

6 MITIGATION AND MONITORING PROGRAM

6.1 MITIGATION PROGRAM APPROACH

This chapter presents the Mitigation and Monitoring Program (MMP) for the Boulder Bay Project (Project).

Included in the MMP are measures and actions required by law or regulation, standard engineering and design practices to be adopted and implemented by Boulder Bay as part of planning, construction, operation and maintenance of the Project, and mitigation measures recommended by the Boulder Bay consultant team to mitigate specific impacts identified during analysis for this Environmental Impact Statement (EIS). The recommended mitigation measures are identified in the Chapter 4 resource sections, under the subheading Environmental Impacts and Recommended Mitigation, as feasible and effective in avoiding, reducing and mitigating project-related environmental impacts to a level of less than significant.

Mitigation measures must be designed to minimize significant environmental impacts, not necessarily to eliminate them. A mitigation measure is any action that is designed to minimize, reduce, or avoid an environmental impact.

The legal basis for the development and implementation of a MMP lies within Chapter 5 of the TRPA Code of Ordinances. Code section 5.8.B.5 states that an EIS shall include “mitigation measures which must be implemented to assure meeting standards of the Region”. Section 5.8.D states that TRPA must make:

“Required Findings: Prior to approving the project for which an EIS was prepared, TRPA shall make either of the following findings for each significant adverse effect identified in the EIS:

1. Changes or alterations have been required in or incorporated into such project which avoid or reduce the significant adverse environmental effects to a less than significant level; or
2. Specific considerations such as economic, social or technical make infeasible the mitigation or project alternatives discussed in the environmental impact statement on the project.”

6.2 MITIGATION PROGRAM ORGANIZATION

6.2.1 Compliance with Existing Laws, Policies and Regulations/Compliance Measures

This section presents the applicable federal, State, regional, and county laws, policies and regulations with which the Project must comply and as a result are incorporated as part of the project description. Permitting of the Project cannot occur without compliance and thus these measures are incorporated into the Project design, construction and operations. Because these measures are required, they are not considered mitigation. Compliance with these policies and

regulations will result in avoidance and/or minimization of adverse environmental impacts. Compliance measures as required by the applicable law, policy or regulation are referenced to the documents provided in the list below. The resource sections in Chapter 4 describe the application of these laws, policies and regulations as they pertain to the Project. The mechanism in which compliance measures avoid, reduce and minimize potential impacts is explained in the appropriate impact analysis for the specific resource.

6.2.2 Standard Practices Included in the Project

This section presents a listing and descriptions of standard practices that Boulder Bay is either currently implementing as standard engineering and design measures or that are incorporated into the project description. TRPA will require these practices and will incorporate them as part of the Project permit in order to avoid or minimize potential environmental impacts identified during the planning and design of the Project. These standard practices (numbered SP-1 through SP-9), represent standard engineering, design, construction, operation and maintenance practices.

These practices are part of the Project and do not fit under the normal definition of mitigation. These standard practices are included in this chapter to provide a mechanism to ensure that they are implemented and monitored, and to assist the reader in understanding the commitments required by Boulder Bay.

6.2.2.1 Planning Measures

This section contains standard practices to be implemented during the final planning and detailed design of projects implemented under the Project. These measures require that a project be designed to accommodate particular environmental constraints. Compliance with these standard practices during final planning and design of project facilities will result in avoidance, minimization or reduction of adverse environmental impacts.

6.2.2.2 Construction Measures

This section contains standard practices to be implemented prior to, during, and immediately following project construction. These measures generally require Boulder Bay to follow certain constraints during construction and to repair and rehabilitate impacts resulting from construction of the Project. Compliance with these standard practices during construction will result in avoiding, minimizing, or reducing adverse environmental impacts.

6.2.2.3 Operation and Maintenance Measures

This section contains standard practices to be implemented during operation of the Project. These measures generally require monitoring of system operations over time and the modification of those operations to reduce adverse environmental impacts. Implementation of these standard practices will result in the avoidance, minimization, or reduction of adverse environmental impacts.

6.2.3 Recommended Mitigation Measures

This section presents the mitigation measures proposed to avoid, reduce and further mitigate significant environmental impacts identified during environmental impact analysis in the resource sections for land use, geology and earth resources, hydrology and water quality, biological resources, scenic resources, recreation, cultural and historical resources, transportation, parking and circulation, air quality, noise, socioeconomics, population and housing, and public services and utilities.

6.3 MITIGATION MEASURE FORMAT

Each mitigation measure is described in the following format:

Mitigation Number: Mitigation Measure Title

Description	The description of the mitigation measure.
Impact(s) Mitigated	The impact or impacts that will be mitigated by the measure.
Mitigation Level	The level to which the impact is anticipated to be mitigated.
Alternative	The project alternative(s) for which this measure is recommended.
Lead Agency	The public agency or individual which has the responsibility for insuring that the measure is carried out.
Implementing Entity	The entity or individual which has the responsibility for implementing or performing the measure.
Monitoring Agency	The public agency which has the responsibility for monitoring to insure that the mitigation measure is effective in mitigating the impact.
Timing	The appropriate point in time at which the mitigation measure is to be initiated and completed.

6.4 COMPLIANCE WITH EXISTING LAWS, POLICIES AND REGULATIONS

This section presents the applicable federal, State, regional, county, and local agreements, policies and regulations and laws with which the Project is required to comply. Compliance with these laws, policies and regulations, and future modifications thereof, is required and helps avoid and/or minimize adverse environmental impacts.

6.4.1 County

- Washoe County Comprehensive Plan and Tahoe Area Plan
- Washoe County Air Pollution Control District Regulations
- Washoe County Health Department Regulations
- Washoe County Zoning Ordinance
- Washoe County Code – Supplement 12

- Washoe County Building Codes (2006 International Building Code; 2006 International Residential Code; 2006 International Existing Building code; 2006 International Energy Conservation Code; 2006 Uniform Plumbing Code; 2006 Uniform Mechanical Code; and 2005 National Electric Code)

6.4.2 State of Nevada

- Nevada Occupational Safety and Health Administration
- Nevada Division of Environmental Health
- Nevada Administrative Code §445a
- Nevada Department of Environmental Protection Regulations for Water Quality Protection
- Nevada Department of Environmental Protection Stormwater General Permit NVR100000
- Nevada Department of Transportation
- Nevada State Historic Preservation Office

6.4.3 Regional

- TRPA Environmental Threshold Carrying Capacities (Thresholds)
- TRPA Regional Plan for the Lake Tahoe Basin (Regional Plan)
 - Goals and Policies
 - Rules of Procedure
 - Code of Ordinances (Code)
 - Plan Area Statements (PAS 034)
 - 208 Water Quality Plan
 - Regional Transportation Plan
- TRPA Community Enhancement Program Goals and Resolutions for Boulder Bay (Resolution NO. 2008-11, Resolution NO. 2008-Exhibit 6 –Conditional Reservation of Allocations - February 4, 2008 Memorandum)
- TRPA Tahoe Mariner Settlement Agreement
- TRPA North Stateline Community Plan (NSCP – PAS 032)
- Lake Tahoe Total Maximum Daily Load (TMDL)
- Truckee River Operating Authority

6.4.4 Federal

- Archaeological and Historic Data Preservation Act of 1974
- Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977; Section 404
- Code of Federal Regulations, Title 40 Parts 6, 51, and 93
- Federal Antiquities Act of 1906
- Clean Air Act, amended 1977 and 1990
- Federal Endangered Species Act of 1973, as amended
- National Historic Preservation Act of 1966, amended 1976 and 1980 Sections 106 and 110
- National Natural Landmarks Program, Historic Sites Act of 1935

6.5 STANDARD PRACTICES INCLUDED IN THE PROJECT

This section presents a listing and description of standard practices that are incorporated into the description of the Project for compliance with Standard Practices for Engineering, Design, Construction, Operation and Maintenance. Boulder Bay, LLC is either currently implementing

these standard practices or has adopted and incorporated these standard practices as part of the Project in order to avoid or minimize potential environmental impacts. Because these standard practices are part of the Project and are at times required by law, they do not fit under the normal definition of mitigation. These standard practices are included in the MMP to provide a mechanism to ensure that implementation and monitoring responsibilities are met and to disclose to the Public the commitments required of Boulder Bay.

6.5.1 Planning Measures

This section contains standard practices to be implemented during the final planning and detailed design of the Project. These measures often require the refinement of the final project design to accommodate particular environmental constraints. Compliance with these standard practices during planning and design phases of the Project shall result in avoidance reduction, or minimization of adverse environmental impacts.

SP-1 Meet Design Criteria for Seismic Zone III

Description	The project area is located in IBC Seismic Hazard Zone 3. An appropriate level of engineering mandated by Washoe County Building Codes for Zone 3 areas governs project design and construction for Alternatives C, D and E. Adherence to the IBC design requirements adopted and amended locally for Washoe County will minimize the potential effects of seismic hazards. As recommended in the Geotechnical Investigation Report for Boulder Bay (Lumos and Associates, Inc. 2008), due to the project area’s proximity to the Seismic Hazard Zone 4 boundary, IBC Zone 4 design criteria should be considered as an option to further reduce the potential for damage from earthquakes. Seismic Considerations are outlined on pages 5, 6 and 7 of this report, which is attached in Appendix N, and a PGA of 0.39g is recommended for the design of the Project.
Impact(s) Mitigated	GEO-2: Will the Project facilities be subject to ground rupture due to location near a surface trace of an active fault or expose people or property to geologic hazards such as earthquakes, landslides, avalanches, mudslides, ground failure, or similar hazards?
Mitigation Level	Consistency with Building Codes.
Alternative	Alternatives C, D and E
Lead Agency	Washoe County Department of Public Works
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting Alternatives C, D and E.

6.5.2 Construction Measures

This section contains standard practices to be implemented prior to, during, and immediately following Project construction. These measures generally require the construction manager to follow certain constraints during construction and to repair and rehabilitate impacts resulting

from construction of the Project. Compliance with these standard practices shall result in avoiding, minimizing, or reducing adverse environmental impacts.

SP-2 Prepare and Implement the TRPA Erosion Control Plan

Description

Boulder Bay, LLC shall prepare an Erosion Control Plan based upon final project design. The plan shall be complimentary to the Storm Water Pollution Prevention Plan to be prepared for NDEP's General Permit NVR100000 and shall include, but not be limited to, the following list of management practices:

Construction Activities. The following measures and actions shall be complied with during construction activities:

- Limit grading activities to between 1 May and 15 October.
- Standard workdays shall be Monday through Friday. Noise generating activities shall be limited to the hours of 8:00 AM to 6:30 PM.
- Noise shall be reduced by the mandatory use of mufflers on all construction vehicles and equipment. Where feasible, solenoid pavement breakers shall be used in lieu of air powered jackhammers.
- Contractor shall be responsible for air quality and dust control through out the construction period in accordance with all local, State, and federal regulations. Contractor shall be responsible for obtaining any necessary air quality permits needed to carry out construction activities.
- Soil and construction material shall not be tracked off the construction site. Grading operations shall cease in the event that a danger of violating this condition exists.
- During the construction period, environmental protection devices, such as erosion control, dust control and vegetation protection devices shall be maintained at all times.
- Contractor shall provide crushed rock in areas of temporary construction access to minimize migration of sediment.
- Spoil stockpiles or loose surfaces shall be surrounded with filter fencing and covered with plastic sheeting prior to storm events. Wherever possible, spoils shall be temporarily located uphill from open trenches to protect down slope drainages from sedimentation.
- Filter fabric fences shall be anchored with staked coir logs (or similar approved by TRPA) and utilization of crescent shape cross checks to contain sediment where the construction corridor is located on steep hillsides.
- Topsoil to be reused following excavation shall be conserved throughout the project area by stockpiling it separately from other excavated soils. A double or triple lift excavation process shall ensure topsoil that is to be reused is kept separate from deeper soil materials.

Excavated material that shall not be reused shall be loaded directly into hauling trucks and removed from the construction area. Stockpiled soil shall be placed within the construction site and be covered with tarps to protect the soil from wind and rain. Straw bale sediment barriers or filter fences shall be placed around the down slope side of the stockpiled soil. After the excavations and trenches are backfilled, the stockpiled soil shall be replaced around the corridor. After final grade is achieved, topsoil shall be spread evenly over the final grade. Stockpiled soil along trenches shall be placed on the uphill side of trenches.

- Excavated material shall be stored upgrade from the excavated area whenever possible. No material shall be stored in a wet area. Excavated materials shall be located onsite on paved surfaces, previously disturbed areas, or locations where existing buildings have been removed. Storage areas shall be positioned where they shall have the least amount of impact on the soils. Any material not stored onsite shall be hauled out of the Basin to a TRPA approved disposal site.
- Trenches that are located outside of existing roadways shall be compacted to original grade and revegetated using native plant materials.
- During pipe or material placement, pipelines or construction materials shall not be dragged over previously undisturbed soils.
- Immediately following topsoil replacement, disturbed sites shall be revegetated in accordance with the approved Landscaping Plans. Seed mixes or plant species shall be determined and prescribed by the Landscaping Plans.
- Jute netting or erosion control blankets may be used on steep slopes to help establish the revegetation. Sediment barriers shall be maintained until the vegetation is established.
- Where the construction site is located on a slope of at least 0.5 percent (0.5%), sediment barriers or filter fences shall be placed around the down slope side of all construction sites (including building foundations, trenches, and roadways).
- All trees and natural vegetation to remain on the construction site shall be protected per TRPA BMP-8.
- Only equipment of a size and type that shall do the least amount of damage, under prevailing site conditions and considering the nature of the work to be performed, shall be used.
- No washing of vehicles or heavy equipment shall be permitted anywhere on the subject property unless authorized by TRPA in writing.
- No vehicle or heavy equipment shall be allowed in wet areas except as authorized by TRPA.

- Construction shall be limited in non-paved areas during inclement weather. Equipment movement shall cease when ruts begin to form in the soil due to wet conditions. Equipment movement shall resume once the soils have dried to a degree that prevents rut formation.
- Earthen berms, water bars, armored conveyance ditches, settling basins, and infiltration trenches shall be installed to intercept, contain and infiltrate runoff from the construction site.
- Contractor shall be responsible for pre-grading meeting and notify IVGID of date and time.

Winterization. All construction sites must meet the following winterization requirements:

- Grading is PROHIBITED on all construction sites between October 15th and May 1st.
- Install and maintain temporary sediment control devices (fiber rolls, silt fence). Apply additional temporary sediment control devices where water may concentrate or pond.
- Install and maintain effective temporary fencing for the protection of vegetation.
- Stabilize disturbed and bare soil areas with erosion control blankets or by applying a thin layer (no greater than 1 inch thick) of organic mulch (wood chips, pine needles) with the following guidance:
- Organic mulch cannot be applied within 5 feet of any structure. However, inorganic mulch (gravel) may be applied in this area.
- Apply organic mulch sparingly on no more than 50% of bare soil area (not 50% of the total project area). Patches of organic mulch should be applied to those areas where there is a higher risk of erosion. Create a fragmented mosaic of mulched patches.
- If the existing vegetation surrounding the construction site provides a uniform blanket of needle cast or leaf litter, then rake organic litter from within 5 feet of all structures. For all other portions of the project area within the limits of the construction fencing, rake organic mulch into thin discontinuous patches of mulch (creating a fragmented mosaic of mulched patches).
- Before commencement of the grading season (May 1st), all organic mulch needs to be removed from within 30 feet of all structures. Needles and leaves that fall after the spring removal period can accumulate on the ground as long as they do not create a fire hazard.
- For all bare cut and fill slopes, install permanent (rock riprap, retaining walls) or temporary (erosion control blankets, hydro mulch with tackifiers) stabilization measures.
- Cleanup and remove all on-site construction slash, debris and spoil piles.

- Cover stockpiles that shall remain over winter with a durable material or plastic sheeting. Install full perimeter sediment control containment by using either a filter fabric fence or fiber rolls. When feasible, position stockpiles away from sensitive or erosion-prone areas.
- For active construction sites where work shall continue between October 15 and May 1, the following requirements are also mandatory:
- Pave all driveways, parking areas and material storage areas.
- Parking of vehicles and storage of building materials shall be restricted to paved areas.
- Sweep daily to recover sediment that has been tracked off the construction site.

Construction Monitoring. The following is posted at <http://www.trpa.org>. Construction monitoring is done to ensure compliance with all aspects of the permit for a particular project. There are three main phases: pre-grade, intermediate and final and/or complaint follow-up monitoring.

First, the pre-grade inspection is performed before the project starts to verify the temporary erosion controls measures and vegetation protection are properly installed, the permit and permit conditions are understood, and any questions the contractors may have are answered. To obtain a pre-grade inspection you must have:

- The temporary BMPs and vegetation protection, as listed on the plans, are in place;
- Site address posted (the house number on the house counts);
- If needed, the foundation footprint staked;
- The original stamped plans (not copies) and all the permits on site; and
- An appointment for the inspection scheduled at least 48 hours in advance - call (775) 588-4547.

Intermediate inspections are performed during the construction process. They ensure the permit conditions are being followed, that the temporary BMPs are in place and functional, sites are properly winterized (between October 15 and May 1), and that the project is progressing as approved.

A final inspection is made towards the completion of the project to make sure all work was completed properly and to return any security deposit.

Finally, if a complaint is made, one of TRPA's inspectors shall follow up on the complaint and verify whether or not any unauthorized activity is occurring.

Additionally, TRPA has adopted many Memoranda of Understanding (MOUs) with other agencies such as public utility districts and county road departments, which allow them to do many types of projects without TRPA review. An example of this type of MOU is IVGID installing a water line. There may be cases where another agency conducts construction inspections.

Post-Project BMP Effectiveness Monitoring. Revegetation/Landscaping, permanent BMPs and slope stabilizing measures shall be visually monitored annually for the first five years following construction to assess adequacy and effectiveness of BMPS, and additional BMPs shall be prescribed by the TRPA if existing treatments fail to protect the site from accelerated erosion. A qualified consultant or trained Boulder Bay staff (Note: completion of the TRPA contractor BMP certification training is recommended) shall monitor restoration progress.

Visual monitoring of the condition and effectiveness of the BMPs shall occur before and after storm events, and if necessary, corrective actions shall be taken. The contractor shall be required to maintain the effectiveness of the BMPs until the disturbed areas are stabilized and erosion is no longer a threat, restoring disturbed area in accordance with the Landscaping Plan.

The Erosion Control Plan shall include temporary BMPs to control and contain erosion onsite during construction. The Erosion Control Plan and SWPPP in combination with the proposed Overall BMP Plan for the project area, which is illustrated in Figure 2-8, shall implement temporary and permanent BMPs to minimize loss of top soil and stabilize slopes during project construction and throughout project operations; thus reducing the potential impact from excavation, grading and fill to a less than significant level. Both plans shall be modified during TRPA project permitting to reflect the needs of the final project design.

Impact(s) Mitigated

GEO-3: Will construction or operation of the Project cause erosion, loss of topsoil, changes in topography, undisturbed soil or native geologic substructures, or unstable soil conditions from excavation, grading or filling?

HYDRO-1. Will Project construction or long term operations degrade surface water quality in the East Stateline Point watershed?

Mitigation Level

Compliance with TRPA Regulations.

Alternative

Alternatives B, C, D and E

Lead Agency

TRPA

Implementing Entity

Boulder Bay

Monitoring Agency

TRPA

Timing

During permitting and construction of Alternatives B, C, D and E.

SP-3 Provide On-site Monitor

Description	Boulder Bay, LLC shall provide an on-site monitor during demolition and construction to ensure compliance with permit conditions and fulfillment of all mitigation commitments. Duties shall include regular review of all required temporary BMPs and monitoring during installation of permanent BMPs. The purpose of the environmental monitor is to provide a qualified professional on-site that shall respond quickly to and correct any potential environmental issues that may arise during construction.
Impact(s) Mitigated	GEO-3: Will construction or operation of the Project cause erosion, loss of topsoil, changes in topography, undisturbed soil or native geologic substructures, or unstable soil conditions from excavation, grading or filling? HYDRO-1. Will Project construction or long term operations degrade surface water quality in the East Stateline Point watershed? BIO-6: Will the Project result in the removal of trees 24 inches or greater in diameter at breast height (dbh)?
Mitigation Level	Compliance with mitigation requirements.
Alternative	Alternatives A, B, C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Upon start of project construction.

SP-4 Prepare Storm Water Pollution Prevention Plan

Description	Boulder Bay, LLC shall prepare and implement a NDEP-approved SWPPP in accordance with the State of Nevada Storm Water General Permit NVR100000 prior to the start of construction. Erosion control techniques listed therein shall include temporary sediment barriers and temporary soil stabilization practices. Straw bale sediment barriers and erosion control blankets that are embedded and anchored in the soil shall be used to prevent erosion, runoff and remove suspended sediment from stormwater runoff. Likewise, filter fabric fences shall be installed to collect sediments while allowing filtered stormwater to pass through. Implementation shall include performance of monitoring and maintenance actions to assure BMPs are in-place, properly maintained, and effective.
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Impact(s) Mitigated	GEO-3: Will construction or operation of the Project cause erosion, loss of topsoil, changes in topography, undisturbed soil or native geologic substructures, or unstable soil conditions from excavation, grading or filling?
	HYDRO-1. Will Project construction or long term operations degrade surface water quality in the East Stateline Point watershed?
Mitigation Level	Compliance with NDEP.
Alternative	Alternatives A, B, C, D and E
Lead Agency	NDEP
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to construction.

SP-5 Dewatering Plan

Description	<p>Seasonal groundwater is not expected to be encountered during project construction. However, if groundwater is encountered during project construction Boulder Bay, LLC shall implement the following for the protection of groundwater resources:</p> <ol style="list-style-type: none"> 1. Dewatering of groundwater shall not be discharged prior to notice to and approval from the TRPA. Once the discharge is permitted, appropriate BMPs shall be implemented to ensure the discharge complies with all permit requirements and regional and watershed specific requirements. 2. The contractor shall be responsible for the coordination of all monitoring and permit compliance for dewatering operations. 3. Interception of groundwater during excavation shall only take place under circumstances falling under TRPA’s Code of Ordinances Section 64.7.A.(2) and 64.7.B. 4. Dewatered groundwater discharges shall meet discharge limits set forth in the TRPA Code of Ordinances Section 81.2. Sediment traps consistent with the Handbook of Best Management Practices shall be used to protect infiltration devices from excessive levels of siltation. 5. The contractor shall be responsible for ensuring dewatered groundwater is treated with a dewatering bag or “dirt bag”, sediment basin, dewatering tank, or some other treatment method for the removal of sediments, oil and grease, and other constituents prior to discharge. 6. The contractor shall monitor, with grab samples, the dewatered groundwater and ensure that TRPA discharge limits are met prior to discharge to either surface or ground waters. Continuous monitoring shall take place throughout the dewatering process. 7. Dewatering discharges shall not create erosion at the discharge point.
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Impact(s) Mitigated	HYDRO-4. Will Project construction or operation interfere with groundwater movement or change the quantity of groundwater, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?
Mitigation Level	Protection of water quality.
Alternative	Alternatives C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Immediately upon encounter of groundwater.

SP-6 Tree Protection Measures

Description

Tree protection measures for the Boulder Bay Resort shall reduce construction impact on the trees. The majority of tree roots are normally in the first two feet of soil, which is where most soil disturbance occurs. This is why tree protection during construction is vital. Root injury often does not exhibit signs until two to 10+ years after a project has been completed. Despite following all Tree Protection Measures, the proximity of the trees in relation to the required grade changes on this project site increases the risk of tree loss.

Pre-Construction

1. Emphasize tree protection in the preconstruction meeting.
 - a. Review the responsibility of all parties involved in the construction process to protect trees designated to be saved.
 - b. Review above ground tree issues.
 - c. Review below ground root issues.
 - d. Review tree protection recommendations.
 - e. Review tree damage evaluations and replacement of damaged trees
2. All trees designated to be preserved are to be noted on all improvement plans.
3. Tree Protection Zones (TPZ)
 - a. Establish tree root protection zones (TPZ) as far beyond the dripline as possible with the minimum distance being the actual dripline.
 - b. Fence entire groups of trees where possible.
 - c. Install chain-link fencing or an equivalent strength that will be noticed if hit and that will remain standing throughout the project.
 - d. Maintain hardscape (asphalt or concrete) where possible for as long as possible. Existing hardscape provides excellent root protection during construction.
 - e. Install 8” of wood mulch chips in the TPZ to prevent drying of soil if there is not hardscape.
 - f. Maintain the existing grade within the TPZ. An

increase in soil suffocates tree roots & inhibits water and nutrients to the root system. A decrease in soil removes roots; small roots that feed the tree, large roots that stabilize the tree.

- g. The following activities are not allowed within the TPZ:
 - 1. Driving
 - 2. Parking
 - 3. Storage
 - 4. Dumping Anything (Spoils)
 - 5. Washing Out Anything
 - 6. Using the tree trunk for anything such as a temporary power pole, sign post, etc.
 - 7. No Activity, No Trespass in the TPZ
- 4. Protect tree roots from heat if the hardscape is to be heated in the winter. Roots cannot be heated and stimulated to grow in the winter without detrimental effects on a tree.
- 5. Tree Trunk Protection Fencing
 - a. Install 2 x 4 lumber secured with banding around the trunk of trees noted to be saved.
 - b. Do not attach boards or banding directly into bark.
 - c. Install lumber from the base of the tree up to the first whorl of branches.
 - d. The height of the 2 x 4's needs to be the height that guarantees protection of the bark from any equipment on site.
 - e. Buttress roots (large flare roots at the base of the trunk) cannot be damaged without compromising the health / stability of trees (another reason for 2 x 4 trunk protection).
- 6. Lightly root feed with an approved mycorrhizae / fertilizer product.
- 7. Verify in writing, following a site inspection, that conditions have been met for fencing (both the Tree Protection Zone and Tree Trunk), mulching and fertilizing.
- 8. Combine utility trenches to reduce the negative impact on tree roots.

Construction

Maintain all tree protection fencing as originally installed and approved to prevent trunk wounds and root compaction. Any changes in fencing to be approved by the project arborist. Although fencing will be limited for some trees due to proposed structures, hardscape, water features, etc., it will prevent bark damage and root damage from possible parking, storage, dumping spoils and washing out of equipment. Most roots grow in the top two feet of soil which is where the majority of soil disturbance occurs. The small fibrous roots conduct water and nutrients, the large lateral roots anchor the tree. Both of these type roots are what gets damaged and/or destroyed if a site is not protected.

- 9. Tunnel / bore under roots or hand dig in all TPZ areas,

preserve roots greater than 2” in this area. Bark tissue on roots cannot be damaged during hand excavation.

10. Hand digging may be necessary to determine if lateral (support) roots are present on the tree in the direction of the foundation. Correct root pruning needs to be performed so as not to compromise the stability of the tree and create potential future liability issues.

11. Root Pruning

- a. Root pruning to be performed by or under the direction of a qualified arborist. Because roots are not visible until exposed from the soil, pruning recommendations often times need to be made in the field. A recommendation for removal of a tree will sometimes need to be made rather than root pruning due to the potential for tree failure.
- b. Any roots encountered larger than 2” need to be hand dug to expose & correct root pruning be performed if needed.
- c. Cleanly prune smaller exposed roots back to the soil horizon; ragged torn roots are not to be left to promote decay & allow for entry of root rot diseases / decay organisms.
- d. Small roots to be cut with hand pruners, medium size roots with loppers and large roots with a saw.
- e. An excavator or any sort of heavy equipment is not considered a pruning tool.
- f. All tools need to be clean and sharp.

12. Root Exposure

- a. Promptly cover exposed roots to prevent desiccation from sunlight and drying air.
- b. Roots to be kept covered with tarps kept damp, shotcrete or a material that will keep roots from desiccating and becoming non-functional. Exposure to sunlight and drying air leaves roots non functional; this is a major contributing factor to stress placed on trees during and after construction.

13. Irrigation

- a. Irrigate within the dripline of trees if natural precipitation does not occur: once a week during hot, summer months, once every three weeks in the spring and fall and once a month in the winter. Irrigation is vital to tree survival.
- b. In TPZ areas within hardscape, drill holes through the asphalt or concrete every 12” to allow irrigation to reach roots.
- c. Irrigate to a soil depth of 24 inches.
- d. Monitor the soil moisture under the mulch to adjust the watering prescription as needed.
- e. Do not saturate the soil where foot and/or equipment traffic will occur. Irrigate preferably on Friday so that soil will dry by Monday to avoid compaction and site

damage.

14. Crown Pruning

- a. Prune tree branches that will conflict with the structures, utility lines, vehicles or machinery.
- b. Prune using a reputable, qualified tree service.
- c. Pruning to be performed under the direction of a qualified arborist.
- d. Prune using current ANSI (American National Standards Institute) A300 pruning standards, making proper pruning cuts without the use of climbing spikes.

15. Tree Damage

- a. Any tree damaged is to be evaluated by the project arborist to determine possible repair method.

16. Replacement of Damaged Beyond Repair Tree

- a. If a tree is determined to be damaged beyond repair by the project arborist, the Contractor will be responsible for replacement trees of the same species or a substitution approved by the TRPA.
- b. The size and quantity of replacement trees shall be decided by TRPA prior to permit acknowledgment.
- c. If the Contractor questions damage beyond repair, an independent evaluation report by a qualified Certified Arborist can be submitted.
 - 1. Report to cover damage assessment, recommended repairs and replacement agreement if damaged tree dies within 5 years of date of damage. Replacement agreement to include Design Workshop installation specifications.
 - 2. Report to be reviewed by project arborist and comments submitted to TRPA.
 - 3. Report to be submitted to TRPA.
 - 4. Independent report to be paid for by the Contractor.

17. Replacement Tree Stock

- a. Trees to meet current ANSI Z60 American Standard for Nursery Stock.
- b. Trees to have the following:
 - 1. No circling, girdling, kinked or j roots.
 - 2. No topped trees.
 - 3. A single main leader.
 - 4. No insect, disease, mechanical or rodent damage.
 - 5. Appropriate trunk taper to stand upright without stakes.
 - 6. Evidence of healthy roots, bark and shoot growth.

Impact(s) Mitigated

BIO-6: Will the Project result in the removal of trees 24 inches or greater in diameter at breast height (dbh)?

Mitigation Level

Protection of trees to remain onsite.

Alternative

Alternatives B, C, D and E

Lead Agency

TRPA

Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During construction.

SP-7 Revegetation/Landscaping Plan

Description	<p>The revegetation/landscaping plan shall require the use of native or TRPA-approved nonnative shrubs and trees in the project area, as these plants are most adapted to the conditions of the project area and require less irrigation for establishment and upkeep.</p> <p>Bioretention systems such as bio swales are proposed for use throughout the project area in-line with stormwater conveyance and retention systems (Figure 2-8). Runoff shall be directed into landscaped systems, where it can pond and infiltrate into the soil. The engineered soil mix and vegetation in the bio-retention systems shall provide water quality treatment and infiltration similar to undeveloped areas.</p> <p>High traffic groomed turf areas are designed and located to allow for controlled irrigation and fertilization throughout the project area. Irrigation shall be installed and managed to minimize the potential for runoff to the stormwater management systems.</p>
Impact(s) Mitigated	<p>GEO-3: Will construction or operation of the Project cause erosion, loss of topsoil, changes in topography, undisturbed soil or native geologic substructures, or unstable soil conditions from excavation, grading or filling?</p> <p>HYDRO-1. Will Project construction or long term operations degrade surface water quality in the East Stateline Point watershed?</p>
Mitigation Level	Protection of water quality.
Alternative	Alternatives B, C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During permitting and construction

SP-8 Fertilizer Management Plan

Description	<p>Fertilizer shall be managed carefully and used in dry, slow release form when applications are necessary. Special measures to avoid over spraying onto paved surfaces, which could result in wash off of nutrient rich water to the stormwater systems, shall be taken. To ensure minimal escape of nutrients, fertilizer and irrigation shall be monitored closely.</p>
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Impact(s) Mitigated	GEO-3: Will construction or operation of the Project cause erosion, loss of topsoil, changes in topography, undisturbed soil or native geologic substructures, or unstable soil conditions from excavation, grading or filling?
	HYDRO-1. Will Project construction or long term operations degrade surface water quality in the East Stateline Point watershed?
Mitigation Level	Onsite containment of fertilizers
Alternative	Alternatives B, C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During construction and operation

6.5.3 Operation and Maintenance Measures

This section contains standard practices to be implemented during operation of the Project. These measures generally require monitoring of system operations over time and the modification of those operations to reduce adverse environmental impacts. Implementation of these measures will result in the avoidance, reduction or minimization of adverse environmental impacts.

SP-9 Post-Project BMP and Stormwater Monitoring Program

Description	<p>TRPA requirements for erosion and sedimentation control shall be met through implementation of temporary and permanent BMPs to reduce impacts to surface water quality, which are outlined in the Erosion Control Plan (SP-2) and Overall BMP Plan (Figure 2-8 in Chapter 2), respectively and shall be modified during TRPA project permitting to reflect the needs of final project design. Post-project monitoring shall include post-project BMP effectiveness monitoring and stormwater monitoring as detailed below.</p> <p><i>Post-Project BMP Effectiveness Monitoring.</i></p> <p>Revegetation/Landscaping and slope stabilizing measures shall be visually monitored annually for the first five years following construction to assess adequacy and effectiveness of BMPs. Additional BMPs shall be prescribed by the TRPA if existing treatments fail to protect the site from accelerated erosion. A qualified consultant or trained Boulder Bay, LLC staff (Note: completion of the TRPA contractor certification training is recommended) shall monitor restoration progress.</p> <p>Visual monitoring of the condition and effectiveness of BMPs shall occur before and after storm events, and if necessary, corrective actions shall be taken. The contractor shall be required to maintain the effectiveness of the BMPs until the disturbed areas are stabilized and erosion is no longer a</p>
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substantial threat. Restoration of disturbed areas shall be in accordance with the Landscaping Plan.

Post-Project Stormwater Monitoring.

Post-project stormwater monitoring shall be performed for comparison with pre-project monitoring results and for determination of compliance with TRPA discharge standards. Due to the urban characteristics of the project area, spring runoff monitoring (typically starts in March or early April for elevations close to lake level) and storm event monitoring are recommended for water quality parameters: TN, DIN, TP, DP, TSS, Oil and Grease and Total Iron (Fe). Fine sediment shall be monitored as specified by TRPA and future Lake Tahoe TMDL research directives. Monitoring results shall address the following components:

- Compliance of project area run-on with TRPA discharge standards;
- Compliance of project area runoff with TRPA discharge standards;
- Stormwater treatment system effectiveness;
- Permanent BMP effectiveness;
- Revegetation/Landscaping effectiveness;
- Assessment of performance of strategies outlined in the TMDL Reduction Plan; and
- BMP and Stormwater treatment system maintenance regimes.

Miscellaneous Monitoring.

The NSCP states that Threshold Target Monitoring for water quality and BMP effectiveness shall be completed during spring runoff and representative storms.

Performance of Bio-retention Systems and TMDL Reduction Components (pervious pavement and pavers, green roofs, roof stormwater catchments) shall be monitored in accordance with requirements and conditions outlined in the TRPA Project Permit.

Maintenance Program.

All stormwater treatment systems and permanent BMPs shall be visually inspected and maintained. A long-term maintenance program shall be developed as based on monitoring results.

Reporting.

All monitoring results shall be submitted to TRPA in the Boulder Bay Post-Project Annual Monitoring Report. Recommended reporting date is December 1st to accommodate for winterization of the project area and stormwater reporting according to water year (i.e., October 1, 2008 to September 30, 2009 is Water Year 2009).

Impact(s) Mitigated

GEO-3: Will construction or operation of the Project cause erosion, loss of topsoil, changes in topography, undisturbed soil or native geologic substructures, or unstable soil conditions from excavation, grading or filling?

HYDRO-1. Will Project construction or long term operations degrade surface water quality in the East Stateline Point watershed?

HYDRO-3. Will Project construction or operations alter the existing surface water drainage patterns, or the rate and amount of surface water runoff so that a 20-year, 1-hour storm runoff cannot be contained on the site?

Mitigation Level	Achieve water quality standards
Alternative	Alternatives A, B, C, D, and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Post-construction until water quality measures determined adequate

6.6 RECOMMENDED MITIGATION MEASURES

This section outlines the mitigation measures recommended in response to potential significant impacts identified in the Chapter 4 impact analyses for environmental resources. Compliance with these mitigation measures will result in the avoidance and/or reduction of adverse environmental impacts.

LU-1A: Reduce Proposed Building Height to be Consistent with TRPA Resolution No. 2008-11

Description	Alternative D shall be redesigned to reduce building heights consistent with the maximum building height (75 feet) prescribed in TRPA Resolution No. 2008-11 and the proposed Chapter 22 height amendment (Appendix U) analyzed in Impact SR-1 of Chapter 4.5 of this EIS.
Impact(s) Mitigated	LU-1: Will the Project be consistent with the land use plan or zoning plan, or land use goals, policies, and provisions of the TRPA Regional Plan, Code of Ordinances, or Plan Area Statement, or Washoe County Comprehensive Plan?
Mitigation Level	Compliance with Resolution 2008-11.
Alternative	Alternative D
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting Alternative D.

LU-1B: Reduce Development Levels to Equal Allowable Density

Description	The proposed development level (9 affordable multi-family housing units) shall be reduced by one unit to be consistent with density limits set forth in Code Subsection 21.4.B.
Impact(s) Mitigated	LU-1: Will the Project be consistent with the land use plan or zoning plan, or land use goals, policies, and provisions of the TRPA Regional Plan, Code of Ordinances, or Plan Area Statement, or Washoe County Comprehensive Plan?
Mitigation Level	Consistency with TRPA Chapter 21 density regulations.
Alternative	Alternative D
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting Alternative D.

GEO-1: Excess Land Coverage Mitigation Program

Description	<p>Alternatives C, D and E are subject to the excess coverage mitigation program described in Code Section 20.5. The excess land coverage within the project area can be reduced to a level of less than significant through: 1) reduction of coverage onsite; 2) reduction of coverage offsite; 3) payment of excess coverage mitigation fee; 4) parcel consolidation or parcel line adjustment; 5) findings for NSCP excess land coverage; or 6) combination of these options.</p> <p>EIS Table 4.2.6 presents the excess coverage mitigation fee and reductions in land coverage options for each of the alternatives, which are the mitigation options most applicable to the project area. Land coverage must be permanently retired to supplement the mitigation fee.</p> <p>The impact from excess land coverage under Alternatives C, D and E can be reduced to a less than significant level through completion of the excess land coverage mitigation program as outlined in TRPA Code section 20.5. The mitigation options are listed below according to alternative.</p> <p>Alternative C:</p> <p>1) Payment of Excess Coverage Mitigation Fee = \$1,290,705;</p> <p>2) Permanent Retirement of 68,317 square feet of land coverage (offset of 18\$/square foot assumed) and payment of adjusted Excess Coverage Mitigation Fee = \$60,999; or</p> <p>3) Permanent Retirement of 68,317 square feet of land coverage (offset of 18\$/square foot assumed) and the permanent retirement of an additional 3,389 square feet (offset of 18\$/square foot assumed) of land coverage identified on or offsite.</p> <p>According to TRPA Code Section 20.5.A, the payment of the Excess Coverage Mitigation Fee legally mitigates excess land</p>
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coverage for the project area. However, permanently retiring 68,317 square feet of land coverage under Alternative C is considered a more beneficial option for reducing impacts from excess land coverage than only the payment of the mitigation fee. Permanent retirement of land coverage directly reduces impacts in the East Stateline watershed through the permanent removal of impervious surfaces and restoration of land capability. Identification and permanent retirement of additional onsite or offsite land coverage (total of 71,706 square feet) in lieu of payment of the remaining Excess Coverage Mitigation Fee (\$60,999) is considered the most beneficial option (Option number 3 above) for reducing impacts from excess land coverage.

Notable benefits of Alternative C that are above and beyond standard TRPA mitigation requirements include: land coverage reductions in excess of the CEP goals and the NSCP reduction targets (which is 5 percent or 12,000 square feet) and the relocation of banked land coverage from LCD 1a lands to higher capability LCD 2 and 4 lands within the NSCP. Additionally, proposed land coverage will be effectively reduced through application of low impact design measures such as green roofs and pervious pavement. Effective land coverage is defined as a subset of total impervious area that is hydrologically-connected via sheet flow or discrete conveyance to a drainage system of receiving body of water (Washington State University 2005). Alternative C will utilize pervious pavers and pervious pavement on approximately 55,000 square feet of the project area and will install stormwater catchment systems (61,300 square feet) on the rooftops of Buildings B, C, D and E. Green roofs (50,700 square feet) that reduce heat island effects will be installed on retail Buildings G and H, covered walkways and the interior roof of Building A. These LID measures are not considered in the TRPA calculations for land coverage reductions but will provide added benefits to the Project through reductions in runoff from impervious surfaces (See impact HYDRO-1 in Chapter 4.3 for additional discussions of benefits).

Alternative D:

- 1) Payment of Excess Coverage Mitigation Fee = \$1,445,186;
- 2) Permanent Retirement of 41,974 square feet of land coverage (offset of 18\$/square foot assumed) and payment of adjusted Excess Coverage Mitigation Fee = \$689,654; or
- 3) Permanent Retirement of 41,974 square feet of land coverage (offset of 18\$/square foot assumed) and the permanent retirement of an additional 38,314 square feet (offset of 18\$/square foot assumed) of land coverage identified on or offsite.

According to TRPA Code Section 20.5.A, the payment of the Excess Coverage Mitigation Fee legally mitigates excess land coverage for the project area. However, permanently retiring 41,974 square feet of land coverage under Alternative D is considered a more beneficial option for reducing impacts from excess land coverage than only the payment of the mitigation fee.

Permanent retirement of land coverage directly reduces impacts in the East Stateline watershed through the permanent removal of impervious surfaces and restoration of land capability. Identification and permanent retirement of additional onsite or offsite land coverage (total of 80,288 square feet) in lieu of payment of the remaining Excess Coverage Mitigation Fee (\$689,654) is considered the most beneficial option (Option number 3 above) for reducing impacts from excess land coverage.

Notable benefits of Alternative D that are above and beyond standard TRPA mitigation requirements include: land coverage reductions in excess of the CEP goals and the NSCP reduction targets (which is 5 percent or 12,000 square feet) and the relocation of land coverage from LCD 1a lands to higher capability LCD 2 and 4 lands within the NSCP. Additionally, proposed land coverage will be effectively reduced through application of low impact design measures such as green roofs and pervious pavement that are described above for Alternative C. These LID measures are not considered in the TRPA calculations for land coverage reductions but will provide added benefits to the Project through reductions in runoff from impervious surfaces (See impact HYDRO-1 in Chapter 4.3 for additional discussions of benefits).

Alternative E:

- 1) Payment of Excess Coverage Mitigation Fee = \$733,447;
- 2) Permanent retirement of 40,747 square feet of offsite land coverage (offset of 18\$/square foot assumed); or
- 3) Combination of permanent retirement of offsite land coverage (offset of 18\$/square foot assumed) and payment of Excess Coverage Mitigation Fee that is appropriate for the amount of excess land coverage that remains (assuming an offset of \$18/square foot).

Because Alternative E will retain all existing onsite land coverage, the option for permanent retirement of onsite land coverage will not apply for Alternative E. However, according to TRPA Code Section 20.5.A, the payment of the Excess Coverage Mitigation Fee legally mitigates excess land coverage for the project area. Identification and permanent retirement of offsite land coverage (40,747 square feet) in lieu of payment of the remaining Excess Coverage Mitigation Fee (\$733,447) is considered the most beneficial option for reducing impacts from excess land coverage in the East Stateline watershed. A combination of the two mitigation options, described above under option three, is considered more beneficial than the payment of the excess coverage mitigation fee only.

Alternative E will not meet the land coverage reduction goals and targets of the CEP or NSCP and will not relocate land coverage from LCD 1a lands to LCD 2 and 4 lands. LID measures will not be implemented under Alternative E to effectively reduce land coverage.

Impact(s) Mitigated	GEO-1: Will the Project result in compaction or covering of the soil beyond the limits allowed by TRPA land capability classifications?
Mitigation Level	Compliance with TRPA Chapter 20 excess coverage mitigation program.
Alternative	Alternatives C, D, and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During permitting.

GEO-2A: Retrofits for Compliance with International Building Codes as Amended for Washoe County

Description	Structural reinforcement of existing buildings that will be retained shall be necessary to reduce the potential impact from geologic hazards to a less than significant level. The seismic design and retrofit of structures within Washoe County shall be based on the response parameters and equations of Chapter 16, Section 1613 of the IBC. See ASCE 7-05 as referenced in the IBC. Due to the proximity of the project area to the seismic zone IV boundary, located a few miles to the east, IBC Zone IV design criteria shall be considered as an option to further reduce the potential for damage from earthquakes (Lumos and Associates, Inc. 2008). Ground shaking intensities shall be estimated based on activity of the Genoa Fault using a maximum credible earthquake with a moment magnitude of 6.9 (Clark et al. 1984). A PGA of 0.39g shall be used for the project design (see Appendix N), and the site-specific design criteria identified by Lumos and Associates (2008) shall be applied when appropriate.
Impact(s) Mitigated	GEO-2: Will the Project facilities be subject to ground rupture due to location near a surface trace of an active fault or expose people or property to geologic hazards such as earthquakes, landslides, avalanches, mudslides, ground failure, or similar hazards?
Mitigation Level	Consistency with IBC.
Alternative	Alternatives B and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting Alternatives B or E.

GEO-2B: Emergency Response Plan

Description	Boulder Bay shall create and maintain an Emergency Response Plan because Washoe County Building Codes are the minimum requirements intended to maintain public safety during strong ground shaking, but do not insure functionality of the structure during and/or after a large seismic event. The plan shall outline procedures for personnel response and personnel and visitor evacuation in the event of facility failure from a catastrophic event.
Impact(s) Mitigated	GEO-2: Will the Project facilities be subject to ground rupture due to location near a surface trace of an active fault or expose people or property to geologic hazards such as earthquakes, landslides, avalanches, mudslides, ground failure, or similar hazards?
Mitigation Level	Expedited and organized evacuation of personnel and visitors during an emergency.
Alternative	Alternatives B, C, D, and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting Alternatives B, C, D, or E.

HYDRO-1: Apply TRPA Security Deposit Towards Retrofit and/or Expansion of BMPs and Stormwater Treatment Systems if Post-Project Monitoring Determines TRPA Standards are Not Met

Description	If additional post-project monitoring determines that TRPA discharge standards are exceeded, then the TRPA Security Deposit shall be used to implement additional water quality treatment needs in the East Stateline watershed and the project area. The contractor shall make repairs or improvements to the proposed permanent BMPs and stormwater treatment systems to improve performance and effectiveness per TRPA permit requirements. If the repairs and/or improvements result in compliance with discharge standards, then no additional mitigation is required.
Impact(s) Mitigated	HYDRO-1: Will Project construction or operations result in the degradation of surface water quality in the East Stateline Point watershed?
Mitigation Level	Protection of water quality
Alternative	Alternatives A, B, C, D, E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During post-construction water quality monitoring

BIO-3: Active Raptor and Migratory Bird Nest Site Protection Program

Description	Pre-construction surveys, conducted during the nesting season immediately prior to initial project construction (e.g., excavation and tree removal), shall be conducted to identify any active raptor nest sites within the project area. During initial construction activities (tree removal and excavation for the construction), a qualified biological monitor will be onsite to evaluate whether any raptors are occupying trees within the project area. The biological monitor will have the authority to stop construction near occupied trees if it appears to be having a negative impact on nesting raptors or migratory birds or their young observed within the construction zone. If construction must be stopped, the monitor must consult with TRPA staff within 24 hours to determine appropriate actions to restart construction while reducing impacts to identified raptors or migratory bird nests.
Impact(s) Mitigated	BIO-3: Will the Project cause loss of active raptor nests, migratory bird nests, or wildlife nursery sites?
Mitigation Level	Protection of active bird nests.
Alternative	Alternatives B, C, D, and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to construction of Alternatives B, C, D, or E.

SR-1A: Modify Proposed Code Chapter 22.4.E Height Amendment

Description	<p>To ensure that development at the Boulder Bay project area does not create adverse scenic impact as viewed from SR 28, Subsection 22.4.E(1)(a)(v) of the proposed height amendment shall be modified as follows. New text is shown as underline and bold.</p> <ul style="list-style-type: none"> (v) New structures eligible for additional height shall be set back from the State Route 28 travel route edge of pavement a minimum of 40 feet and stair-stepped upslope, providing a transition of height across the site. Additional height for new structures satisfying these requirements may be permitted as follows: <ul style="list-style-type: none"> a. The maximum permissible height for structures with a minimum set back of 40 feet from the State Route 28 edge of pavement may be increased to 58 feet. <u>Structures set back less than 60 feet from the State Route 28 edge of pavement may not exceed three stories tall.</u>
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Impact(s) Mitigated	SR-1: Will the Project be inconsistent with any County Comprehensive Plan, Community Plan or regulations, standards, or guidelines of agencies (TRPA) with jurisdiction in the area regarding Scenic Corridors? SR-3: Will the Project be inconsistent with the TRPA Scenic Quality Improvement Program or Design Review Guidelines?
Mitigation Level	Protection of Scenic Quality Ratings.
Alternative	Alternatives C and D
Lead Agency	TRPA
Implementing Entity	TRPA
Monitoring Agency	TRPA
Timing	Prior to permitting Alternatives C and D.

SR-1B: Redesign Building “A”

Description	Building A shall be redesigned to reduce visibility from SR 28. The height of the structures shall be reduced or the top floor and roofline shall be set back to decrease visibility from SR 28 motorists. Landscaping of the park access roadway leading up from SR 28 shall utilize larger trees to better shield views into the site of Building A. Revised building plans and simulations shall be submitted for TRPA approval prior to project permitting.
Impact(s) Mitigated	SR-1: Will the Project be inconsistent with any County Comprehensive Plan, Community Plan or regulations, standards, or guidelines of agencies (TRPA) with jurisdiction in the area regarding Scenic Corridors? SR-2: Will the Project be visible from or cause an adverse effect on foreground or middleground views from a high volume travelway, recreation use area, or other public use area, including Lake Tahoe, TRPA designated bike trail, or state or federal highway? SR-3: Will the Project be inconsistent with the TRPA Scenic Quality Improvement Program or Design Review Guidelines?
Mitigation Level	Protection of Scenic Quality Ratings.
Alternative	Alternatives C and D
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting Alternatives C and D.

SR-2: Screen Single-Family Homes

Description	The single-family homes proposed under Alternative B shall be designed to include setbacks and extensive vegetative screening along the SR 28 frontage. The homes shall setback from SR 28 on the west end of the parcels adjacent to the existing cut slope. The addition of large trees and other vegetation of various heights atop the berm that parallels the highway SR 28 frontage will reduce visibility of the new structures and help maintain the existing natural character of the former Tahoe Mariner site as viewed from SR 28. Since the single-family homes will not be located in the pedestrian oriented commercial part of the project area, landscaping along SR 28 may include dense vegetative screening. A final building and landscape plan shall be prepared and submitted for TRPA approval prior to permit issuance.
Impact(s) Mitigated	SR-2: Will the Project be visible from or cause an adverse effect on foreground or middleground views from a high volume travelway, recreation use area, or other public use area, including Lake Tahoe, TRPA designated bike trail, or state or federal highway? SR-3: Will the Project be inconsistent with the TRPA Scenic Quality Improvement Program or Design Review Guidelines?
Mitigation Level	Protection of Scenic Quality Ratings.
Alternative	Alternatives B and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting Alternatives B and E.

REC-1: Beach Access Shuttle Service

Description

Boulder Bay will operate their van shuttle service as follows to reduce potential impacts to Lake Tahoe beaches from increased visitation:

- To reduce impacts to Speedboat Beach, Boulder Bay shall not provide guests with van service to Speedboat Beach. Although access to Speedboat Beach cannot be restricted, as it is a public beach, the resort shall not promote the use of Speedboat Beach in informational materials or provide shuttle service to the beach to avoid overcrowding and environmental degradation that may result from overuse.
- Because the Kings Beach State Recreation Area beaches are the largest public beaches in the area and offer more tourist attractions (boat rentals, picnic grounds, restrooms, etc.), Boulder Bay will encourage guests to visit these beaches rather than Speedboat Beach.
- Boulder Bay shall offer the general public (e.g., Crystal Bay and Brockway residents and guests) use of their proposed oncall van service during peak summer months (e.g., Memorial Day to Labor Day) to supplement the other Boulder Bay funded improvements to existing public transit systems (e.g., Crystal Bay to Tahoe Vista Trolley). Boulder Bay may charge non Boulder Bay guests and residents a nominal fee (e.g., similar to a taxi) to use the van service and shall market the service to local residents and visitors of other developments. The use of the Boulder Bay oncall van service by non-Boulder Bay guests and residents will reduce the number of private automobiles used to access nearby recreational facilities (e.g., beaches) during peak summer months, thereby improving access for other non-Boulder Bay visitors to the Lake Tahoe Basin.

Impact(s) Mitigated

REC-1: Will the Project result in decreased availability or degradation of a high quality recreational experience?

Mitigation Level

Protection of recreational facility quality.

Alternative

Alternatives C, D, and E

Lead Agency

TRPA

Implementing Entity

Boulder Bay

Monitoring Agency

TRPA

Timing

Prior to permitting Alternatives C, D, and E.

CUL-1A: Prepare Resource Protection Plan to Preserve Historically Eligible Signs and Document the History of the Biltmore Resort and Cottages**Description**

Boulder Bay worked with qualified professionals to prepare a Draft Resource Protection Plan (TRPA Code Section 29.2.D), which must be implemented prior to demolition of eligible signs and buildings. The Resource Protection Plan (or Recovery Plan), submitted to the NVSHPO office in May 2009 (revised September 2009), must be approved by the NVSHPO pursuant to TRPA Code Subsection 29.6.C(2) before demolition can occur. The Plan includes the following requirements:

- a. Boulder Bay will preserve and restore the one extant neon “Free Parking” sign from the 1940s-1950s period of significance for the Tahoe Biltmore, and place it within the proposed mixed-use project.
- b. Boulder Bay will preserve and restore the 1962 “Tahoe Biltmore” Googie architectural sign and place it either within the proposed mixed-use project, pending final project design and height approvals from TRPA, or at an appropriate offsite location in Nevada (i.e. a sign preservation organization, etc.) to be determined in consultation with the TRPA. If the sign is moved offsite, Boulder Bay will incorporate “Googie” style design features of the “Tahoe Biltmore” sign into the design of project details, such as walkway lighting or signage. Boulder Bay will incorporate interpretive signage into the proposed mixed-use project to document the history of the Tahoe Biltmore Resort. Interpretive signage will be publicly visible, and the contents and specific locations will be determined with guidance from a qualified historian.
- c. Boulder Bay will prepare a photograph/text interpretation of the history of the Tahoe Biltmore Resort and Cottages that includes the preservation of the historical photographs now on exhibit in the Tahoe Biltmore and other items or materials relating to the early history of the resort or North Shore. The display will be placed onsite in a permanent location easily accessible to the public (e.g., Hotel lobby, Meeting room foyer, Restaurant waiting area, or preservation of one of the Cottage structures as a museum, etc.).
- d. Boulder Bay will sponsor and produce a booklet regarding the history of Crystal Bay for general public distribution (local retail shops, casinos, clubs, bookstores, etc.), smaller than the Bethel Van Tassel book (Wood Ships to Gaming Chips), and more specific to the North Shore than The Golden Age of Nevada Gambling by Moe. The booklet will include the historical photographs of Crystal Bay and its resort facilities archived in the Images of Lake Tahoe Collection at the University of Nevada, Reno.
- e. In response to requests from NSHPO and TRPA after

preparation of the December 2008 Survey and Evaluation Report, the Alternative C building designs were developed to incorporate the Resort Rustic architectural style rather than a more modern Lake Tahoe style. The Alternative C designs incorporate many features of the 1946 Nobler design depicted in the original plans (e.g., see the multiple hipped roofs, rotunda, and dormers shown in the visual simulation, Figure 4.5-6). Therefore, further redesign of the Alternative C building plans is not required. However, to further reflect the style of the original building plans, Boulder Bay will incorporate details of the Nobler plans (see Figure 15, Appendix V) into the final design of building entry ways, doors, and windows. Determination of the final architectural design and details will be made in consultation with the NVSHPO office.

Impact(s) Mitigated	CUL-1: Will the Project disturb or alter known, potentially eligible National Register properties, including archaeological, historical, architectural, and Native American/traditional heritage resources?
Mitigation Level	Protection of Historic Resources.
Alternative	Alternatives C, D, and E
Lead Agency	TRPA and NV SHPO
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to construction of Alternatives C, D, and E.

CUL-1B: Redesign Alternative D Building Plans to Reflect a Resort Rustic Architectural Style

Description	<p>Boulder Bay will redesign the proposed mixed-use project to reflect the Resort Rustic architectural style (i.e. the Cal Neva Lodge, which retains integrity), rather than some ultra modern generic Lake Tahoe style. The Resort Rustic style incorporates the multiple hipped roofs, rotunda, and dormers of the 1946 Nobler design depicted in the original plans. Resort Rustic buildings were constructed in the Tahoe Basin from the early 1900s through the 1940s. Derived from the Adirondack Rustic Style (1870-1930), the architecture was first developed in the Adirondack region of upstate New York, where William West Durant, president of the Adirondack Railroad, developed the area for the well-to-do. Durant’s architectural style used glorified log construction for rustic camps and resorts for America’s upper class. As noted by Ana Koval in her report on the Historic Resources of the Nevada Side of the Tahoe Basin, prepared for the TRPA:</p> <p style="padding-left: 40px;">The building complexes designed and built in this style were set on a lake or a river against a background of forest and mountains. They were built of readily available</p>
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natural materials in a local craft tradition. They are characterized by the use of logs and indigenous stone, shingled roof with broad overhangs and porches, and simply proportioned window and door openings. All of the features described above are also characteristic of the Resort Rustic style of architecture found at Lake Tahoe; however, for the most part, the buildings constructed at Lake Tahoe were not built in the same grand scale as the great lodges of the Adirondacks...

The Resort Rustic style is characterized by rough stone foundations and large, stone chimneys and moderate to steeply pitched gable and hipped roofs – often covered with wooden shingles or shakes and pierced with dormer windows. Asymmetrical composition, unpeeled logs or half-round logs or bark siding; and numerous small windows with many panes and simple undecorated frames are elements of this style.

Three examples of the Resort Rustic style are the Comstock Lodge, sided with half-round logs, at 680 Lakeside Drive in Zephyr Cove; 450 Tuscorara in Crystal Bay which is sided in bark, and the Cal-Neva Lodge in Crystal Bay (Koval and Caterino 1989:51-52)

The style has also been called Rustic Vernacular and has been defined:

Successfully handled, [rustic] is a style which, through the use of native materials in proper scale, and through the avoidance of rigid, straight lines, and over-sophistication, gives the feeling of having been executed by pioneer craftsmen with limited hand tools. It thus achieves sympathy with natural surroundings and with the past (Tweed et al. 1977:93, in USDA Forest Service 2001:56).

The Tahoe Biltmore Resort and Casino, although somewhat altered in the early 1960s and early 1990s, still exhibits many of the elements of the Resort Rustic style, including steeply-pitched hip roof covered with shingles, dormers, broad overhangs, use of indigenous stone, asymmetrical composition, simple window openings in the upper stories, with no rigid, straight lines, and a sympathy with its past. The recommendation to use the Resort Rustic style, referenced in Appendix V: Cultural Resources Study and Evaluations for the Tahoe Biltmore Resort and Casino Boulder Bay Resort Project (Marvin, Brejla and Lindström 2008:37-38), are supported by the Nevada SHPO in a letter to TRPA dated March 20, 2009.

Impact(s) Mitigated

CUL-1: Will the Project disturb or alter known, potentially eligible National Register properties, including archaeological, historical, architectural, and Native American/traditional heritage resources?

Mitigation Level

Protection of Historic Resources.

Alternative

Alternatives D and E

Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to construction of Alternatives D and E.

CUL-1C: Renovate the Tahoe Biltmore Hotel and Casino consistent with the Secretary of the Interior’s Standards for Rehabilitating Historic Buildings

Description	To comply with applicable Code Section 29.6.D, Tahoe Biltmore renovation must be consistent with the Secretary of the Interior’s Standards for Rehabilitating Historic Buildings. The Renovation may not damage or destroy materials, features or finishes that are important in defining the building's historic character. The standards can be found on the NPS website at http://www.nps.gov/history/hps/TPS/tax/rhb/stand.htm
Impact(s) Mitigated	CUL-1: Will the Project disturb or alter known, potentially eligible National Register properties, including archaeological, historical, architectural, and Native American/traditional heritage resources?
Mitigation Level	Protection of Historic Resources.
Alternative	Alternative E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to construction of Alternative E.

CUL-2: Identify and Protect Undiscovered Archaeological Resources

Description	<p>If previously undiscovered human remains or archaeological resources are discovered during construction or any subsequent activity, all activity will cease in the vicinity of the discovery until the TRPA Cultural Resources staff (or their qualified consultant) assesses it for eligibility to the NRHP, compliance with TRPA Code Section 29, and/or (in the event of a prehistoric or ethnographic find) for Native American (Washoe) values. This assessment will occur in consultation with the Nevada SHPO, TRPA, and the Washoe Tribe, as appropriate. Cessation of applicable construction activity will continue until proper treatment can be determined and implemented by the responsible agencies.</p> <p>To assure that potential undiscovered resources are identified during site grading, a qualified archaeologist shall be on-site during initial ground disturbing construction excavation and grading operations.</p>
Impact(s) Mitigated	CUL-2: Will the Project disturb unknown archaeological resources?

Mitigation Level	Protection of Undiscovered Archaeological Resources.
Alternative	All Alternatives
Lead Agency	TRPA, NV SHPO
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During construction of All Alternatives.

TRANS-1: Traffic and Air Quality Mitigation Program

Description	Boulder Bay shall pay the appropriate air quality mitigation fee in accordance with Chapter 93 – Traffic and Air Quality Mitigation Program of the TRPA Code of Ordinances.
Impact(s) Mitigated	TRANS-1: Will the Project result in generation of 100 or more new Daily Vehicle Trip Ends? TRANS-2: Will the Project result in an increase in Vehicle Miles of Travel?
Mitigation Level	Reduction of air quality effects of new vehicle trips.
Alternative	Alternatives B and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During permitting of Alternatives B and E.

TRANS-4: Implement Intersection Improvements

Description	<p><u>Alternative B</u></p> <p>SR 28/Mount Rose Highway:</p> <ul style="list-style-type: none"> • Add an acceleration lane to SR 28 east of Mount Rose Highway, providing acceleration room for southbound left-turning vehicles. <p>Delay: 30 (>50), LOS: D (F)</p> <p>Note: This mitigation recommendation does not improve level of service to D or better at the side-street approach, however it does improve intersection operations to better than existing conditions.</p> <p>SR 28/Lakeshore Boulevard:</p> <ul style="list-style-type: none"> • Add an acceleration lane to SR 28 west of Lakeshore Boulevard. <p>Delay: 4 (44), LOS: A (E)</p> <p>Note: This mitigation recommendation does not improve level of service to D or better at the side-street approach, however it does improve intersection operations to better than existing conditions.</p> <p>SR 28/Reservoir Road:</p>
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- Extend the two-way left-turn lane on SR 28, adjacent to the project area, to beyond Reservoir Road to the north.
Delay: 2 (19), LOS: A (C)

Alternative E

SR 28/Mount Rose Highway:

- Add an acceleration lane to SR 28 east of Mount Rose Highway, providing acceleration room for southbound left-turning vehicles.

Delay: 32 (>50), LOS: C (F)

Note: This mitigation recommendation does not improve level of service to D or better at the side-street approach, however it does improve intersection operations to better than existing conditions.

SR 28/Lakeshore Boulevard:

- Add an acceleration lane to SR 28 west of Lakeshore Boulevard.

Delay: 5 (47), LOS: A (E)

Note: This mitigation recommendation does not improve level of service to D or better at the side-street approach, however it does improve intersection operations to better than existing conditions.

SR 28/Reservoir Road:

- Extend the two-way left-turn lane on SR 28, adjacent to the project area, to beyond Reservoir Road to the north.

Delay: 3 (16), LOS: A (C)

SR 28/Stateline Road:

- Extend the two-way left-turn lane on SR 28, adjacent to the project area, to beyond Stateline Road to the west, to allow sufficient use for vehicles accessing Stateline Road.

Delay: 2 (24), LOS: A (C)

Impact(s) Mitigated

TRANS-4: Will the Project result in a substantial impact upon existing transportation systems, including roadways and intersections?

Mitigation Level

Improvement of intersection level of service.

Alternative

Alternatives B and E

Lead Agency

TRPA, Washoe County, and NDOT

Implementing Entity

Boulder Bay, Washoe County and NDOT

Monitoring Agency

TRPA

Timing

During construction of Alternatives B and E.

TRANS-C1: Implement Intersection Improvements**Description**Alternative B

SR 28/Mount Rose Highway:

- Add an acceleration lane to SR 28 east of Mount Rose Highway, providing acceleration room for southbound left-turning vehicles.

Delay: >50 (>50), LOS: F (F)

Note: This mitigation does not improve level of service to D or better, however it does improve intersection operations to better than cumulative conditions.

NDOT and the Tahoe Transportation District are considering a roundabout at this intersection. A single-lane roundabout with right-turn pockets at the westbound and southbound approaches was analyzed with Alternative B volumes. The roundabout is expected to operate at LOS C with an overall intersection delay of 20 seconds; however, the eastbound approach has a v/c ratio of 0.987. Adding a bypass lane for the eastbound through movement would improve operations to LOS B with 14 seconds of delay and overall intersection v/c ratio of 0.792.

SR 28/Lakeshore Boulevard:

- Add an acceleration lane to SR 28 west of Lakeshore Boulevard.

Delay: 14 (>50), LOS: B (F)

Note: This mitigation recommendation does not improve level of service to D or better at the side-street approach, however it does improve intersection operations to better than cumulative conditions.

SR 28/Reservoir Road:

- Extend the two-way left-turn lane on SR 28, adjacent to the project site, to beyond Reservoir Road to the north.

Delay: 2 (>50), LOS: A (F)

SR 28/Biltmore Driveway, SR 28/Pedestrian Signal, SR 28/Stateline Road, SR 28/Cal Neva Drive:

- In order to improve the “downtown” corridor as a whole, the following improvements are recommended: add a traffic signal to the SR 28/Stateline Road intersection, remove the existing pedestrian signal and move the pedestrian crossing to the SR 28/Stateline Road intersection, move access to the Cal Neva Resort to the SR 28/Stateline Road intersection via Stateline Road and remove Cal Neva Drive.

SR 28/Biltmore Driveway - Delay: 5 (44), LOS: A (E)

SR 28/Pedestrian Signal – NA

SR 28/Stateline Road - Delay: 13, LOS: B

SR 28/Cal Neva Drive – NA

Note: Although no improvements were made to the SR 28/Biltmore Driveway intersection, the improvements at

the intersections surrounding it improve operations through the corridor and therefore improve operations at the intersection. The level of service at the side-street approach does not improve to LOS D or better, however the overall intersection level of service is A and the side-street approach (Biltmore Driveway) only effects operations internal to the project site.

The overall corridor improvement will also improve operations at the Stateline Road/Cove Street intersection:
Delay: 1 (4), LOS: A (A)

SR 28/SR 267:

- Add a right-turn pocket to the westbound approach.

Delay: 75, LOS: E

Note: This mitigation recommendation does not improve level of service to D or better, however it does improve intersection operations to better than cumulative conditions.

Alternative C

SR 28/Stateline Road and Stateline Road/Cove Street:

- Add a traffic signal to the SR 28/Stateline Road intersection, remove the existing pedestrian signal and move the pedestrian crossing to the SR 28/Stateline Road intersection.

SR 28/Stateline Road - Delay: 16, LOS: B

Stateline Road/Cove Street – Delay: 2 (3), LOS: A (A)

Alternative D

SR 28/Boulder Way and SR 28/Stateline Road:

Option 1

- Add a traffic signal to the SR 28/Stateline Road intersection, remove the existing pedestrian signal and move the pedestrian crossing to the SR 28/Stateline Road intersection.

These modifications will improve operations at the SR 28/Stateline Road intersection. The analysis results show that these improvements will increase delay at the SR 28/Boulder Way intersection, due to queuing from the signal. The side-street approach of the SR 28/Boulder Way intersection will increase to LOS F.

SR 28/Boulder Way – Delay: 10 (>50), LOS: A (F)

SR 28/Stateline Road - Delay: 17, LOS: B

Note: Boulder Way serves as an access driveway providing access to the Boulder Bay Resort only. LOS F operations at the side-street approach of the SR 28/Boulder Way intersection will only effect traffic operations internal to the project site, and should not be considered a significant impact to the surrounding regional roadway system.

Option 2

- Option 2 includes all of the same intersection and roadway improvements as Option 1, but also limits

access at the SR 28/Boulder Way driveway intersection to right-in/right-out/left-in only.

The current circulation plan for Alternative D of the Boulder Bay Resort limits Boulder Way to one-way (north/northeast) between the two parking garage access points on the project site. In order to limit access at the SR 28/Boulder Way intersection, Boulder Way would need to allow two-way traffic. Two-way traffic on Boulder Way would change the pedestrian environment of the project; however, without the improvement, onsite vehicle queuing will occur as vehicles exit via Boulder Way.

SR 28/Boulder Way – Delay: 3 (42), LOS: A (E)

SR 28/Stateline Road - Delay: 18, LOS: B

Note: The level of service at the side-street approach of the SR 28/Boulder Way intersection does not improve to D or better, however the overall intersection level of service is A and the side-street approach (Boulder Way) only effects operations internal to the project site.

Alternative E

SR 28/Mount Rose Highway:

- Add a two-way left-turn lane to SR 28 east of Mount Rose Highway, providing acceleration room for southbound left-turning vehicles.

Delay: >50 (>50), LOS: F (F)

Note: This mitigation recommendation does not improve level of service to D or better at the side-street approach, however it does improve intersection operations to better than existing conditions.

NDOT and the Tahoe Transportation District are considering a roundabout at this intersection. A single-lane roundabout with right-turn pockets at the westbound and southbound approaches was analyzed with Alternative E volumes. The roundabout is expected to operate at LOS C with an overall intersection delay of 22 seconds; however, the eastbound approach will have a v/c ratio of 0.998. Adding a bypass lane for the eastbound through movement would improve operations to LOS B with 14 seconds of delay and overall intersection v/c ratio of 0.805.

SR 28/Lakeshore Boulevard:

- Add a two-way left-turn lane to SR 28 west of Lakeshore Boulevard.

Delay: 5 (47), LOS: A (E)

Note: This mitigation recommendation does not improve level of service to D or better at the side-street approach, however it does improve intersection operations to better than existing conditions.

SR 28/Reservoir Road, SR 28/Biltmore Driveway, SR 28/Pedestrian Crossing, SR 28/Stateline Road, SR 28/Cal Neva Drive:

- In order to improve the “downtown” corridor as a whole, the following improvements are recommended: add a traffic signal to the SR 28/Reservoir Road intersection, limit access to the Biltmore Driveway to right-in/right-out only from SR 28, add a traffic signal to the SR 28/Stateline Road intersection, remove the existing pedestrian signal and move the pedestrian crossing to the SR 28/Stateline Road intersection, move access to the Cal Neva Resort to the SR 28/Stateline Road intersection via Stateline Road and remove Cal Neva Drive.

SR 28/Reservoir Road – Delay: 13, LOS: B

SR 28/Biltmore Driveway - Delay: 3 (36), LOS: A (E)

SR 28/Pedestrian Signal – NA

SR 28/Stateline Road - Delay: 15, LOS: B

SR 28/Cal Neva Drive – NA

Note: The level of service at the side-street approach of the SR 28/Biltmore Driveway intersection does not improve to LOS D or better, however the overall intersection level of service is A and the side-street approach (Biltmore Driveway) only effects operations internal to the project site.

SR 28/SR 267:

- Add a right-turn pocket to the westbound approach.
Delay: 78, LOS: E

Note: This mitigation recommendation does not improve level of service to D or better, however it does improve intersection operations to better than cumulative conditions.

Impact(s) Mitigated

TRANS-C1: Will the project result in a substantial impact upon cumulative transportation systems, including roadways and intersections?

Mitigation Level

Improvement of intersection level of service.

Alternative

Alternatives B, C, D and E

Lead Agency

TRPA, Washoe County, and NDOT

Implementing Entity

Boulder Bay, Washoe County and NDOT

Monitoring Agency

TRPA

Timing

During permitting of Alternatives B, C, D and E.

AIR-2: Traffic and Air Quality Mitigation Program

Description

The Project shall pay the appropriate air quality mitigation fee in accordance with Chapter 93 – Traffic and Air Quality Mitigation Program of the TRPA Code of Ordinances.

Potential, future projects within the NSCP area that could benefit from funds contributed to the Air Quality Mitigation Program include:

- Adding bicycle lanes to SR 28 through the NSCP area

- Expanding existing transit services
- Constructing new transit shelters and bus turnouts
- Providing connectivity between multi-use paths for bicycles and pedestrians through the NSCP area.

Note that the Alternative C and Alternative D include these onsite multi-modal improvements as part of the proposed project

Impact(s) Mitigated

AIR-2: Will the Project result in substantial air pollutant emissions from daily operations?

AIR-C1: Will the Project result in substantial cumulative air pollutant emissions from daily operations?

Mitigation Level

Alts B and E - Reduction of air quality effects from VMT.

Alts B, D and E - Reduction of air quality effects from project generated emissions.

Alternative

Alternatives B, D and E

Lead Agency

TRPA

Implementing Entity

Boulder Bay

Monitoring Agency

TRPA

Timing

During permitting of Alternatives B, D and E.

NOISE-1: Use of Alternative Pavement

Description

A 4 dB reduction in noise is possible with the use of alternative pavement treatments. As a part of the project design, Boulder Bay will repave Stateline Road between SR 28 and Cove Street using rubberized asphalt or other noise reducing road surfaces that have shown acceptable noise reductions.

Impact(s) Mitigated

NOISE-1: Will the project result in a significant increase in traffic noise levels?

Mitigation Level

Reduction of traffic noise levels.

Alternative

Alternatives B, C and D

Lead Agency

TRPA

Implementing Entity

Boulder Bay

Monitoring Agency

TRPA

Timing

During construction of Alternatives B, C and D

NOISE-3A: Time of Day Construction Restrictions and Noise Barriers

Description

Restrict construction activities between the hours of 8:00 a.m. and 6:30 p.m. The project applicant shall work with a qualified noise consultant to determine the appropriate heights, lengths and configurations of the temporary noise barriers, as well as the appropriate barrier materials.

Impact(s) Mitigated

NOISE-3: Will the project result in excessive noise due to construction activities?

Mitigation Level	Reduction of construction noise levels.
Alternative	Alternatives C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During construction of Alternatives C, D and E

NOISE-3B: Equipment Location Guidance

Description	Locate fixed construction equipment such as compressors and generators as far as possible from sensitive receptors (e.g., residential land uses). Shroud or shield all impact tools, and muffle or shield all intake and exhaust ports on power construction equipment.
Impact(s) Mitigated	NOISE-3: Will the project result in excessive noise due to construction activities?
Mitigation Level	Reduction of construction noise levels.
Alternative	Alternatives C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During construction of Alternatives C, D and E

NOISE-3C: Noise Complaint Coordination and Response

Description	Designate a disturbance coordinator and conspicuously post this person's number around the project site and in adjacent public spaces. The disturbance coordinator will receive all public complaints about construction noise disturbances and will be responsible for determining the cause of the complaint, reporting all complaints to the TRPA, and implement any feasible measures to be taken to alleviate the problem. If temporary noise barriers are required, the project applicant shall work with a qualified noise consultant to determine the appropriate heights, lengths and configurations of the temporary noise barriers, as well as the appropriate barrier materials.
Impact(s) Mitigated	NOISE-3: Will the project result in excessive noise due to construction activities?
Mitigation Level	Reduction of construction noise levels.
Alternative	Alternatives C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During construction of Alternatives C, D and E

NOISE-5A: Mechanical Equipment Noise Level Specifications and Sound Control

Description	All mechanical air handling equipment shall comply with an exterior hourly noise level criterion of 45 dB Leq at the nearest residential, or tourist accommodation unit building facades. As a means of achieving these standards, the HVAC equipment shall either be located at ground level or when located on roof-tops, the building facades shall include parapets or barriers for shielding. In addition, large heating, cooling and ventilation equipment shall be located within mechanical rooms, where it is possible.
Impact(s) Mitigated	NOISE-5: Will the development of the project result in noise levels from on-site mechanical equipment and loading dock activities that exceed the applicable noise level standards for stationary equipment shown in Table 4.10-5 and contained within the North Stateline Community Plan?
Mitigation Level	Reduction of stationary noise levels.
Alternative	Alternatives C, D and E
Lead Agency	TRPA
Implementing Entity	TRPA
Monitoring Agency	TRPA
Timing	During operation of Alternatives C, D and E

NOISE-5B: Loading Dock and Truck Circulation Design

Description	<p>Loading docks and truck circulation routes shall include the following mitigation measures in the project design:</p> <ul style="list-style-type: none"> • Loading docks shall maintain a minimum distance of 100 feet from residential property lines and include shielding by building facades. • Circulation routes for large trucks shall be located a minimum of 50-feet from the residential property lines.
Impact(s) Mitigated	NOISE-5: Will the development of the project result in noise levels from on-site mechanical equipment and loading dock activities that exceed the applicable noise level standards for stationary equipment shown in Table 4.10-5 and contained within the North Stateline Community Plan?
Mitigation Level	Reduction of stationary noise levels.
Alternative	Alternatives C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During operation of Alternatives C, D and E

PSU-1A: Special Event Security Coordination and Notification

Description	The project proponent shall ensure adequate security staffing is provided during special events at the resort. In addition, resort staff shall notify the Washoe County Sheriff’s Office one week in advance of special events so that adequate law enforcement staff may be available during those events.
Impact(s) Mitigated	PSU-1: Will the Project increase demand or exacerbate peak period service demand of fire, police, schools, government services, water, sewage treatment and disposal, phone, solid waste, gas, or electric to such a degree that accepted service standards cannot be maintained or new facilities are needed?
Mitigation Level	Adequate security for special events.
Alternative	Alternatives C, D and E
Lead Agency	Washoe County Sheriff’s Office
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting of Alternatives C, D and E

PSU-1B: Water Rights Dedication

Description	The project proponent shall obtain water rights in an amount adequate to fully serve the needs of the approved Project following finalization of the approved project design by TRPA and Washoe County. These water rights shall be dedicated to IVGID prior to commencement of construction.
Impact(s) Mitigated	PSU-1: Will the Project increase demand or exacerbate peak period service demand of fire, police, schools, government services, water, sewage treatment and disposal, phone, solid waste, gas, or electric to such a degree that accepted service standards cannot be maintained or new facilities are needed?
Mitigation Level	Provision of adequate water rights.
Alternative	Alternatives C, D and E
Lead Agency	IVGID
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting of Alternatives C, D and E

PSU-1C: Utility Service Coordination

Description	The project proponent shall coordinate with each utility provider prior to construction regarding the exact location of each underground utility line known to occur on the site. These underground lines shall be shown on project construction specifications within the civil engineering plans. The proponent
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shall also work with service providers to determine where the new lines will be located and will consolidate utility lines within shared easements as feasible to reduce the number of underground utility trenches on the site. In addition, the construction contractors shall contact Underground Service Alert (USA 811/1-800-227-2600) to ensure buried lines are properly marked and located.

Impact(s) Mitigated

PSU-1: Will the Project increase demand or exacerbate peak period service demand of fire, police, schools, government services, water, sewage treatment and disposal, phone, solid waste, gas, or electric to such a degree that accepted service standards cannot be maintained or new facilities are needed?
 PSU-2: Does the Project have the potential to damage existing underground utility lines?

Mitigation Level

Adequate coordination with utility providers.

Alternative

Alternatives C, D and E

Lead Agency

Utility Providers

Implementing Entity

Boulder Bay

Monitoring Agency

TRPA

Timing

Prior to permitting of Alternatives C, D and E

PSU-1D: Safety Planning

Description

The project proponent shall work with the Washoe County Sheriff's Office and the North Lake Tahoe Fire Protection District during final project design to ensure that structures contain safety and fire suppression features located and installed appropriately in all project structures. This includes appropriate placement of overhead sprinklers, smoke detectors, fire extinguishers, emergency alarms, and other safety features. Structures shall include safety devices required by these agencies and shall show their design and location on site plans. A copy of the final plan shall be submitted to the Sheriff's Office and the Fire Protection District for response purposes.

Impact(s) Mitigated

PSU-1: Will the Project increase demand or exacerbate peak period service demand of fire, police, schools, government services, water, sewage treatment and disposal, phone, solid waste, gas, or electric to such a degree that accepted service standards cannot be maintained or new facilities are needed?

Mitigation Level

Adequate building and site safety.

Alternative

Alternatives C, D and E

Lead Agency

Washoe County Sheriff's Office and NLTFPD

Implementing Entity

Boulder Bay

Monitoring Agency

TRPA

Timing

Prior to permitting of Alternatives C, D and E

PSU-3A: Construction Fire Prevention and Safety Requirements

Description	In contracting project construction work, Boulder Bay shall include safety requirements and standards in accordance with federal, State, and local laws. Contractors working on the Project will be required to follow safety standards in accordance with Occupational Safety Hazard Administration (OSHA). In addition, the construction contract shall require the site to be secure at all times to reduce the risk of public access to hazardous site conditions and construction equipment. All active construction areas shall be equipped with the appropriate safety and fire suppression equipment.
Impact(s) Mitigated	PSU-3: Will Project construction interfere with law enforcement and fire protection services?
Mitigation Level	Adequate construction safety.
Alternative	Alternatives C, D and E
Lead Agency	TRPA
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	During construction of Alternatives C, D and E

PSU-3B: Construction Schedule Coordination and Notification

Description	Boulder Bay shall coordinate construction activities within SR 28 to avoid peak traffic periods. They shall also notify the Sheriff’s Office and Fire District of the weekly construction schedule within the SR 28 right of way.
Impact(s) Mitigated	PSU-3: Will Project construction interfere with law enforcement and fire protection services?
Mitigation Level	Maintain access within SR 28 ROW.
Alternative	Alternatives C, D and E
Lead Agency	Washoe County Sheriff’s Office and NLTFPD
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting of Alternatives C, D and E

PSU-C1: Emergency Shelter/Staging Area Designation

Description	To reduce cumulative impacts of increased population levels, combined with reduced evacuation abilities, the Project proponent shall work with the Washoe County Emergency Management Center (EMC) to designate the project area as a shelter site or emergency staging area. The Project proponent shall work with the EMC to develop emergency plans and an operations protocol that will enable the resort to assist the
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community in emergency situations and reduce the traffic volumes on state highways during emergency evacuation events. A copy of the project layout shall be provided to emergency services (sheriff, fire) to more efficiently respond according to the negotiated agreement with EMC.

Impact(s) Mitigated	PSU-C1: Will the Project have significant cumulative impacts to public service and utility resources?
Mitigation Level	Improved emergency evacuation procedures.
Alternative	Alternatives C, D and E
Lead Agency	Washoe County Emergency Management Center
Implementing Entity	Boulder Bay
Monitoring Agency	TRPA
Timing	Prior to permitting of Alternatives C, D and E