Mount Umunhum Environmental Restoration and Public Access Project

Mitigation Monitoring Plan for All Phases of the Project

PREPARED FOR:
Midpeninsula Regional Open Space District
330 Distel Circle
Los Altos, CA 94022

October 2012

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1 INTRODUCTION

1.1 MITIGATION MONITORING PLAN

In compliance with the State CEQA Guidelines § 15097 (a), when significant effects are identified in an EIR, the Lead Agency is required to adopt a program for reporting or monitoring mitigation measures that were adopted or made conditions of approval for the proposed project. This Mitigation Monitoring Plan (MMP) has been developed for the construction and operation of the Mount Umunhum Environmental Restoration and Public Access Project, consistent with the requirements of § 15097. The intent of the MMP is to prescribe and enforce a means for properly and successfully implementing the mitigation measures identified within the Environmental Impact Report for this project. Unless otherwise noted, the Midpeninsula Regional Open Space District (MROSD or District) shall be responsible for complying with and funding all mitigation measures identified herein.

1.2 COMPLIANCE CHECKLIST

The intent of the MMP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMP is intended to be used by District staff and mitigation monitoring personnel to ensure compliance with mitigation measures during project implementation. Mitigation measures identified in this MMP were developed in the Environmental Impact Report prepared for the proposed project. Note that this MMP reflects all mitigation measures relevant to all three project decisions (June 12th, September 19th, and October 17th, 2012.)

The MMP will provide for monitoring of construction activities as necessary and in-the-field identification and resolution of environmental concerns.

Monitoring and documenting the implementation of mitigation measures will be coordinated by the MROSD. The table attached to this report identifies the mitigation measure, the responsible agency for the monitoring action, and timing of the monitoring action. MROSD will be responsible for fully understanding and effectively implementing the mitigation measures contained within the MMP, and will be responsible for ensuring compliance.

During implementation of the project, MROSD will assign an inspector who will be responsible for field monitoring of mitigation measure compliance. The inspector, who could be one or more employees of MROSD with appropriate knowledge, skills, and abilities to carry out inspections, will report to the project manager identified for MROSD and will be thoroughly familiar with permit conditions and the MMP. In addition, the inspector will be familiar with construction contract requirements, construction schedules, standard construction practices, and mitigation techniques. In order to track the status of mitigation measure implementation, field-monitoring activities will be documented on compliance monitoring report worksheets. The time commitment of the inspector will vary depending on the intensity and location of project activities. Aided by the attached table, the inspector will be responsible for the following activities:

- On-site monitoring of implementation activities as frequently as needed to ensure compliance with the adopted mitigation measures.
- Reviewing construction plans and equipment staging/access plans to ensure conformance with adopted mitigation measures.
- Ensuring contractor knowledge of and compliance with the MMP.
- Verifying the accuracy and adequacy of contract wording.

- Having the authority to require correction of activities that violate mitigation measures. The inspector shall have the ability and authority to secure compliance with the MMP.
- Acting in the role of contact for property owners or any other affected persons who wish to register observations of violations of project permit conditions or mitigation. Upon receiving any complaints, the inspector shall immediately contact the construction representative. The inspector shall be responsible for verifying any such observations and for developing any necessary corrective actions in consultation with the construction contractor and MROSD.
- Obtaining assistance as necessary from technical experts, as needed, in order to develop site- specific procedures for implementing the mitigation measures.
- Maintaining a log of all significant interactions, violations of permit conditions or mitigation measures, and necessary corrective measures.

1.3 MITIGATION MONITORING PLAN

The following table indicates the mitigation measure number, the mitigation measure text, the monitoring agency, implementation timing, and an area to record monitoring compliance.

Mitigation Monitoring Plan				
Mitigation Measure No.	Measure Description	Monitoring Agency	Implementation Schedule	Monitoring Compliance Record (Name/Date)
Cultural Resources				
4.2-2 (Voluntary)	**Radar Options 2 and 3 Only** If MROSD selects radar tower Option 1 (retain and seal the structure) no further mitigation is necessary. If MROSD selects either radar tower Option 2 (demolish but leave the foundation) or radar tower Option 3 (completely remove the radar tower), the following mitigation measure is required: MROSD will use the radar tower foundation or footprint to provide a setting for interpretive media in order to illustrate the topics of U.S. Military history, the Cold War, and the role of NORAD, the Almaden AFS, and the servicemen stationed there in national security. Media could include the following: interpretive panels showcasing period photographs of the operational AFS and servicemen stationed there, including photos of the site showing its visibility from far distances; oral histories provided by surviving veterans; interpretive panels exhibiting major political events of the Cold War; and/or inclusion as part of a self guided tour (via GPS/Smart technology or other means) illustrating the former structures and activities associated with different areas of the project site. Veterans and other community members will be invited to participate in the specific design and content of the interpretive features.	MROSD	During Project Design	
4.2-3	**Protection of Undocumented Cultural Resources** During all ground-related construction activities (i.e., grading, excavation, etc.) on the project site, if cultural materials (e.g., unusual amounts of shell, animal bone, glass, ceramics, structure/building remains) are inadvertently encountered, all work shall stop within 50 feet of the find until a qualified archaeologist can assess the significance of the find. A reasonable effort will be made by the District to avoid or minimize harm to the discovery until significance is determined and an appropriate treatment can be identified and implemented. Methods to protect finds include fencing and covering remains with protective material such as culturally sterile soil or plywood. If vandalism is a threat, 24-hour security will be considered and evaluated based on threat level, remoteness of site, materials found, significance of find, etc. Construction operations outside 50-feet of the find can continue during the significance evaluation period and while mitigation is being carried out; however, if the	MROSD	During Construction	

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	archaeologist determines that the nature of the find may signify a high potential for other finds in the area, the construction will be monitored by an archaeologist within 100-feet of the find. If a discovered resource is identified as significant and cannot be avoided, a qualified archaeologist will develop an appropriate treatment plan to minimize or mitigate the adverse effects. The District will not proceed with construction activities within 100-feet of the find until the treatment plan has been reviewed and approved by the General Manager. The treatment effort required to mitigate the inadvertent exposure of significant cultural and/or historical resources will be guided by a research design appropriate to the discovery and potential research data inherent in the resource in association with suitable field techniques and analytical strategies. The recovery effort will be detailed in a professional report in accordance with current professional standards. Any non-grave associated artifacts will be curated with an appropriate repository. Project construction documents shall include a requirement that project personnel shall not collect cultural and/or historical resources encountered during construction. This measure is consistent with federal guideline 36 CFR 800.13(a) for invoking unanticipated discoveries. Prior to any trail construction, MROSD will hire a qualified archaeologist to conduct a pre-construction survey of the proposed trail alignments. If any potential archaeological resources are identified during the survey, and are found to be significant, the archaeologist shall recommend avoidance measures to ensure that no impacts result from trail construction or trail operation. If the found resource cannot be avoided, the archaeologist shall prepare a treatment plan, as described above.			
4.2-4	**Protection of Presently Undocumented Human Remains.** In accordance with the California Health and Safety Code, if human remains are uncovered during ground-disturbing activities, potentially damaging excavation in the area of the burial will be halted and the Santa Clara County Coroner and a professional archaeologist will be contacted to determine the nature and extent of the remains. The MROSD Project Manager will also be notified immediately. The coroner is required to examine all discoveries of human remains within 48 hours of receiving notice of a discovery on private or state lands (Health and Safety Code, Section 7050.5[b]). If the coroner determines that the remains are	MROSD	During Construction	

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	those of a Native American, he or she must contact the Native American Heritage Commission (NAHC) by phone within 24 hours of making that determination (Health and Safety Code, Section 7050[c]). Following the coroner's findings, the State of California, project contractor, an archaeologist, and the NAHC-designated Most Likely Descendant (MLD) will determine the ultimate treatment and disposition of the remains and take appropriate steps to ensure that additional human interments are not disturbed. The responsibilities for acting upon notification of a discovery of Native American human remains are identified in Section 5097.9 of the California Public Resources Code. The State of California will ensure that the immediate vicinity (according to generally accepted cultural or archaeological standards and practices) is not damaged or disturbed by further development activity until consultation with the MLD has taken place. The MLD will have 48 hours to complete a site inspection and make recommendations after being granted access to the site. A range of possible treatments for the remains, including nondestructive removal and analysis, preservation in place, relinquishment of the remains and associated items to the descendants, or other culturally appropriate treatment may be discussed. Assembly Bill (AB) 2641 suggests that the concerned parties may extend discussions beyond the initial 48 hours to allow for the discovery of additional remains. AB 2641(e) includes a list of site protection measures and states that the landowner shall implement one or more of the following measures: 〉 record the site with the NAHC or the appropriate Information Center, 〉 utilize an open-space or conservation zoning designation or easement, and/or 〉 record a document with the county in which the property is located. The landowner or their authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance if the NAHC is unable to identify a MLD, or if the MLD fails to make a			

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	recommendation within 48 hours after being granted access to the site. The landowner or their authorized representative may also reinter the remains in a location not subject to further disturbance if they reject the recommendation of the MLD, and mediation by the NAHC fails to provide measures acceptable to the landowner.			
Biological Resources				
4.3-1	**Conduct Survey before Structure Demolition, Consult with DFG, and Develop Exclusion Methods and Compensatory Mitigation if Appropriate.** Surveys for roosting bats on the project site will be conducted by a qualified biologist. Surveys will consist of a daytime pedestrian survey looking for evidence of bat use (e.g., guano) and/or an evening emergence survey to note the presence or absence of bats. The type of survey will depend on the condition of the buildings. If no bat roosts are found, then no further study is required. If evidence of bat use is observed, the number and species of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts, but are not required. If roosts of pallid, Townsend's big-eared, or western mastiff bats are determined to be present and must be removed, the bats will be excluded from the roosting site before the facility is removed. A program addressing compensation, exclusion methods, and roost removal procedures will be developed in consultation with DFG before implementation. Exclusion methods may include use of one-way doors at roost entrances (bats may leave but not reenter), or sealing roost entrances when the site can be confirmed to contain no bats. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). The loss of each roost (if any) will be replaced in consultation with DFG and may include construction and installation of bat boxes suitable to the bat species and colony size excluded from the original roosting site. Roost replacement will be implemented before bats are excluded from the original roost sites. MROSD has successfully constructed bat boxes elsewhere that have subsequently been occupied by bats. Once the replacement roosts are constructed and it is confirmed that bats are not present in the original roost site, the structures may be removed or sealed.	MROSD	Prior to Demolition of Structures	

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4.3-2(a)	**Conduct Special-status Plant Surveys, Implement Avoidance and Mitigation Measures, or Provide Compensatory Mitigation.** Known populations of Loma Prieta hoita and Mt. Hamilton fountain thistle shall be protected during road improvements. As directed by a qualified biologist, the populations shall be fenced before construction with high-visibility fencing and an adequate buffer so that direct and indirect impacts would be minimized. Construction personnel shall be instructed to keep project activities out of the fenced areas. A qualified botanist shall periodically inspect the fencing to ensure that the fence is intact and the impacts to the populations are being avoided. Indirect impacts (i.e., changes in hydrology) shall be minimized by placing culverts away from any plant populations, if necessary.	MROSD	Before Construction	
	MROSD shall utilize a qualified botanist to conduct protocol-level preconstruction special-status plant surveys for all potentially occurring species within the project footprint that has not previously been surveyed (e.g., trail connections, staging area expansion). Prior to ground-disturbance in potentially suitable habitat, surveys shall be conducted during the appropriate blooming period when they are most readily identifiable in accordance with Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (DFG 2009) . If no special-status plants are found during focused surveys, the botanist shall document the findings in a letter report, and no further mitigation shall be required.	MROSD	Before Construction	
	If special-status plant populations are found in the project footprint, MROSD shall determine if the population can be avoided by adjusting the trail alignment or project design. If the impact cannot be avoided, MROSD shall consult with DFG and USFWS, as appropriate depending on species status, to determine the appropriate measures to minimize direct and indirect impacts on any special-status plant population that could occur as a result of project implementation. Mitigation measures may include preserving and enhancing existing populations, creation of off-site populations on project mitigation sites through seed collection or transplantation, and/or restoring or creating suitable habitat in sufficient quantities to achieve no net loss of occupied habitat or individuals.	MROSD	Before Construction	

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4.3-2(b)	**Avoid and Minimize Impacts to Special-Status Amphibians and Reptiles** Although the impact to special-status amphibians or reptiles is expected to be minimal due to a lack of suitable aquatic habitat along ridgelines and headwaters of creeks, MROSD shall implement the following measures to reduce impacts during construction of trail connections: › Construction of the trail across drainages and streams shall occur when the drainages are dry, unless it is not feasible to do so, in which case the following measures shall also be applied. › Guidelines shall be implemented to protect water quality and prevent erosion, as outlined in MROSD's Road and Trail Typical Design Specifications (MROSD 2008). › If water is present during construction, disturbance to pools and slow runs with cobble-sized substrate shall be minimized. In particular, rocks shall not be collected from in-water environments from late March to early September to avoid disturbing frog egg masses, tadpoles, and turtle hatchlings.	MROSD	During Construction	
4.3-2(c)	**Avoid and Minimize Impacts to Golden Eagle, White-tailed Kite, and Other Nesting Birds** To minimize potential disturbance to nesting birds, project activities shall occur during the non-breeding season (September 16-February 14), unless it is not feasible to do so, in which case the following measures shall also be applied.	MROSD	During Construction	
	During trail construction, road improvements, and other activities, removal of trees greater than 6 inches dbh shall be limited to the greatest degree possible.	MROSD	During Construction	
	If construction activity is scheduled to occur during the nesting season (February 15 to September 15), MROSD shall utilize a qualified biologist to conduct preconstruction surveys and to identify active nests on and within 500 feet of the project site that could be affected by project construction. The surveys shall be conducted no less than 14 days and no more than 30 days before the beginning of construction in a particular area. If no nests are found,	MROSD	Prior to Approval of Grading/Improvement Plans AND no fewer than 14 days and no more than 30 days prior to construction	

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	no further mitigation is required.			
	If active nests are found, impacts on nesting raptors and songbirds shall be avoided by establishment of appropriate buffers around the nests. No project activity shall commence within the buffer area until a qualified biologist confirms that any young have fledged or the nest is no longer active. A 500-foot buffer around raptor nests and 50-foot buffer around songbird nests are generally adequate to protect them from disturbance, but the size of the buffer may be adjusted by a qualified biologist in consultation with DFG depending on site specific conditions. For trail construction, use of non-power hand-tools may be permitted within the buffer area if the behavior of the nesting birds would not be altered as a result of the construction. Monitoring of the nest by a qualified biologist during and after construction activities will be required if the activity has potential to adversely affect the nest.	MROSD	Prior to and During Construction	
4.3-3	**Mitigation Measure 4.3-3 Avoid and Minimize Impacts to Sensitive Natural Communities and Compensate for Loss of Riparian and Wetland Habitats.** As a first priority, MROSD will seek to avoid wetlands impacts through trail realignment, bridging, and other avoidance measures. Before any groundbreaking activity along the trail connections, MROSD shall have a jurisdictional wetland delineation conducted by a qualified wetland specialist in sensitive areas that cannot be avoided. The preliminary delineation shall be submitted to USACE for verification. The wetlands may be subject to DFG regulation under Section 1602 of the Fish and Game Code. No grading, fill, or other ground disturbing activities shall occur until all required permits, regulatory approvals, and permit conditions for effects on wetland habitats are secured.	MROSD	Before Construction	
	If the wetlands are determined to be subject to USACE jurisdiction, the project may qualify for use of Nationwide Permit 42 for construction of recreational trails if certain criteria are met. For those wetlands that cannot be avoided, MROSD shall commit to replace, restore, or enhance on a “no net loss” basis (in accordance with USACE, RWQCB, and DFG) the acreage of all wetlands and other waters of the U.S. that would be removed, lost, and/or degraded with project implementation. Wetland habitat shall be restored, enhanced, and/or	MROSD	Before Construction	

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	replaced at an acreage and location and by methods agreeable to USACE, RWQCB, and DFG, as appropriate, depending on agency jurisdiction, and as determined during the permitting processes.			
4.3-4	MROSD will take the following actions to educate hang glider pilots and other visitors regarding the potential to disturb birds, especially nesting raptors and vultures, and establish an incident reporting program: 〉 Hang glider permits will include a brochure prepared by a qualified ornithologist that describes agitated and defensive behavior of wildlife, focusing mostly on soaring birds, such as raptors and vultures. The permit will include a map that identifies protected air space that restricts hang gliding within a minimum of 1,000 feet of a known nest. 〉 Hang glider permits will include an agreement, to be signed by the pilot, that the pilot shall: — Respect local wildlife by maintaining appropriate distance and altitude (as safety permits) to minimize disturbance. — Watch for active/occupied raptor or vulture nests and communal roosts, and, if spotted, keep at least 1,000 feet clear. — Avoid approaching soaring birds. (Note that if a bird peacefully approaches a hang glider, this is not considered a disturbance.) — Report to MROSD any bird observed behaving aggressively or agitated as a result of the pilot's glider or any other glider. — Immediately leave the area (as safety permits) after a bird has exhibited aggressive or acutely agitated behavior. 〉 MROSD will post signs at hang glider observation locations describing aggressive or acutely agitated bird behavior, and encourage preserve users to report any of these observations to the provided telephone	MROSD	During Operation	

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	number. MROSD will implement an adaptive management plan, prepared by a qualified ornithologist, to monitor and mitigate observed agitation or potential disturbance to birds. The adaptive management plan will include (at a minimum) the following measures: 〉 MROSD staff will immediately investigate and document any legitimate reported incident of bird aggression or acute agitation in response to presence of a hang glider. 〉 MROSD staff will review these bird incident records continuously. If incidents in a specific area exceed three per month , MROSD will either reduce the number of hang gliding permits issued to 5 at one time with no more than 2 hang gliders per launch site or restrict the use of the affected area as a condition of the special use permit. (Note that if the excess number of incidents occurs only during the raptor nesting season, then the permit reduction may be limited only to March through August and may resume to normal permitting levels after the nesting season.) 〉 If repeated incidents occur with a specific hang glider or group, MROSD may revoke hang gliding privileges to those individuals. If, after reducing the number of permits or restricting the use of specific areas where the incidents have occurred, the bird incidents are not reduced below three per month, MROSD will consider discontinuance of the issuance of hang gliding permits at the project site.			
Hydrology and Water Quality				
4.4-1	a. Prior to earthmoving activities (e.g., grading, excavation, construction), MROSD will consult with Santa Clara County Department of Public Works for Municipal Regional Permit review and will also consult with the San Francisco Bay Basin Regional Water Quality Control Board (RWQCB) to acquire the appropriate regulatory approvals that may be required to obtain	MROSD	Prior to Earthmoving Activities	

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	Section 401 water quality certification, State Water Resources Control Board (SWRCB) statewide National Pollutant Discharge Elimination System (NPDES) stormwater permit for general construction activities, and any other necessary site-specific waste discharge requirements. No grading or other soil disturbance will occur until the appropriate regulatory approvals and permits have been issued.			
	b. Prior to any earthmoving activities, as required under the NPDES stormwater permit for general construction activity, MROSD will prepare and submit the appropriate Notice of Intent and prepare the SWPPP and other necessary engineering plans and specifications for pollution prevention and control. The SWPPP will identify and specify the use of erosion sediment control BMPs, means of waste disposal, nonstormwater management controls, permanent post-construction BMPs, and inspection and maintenance responsibilities. The SWPPP will also specify the pollutants that are likely to be used during construction and that could be present in stormwater drainage and nonstormwater discharges.	MROSD	Prior to Earthmoving Activities	
	c. Construction techniques will be identified that would reduce the potential runoff, and the SWPPP will identify the erosion and sedimentation control measure to be implemented. BMPs designed to reduce erosion of exposed soil may include, but are not limited to: › Use temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; › Store materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; › Water exposed areas for dust control; › Minimize off-site sediment transport on vehicles using techniques such as gravel driving surfaces to knock soil off tires at exit points; and › Use barriers, such as perimeter silt fencing, to minimize the amount of uncontrolled runoff that could enter drains or surface waters.	MROSD	Prior to and During Construction	
	d. The SWPPP will also specify spill prevention and contingency measures, identify types of materials used for equipment operation, and identify measures to prevent or clean up spills of hazardous materials used for	MROSD	Prior to and During Construction	

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	equipment operation. Emergency procedures for responding to spills will also be identified. The SWPPP will identify personnel training requirements and procedures that would be used to ensure that workers are aware of permit requirements and proper installation and performance inspection methods for BMPs specified in the SWPPP. The SWPPP will also identify the appropriate personnel responsible for supervisory duties related to implementation of the SWPPP. All construction contractors will be required to retain a copy of the approved SWPPP on the construction site.			
4.4-3	MROSD will implement appropriate design measures to adequately trap and treat discharged pollutants in designated parking areas. These design measures could include, but are not limited to structural and non-structural BMPs including installation of oil and grit separators to capture potential contaminates that are discharged in parking areas, establishment of vegetation in drainages to achieve optimal balance of conveyance and water quality protection; and installation of vegetation filter strips.	MROSD	During Construction	
Geology and Soils				
4.5-1	**(Radar Tower Option 1 Only)** Prior to completion of the proposed landform and environmental restoration, MROSD will utilize a qualified geotechnical engineer to conduct monitoring of the north and south slopes. If the qualified geotechnical engineer indicates that slope instability is jeopardizing the radar tower, then the MROSD will implement recommendations made by the geotechnical engineer including drainage rehabilitation and slope reinforcement (i.e. retaining walls). Implementation of these recommendations will ensure that slope subsidence does not occur that would affect the structural integrity of the tower. If the proposed landform and environmental restoration is completed prior to any actions recommended by the monitoring geotechnical engineer, MROSD will utilize a qualified geotechnical engineer to conduct a topographical survey based on the new contours. If the geotechnical engineer determines that additional slope stabilization measures are necessary (i.e. retaining wall) to ensure no risk of structural collapse, MROSD will implement these measures. As part of the proposed project, construction safety fencing will be erected,	MROSD	Prior to Completion of Landform and Environmental Restoration	

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	prior to structural stabilization of the tower, at a distance equal to the height of the structure (in this case, a distance of 80 feet from the base of the tower) in order to allow public access to the area. Prior to implementation of the approved radar tower option and removal of the chain link fence from around the radar tower, MROSD will install permanent fencing along edges of the steep slopes in the vicinity of the radar tower. The permanent fencing will include materials consistent with a natural open space setting typical of fencing used in other MROSD preserves and open space facilities.			
	(Radar Tower Option 2 and 3 Only) Prior to implementation of the approved radar tower option and removal of the chain link fence from around the radar tower, MROSD will install permanent fencing along edges of the steep slopes in the vicinity of the radar tower. The fencing will include materials consistent with a natural open space setting typical of fencing used in other MROSD preserves and open space facilities.	MROSD	Prior to Implementation of the Approved Radar Tower Option and removal of the chain link fence	
Hazards and Hazardous Materials				
4.6-1	Following demolition of structures, but prior to any grading activity or public access within the former Almaden Air Force Station, MROSD will hire a qualified hazardous materials specialist to prepare a focused pesticide soil testing and remediation program. The soil testing program will be prepared according to the recommendations in Northgate's Sampling and Analysis Report. Based on the focused soil testing program, the perimeters and depths of soils containing contamination above residential ESLs shall be specifically defined. Once these areas are defined, construction barriers or fencing shall be placed around the areas prior to initiating construction within other areas of the project site. No construction or public access may occur within the demarcated areas of contamination until the following remediation occurs: The qualified hazardous materials specialist will prepare a remediation plan for excavation and disposal of contaminated soils. The goal of the remediation plan will be to remove all soils containing chemical concentrations in excess of California human health screening levels and render excavated soil suitable for disposal at an appropriate landfill, unless the soils can be suitably treated on site, to below screening levels, in which case the soils can be disposed onsite. Soil removal	MROSD	Following demolition and prior to any grading and public access	

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	activity will be completed in accordance with state and local regulatory requirements that provide specific targets for protection of human health.			
4.6-5 (Voluntary)	MROSD will implement the following fire hazard minimization measures recommended by Wildland Resource Management: **Construction-Related Fire Risk Reduction** Prior to initiation of construction (including activities associated with mitigation measures, such as vegetation clearing), MROSD's contractor will prepare a fire prevention plan. This fire prevention plan will include such measures as a list of tools to have on hand, proof of spark arrestors on all gas-powered engines, a description of available communications, specifications for the supply of water to have on hand, and descriptions of other actions that will reduce the risk of ignition and immediate control of an incipient fire. This requirement should be included in the contract with the District.	MROSD	Before Construction	
	To minimize the risk of wildfire ignition, all motorized vehicles, including earth-moving equipment, used during this project will be equipped with spark arresters, per California Public Resources Code 4442, and Health and Safety Code 13001 and 13005. Other motorized vehicles used on the project site will not be parked where vegetation may come in contact with exhaust systems and catalytic converters.	MROSD	Before and During Construction	
	Fuel Management and Fire-safe Restoration Design Prior to initiating construction of the restoration areas, MROSD will prepare a site-specific fuel management plan for the these areas as part of the specific site planning and design that dictates which species of trees/shrubs should be removed or pruned, and which plants should be planted or maintained (i.e., conifers may be replaced with hardwoods to reduce the chance of torching and ember production and distribution). The plan will include measures above and beyond MROSD's standard fuel management plan, such as a strategically located visitor safety zone, which includes fuel conditions appropriate for a safety zone (i.e., large paved or graveled area such as a parking lot). This area will need to be	MROSD	Before Construction and During Operation	

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	inspected at least annually for compliance. The site-specific fuel management plan will apply to the former AFS housing area, and the summit areas, where the environmental restoration is proposed. The fuel management plan will also identify indigenous plant materials and/or seed mixes at staging areas or along trails. Indigenous plants are ideal due to their low maintenance and drought and fire resistant characteristics. The vegetation palette for the proposed restoration will identify native species that are shrubby or non-curing herbaceous cover (as opposed to grassy species), with little ignition potential. Plantings will be irrigated at least twice during the summer season to keep the moisture of the vegetation foliage high (keeping the dead material wet is not effective); if plantings cannot be irrigated twice a year, fuel volume will be reduced to meet the equivalent results in fire hazard. The spacing and design of the vegetation is more critical than the species planted. The restoration design will place plant species such that appropriate horizontal spacing occurs between masses of shrubs and specimen trees and appropriate vertical spacing will occur between tree branches, shrubs, and ground cover. This will discourage the creation of "fuel ladders"—a continuous fuel path by which a fire can climb from the ground to a shrub, to a tree, and ultimately produce and distribute embers than can start new fires far away. The restoration design will identify a palette of appropriate native plant species that have a low fuel volume and high foliar moisture and do not have a tendency to produce and "hold" dead wood and which also have a proper growth form. Factors that must be considered in rating the fire performance of plants include: 〉 Total volume. The greater the volume of plant material (potential fuel) present, the greater the fire hazard. 〉 Moisture content. The moisture content of plants is an important consideration; high levels of plant moisture can both lower fire risk and act as a heat sink if a fire occurs, reducing its intensity and spread. 〉 Amount and distribution of dead material. The amount of dead material in a given plant influences the total amount of water in the overall plant; the			

Mitigation Monitoring Plan				
Mitigation Measure No.	**Measure Description**	**Monitoring Agency**	**Implementation Schedule**	**Monitoring Compliance Record (Name/Date)**
	dead material is usually much drier than living tissue. Whereas dead material rarely has a moisture content higher than 25%, live foliage moisture content ranges from 60 to 80% for chaparral species in xeric conditions to a high of 200 to 400% for succulent plants or plants under irrigation. › Size of leaves, twigs, and branches. Materials with large surface areas (such as needles, twigs, or large flat leaves) dry more rapidly under fire conditions than materials with lower surface ratios (such as branches and fleshy leaves). › Geometry and arrangement of the plant (overall spatial distribution of the biomass). The shape of a plant and the way in which the biomass is distributed throughout the plant is important because this bulk density affects the air flow and heat transfer through the plant. The arrangement of material within the plant affects its fuel continuity and its tendency to undergo preheating and promote fire spread. Examples of plants that may be appropriate include (but are not limited to) the following: coffeeberry, madrone, coast live oak, bay, ceanothus, and toyon. Examples of species to remove include coyote brush, black sage, and sagebrush. The fuel management plan will include a maintenance component. The maintenance program will require annual removal of dead material and maintenance of the vertical and horizontal spaces that create a fire-safe design. Maintenance requirements are incorporated in the District guidelines.			
Air Quality				
4.7-1	MROSD and all construction contractors shall implement the following basic control measures during construction, per BAAQMD's Air Quality Guidelines: › All un-compacted exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall either be watered two times per day when average winds exceed 20 miles per hour (mph) or covered with a dust palliative (e.g., mulch, straw). If watered, watering shall be done at a frequency adequate to maintain minimum soil moisture of 12%. Moisture content can be verified by lab samples or moisture probe.	MROSD	During Construction	

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	⟩ All haul trucks transporting soil, sand, demolished building materials, or other loose material off-site shall be covered. ⟩ Erosion control seed mix shall be planted in disturbed areas where appropriate as soon as possible and watered as needed for up to three years. ⟩ During windy days, the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. ⟩ All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. ⟩ All vehicle speeds on unpaved roads shall be limited to 15 mph. ⟩ All roadways, driveways, and sidewalks that are planned as part of the project to be paved shall be completed as soon as possible. Any building pads shall be laid as soon as possible after grading unless seeding or soil binders are used. ⟩ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measures (ATCM) Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage about this requirement shall be provided for construction workers and truck drivers at all access points. ⟩ All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. ⟩ Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.			

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4.7-5	Utilizing a qualified geologist, project-related construction and grading would be sited to avoid ultramafic rock to the maximum extent feasible. If construction or grading in ultramafic substrates would be unavoidable, MROSD shall conduct an investigation to determine whether and where NOA is present. The site investigation shall include the collection of soil and rock samples by a qualified geologist. If the site investigation determines that NOA is present on the project site then MROSD shall comply with the requirements of BAAQMD's naturally occurring asbestos program by submitting an Asbestos Dust Mitigation Application and any other applicable notification forms to BAAQMD pursuant to BAAQMD's Air Toxic Control Measure (ATCM) Inspection Guidelines Policies and Procedures. Completion of the Asbestos Dust Mitigation Application largely consists of the development of an asbestos dust control plan, which specifies measures for preventing or minimizing the generation of NOA-containing dust associated with track-out onto paved public roads, active storage piles, inactive disturbed surfaces and storage piles, traffic on un-paved surfaces and roads, earthmoving activities, off-site transport of materials, and stabilization of disturbed soil surfaces post construction. In order to fulfill the requirements of Section 93105 of the California Health and Safety Code, "Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations," the asbestos dust control plan shall specify measures, such as periodic watering to reduce airborne dust and ceasing construction during high winds, that shall be taken to ensure that no visible dust crosses the property line. Measures in the Asbestos Dust Control Plan may include but shall not be limited to dust control measures required by Mitigation Measure 4.7-1. MROSD shall submit the plan to BAAQMD for review and approval before construction. Upon approval of the asbestos dust control plan by BAAQMD, the MROSD shall ensure that construction contractors implement the terms of the plan throughout the construction period.	MROSD	Prior to and during Demolition	
Traffic and Circulation				
4.10-1	MROSD shall implement the following mitigation measures to improve roadway condition/operation during and after construction. These measures would be required with or without removal of the radar tower. 〉 Improve and repave Mt. Umunhum Road to increase vehicle accessibility	MROSD	Before, During, and After Construction	

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	after completion of demolition. In the interim, provide necessary temporary improvements (e.g. pothole repairs). › Survey the demolition and construction truck route between Mt. Umunhum Road and Almaden Expressway (or Camden Avenue) before project initiation and after all work is completed. Provide repair as required to all road segments with documented pavement degradation due to project trucks. › Post signs along the narrower two-lane sections of construction haul routes informing bike riders as well as local drivers of dates and times of potential truck traffic. › Post signs of potential delay in advance of construction/excavation sites along Mt. Umunhum Road. › Ensure communication links between truck drivers so they are aware when there will be uphill and downhill truck traffic at the same time on Mt. Umunhum Road and/or Hicks Road. › Survey Mt. Umunhum Road on a weekly basis during all demolition off haul, excavated material haul and any fill importation to determine whether pavement condition remains adequate in all locations along Mt. Umunhum Road for safe truck traffic activity. If not, provide interim pavement repairs as needed.			