

Mitigation Monitoring and Reporting Program

CEQA requires that a reporting or monitoring program be adopted for the conditions of project approval that are necessary to mitigate or avoid significant effects on the environment (Public Resources Code 21081.6). This mitigation monitoring and reporting program is intended to track and ensure compliance with adopted mitigation measures during the project implementation phase. For each mitigation measure recommended in the Final Environmental Impact Report (Final EIR), specifications are made herein that identify the action required, the monitoring that must occur, and the agency or department responsible for oversight.

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Mitigation Measure/ Implementation Program	Action Required	Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
Air Quality							
AQ-1. Construction Equipment Emission Control Measures							
<p>Based on BAAQMD <i>CEQA Guidelines</i> (2017), construction-related TAC and PM impacts should be addressed on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and proximity to off-site receptors. Construction activity from the projects developed under the Housing Element or Bollinger Canyon Rezone that are within 1,000 feet of sensitive receptors; utilize more than three pieces of construction equipment simultaneously onsite; have a duration of construction longer than two months; and exclude Tier 4 Final construction equipment shall be required to prepare an HRA assessment. An HRA shall be conducted prior to the issuance of a permit to construct. The applicant would be required to have it prepared by a third party or by if Town staff would be capable. The HRA would be reviewed by the Town in-house, or a contracted consultant. If the findings of the HRA assessment exceed BAAQMD health risk thresholds, then development projects under the Housing Element or Bollinger Canyon Rezone shall incorporate the following construction equipment emission control measures to the maximum extent feasible:</p> <ul style="list-style-type: none"> ▪ Implement diesel construction equipment meeting USEPA Tier 4 Final emission standards for off-road heavy-duty diesel engines. If use of USEPA Tier 4 equipment is not feasible, diesel construction equipment meeting Tier 4 Interim or Tier 3 emission standards shall be used. Tier 3 equipment shall use a CARB Level 3 diesel particulate filter. ▪ Perform periodic site inspections during construction to verify compliance of USEPA Tier 4 (Final or Interim) or USEPA Tier 3 equipment. ▪ Use alternative fueled or catalyst equipped diesel construction equipment. ▪ Minimize idling time to five minutes or less. ▪ Limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use. 	<p>The Town will require applicants to prepare a Health Risk Assessment (HRA) when required pursuant to the measure. The Town will review the HRA and subsequently require the control measures if required. The Town may require peer review paid by the applicant.</p>	<p>As part of the Town’s development approval and building permit issuance and ongoing throughout construction of development facilitated by the Planning Initiative.</p>	<p>Continuously as needed</p>	<p>Town of Moraga Planning Department ; on-site construction manager</p>			

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<ul style="list-style-type: none"> Replace fossil-fueled equipment with electrically driven equivalents (provided they are not run via a portable diesel generator set). Curtail construction during periods of high-ambient-pollutant concentrations; this may include ceasing of construction activity during the peak-hour vehicular traffic on adjacent roadways. Implement activity management (e.g., rescheduling activities to reduce short-term impacts). 							
Biological Resources							
BIO-1 Biological Resources Screening and Assessment							
<p>For development projects facilitated by the Housing Element that would require vegetation trimming or removal, prior to consideration of the application, the project applicant shall hire a qualified biologist to perform a preliminary biological resources screening, for the Town’s review and approval, to determine whether the project has any potential to impact special status biological resources, inclusive of special status plants and animals, sensitive vegetation communities, jurisdictional waters (including creeks, drainages, streams, ponds, vernal pools, riparian areas and other wetlands), critical habitat, wildlife movement area, or biological resources protected under local or regional ordinances. If it is determined that the project has no potential to impact biological resources, no further action is required under this mitigation measure.</p> <p>If the project would have the potential to impact biological resources, a qualified biologist shall conduct a project-specific biological analysis to document the existing biological resources within a project footprint plus a minimum buffer of 50 feet around the project footprint, as is feasible, and to determine the potential impacts to those resources, as approved by the Town. The project-specific biological analysis shall evaluate the potential for impacts to all biological resources including, but not limited to special status species, nesting birds, wildlife movement, sensitive plant communities, critical habitats, and other resources judged to be sensitive by local, State, and/or federal agencies. If the project would have the potential to impact these resources, additional measures may be</p>	<p>When grading or vegetation trimming or removal is required, the project applicant shall hire a qualified biologist to perform a preliminary biological resources screening, for the Town’s review and approval. The Town may require peer review paid by the applicant. If biological resources impacts are possible, the Town will ensure that a qualified biologist conducts additional analysis to document biological resources. The Town shall ensure additional measures are implemented if the qualified biologist determines the project has the potential to impact the biological resources.</p>	Prior to construction	Once	Town of Moraga Planning Department			

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<p>required and recommendations developed to enhance wildlife movement (e.g., installation of wildlife friendly fencing), as applicable, to reduce impacts to less than significant levels. Additional measures may also include compensatory mitigation when avoidance of a biological resource is not possible. Pending the results of the project-specific biological analysis, Town review, design alterations, further technical studies (e.g., protocol surveys) and consultations with the USFWS, NMFS, CDFW, and/or other local, State, and federal agencies may be required as determined by the Town.</p>							
<p>BIO-2 Pre-Construction Bird Surveys, Avoidance, and Notification</p>							
<p>For construction activities at development sites under the Housing Element initiated during the bird nesting season (February 1 – September 15) involving removal of vegetation or other nesting bird habitat, including abandoned structures and other man-made features, a qualified biologist hired by the Town shall conduct a pre-construction nesting bird survey no more than five days prior to initiation of vegetation removal activities. The nesting bird pre-construction survey shall be conducted on foot and shall include a buffer around the construction site at a distance determined by a qualified biologist, including staging and storage areas. The minimum survey radii surrounding the work area shall be the following: 250 feet for non-raptors and 1,000 feet for raptors. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in California Bay Area communities (i.e., qualified biologist). If construction lapses for seven days or longer, the qualified biologist shall conduct another focused survey before project activities are reinitiated. If nests are found, an avoidance buffer shall be determined by a qualified biologist dependent upon the species, the proposed work activity, and existing disturbances associated with land uses outside of the site. The qualified biologist shall observe the active nest to establish a behavioral baseline of the adults and nestlings, if present. The qualified biologist shall continuously monitor the active nests to detect signs of disturbance and behavioral change as a result of construction impacts, such as noise, vibration, odors, or worker/equipment motion. If signs of disturbance and behavioral changes are</p>	<p>If a project includes removing vegetation or similar bird habitat, the Town shall ensure that a qualified biologist conducts a bird survey before construction. If birds or their habitat are found, the Town shall ensure that the appropriate avoidance buffer is demarcated. The Town shall confirm that the proper statement acknowledging compliance is completed.</p>	<p>Prior to construction; during construction, if necessary.</p>	<p>Once and as needed during construction</p>	<p>Town of Moraga Planning Department</p>			

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<p>observed, the qualified biologist shall cease work causing those changes and may contact CDFW or USFWS for guidance. The buffer shall be demarcated by the biologist with bright orange construction fencing, flagging, construction lathe, or other means to demarcate the boundary. All construction personnel shall be notified as to the existence of the buffer zone as an "Ecologically Sensitive Area" and to avoid entering the buffer zone during the nesting season. No ground disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is completed, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist on the basis that the encroachment will not be detrimental to an active nest. A report summarizing the pre-construction survey(s) shall be prepared by a qualified biologist and shall be submitted to the Town prior to the commencement of construction activities. Future project site plans proposed at development sites shall include a statement acknowledging compliance with the federal MBTA and California Fish and Game Code that includes avoidance of active bird nests and identification of Best Management Practices to avoid impacts to active nests, including checking for nests prior to construction activities during February 1 to September 15 and what to do if an active nest is found so that the nest is not inadvertently impacted during grading or construction activities.</p>							
BIO-3 Roosting Bat Surveys and Avoidance Prior to Removal							
<p>Prior to tree or vacant structure removal, a qualified biologist shall conduct a focused survey of all trees and structures to be removed or impacted by construction activities to determine whether active roosts of special-status bats are present on site. Tree or structure removal shall be planned for either the spring or the fall and timed to ensure both suitable conditions for the detection of bats and adequate time for tree and/or structure removal to occur during seasonal periods of bat activity exclusive of the breeding season, as described below. Trees and/or structures containing suitable potential bat roost habitat features shall be clearly marked or identified. If no bat roosts are found, the results of the survey will be documented and</p>	<p>If a tree or vacant structure requires removal, the Town shall ensure that a qualified biologist has conducted a survey to detect active bat roosts. If roosts are present, construction will commence only after the Town approves a roosting bat protection plan or proper bat boxes are installed when large amounts of bats are present. The Town may require peer review paid by the applicant.</p>	<p>Prior to construction</p>	<p>Once</p>	<p>Town of Moraga Planning Department</p>			

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<p>submitted to the Town within 30 days of the survey, after which no further action will be required.</p> <p>If day roosts are present, the biologist shall prepare a site-specific roosting bat protection plan to be implemented by the contractor following the Town’s approval. Additionally, the qualified biologist shall determine compensatory mitigation for temporary or permanent habitat loss due to tree removal, in conjunction with CDFW. The plan shall incorporate the following guidance as applicable:</p> <ul style="list-style-type: none"> ▪ When possible, removal of trees/structures identified as suitable roosting habitat shall be conducted during seasonal periods of bat activity (outside the breeding and hibernation periods), including the following: <ul style="list-style-type: none"> a) Between September 1 and about October 15, or before evening temperatures fall below 45 degrees Fahrenheit and/or more than 0.5 inch of rainfall within 24 hours occurs. b) Between March 1 and April 15, or after evening temperatures rise above 45 degrees Fahrenheit and/or no more than 0.5 inch of rainfall within 24 hours occurs. ▪ If a tree/structure must be removed during the breeding season and is identified as potentially containing a colonial maternity roost, then a qualified biologist shall conduct acoustic emergence surveys or implement other appropriate methods to further evaluate if the roost is an active maternity roost. Under the biologist’s guidance, the contractor shall implement measures similar to or better than the following: <ul style="list-style-type: none"> a) If it is determined that the roost is not an active maternity roost, then the roost may be removed in accordance with the other requirements of this measure. b) If it is found that an active maternity roost of a colonial roosting species is present, the roost shall not be disturbed during the breeding season (April 15 to August 31). 							

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<ul style="list-style-type: none"> <li>▪ Tree removal procedures shall be implemented using a two-step tree removal process. This method is conducted over two consecutive days and works by creating noise and vibration by cutting non-habitat branches and limbs from habitat trees using chainsaws only (no excavators or other heavy machinery) on day one. The noise and vibration disturbance, together with the visible alteration of the tree, is very effective in causing bats that emerge nightly to feed to not return to the roost that night. The remainder of the tree is removed on day two. <li>▪ Prior to the demolition of vacant structures within the project site, a qualified biologist shall conduct a focused habitat assessment of all structures to be demolished. The habitat assessment shall be conducted enough in advance to ensure the commencement of building demolition can be scheduled during seasonal periods of bat activity (see above), if required. If no signs of day roosting activity are observed, no further actions will be required. If bats or signs of day roosting by bats are observed, a qualified biologist will prepare specific recommendations such as partial dismantling to cause bats to abandon the roost, or humane eviction, both to be conducted during seasonal periods of bat activity, if required. <p>If the qualified biologist determines a roost is used by a large number of bats (large hibernaculum), bat boxes shall be installed near the project site. The number of bat boxes installed will depend on the size of the hibernaculum and shall be determined through consultation with CDFW. If a maternity colony has become established, all construction activities shall be postponed within a 500-foot buffer around the maternity colony until it is determined by a qualified biologist that the young have dispersed. Once it has been determined that the roost is clear of bats, the roost shall be removed immediately.</p>							

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BIO-4 Alameda Whipsnake Pre-Construction Surveys and Impact Avoidance							
Throughout the Bollinger Canyon Study Area, which is likely to contain suitable habitat for Alameda whipsnake, a qualified biologist shall conduct a focused pre-construction survey within 14 days prior to initiation of construction activities within the Bollinger Canyon Study Area. The USFWS and CDFW will be notified should any Alameda whipsnake be observed within any site of future development. Additionally, the following mitigation measures will be implemented to reduce impacts to the Alameda whipsnake:	If Alameda whipsnake habitat is found within the Bollinger Canyon Study Area, the Town shall ensure that a qualified biologist has conducted a pre-construction survey and that USFWS and CDFW are notified if necessary. The Town shall ensure that mitigation measures are followed before and during construction. The Town may require peer review paid by the applicant.	Prior to construction; during construction, if necessary.	Once and as needed during construction	Town of Moraga Planning Department			
<ul style="list-style-type: none"> ▪ Prior to the start of construction, wildlife exclusion fencing (e.g., Animex or Ertec brand fencing) will be installed along the project footprint boundary. The location, extent, and specifications of the wildlife exclusion fencing will be identified by a qualified biologist and included on the final project plans. The fencing will remain in place throughout the duration of the construction activities and will be regularly inspected and fully maintained. Repairs to the fence will be made within 24 hours of discovery. Upon completion of construction activities, the fence will be completely removed; the area cleaned of debris and trash and returned to natural conditions. ▪ Construction crew shall be trained during the WEAP training to check beneath the staged equipment each morning prior to commencement of daily construction activities. Should Alameda whipsnake occur within the staging areas, construction activities shall be halted until the Alameda whipsnake vacates the project site on its own and approval to begin again is provided by the USFWS and CDFW. ▪ A qualified biologist shall be present during grading activities. Should Alameda whipsnake be observed within the project site, the USFWS and CDFW shall be notified, and construction shall be halted until the Alameda whipsnake exits the site and approval to begin again is provided by the USFWS and CDFW. 							

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<ul style="list-style-type: none"> To prevent the entrapment of Alameda whipsnake and other wildlife, monofilament plastics shall not be used for erosion control. All construction activities shall take place during daylight hours or with suitable light so that whipsnakes can be seen. Vehicle speeds on the construction site shall not exceed five miles per hour. <p>Site vegetation management shall take place prior to tree removal, grading, excavation, or other construction activities. Construction materials, soil, construction debris, or other material shall be deposited only on areas where vegetation has been mowed. Areas shall be re-mowed if grass or other vegetation on the project site becomes high enough to conceal whipsnakes during the construction period.</p>							
BIO-5 Conduct Jurisdictional Delineation							
<p>If required pursuant to Mitigation Measure BIO-1, and in areas determined by the Biological Resources Screening and Assessment as likely to impact waters, wetlands, or riparian habitat a jurisdictional delineation shall be required. A qualified biologist shall complete a jurisdictional delineation of all features within the project site. The jurisdictional delineation shall determine the extent of the jurisdictions for CDFW, USACE, and RWQCB, and shall be conducted in accordance with the requirement set forth by each agency. The result shall be a preliminary jurisdictional delineation report that shall be submitted to the implementing agency, USACE, RWQCB, and CDFW, as appropriate, for review and approval. Jurisdictional areas shall be avoided to the maximum extent possible. If jurisdictional areas are expected to be impacted, then the RWQCB would require a WDRs permit and/or WQC (depending upon whether the feature falls under federal jurisdiction). If CDFW asserts its jurisdictional authority, then a LSAA pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction. If the USACE asserts its authority, then a permit pursuant to Section 404 of the CWA would likely be required.</p>	<p>When impacts to water, wetlands, or riparian habitat are possible, the Town shall ensure that a qualified biologist completes a jurisdictional delineation, and that the applicant submits the report to the implementing agencies listed in the mitigation measure. The Town shall ensure that appropriate follow up documentation or permits are completed or acquired prior to construction. The Town may require peer review paid by the applicant.</p>	Prior to construction	Once	Town of Moraga Planning Department			

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BIO-6 Perform Restoration for Impacts to Waters and Wetlands							
If waters and/or wetlands cannot be avoided and will be impacted by construction, a compensatory mitigation program shall be implemented. Impacts to waters and wetlands shall be mitigated through one or more options to meet the required amount of mitigation as required based on direct impacts from project development under the mitigation ratios outlined below. Mitigation for impacts to waters and wetlands can be achieved through the acquisition and in-perpetuity management of similar habitat and/or through the in-lieu funding of such through an existing mitigation bank. Funding and management of internal mitigation areas can be managed internally. Funding and management of off-site mitigation lands shall be provided through purchase of credits from an existing, approved mitigation bank or land purchased by implementing entity and placed into a conservation easement or other covenant restricting development (e.g., deed restriction). Internal mitigation lands and/or in-lieu funding sufficient to acquire lands shall provide habitat at a minimum ratio of 1:1 for impacted lands, comparable to habitat to be impacted by individual project activity. Compensatory mitigation for sensitive vegetation communities can be combined with other compensatory mitigation (e.g., sensitive vegetation communities) as applicable. All temporary impacts to waters and wetlands shall be fully restored to natural condition.	The Town shall ensure that waters and wetlands impacts are mitigated as required, when avoidance is not possible.	Prior to construction	Once	Town of Moraga Planning Department			

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BIO-7 Project Design for Wildlife Connectivity							
<p>If required pursuant to Mitigation Measure BIO-1, and in areas determined by the Biological Resources Screening and Assessment in Bollinger Canyon that provide wildlife movement corridors, projects shall be designed to minimize impacts to wildlife as set forth below and determined by the Town. Fencing or other project components shall not block wildlife movement through riparian or other natural habitat. Where fencing or other project components that may disrupt wildlife movement is required for public safety concerns, they shall be designed to permit wildlife movement by incorporating design features that include one or more of the following, as required based on site-specific conditions:</p> <ul style="list-style-type: none"> ▪ A minimum 16 inches between the ground and the bottom of the fence to provide clearance for small animals. ▪ A minimum 12 inches between the top two wires, or top the fence with a wooden rail, mesh, or chain link instead of wire to prevent animals from becoming entangled. ▪ If privacy fencing is required near open space areas, openings at the bottom of the fence measure at least 16 inches in diameter shall be installed at reasonable intervals to allow wildlife movement, or the fence may be installed with the bottom at least 16 inches above the ground level. ▪ If fencing or other project components must be designed in such a manner that wildlife passage would not be permitted, wildlife crossing structures shall be incorporated into the project design as appropriate. ▪ Lighting installed as part of any project shall be designed to be minimally disruptive to wildlife. 	<p>If a wildlife movement corridor is identified in Bollinger Canyon, the Town shall ensure that required design features are included to permit wildlife movement, prior to project approval.</p>	<p>Prior to construction</p>	<p>Once</p>	<p>Town of Moraga Planning Department</p>			

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BIO-8 Maintain Connectivity in Drainages							
No permanent structures that would impede wildlife movement shall be placed within any drainage or riverine feature in the Bollinger Canyon Study Area (i.e., no hardened caps or other structures in the stream channel perpendicular to stream flow that would be exposed or at moderate to high risk of exposure because of natural bed scour during high flow events, and thereby potentially create impediments to passage). In addition, upon completion of construction within any drainage or riverine feature, areas of stream channel and banks that are temporarily impacted shall be returned to pre-construction contours and in a condition that allows for unimpeded passage through the area. If water is to be diverted around work sites, a diversion plan shall be submitted to the Town for review and approval prior to issuance of project construction permits/approvals. The diversion shall be designed in such a way as to not impede movement while the diversion is in place.	The Town shall ensure that permanent structures are not placed within a drainage or riverine feature in Bollinger Canyon. When necessary, the Town shall review and approve a diversion plan for project construction. After construction, the Town shall ensure that drainages and riverine features are restored to pre-construction conditions or better.	Prior to construction; after construction, if necessary.	Once prior to construction and once after construction, when necessary	Town of Moraga Planning Department			
BIO-9 Construction Best Management Practices to Minimize Disruption to Wildlife							
The following construction BMPs shall be incorporated into all grading and construction plans in the Bollinger Canyon Study Area to minimize temporary disruption of wildlife: <ul style="list-style-type: none"> ▪ A 20 mile per hour speed limit shall be designated in all construction areas. ▪ Daily construction work schedules shall be limited to daylight hours only. ▪ Mufflers shall be used on all construction equipment and vehicles shall be in good operating condition. ▪ All trash shall be placed in sealed containers and shall be removed from the project site a minimum of once per week. No pets shall be permitted on project site during construction.	The Town shall review grading and construction plans to ensure the construction BMPs are incorporated.	Prior to construction; during construction	Once and as needed during construction	Town of Moraga Planning Department			

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Cultural Resources							
Implementation Program CR-A: Historical and Archaeological Resources Survey.							
Retain a qualified cultural resource specialist to conduct a historical and archaeological resource survey prior to issuance of a grading permit in a previously undisturbed area. Mitigation may include but is not limited to avoidance of discovered cultural resources; relocation, rehabilitation, or alteration consistent with the Secretary of the Interior’s Standards for the Treatments of Historic Properties; and/or data recovery mitigation or documentation that offsets the loss of the resource.	The Town shall ensure that a qualified cultural resource specialist conducts the appropriate survey and includes requisite mitigation, when required. The Town may require peer review paid by the applicant.	Prior to construction; during construction, if necessary.	Once and as needed during construction	Town of Moraga Planning Department			
Implementation Program CR-B: Protect Potential Historic and Archaeological Resources.							
Retain a qualified cultural resource specialist to conduct site-specific analysis and implement feasible mitigation or avoidance for development that may impact a listed, eligible, or potentially eligible historic structure (older than 45 years) or resource or archaeological resource.	The Town shall ensure that a qualified cultural resource specialist conducts site-specific analysis and includes requisite mitigation, when required. The Town may require peer review paid by the applicant.	Prior to construction; during construction, if necessary.	Once and as needed during construction	Town of Moraga Planning Department			
Implementation Program CR-C: Construction Monitoring.							
Retain a qualified cultural resource specialist to monitor construction activities that involve ground-disturbing activities greater than 12 inches in depth and occur within 60 feet of a potentially significant cultural resource.	The Town shall ensure that a qualified cultural resource specialist monitors ground disturbance, when required. The Town may require peer review paid by the applicant.	During construction	As needed during construction	Town of Moraga Planning Department			
Implementation Program CR-D: Unanticipated Discovery of Cultural Resources.							
Suspend all earth-disturbing work within 60 feet of identified cultural resources. Retain a qualified cultural resources specialist to design and implement feasible mitigation. Mitigation may include but is not limited to avoidance of discovered cultural resources, archaeological testing to determine California Register of Historical Resources eligibility, consultation with descendant communities, and/or implementation of a treatment plan to offset the loss of the resource.	The Town shall ensure that work is suspended, when required, and a cultural resources specialist designs and implements feasible mitigation.	During construction	As needed during construction	Town of Moraga Planning Department			

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Geology and Soils							
Implementation Program PAL-A: Paleontological Survey.							
Retain a qualified professional paleontologist to determine the project’s potential to significantly impact paleontological resources. Mitigation may be required to reduce impacts to paleontological resources during ground disturbing activities.	The Town shall ensure that a qualified professional paleontologist analyzes paleontological sensitivity and includes mitigation, when required. The Town may require peer review paid by the applicant.	Prior to construction; during construction, if necessary.	Once and as needed during construction	Town of Moraga Planning Department			
Hazards and Hazardous Materials							
HAZ-1 Property Assessment – Phase I and II Environmental Site Assessment							
<p>Prior to the start of construction (i.e., demolition or grading) of development at the Housing Opportunity Sites on or adjacent to the two open and active cleanup sites (Moraga Cleaners and Laundry [SWRCB No. T10000012913] and Rheem Valley Shopping Center [SWRCB No.T10000012758]), the project applicant shall retain a qualified environmental professional, as defined by ASTM International E-1527 to prepare a project area Phase I Environmental Site Assessment (ESA) in accordance with standard ASTM methodologies, to assess the land use history of the project site that will be affected. If either of the two sites have been closed on SWRCB’s GeoTracker, then this mitigation shall not be required.</p> <p>After the site-specific Phase I ESA has been completed, the determination of specific areas that require a Phase II ESA (i.e., soil, groundwater, soil vapor subsurface investigations) shall be evaluated by the project applicant. The Phase II ESA shall be completed prior to construction and shall be based on the results of the Phase I ESA. Specifically, if the Phase I ESA identifies recognized environmental conditions or potential concern areas, the project applicant shall retain a qualified environmental consultant, California Professional Geologist or California Professional Engineer, to prepare a Phase II ESA of the project site to determine whether the soil, groundwater, and/or soil vapor has been impacted at concentrations exceeding regulatory screening levels for commercial/industrial land uses.</p> <p>As part of the Phase II ESA, the qualified environmental consultant shall screen the analytical results against the San Francisco Regional Water Quality Control</p>	The Town shall ensure that the project applicant retains a professional to prepare a Phase I ESA, and if required, a Phase II ESA. If the Phase II ESA recommends remediation, the Town shall ensure that such remediation occurs. The Town may require peer review paid by the applicant.	Prior to construction	Once, if only a Phase I ESA is required; twice if a Phase II ESA is required; thrice if the Phase II ESA recommends further steps	Town of Moraga Planning Department			

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<p>Board environmental screening levels (ESL). These ESLs are risk-based screening levels for direct exposure of a construction worker under various depth and land use scenarios. The lead agency shall review and approve the Phase I ESA prior to construction (i.e., demolition and grading).</p> <p>If the Phase II ESA for the development site indicates that contaminants are detected in the subsurface at the project site, the project applicant shall take appropriate steps to protect site workers and the public. This may include the preparation of a Soil Management Plan for Impacted Soils prior to project construction.</p> <p>If the Phase II ESA for the contaminant site indicates that contaminants are present at concentrations exceeding hazardous waste screening thresholds for contaminants in soil and/or groundwater (California Code of Regulations [CCR] Title 22, Section 66261.24 Characteristics of Toxicity), the project applicant shall take appropriate steps to protect site workers and the public. This may include the completion of remediation at the project prior to onsite construction.</p>							
Noise							
NOI-1 Construction Noise Reduction Measures							
<p>The Town shall include the following measures to minimize exposure to construction noise as standard conditions of approval:</p> <ol style="list-style-type: none"> Mufflers. During excavation and grading construction phases, construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards. Stationary Equipment. Stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receivers. Equipment Staging Areas. Equipment staging shall be located in areas that will create the greatest distance feasible between construction-related noise sources and noise-sensitive receivers. 	<p>The Town shall ensure that construction noise reduction measures are implemented by the applicant. The Town may employ a 3rd party reviewer to monitor measures paid by the applicant.</p>	<p>During construction</p>	<p>Once per month</p>	<p>Town of Moraga Planning Department</p>			

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<p>4. Smart Back-up Alarms. Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.</p> <p>5. Signage. For the duration of construction, the applicant or contractor shall post a sign in a construction zone that includes contact information for individuals who desire to file a noise complaint.</p> <p>6. Temporary Noise Barriers. Where necessary to meet the FTA criterion of 80 dBA $L_{eq}(8 Hr)$ for daytime construction affecting residential uses, erect temporary noise barriers at a height of 12 feet minimum to block the line-of-sight between construction equipment and receptors. Barriers shall be constructed with a solid material that has a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier.</p> <p>The Town shall confirm that these measures are implemented during construction by monitoring the project at least once per month.</p>							
NOI-2 Vibration Control Plan							
<p>Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures such as historical resources, 100 feet of non-engineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); a vibratory roller within 25 feet of any structure; or a dozer or other heavy earthmoving equipment within 15 feet of any structure, the project applicant shall prepare a vibration analysis to assess and mitigate potential vibration impacts related to these activities. This vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed FTA architectural damage thresholds (e.g., 0.12 in/sec PPV for fragile or historical resources, 0.2 in/sec PPV for non-engineered</p>	<p>When pile driving is proposed, the Town shall ensure that a vibration analysis is prepared. When required, the Town shall verify that construction vibration monitoring is conducted. The Town may employ a 3rd party reviewer to monitor measures paid by the applicant. When required, Contra Costa County Building Department shall confirm/verify ??? the Statement of Compliance with the Vibration Control Plan.</p>	<p>Prior to issuance of building permits; during construction, if necessary.</p>	<p>Once and as needed during construction</p>	<p>Town of Moraga Planning Department ; Contra Costa County Building Department</p>			

Mitigation Measure/ Implementation Program	Action Required	Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
<p>timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed this threshold, alternative uses such as drilling piles as opposed to pile driving, static rollers as opposed to vibratory rollers, and lower horsepower dozers shall be used. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.</p> <p>Where vibration monitoring is determined to be necessary, a pre-construction baseline survey shall be conducted at buildings and structures within the screening distances by a licensed structural engineer. The condition of existing potentially affected properties shall be documented by photos and description of existing condition of building facades, noting existing cracks. A vibration monitoring and construction contingency plan shall be developed to identify where monitoring would be conducted, set up a vibration monitoring schedule, and define structure-specific vibration limits. Construction contingencies would be identified for when vibration levels approach the limits. If vibration levels approach limits, the contractor shall suspend construction and implement contingencies to either lower vibration levels or secure the affected structure.</p> <p>Where historic structures are involved, the engineer shall provide a shoring design or other methods to protect such buildings and structures from potential damage. At the conclusion of vibration causing activities, the qualified structural engineer hired by the applicant shall issue a follow-up letter describing damage, if any, to impacted buildings. The letter shall include recommendations for repair, as may be necessary, in conformance with the Secretary of the Interior Standards. Repairs shall be undertaken and completed by the contractor and monitored by a qualified structural engineer in conformance with all applicable codes including the California Historical Building Code (Part 8 of Title 24).</p> <p>A Statement of Compliance signed by the applicant and owner is required to be submitted to the Contra Costa County Building Department at plan check and prior to the issuance of any permit. The Vibration Control Plan, prepared as outlined above, shall be documented by a</p>							

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Mitigation Measure/ Implementation Program	Action Required	Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
<p>qualified structural engineer, and shall be provided to the Town upon request. A Preservation Director shall be designated, and this person’s contact information shall be posted in a location near the project site that it is clearly visible to the nearby receptors most likely to be disturbed. The Director would manage complaints and concerns resulting from activities that cause vibrations. The severity of the vibration concern should be assessed by the Director, and if necessary, evaluated by a qualified noise and vibration control consultant.</p>							
Transportation							
TRA-1 Implement VMT Reduction Measures							
<p>Individual housing project development proposals that do not screen out from VMT impact analysis shall provide a quantitative VMT analysis using the methods applied in this EIR, with modifications if appropriate based on future changes the Town of Moraga practices and CCTA VMT analysis methodology guidelines. Projects which result in a significant impact shall include measures to reduce VMT. These shall include travel demand management measures and physical measures to reduce VMT, including but not limited to the measures below, which have been identified as potentially VMT reducing in the California Air Pollution Control Officers Association (CAPCOA) Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (December 2021). Potential VMT reduction estimates are included below, but detailed requirements, calculation steps, and limitations are described in the CAPCOA Handbook. In addition, application of one or more transportation demand measures (TDM) is generally expected to result in a net VMT reduction of 10 percent or less for development projects in suburban settings such as Moraga.</p> <ul style="list-style-type: none"> ▪ Unbundle parking costs (i.e., sell or lease parking separately from the housing unit). Effectiveness: up to 15.7 percent reduction in GHG from VMT per the CAPCOA Handbook. ▪ Provide car-sharing, bike sharing, or scooter sharing programs. Effectiveness: 0.15 – 0.18 percent reduction in GHG from VMT for car share, 	<p>For projects that do not screen out, the Town shall ensure that a quantitative VMT analysis is prepared, and appropriate TDM measures are implemented when required.</p>	<p>Prior to project approval</p>	<p>Once</p>	<p>Town of Moraga Planning Department</p>			

Mitigation Measure/ Implementation Program	Action Required	Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
<p>0.02 – 0.06 percent for bike share, and 0.07 percent for scooter share, per the CAPCOA Handbook. The higher car share and bike share values are for electric car and bike share programs. Note that these effectiveness rates are based on available research and analysis prepared by CAPCOA.</p> <ul style="list-style-type: none"> Subsidize transit passes for residents of affordable housing. Effectiveness: up to 5.5 percent reduction in GHG from VMT per the CAPCOA Handbook. <p>In addition to the on-site measures noted above, individual housing projects that are above the VMT threshold could potentially contribute to future VMT mitigation fee programs, banks, or exchanges. No regional VMT mitigation programs currently exist; however, the CCTA is currently evaluating different mitigation program frameworks which may lead to a countywide or sub-regional VMT mitigation program. Should such a program be implemented, development projects could potentially pay into a fee program or purchase mitigation credits to achieve needed VMT mitigation instead of, or in addition to, onsite TDM measures.</p>							
Tribal Cultural Resources							
Implementation Program TCR-A: Suspension of Work Around Tribal Cultural Resources.							
Suspend all earth-disturbing work within 60 feet of identified cultural resources of Native American origin. Retain a qualified cultural resource specialist and consult with an appropriate Native American representative to design and implement feasible mitigation.	The Town shall ensure that work is suspended, when required, and a cultural resources specialist designs and implements feasible mitigation.	During construction	As needed during construction	Town of Moraga Planning Department			
Implementation Program TCR-B: Tribal Cultural Resource Treatment Plan.							
Retain a qualified cultural resource specialist, in consultation with appropriate Native American representative, to design a tribal cultural resource treatment plan in the event an unanticipated archaeological resource that may be considered a tribal cultural resource is identified during construction.	The Town shall ensure that a cultural resources specialist designs a tribal cultural resource treatment plan. The Town may require peer review paid by the applicant.	Prior to construction	Once	Town of Moraga Planning Department			

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Mitigation Measure/ Implementation Program	Action Required	Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
Wildfire							
WFR-1 Develop Wildfire Assessment Plan and Guidelines							
<p>The Town shall require a Wildfire Assessment Plan and Guidelines prior to approval of projects where deemed necessary to protect public safety. The Plan and Guidelines shall be developed for the project site, approved by MOFD, and shall address but shall not be limited to the following:</p> <ul style="list-style-type: none"> ▪ Well-maintained, fire district approved landscape and vegetation management plan. ▪ Adequate roadway and driveway widths, designed to accommodate two-way traffic and large firefighting apparatus. ▪ Adequate water supply and water flow for firefighting efforts. ▪ Vegetation modification zones surrounding the community. ▪ Buildings are built to current Building Code standards, ignition-resistant eaves, ember resistant construction, defensible space, residential fire sprinklers, a Class A ignition-resistant roof, dual pane (one being tempered) glass windows, and chimneys with spark arrestors containing a minimum of 0.5-inch screen. 	<p>The Town shall ensure that a MOFD-approved Wildfire Assessment Plan and Guidelines are prepared when necessary.</p>	<p>Prior to project approval</p>	<p>Once</p>	<p>Town of Moraga Planning Department ; MOFD</p>			
WFR-2 Construction Wildfire Risk reduction							
<p>The Town of Moraga shall require the following measures during project construction:</p> <ol style="list-style-type: none"> 1. Construction activities with potential to ignite wildfires shall be prohibited during red-flag warnings issued by the National Weather Service for the site. Example activities include welding and grinding outside of enclosed buildings. 2. Portable pumps shall be available onsite during project construction. Portable pumps shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher. 	<p>The Town shall ensure that construction wildfire risk reduction measures are prepared and implemented.</p>	<p>Prior to building permit approval; during construction</p>	<p>Once; as needed during construction</p>	<p>Town of Moraga Planning Department</p>			

Mitigation Measure/ Implementation Program	Action Required	Timing	Monitoring Frequency	Responsible Agency	Compliance Verification Initial	Compliance Verification Date	Compliance Verification Comments
<p>3. Construction equipment powered by internal combustion engines shall be equipped with spark arresters. The spark arresters shall be maintained pursuant to manufacturer recommendations to ensure adequate performance.</p> <p>At the Town’s discretion, additional wildfire risk reduction requirements may be required during construction. The Town shall review and approve the project-specific methods to be employed prior to building permit approval.</p>							
WFR-3 Project Design Wildfire Risk Reduction							
Project landscape plans shall include fire-resistant vegetation native to Contra Costa County and/or the local microclimate of the site and prohibit the use of fire-prone species, especially non-native, invasive species.	The Town shall ensure that required landscape plans are prepared. The Town may require peer review paid by the applicant.	Prior to project approval	Once	Town of Moraga Planning Department			

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