of the condominiums could cause additional disturbance to both deer and sage grouse. However, implementation of the project mitigation measures would reduce these potential effects. The development of the ACDP does not increase the extent of the existing disturbance associated with the Airport. Therefore, the proposed project would not result in any potentially significant cumulative impacts.

Other potential sources of disturbance to wildlife include a variety of other uses not associated with development. The public lands (e.g., BLM, USFS) and private land (e.g., Los Angeles Department of Water and Power (LADWP)) in the vicinity of the Mammoth Yosemite Airport are used by numerous recreationists (e.g., OHV, hikers, mountain bikers), some of whom are accompanied by off

leash dogs. Informal camping (i.e., undeveloped sites) by recreationists on these lands occurs in all seasons, but less often in winter. Increased use of hot springs in these areas is reflected in management activities taken by LADWP to prohibit camping. Additional sources of disturbance to wildlife include the network of formal (e.g., USFS system roads and OHV inventory) and informal roads (e.g., unmapped spur roads) in the project vicinity. These roads permit access to deer migration corridors, winter and summer habitat, and holding areas (south of U.S. Highway 395), as well as to sage grouse winter, summer, and breeding habitat. Other identified elements of conflicting resource management have to do with grazing management and allotment plans. Competition for forage between deer and cattle has been identified as a potential problem. [3-8]

Future developments could reduce the amount of habitat available for special status species such as sage grouse and mule deer. However, additional opportunities for development in the immediate vicinity of the project area are limited by the small percentage of private lands available for development. All lands surrounding the proposed project are located within the jurisdictional control of Mono County and the majority of land in the vicinity of the Project is controlled by two federal agencies, the BLM and the USFS, and one public agency, the LADWP. In order for any growth to occur, development would have to occur on lands now owned or managed by one of these agencies. This would require changes to the current policies of the subject agencies, which is not considered likely, as the BLM, USFS, and the Town of Mammoth have been working to decrease existing fragmentation on federal lands. [3-27]

Future proposed projects on federal lands (e.g., mines, geothermal) and on private lands (e.g., residential, commercial) would be subject to environmental analysis, including identification of any potential adverse effects to wildlife resources on an individual and cumulative basis. Any significant effects would be mitigated before the project(s) could be implemented.

Following project completion, increased human use of the project area would increase the potential for human caused fires, litter, and general disturbance to plants and wildlife. In general, increased human use has been associated with air- and water-borne pollutants, overdraft of local aquifers, a reduction in water tables, subsidence and ground erosion. [3-16] The proposed project would not substantially increase these potential disturbances, therefore they would not have a significant cumulative impact.

The proposed project would not have any unavoidable significant impacts on the biotic communities after the proposed mitigation measures have been implemented.

3.3.4.3 Threatened and Endangered Species

The project area does not contain significant habitat for any threatened or endangered species. Previous disturbances associated with the existing runway and Airport facilities and U.S. Highway 395 have reduced the project area's habitat values. Other projects, including the Airport Commercial Development Plan and Sierra Business Park, scheduled in the vicinity of the proposed project do not contain significant habitat for threatened and endangered species, nor are they expected to have any significant adverse impacts to threatened or endangered species. Therefore, the proposed project is not expected to contribute to any cumulative impacts to endangered or threatened species or to their habitat.

The proposed project has no unavoidable significant impacts on the endangered or threatened species.

3.3.4.4 Water Resources

The proposed project and Airport Commercial Development Area project would not affect any jurisdictional wetlands, therefore, no cumulative impacts to wetlands would occur from the proposed project.

3.4 Transportation/Traffic

The transportation/traffic effects of the Airport and planned future uses have been evaluated in the previously certified 1986 EIR/EA and 1997 SEIR/EA documents. Please refer to Appendix A for a summary of the conclusions from these previous analyses.

This transportation/traffic analysis is provided to address changes to the Mammoth Yosemite Airport or its circumstances since approval of the 1997 Airport project, that were not previously evaluated. The change in the project or project assumptions that could affect transportation/traffic is the updated aviation demand forecast which would result in an increase in trip generated to and from the Airport. There are no other changes that would result in transportation/traffic effects, which have not already been evaluated. Moreover, all previously required mitigation measures would still apply to the proposed project.

3.4.1 Environmental Setting

The environmental setting for the proposed project consists of (1) existing roadways and access facilities, and (2) the existing traffic conditions upon these roadways and access facilities in the vicinity of the proposed project.

The Airport is currently located on the north side of U.S. Highway 395, with primary access at Hot Creek Hatchery Road. **Exhibit III-11** shows the road network in the vicinity of the Airport. South of the project site, U.S. Highway 395 provides access to Mammoth Lakes and the Lake Tahoe region. South of the project site, U.S. Highway 395 provides access to Crowley Lake, Bishop, and Southern California. Local access to the Airport is provided via Hot Creek Hatchery Road (Hot Creek Road). Hot Creek Road is an undivided, two lane road with an at-grade intersection with U.S. Highway 395. An approximately 70-foot median exists on U.S. Highway 395 at its intersection with Hot Creek Road. This intersection is characterized with high vehicle speeds on U.S. Highway 395 (60 to 70 mph), and stop control along Hot Creek Road, including the vehicle storage lanes within the median.

The U.S. Highway 395 intersection at Hot Creek Road currently operates with a satisfactory level of service at LOS B (10.8 seconds).

3.4.2 Significant Environmental Impacts

Based on CEQA Guidelines, Appendix G [3-1], a project is considered to have significant impact to transportation/traffic public services if the proposed project:

- Causes an increase in traffic which is substantial in relation to the existing traffic load and capacity of street system (i.e., results in a substantial increase in either the number of vehicle trips, the volume to capacity ration on roads, or congestion at intersections.)
- Exceeds, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways.

A traffic study, provided in Appendix L, has been prepared to assess the Airport specific short-range and long-range impacts, and to consider the cumulative impacts of two adjacent development projects: the on-Airport commercial development area and Sierra Business Park. The study examines conditions in 2000 and 2020 and considers growth in through traffic on U.S. Highway 395. Information for the Sierra Business Park is taken from the traffic study dated May 2000, and November 2000, prepared by Traffic Safety Engineers.

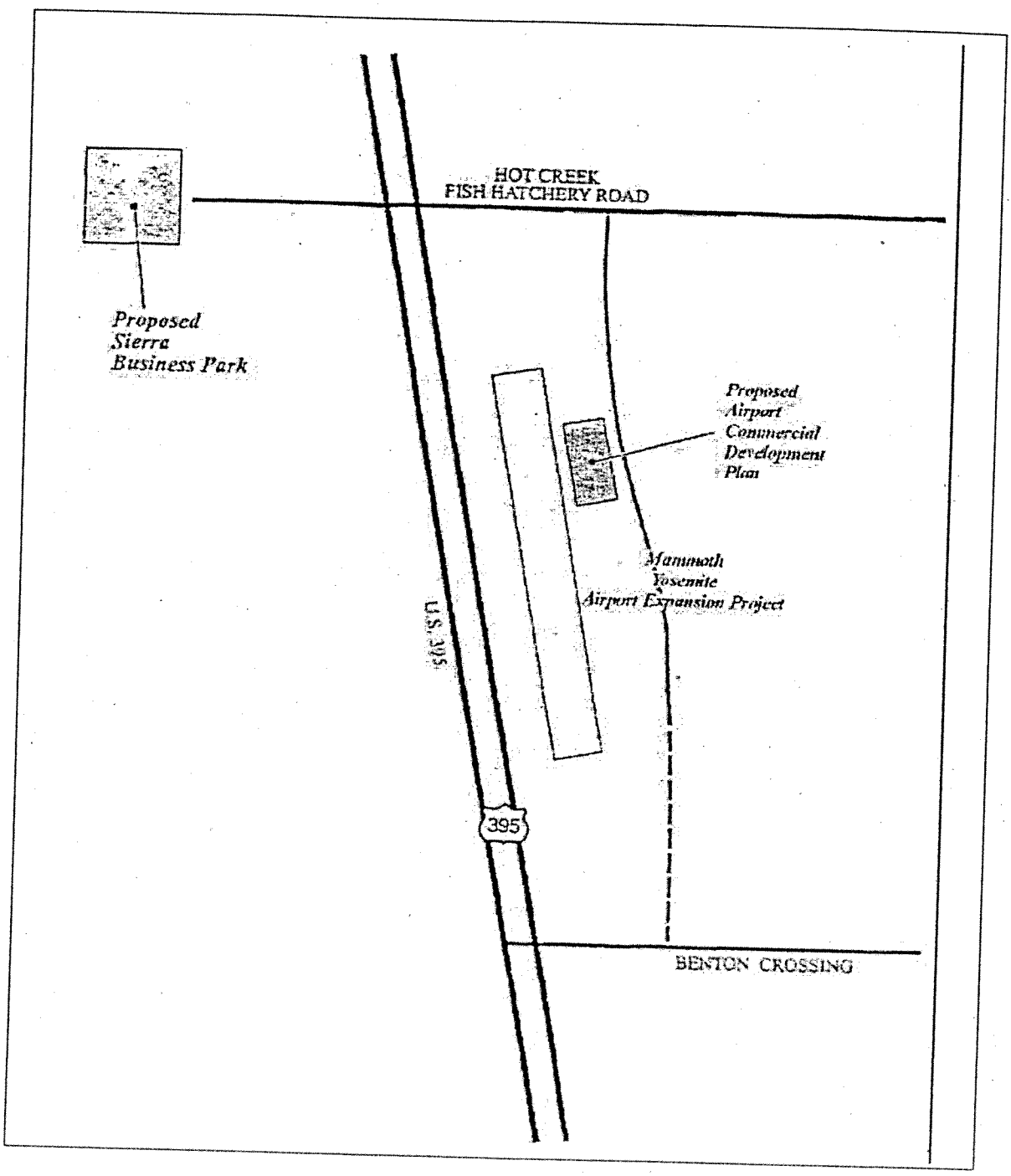
Several different development combinations are considered in order to isolate the substantial impacts and to consider proportionate share responsibilities. An additional access to U.S. Highway 395 at the existing Benton Crossing intersection is considered with the Airport Commercial Development Plan project only. When the intersection of U.S. Highway 395 at Hot Creek Road drops below level of service (LOS) D, mitigation is recommended. In this case, a traffic signal is not considered acceptable by Caltrans due in part to the high vehicular speeds along U.S. Highway 395; therefore, either minor intersection channelization is recommended or alternative access locations on U.S. Highway 395. **Table III-13** illustrates the various land and access alternatives and provides the LOS results.

There would be increased traffic on U.S. Highway 395 and other highways in the region as a result of the growth in tourism. This might be offset on a micro scale by fewer tourists driving automobiles from farther airports or their homes, through which the air pollution emissions would be improved. The traffic congestion in the Town of Mammoth Lakes would also be reduced through the provision of bus service to the Airport as specified in memo on bus transportation provided in Appendix D.

Bus service between the Town and the Airport is anticipated to be the primary mode of ground transportation for passengers. This is in keeping with the Town's goals to reduce the reliance on private cars in the Town. However, the use of other modes of ground transportation are anticipated, including private vehicles by local area residents and Airport employees and rental cars by visitors. It is anticipated that approximately 70% of Airport users would use the bus system, 13% would use rental cars, and 17% would use other private or commercial vehicles. These modes of ground transportation were incorporated into the traffic and air quality analyses performed in this SSEIR.

The percentage of passengers that would use buses for access to or exit from the Airport was estimated based on the following data sources:

- Discussions with Mammoth Mountain staff members indicate that ski package promotions would likely be structured so that air passengers would access Mammoth Mountain from the Airport via a bus scheduled to meet incoming flights. Mammoth Mountain staff members expect that almost all visitors arriving by aircraft would use this vehicle mode to access Mammoth Mountain's facilities.
- Existing vehicle mode choices made by current general aviation users that would continue in the future.
- Discussions with airport managers at comparable airports indicate that buses capture 60 to 90 percent of visitors destined for ski areas:
- Yampa Valley Regional Airport serving the Steamboat Springs ski area in Colorado reports that 90 percent of visitors are shuttled by bus to the ski area.
- Gunnison County Airport serving Crested Butte and Monarch ski areas in Colorado reports that 60 to 65 percent of visitors are shuttled by bus to the ski areas.



Source: LSA Traffic Study
Prepared by: Ricondo & Associates, Inc.

Exhibit III-11

not to scale

north

Project Study Area

Exhibit III-11.dwg

Table III-13
Vehicular Traffic Impacts

Scenario	Year 2000 US Highway 395/Hot Creek Road[1] Intersection Delay / LOS: Max Delay (sec.)	Approach	LOS	NB/SB max queue (veh.)	EB/WB max queue (veh.)
With Existing Circulation System					
Existing Year 1999/2000 Conditions[4]	10.8	westbound	B	0.04	0.09
Existing + Airport	10.9	westbound	B	0.29	0.49
Existing + Airport + Hot Creek Resort	18.5	westbound	C	0.65	3.29
Existing + Sierra Business Park	14.6	eastbound	B	0.04	1.70
Existing + Airport + Hot Creek Resort + Sierra Business Park	32.3	eastbound	D	0.65	4.59
With Connection to Benton Crossing[3]					
Existing + Airport + Hot Creek Resort	11.6	westbound	B	0.57	1.2
Existing + Airport + Hot Creek Resort + Sierra Business Park	29.9	eastbound	D	0.57	4.22

Scenario	Year 2020 US Highway 395/Hot Creek Road[1] Intersection Delay / LOS: Max Delay (sec.)	Approach	LOS	NB/SB max queue (veh.)	EB/WB max queue (veh.)
With Existing Circulation System					
Year 2020 Baseline Conditions[4]	11.6	westbound	B	0.04	0.10
2020 + Airport	11.6	westbound	B	0.33	0.54
2020 + Airport + Hot Creek Resort	22.2	westbound	C	0.74	4.13
2020 + Sierra Business Park	16.4	eastbound	C	0.05	2.00
2020 + Airport + Hot Creek Resort + Sierra Business Park	>50	eastbound	F	0.74	7.09
2020 + Airport + Hot Creek Resort + Sierra Business Park with Mitigation	37.8	eastbound	E	0.74	5.07
With Connection to Benton Crossing[3]					
Existing + Airport + Hot Creek Resort	12.5	westbound	B	0.65	1.36
Existing + Airport + Hot Creek Resort + Sierra Business Park	43.3	eastbound	E	0.64	6.18
Existing + Airport + Hot Creek Resort + Sierra Business Park with Mitigation	33.6	eastbound	D	0.64	4.47

Note: See Table C in Appendix L for footnotes.

Source: LSA Associates, Inc.
Prepared By: LSA Associates, Inc.

AR 001136

The Convict Lake Road is a direct emergency access point to the midpoint of the airfield from U.S. Highway 395. This access is currently gated, thereby restricting access to only emergency vehicles. Discussions have taken place with Caltrans representatives (personal communication: Carolyn Yee) regarding the Convict Lake Emergency Road. There are no environmental differences between an emergency only gate and a fence at this point. The determination regarding permitting of a gate resides solely with Caltrans District 9, and emergency access from U.S. Highway 395 will be as permitted by Caltrans

Coordination with the Fire Chief of the Long Valley Fire Protection District (LVFPD) has been ongoing throughout the planning of the Airport improvements. A letter from the fire chief is provided in Appendix D of the SSEIR stating that this emergency access point is adequate for emergency response requirements.

Vertical Separation between Operating Aircraft and U.S. Highway 395

The runway serving the Mammoth Yosemite Airport is designated as Runway 9-27. This runway runs parallel to U.S. Highway 395. The centerline of the runway is 426 feet north of the northerly fog line on the highway.

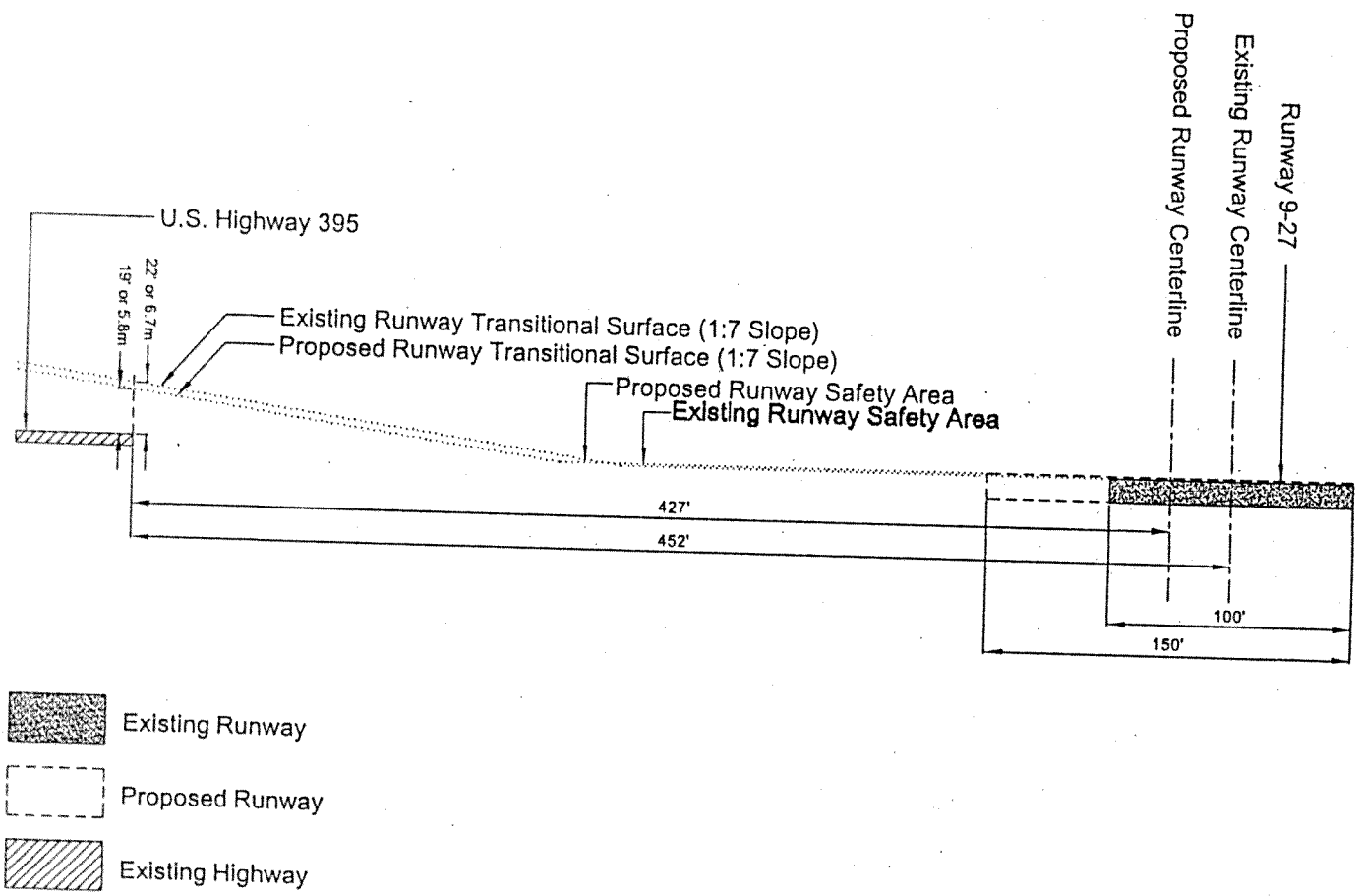
The California Department of Transportation (Caltrans) has established criteria for runway-highway separation. The *Caltrans Highway Design Manual* [3-28] requires that the U.S. Highway 395 shoulder edge must be at least 5.2 meters (17 feet) below a 1:7 transition surface beginning at the edge of the Runway 9-27 primary safety area. The dimensions of the primary safety area of Runway 9-27 is a rectangle 153 meters (500 feet) wide x 31 meters (100 feet) beyond each runway end. The rectangle is at the same elevation as the runway and is centered on the runway centerline. The shoulder edge of U.S. Highway 395 must be at least approximately 112.9 meters (370 feet) from the runway centerline. These separation requirements are established to protect both the aircraft occupants and persons on the ground and on the roadways. As illustrated on **Exhibit III-12**, the distance between the proposed runway centerline and the shoulder edge of U.S. Highway 395 is 427 feet, exceeding Caltrans requirements.

Some other airports such as San Francisco International Airport, San Jose International Airport, and Long Beach Airport all have highways within 1000 feet of the runway.

The proposed project would not cause a substantial increase in existing traffic and would not cause the level of service to deteriorate beyond standards established by Caltrans. Therefore, the project would have no adverse significant impact on transportation/traffic.

3.4.3 Mitigation Measures

As part of the initial airport expansion program, minor mitigation improvements would be installed at the U.S. Highway 395 intersection with Hot Creek Road. Those mitigation improvements include both northbound U.S. Highway 395 right turn deceleration and acceleration lanes and the lengthening of the southbound U.S. Highway 395 left turn deceleration lane. These mitigation improvements would be consistent with the design requirements of Topic 405 - Intersection Design Standards of the *Highway Design Manual* (July 1, 1995).



Source: Reinard W. Brandley, Engineer / Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Exhibit III-12

Runway-Roadway Separation

As discussed above, when the intersection of U.S. Highway 395 at Hot Creek Road drops below level of service (LOS) D, mitigation is recommended. Mitigation would be in the form of restriping the center median lanes to provide separate eastbound and westbound left and through lanes, and constructing a connector road to Benton Crossing Road from the Airport developments. **Exhibit III-13** shows the new configuration of the median lanes, which would be built when level of service at the intersection falls below LOS D. The costs of either improvement (Benton Crossing access or restriping the center median) should be spread to the contributing projects on a proportionate basis in relation to their respective peak hour trip generation. With either mitigation measure constructed, long-term levels of service for the baseline + Airport expansion + Hot Creek Aviation/Airport Commercial Development + Sierra Business Park scenarios would operate with satisfactory levels of service (LOS D or better).

3.4.4 Unavoidable Significant Impacts

As stated above, the proposed project is not expected to cause any new significant impacts in relation to Transportation or Circulation; therefore, no new unavoidable significant impacts are anticipated.

3.4.5 Cumulative Impacts

The slight growth in traffic as a result of the Airport Commercial Development Plan and Sierra Business Park has already been included in the significant environmental impact section for the proposed projects and it was determined that they would have no significant impact on traffic individually, but cumulatively, they would require the implementation of mitigation measures either in the form of intersection improvements mentioned above or the construction of Benton Crossing Road.

3.5 Soils and Land Transformation

The impact of the proposed project on Soils and land transportation has been evaluated in the previously certified 1986 EIR/EA and the 1997 SEIR/EA documents. Please refer to Appendix A for the summary of Soil/Land Transformation impacts, their significance, and mitigation measures from the 1997 SEIR/EA (which incorporated the 1986 EIR/EA).

This section discusses potential environmental impacts with respect to soil/land transformation as a result of the proposed modifications to the Airport that were not previously evaluated. Changes in the current Airport proposal that may impact soil/land transformation include construction of a new package wastewater treatment plant (instead of a new leach field), the extension of the runway by 1,200 feet (rather than 2,000 feet) and an increase in the runway width to 150 feet. No other changes that would result in soil and land transformation effects are proposed to the Airport and already been evaluated. Moreover, all previously required mitigation measures would still apply to the proposed project.

3.5.1 Environmental Setting

The proposed project area is within the existing Airport boundary. The existing runway is 7,000 feet long and 100 feet wide. Under the proposed project, a revised special use permit for an additional 25 feet of United States Forest Service (USFS) land along the length of Runway 9-27 would be acquired. This strip of land would then be graded to provide FAA required runway safety areas after widening the runway to 150 feet. Currently this land is between the runway safety area and U.S. Highway 395. On the west end of the existing runway there is 3,400 feet of paved overrun that will be used to extend the runway by 1,200 feet. This paved overrun was part of the original runway before the new runway was built in 1983. The existing runway's center line would be displaced 25 feet south as the runway width would be increased to 150 feet by adding 50 feet of pavement on the south side of the runway.

3.5.2 Significant Environmental Impacts

Based on CEQA Guidelines, Appendix G [3-1], a project is considered to have significant impact to Soils if the project;

- Results in substantial soil erosion or the loss of top soil.
- Causes soil to become unstable and results in an on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.

The proposed project would require earthwork operations including stripping and clearing of vegetation, excavation and landfill, stockpiling of unsuitable materials, trenching, and other land disturbances associated with site grading, roadway grading, underground utility installations, and building construction. During earthwork operations most sites would consist of disturbed and exposed soil surfaces, which are subject to erosion during a storm.

All grading and earthwork activities for the proposed plan would require the approval of grading plans and issuance of a grading permit by the Mono County Department of Public Works. In addition, the Lahontan Regional Water Quality Control Board requires the submittal of a waste discharge report and the approval of a drainage and erosion control plan for all major projects within the Mammoth watershed.

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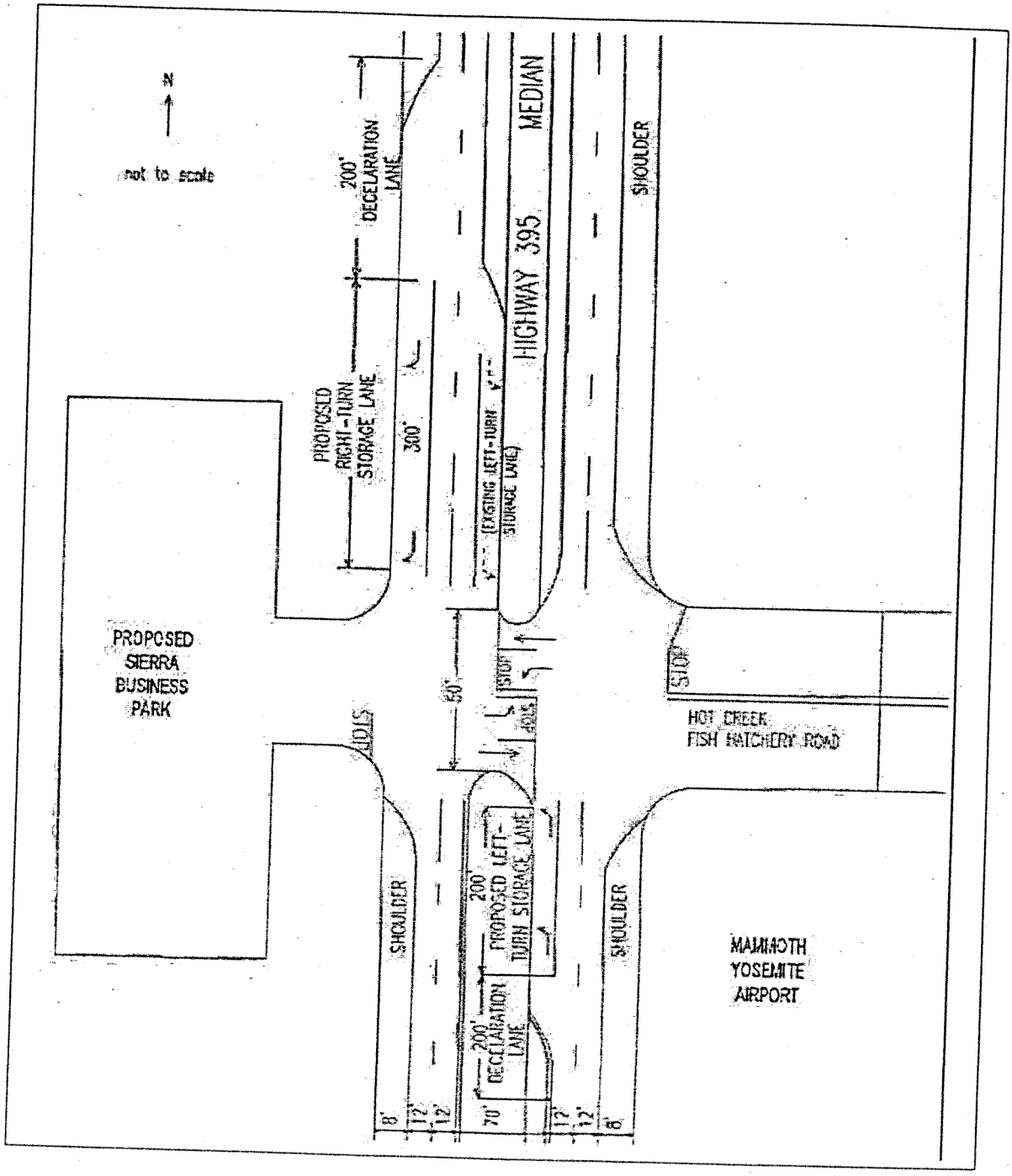

Source: LSA Traffic Study
Prepared by: Ricondo & Associates, Inc.

Exhibit III-13

not to scale

north

Proposed Intersection Traffic Turn Lane Configurations

Exhibit III-13.dwg

The changes to the proposed project from the previously certified documents include a decrease in the proposed length of the runway from 9,000 feet to 8,200 feet, and an increase in the runway width from 100 feet to 150 feet. The total site grading required for the project would be accordingly reduced by 7 acres (from 44 to 37 acres) from what was previously evaluated and certified in the 1986 EIR/EA and 1997 SEIR/EA as not having significant impacts on soils. **Exhibit III-14** and **III-15** show the difference in the grading plans for the proposed project in 1997 and 2001.

Potential significant erosion hazards and water quality impacts could occur if earthwork operations for a particular project are not stabilized before the onset of winter weather conditions. Snowmelt runoff from uncompacted exposed soil surfaces or loose stockpiles of materials would be difficult to control. Other adverse effects include visual impacts if disturbed soils are not properly stabilized and revegetated and reduction in wildlife populations due to loss of habitat.

A revised special use permit would be required from the USFS for the additional 25 feet of land south of the runway required under the changes to the proposed project.

With the incorporation of all the mitigation measures required by Mono County Department of Public Works and Lahontan RWQCB listed below, the proposed project would not result in substantial soil erosion or the loss of top soil, nor would it cause soil to become unstable and result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. Consequently the project would not have a significant impact on soils/land transformation.

3.5.3 Mitigation Measures

The following specific mitigation measures are required for all developments within the planning area to make sure that there are no significant adverse effects on the soils.

- All grading and earthwork activities must be conducted in accordance with an approved construction grading plan and grading permit issued by the Mono County Department of Public Works. The following provisions must be included prior to approval of a grading permit.
    - All earthwork must be conducted in accordance with a detailed project schedule submitted with the grading application. The schedule shall provide for completion of earthwork in a single construction season.
    - Existing drainage patterns shall not be significantly modified and drainage concentrations shall be avoided.
    - All loose piles of earthwork materials shall be protected to avoid discharges of silt-laden runoff.
    - Limits of construction work should be clearly delineated and disturbances of adjacent soil and vegetation should be strictly avoided. Where considered necessary by the Director of Public Works, temporary fencing shall be erected to delineate the work area.
    - Dust control measures (watering trucks or pumped systems) shall be continuously implemented throughout the construction period.
    - All exposed soil areas shall be stabilized and reseeded in accordance with an approved landscape/revegetation plan as soon as possible. All stockpiles of unsuitable soil materials (boulders and stripped vegetation) shall be removed and disposed of at approved sites designated by Mono County.
    - Bonds or other security shall be required to guarantee completion of site stabilization and revegetation measures within the time periods delineated in the project schedule.

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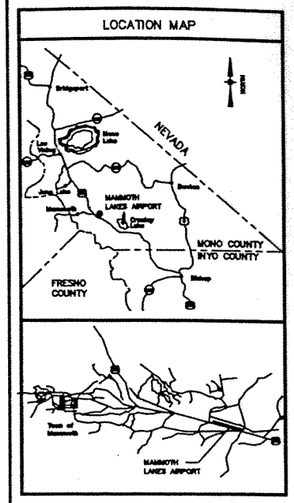

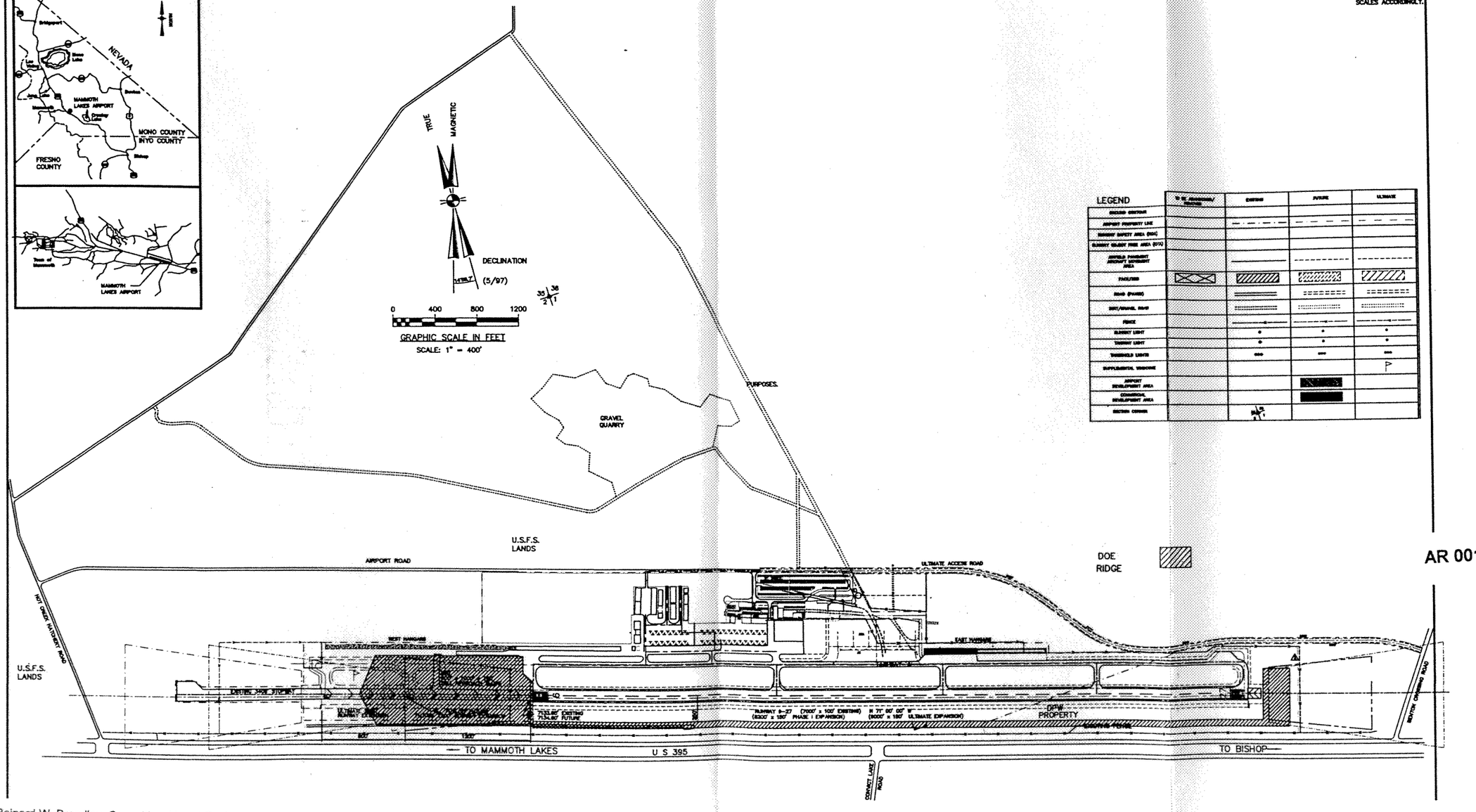

LEGEND

	EXISTING	FUTURE	ULTIMATE
AIRPORT PROPERTY LINE			
RUNWAY SAFETY AREA (RSA)			
RUNWAY OBJECT FREE AREA (ROFA)			
AIRFIELD PAVEMENT (AIRCRAFT MOVEMENT AREA)			
FACILITIES			
ROAD (PAVED)			
DIRT/GRAVEL ROAD			
FENCE			
RUNWAY LIGHT	•	•	•
TAXIWAY LIGHT	•	•	•
THRESHOLD LIGHTS	▪▪▪	▪▪▪	▪▪▪
SUPPLEMENTAL WINDCONE			P
AIRPORT DEVELOPMENT AREA			
COMMERCIAL DEVELOPMENT AREA			
SECTION CORNER			

AR 001143

Source: Reinard W. Brandley, Consulting Airport Engineer
Prepared by: Ricondo & Associates, Inc.

Exhibit III-14

0 1000
north

Grading Area for 2001 SSEIR Proposed Project (1,200-ft Extension and 25-ft Displacement)

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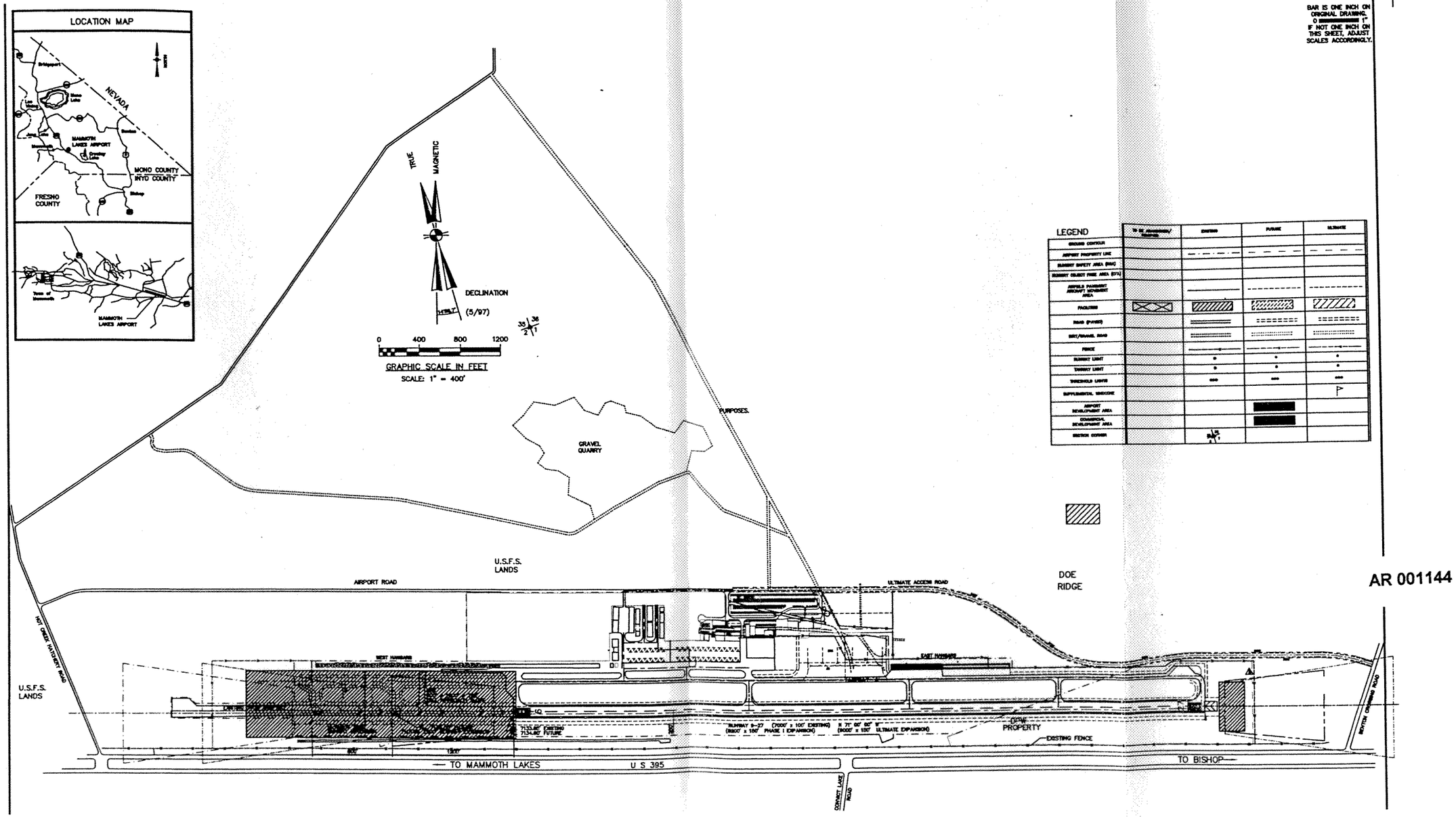

AR 001144

Source: Reinard W. Brandley, Consulting Airport Engineer
Prepared by: Ricondo & Associates, Inc.

Exhibit III-15

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north

Grading Area for 1997 SEIR/EA Proposed Project (2,000-ft Extension)

3.6 Hydrology, Water Supply, and Water Quality

The hydrology, water supply, and water quality effects of the Airport have been evaluated in the previously certified 1986 EIR/EA and the 1997 SEIR/EA documents. Please refer to Appendix A for the summary of hydrology, water supply, and water quality impacts, their significance, and mitigation measures from the 1997 SEIR/EA (which incorporated the 1986 EIR/EA).

This section discusses potential environmental impacts with respect to hydrology, water supply, and water quality as a result of the proposed modifications to the Airport that were not previously evaluated. The changes in the current Airport proposal that may impact hydrology, water supply, and water quality include construction of a new package wastewater treatment plant (instead of a new leach field), use of an oil/water separator, extension of the runway by 1,200 feet (rather than 2,000 feet), increase in the runway width to 150 feet. The analyses also take into account the updated aviation demand forecast. No other changes are proposed to the Airport, which would result in hydrology and water quality effects, which have not already been evaluated. Moreover, all previously required mitigation measures would still apply to the proposed project.

This section discusses potential environmental impacts to water as a result of the proposed project. The following categories of Water impacts are discussed: (1) Water Quality, (2) Water Supply, and (3) Stormwater Control.

The *Federal Water Pollution Control Act of 1972* (also known as the Clean Water Act) [I-4] was instituted to protect the nation's water resources. A major component of the Clean Water Act involved the establishment of regulations designed to prohibit the discharge of pollutants into waters of the United States from any point source unless the discharge is in compliance with National Pollutant Discharge Elimination System (NPDES) standards. Initially, this legislation established a permitting program for industrial process and municipal sewage discharges. However, with the passage of the *Water Quality Act of 1987* [2-4], the Clean Water Act was revised to include permit requirements for storm water discharges as well.

In the State of California, the permitting of surface water discharges is administered by the California Environmental Agency through Regional Water Quality Control Boards (RWQCB). The RWQCBs have assumed the responsibility of implementing the Clean Waters Act in California the issuance of discharge permits and the establishment of water quality standards. Mammoth Yosemite Airport is in the RWQCB Lahontan region.

In 1975, the RWQCB prepared a comprehensive Water Quality Control Plan for the South Lahontan Basin Area, which includes the Airport. The plan outlines a coordinated program for water quality protection in accordance with the policy of non-degradation. This policy states that the existing level of quality in water resources shall be maintained unless potential beneficial uses are unreasonably affected.

In general, environmental impacts to surface water quality are assessed in relation to the existing characteristics of the body of water that would receive the discharge (receiving water body), including its size, flows, designated beneficial uses, and present concentrations of pollutants. Increased concentrations of toxic metals, organic compounds, suspended solids, nutrients, pathogenic microorganisms and other pollutants, or changes in temperature may result in sedimentation, eutrophication, habitat degradation, and/or threats to public health.

3.6.1 Environmental Setting

There are no bodies of water on Airport property. There are, however, three surface drainage systems in the vicinity of the Airport. These drainage systems are depicted in **Exhibit III-16**. The area west of the Airport is within the western portion of the Mammoth Creek/Hot Creek watershed of the Mammoth Basin drainage system. The area south of the Airport is within the Convict Creek watershed. The drainage divide between the Mammoth Basin and Convict Creek watersheds passes through the westerly portion of the Airport. The third drainage divide lies east of Doe Ridge and flows into Crowley Lake.

The lower reaches of the Mammoth Basin drainage system are significantly affected by rising geothermal ground waters, which include mixed hot-cold spring discharges at the Hot Creek Fish Hatchery and numerous hot springs within the Hot Creek Gorge. The Convict Creek drainage system appears to contain only cold groundwater elements. Studies conducted by the California State Department of Water Resources and U.S. Geological Service (USGS) indicate that geological formations located north of the Airport confine a relatively extensive cold groundwater basin.

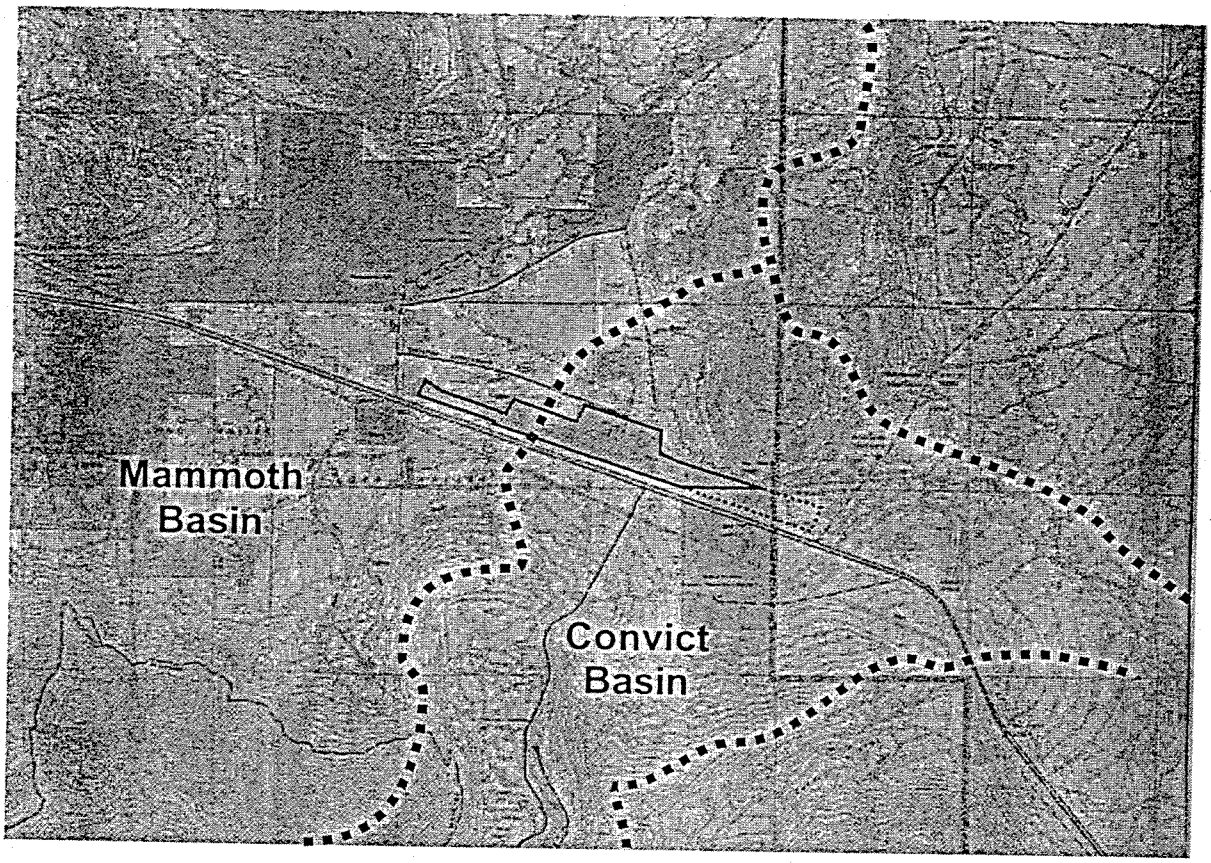
The wells supplying water to the Airport can produce approximately 500 gallons per minute. Based on a pump test performed on the wells in 1999 and monitoring data of several wells in the area conducted by the USGS, it was observed that there was a minimal drawdown trend, suggesting a relatively large source of recharge available to the aquifer.

The RWQCB Water Quality Control Plan generally encourages the consolidation of domestic and industrial wastewater treatment and disposal facilities. The entire basin in which Mammoth Yosemite Airport is located has been designated as an area in which septic tank and leaching fields cannot be used except with special approval of the RWQCB.

The Basin Plan emphasizes the need for control of sources of water pollution including, but not limited to, stormwater runoff. Rainfall is generally regarded as unpolluted relative to surface waters. It is contact with various surface materials that causes rainwater to become contaminated in its transition to runoff, which then discharges and can pollute surface waters.

The RWQCB has found that the proposed project would be located, designed, constructed, and operated in compliance with applicable State of California water quality standards and has issued an assurance letter which is found in Appendix D.

Rainfall exposure to raw materials, final products, byproducts, wastes, material handling equipment, and vehicles is the principal source of stormwater runoff contamination from activities conducted in the operation of an Airport. Stormwater becomes enriched by the dissolution, solubilization, and erosion from materials from exposed surface and moves via overland flow to drainage ways and ultimately is discharged to a receiving body of water. Contaminants may typically include solids, oxygen-demanding substances, plant nutrients, metals, pesticides, herbicides, and other various chemical constituents. Fuels, lubricants, solvents, deicing agents, antifreezes, sanitary waste paints, and detergents are often used and/or handled outdoors at airports and have the potential to contaminate stormwater.



Legend

- Drainage Divide
- Existing Airport Property Line
- Proposed Airport Property Line

Source: Mammoth Lakes Airport Expansion, Subsequent EIR and Updated EA, March, 1997.
Prepared by: Ricondo & Associates, Inc.

Exhibit III-16

north Scale 1" = 5,000'

Mammoth Yosemite Airport Area Drainage System

The existing drainage from the runways and taxiways begins with sheet flow from the pavement to the infield areas of the Airport and then infiltration into the ground. The drainage from the aircraft parking apron, access roads, and other paved areas begins as sheet flow to drainage inlet structures. The effluent is then piped to an infiltration trench located east of the current ground vehicle building where it infiltrates into the ground. No water has been observed flowing beyond the Airport boundary during heavy rain storms.

While it is not anticipated that a large quantity of deicing fluids will be used on aircraft, it will be necessary that facilities be available on site when needed. Commercial airline service will generally operate at the Airport during Visual Flight Rules (VFR) conditions when the weather is good. These aircraft will stay on the ground for periods of approximately two to three hours and the aircraft skin will remain cold soaked, thereby making the accumulation of ice or frost difficult. Interviews with Airport management indicate that there have been only three times in the past three years when aircraft have required deicing services. Deicing, when required, would generally be accomplished by the use of glycol diluted to a 50 percent solution by water.

3.6.2 Significant Environmental Impacts

To determine whether there are potentially significant impacts on water from the proposed project, this SSEIR considers water quality, water supply and stormwater. Specifically, based upon CEQA Guidelines, Appendix G [3-1], a project is considered to have a significant impact on water supply or quantity if the project:

- Creates or contributes runoff which would exceed the capacity of existing or planned storm-water drainage systems or provides substantial additional sources of polluted runoff;
- Violates applicable water quality standards or water discharge requirements;
- Substantially depletes groundwater resources or interferes with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of a local groundwater table level.
- Substantially alters the existing drainage network.
- Places structures within a 100-year flood hazard area, that would impede or redirect flood flows.
- Places housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;

The passenger terminal facility and supporting employees would increase the demand on subsurface water resources. Fire protection requirements are the dominant factor in the design of the proposed water supply and transmission facilities. A 1997 study of water and sewer requirements for the Airport Development Plan, entitled *Mammoth Lakes Airport Water and Sewer Analysis* [3-29] was conducted by the engineering firm of Triad/Holmes and Associates. The estimated maximum daily demand for water generated by the Airport terminal complex was 16,000 gallons. An average daily demand for the sewage treatment of 8,000 gallons was also estimated. Aircraft flight operations generate wastes consisting of oils, grease, deicing fluid, and other complex hydrocarbon compounds. If these waste products are not properly disposed of, the operation of domestic wastewater treatment facilities could be disrupted.

The estimated maximum annual water demand for the Airport terminal complex has been calculated to be 17.92 acre-feet (1 acre-foot = 326,308 gallons). It was estimated in the 1986 EIR/EA that 7,500 acre-feet/year recharges the unconfined aquifer in the Airport area. The 1986 Airport pump test