

**Mitigation Monitoring and Reporting Program  
for the  
Moon Camp 50-lot Residential Subdivision, TT No. 16136  
(Based on the Revised Site Plan)  
Big Bear Lake, San Bernardino County, California  
SCH No. 2002021105**

Prepared for:  
**County of San Bernardino**  
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Report Date: July 10, 2020

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**Table 1: Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<b>Section 4.1—Aesthetics</b>					
<b>A-1a.</b> Construction equipment staging areas shall be located away from existing residential uses. Appropriate screening (i.e., temporary fencing with opaque material) shall be used to buffer views of construction equipment and material, when feasible. Staging locations shall be indicated on Project Grading Plans. (MM 5.4-1a)	Review and approval of the Grading Plans, and on-site inspection to confirm implementation of mitigation measures.	Prior to approval of Grading Plans, and during project construction	County of San Bernardino		
<b>A-1b.</b> All construction-related lighting associated with the construction of new roadways, improvements to SR-38 and the installation of utilities shall be located and aimed away from adjacent residential areas. Lighting shall use the minimum wattage necessary to provide safety at the construction site. A construction safety lighting plan shall be submitted to the County for review along with Grading Permit applications for the subdivision of the lots. (MM 5.4-1b)	Review and implement proposed plans.	Prior to issuance of Grading Permits	County of San Bernardino		
<b>A-2a.</b> All homes shall provide a two-car garage with automatic garage doors. (MM 5.4-2a)	Review and implement proposed plans.	Prior to final project approvals	County of San Bernardino		
<b>A-2b.</b> New development shall be subordinate to the natural setting and minimize reflective surfaces. Building materials including siding and roof materials shall be selected to blend in hue and brightness with the surroundings. Colors shall be earth tones: shades of grays, tans, browns, greens, and pale yellows; and shall be consistent with the mountain character of the area. (MM 5.4-2b)	Review and approval of Architectural Plans.	Prior to final project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<b>A-2c.</b> Outside parking/storage areas associated with the boat dock activities shall be screened from view by the placement of landscaping and plantings which are compatible with the local environment and, where practicable, are capable of surviving with a minimum of maintenance and supplemental water. (MM 5.4-2c)	Review and approval of site and landscape plans.	Prior to final project approvals	County of San Bernardino		
<b>A-2d.</b> Construction plans for each individual lot shall include the identification and placement of vegetation with the mature height of trees listed. Landscaping and plantings should not obstruct significant views, within or outside of the project, either when installed or when they reach maturity. The removal of existing vegetation shall not be required to create views. (MM 5.4-2d)	Review and approval of landscape plans.	Prior to final project approvals	County of San Bernardino		
<b>A-2e.</b> A Note shall be placed on the Composite Development Plan stating that during construction plans review and prior to issuance of building permits for each lot, the building inspector shall refer to the Mitigation Monitoring and Compliance Program regarding these aesthetic impact mitigation measures. The building inspector shall coordinate with the Planning Division the review and approval of building plans in relation to these aesthetic impact mitigation measures, prior to approval and issuance of building permits. (MM 5.4-2e)	Review and implement proposed plans. Confirm coordination with Planning Division.	Prior to approval and issuance of building permits	County of San Bernardino		
<b>A-3a.</b> Any entry sign for the development shall be a monument style sign compatible with the mountain character, preferably, rock or rock appearance. (MM 5.4-3a)	Review and approval of architectural plans.	Prior to final project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

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<b>A-3b.</b> Prior to recordation of the tract map (and/or any ground disturbance, whichever occurs first), landscaping or revegetation plans for lettered lots (A through D) shall be submitted to and approved by the San Bernardino County Land Use Services Department. (MM 5.4-3b)	Review and implement proposed plans.	Prior to recordation of the tract map or before ground-disturbing (preparation and construction activities)	County of San Bernardino		
<b>A-4a.</b> All exterior lighting shall be designed and located as to avoid intrusive effects on adjacent residential properties and undeveloped areas adjacent to the Project site. Low intensity street lighting and low-intensity exterior lighting shall be used throughout the development to the extent feasible. Lighting fixtures shall use shielding, if necessary to prevent spill lighting on adjacent off-site uses. (MM 5.4 4a)	Review and approval of lighting plans.	Prior to final project approvals	County of San Bernardino		
<b>A-4b.</b> Lighting used for various components of the development plan shall be reviewed for light intensity levels, fixture height, fixture location and design by an independent engineer, and reviewed and approved by the County Building and Safety Division to ensure that light emitted from the proposed project does not intrude onto adjacent residential properties. (MM 5.4-4b)	Review and approval of lighting plans by the County Building and Safety Division.	Prior to final project approvals	County of San Bernardino		
<b>A-4c.</b> The project shall use minimally reflective glass. All other materials used on exterior buildings and structures shall be selected with attention to minimizing reflective glare. (MM 5.4-4c)	Review and approval of architectural plans.	Prior to final project approvals	County of San Bernardino		
<b>A-4d:</b> Vegetated buffers shall be used along State Route 38 to reduce light intrusion on residential development and on forested areas located adjacent to the Project site. The vegetation buffers shall be reflected on the master landscape plan submitted to and approved by the County Land Use Services Department prior to the issuance of the first grading permit. (MM 5.4-4d)	Review and implement proposed plans.	Prior to final project approvals	County of San Bernardino		
<b>A-4e.</b> All outdoor light fixtures shall be cutoff luminaries and	Review and	Prior to final project	County of San		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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only high- or low-pressure sodium lamps shall be used. (MM 5.4-4f)	approval of lighting plans.	approvals	Bernardino		
<b>A-4f.</b> Mitigation Measures A-4a through A-4e shall be included in the Conditions, Covenants, and Restrictions (CC&Rs) of the Homeowner’s Association (HOA). (MM5.4-4e)	Submit the Project CC&Rs to the County of San Bernardino Planning Department	Prior to final project approvals	County of San Bernardino		
<b>Section 4.2 Air Quality/Greenhouse Gas</b>					
<p><b>AQ-1.</b> Prior to construction of the project, the project proponent will provide a Fugitive Dust Control Plan that will describe the application of standard best management practices (BMPs) to control dust during construction. The Fugitive Dust Control Plan shall be submitted to the County and SCAQMD for approval and approved prior to construction. Best management practices will include, but not be limited to:</p> <ul style="list-style-type: none"> <li>• For any earth moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.</li> <li>• For all disturbed surface areas (except completed grading areas), apply dust suppression in a sufficient quantity and frequency to maintain a stabilized surface; any areas which cannot be stabilized, as evidenced by wind driven dust, must have an application of water at least twice per day to at least 80 percent of the unstabilized area.</li> <li>• For all inactive disturbed surface areas, apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind-driven fugitive dust, excluding any areas that are inaccessible due to excessive slope or other safety conditions.</li> </ul>	Review and approval of the Fugitive Dust Control Plan.	Prior to issuance of grading plan	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<ul style="list-style-type: none"> <li>For all unpaved roads, water all roads used for any vehicular traffic once daily and restrict vehicle speed to 15 mph.</li> <li>For all open storage piles, apply water to at least 80 percent of the surface areas of all open storage piles on a daily basis when there is evidence of wind-driven fugitive dust.</li> <li>Mass grading activities shall be limited to a maximum of 5 acres per day.</li> </ul>					
<p><b>AQ-2.</b> To reduce emissions from the construction equipment within the Project site, the construction contractor will:</p> <ul style="list-style-type: none"> <li>Use catalyst and filtration technologies on mobile construction equipment.</li> <li>All diesel-fueled engines used in construction of the project shall use ultra-low sulfur diesel fuel containing no more than 15-ppm sulfur, or a suitable alternative fuel.</li> <li>All construction diesel engines, which have a rating of 50 hp or more, shall meet the Tier II California Emission Standards for off-road compression ignition engines.</li> <li>Heavy-duty diesel equipment will be maintained in optimum running condition.</li> </ul>	Review and approval of construction plans and specifications.	Prior to issuance of applicable construction permits and during project construction	County of San Bernardino		
<p><b>AQ-3.</b> To reduce the emissions from wood burning apparatus; the following requirement will be placed on all new residences constructed on the proposed project's lots:</p> <ul style="list-style-type: none"> <li>No open-hearth fireplace will be allowed in new construction, only EPA Phase II Certified fireplaces and wood stoves, pellet stoves, and natural gas fireplaces shall be allowed.</li> </ul>	Review and approval of construction plans and specifications.	Prior to final project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p><b>AQ-4.</b> To establish a “Good Neighbor Policy for Burning” that will further help reduce the potential for localized nuisance complaints related to wood burning; the proponent shall distribute an informational flyer to each purchaser of lots. At a minimum, the flyer will say:</p> <p><b>KNOW WHEN TO BURN</b></p> <ul style="list-style-type: none"> <li>• Monitor all fires; never leave a fire unattended.</li> <li>• Upgrade an older woodstove to one with a catalytic combustor that burns off excess pollutants.</li> <li>• Be courteous when visitors come to your home. Wood smoke can cause problems for people with developing or sensitive lungs (i.e. children, the elderly) and people with lung disease.</li> </ul> <p><b>KNOW WHAT TO BURN</b></p> <ul style="list-style-type: none"> <li>• Split large pieces of wood into smaller pieces and make sure it has been seasoned (allowed to dry for a year). Burning fresh cut logs = smoky fires.</li> <li>• When buying wood from a dealer, do not assume it has been seasoned.</li> <li>• Small hot fires are more efficient and less wasteful than large fires.</li> <li>• Never burn chemically treated wood or non-wood materials.</li> <li>• Manufactured fire logs provide a nice ambience, have the least impact to air quality, and are a good choice for homeowners who use a fireplace infrequently.</li> </ul> <p><b>KNOW HOW TO BURN</b></p> <ul style="list-style-type: none"> <li>• Proper combustion is key. Make sure your wood fire is not starved; if excess smoke is coming from the chimney or stack, the fire isn’t getting enough air.</li> <li>• Visually check your chimney or stack 10 to 15 minutes after you light a fire to ensure it is not emitting excess amounts of smoke.</li> </ul>	Confirm distribution of flyer.	At the time of lot purchases	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<ul style="list-style-type: none"> <li>Homeowners should have woodstoves and fireplaces serviced and cleaned yearly to ensure they are working properly.</li> </ul>					
<b>Section 4.3 Biological Resources</b>					
<p><b>BR-1a.</b> Prior to the initiation of clearing or grading activities on the Project site, a conservation easement shall be placed upon the 10-acre Dixie Lee Lane property. The conservation easement shall be in favor of a California Department of Fish and Wildlife approved conservation entity and shall be recorded in the San Bernardino County Recorder’s Office. The easement shall provide for the continued protection and preservation of the property through development of a Long-Term Management Plan (LTMP). The LTMP shall provide for the preservation, restoration, and enforcement of the Conservation Areas so that each area is maintained, and restored where needed, to its natural condition. The LTMP will also include documentation of baseline conditions, any needed site preparation, anticipated restoration/enhancement activities, a biological monitoring program, the creation of a set of success criteria for managing the site, anticipated maintenance activities, an annual reporting process, and a set of contingency or adaptive management measures to be implemented in case success criteria are not being met; to ensure that the implementation of the LTMP is fully funded, a Property Action Report (PAR) will be prepared that will document costs for site security, maintenance activities, site preparation, restoration/enhancements activities, biological monitoring, contingency measure and annual reporting. The costs identified in the PAR will be used to develop a non-wasting endowment that will ensure all costs will be available to establish the site, conduct any needed restoration and enhancements, and to fund reoccurring annual cost needed to</p>	Confirm recordation of easement.	Prior to issuance of grading permits and the initiation of clearing or grading activities on the Project site	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
manage the site in perpetuity. The easement shall, at a minimum, restrict all use of the property that has the potential to impact the quality of pebble plain soils and other valuable biological habitat, including the occurrences of the Federally Threatened Ashy-Gray Indian Paintbrush. The property shall be fenced and signs shall be placed on the fencing indicating the sensitive nature of the property habitat and warning that any entry would be prosecuted as a trespass.					
<b>BR-1b.</b> Prior to the initiation of clearing or grading activities on the Project site, the 9.1-acre on-site conservation easements covering Lots A, B, C, D and H shall be established. The conservation easement shall be in favor of a California Department of Fish and Wildlife approved qualified conservation entity and shall be recorded in the San Bernardino County Recorder’s Office. The easement shall provide for the continued protection and preservation of the American Bald Eagle and Rare Plant habitat through development of a Long-Term Management Plan (LTMP). The LTMP shall provide for the preservation, restoration, and enforcement of the Conservation Areas so that each area is maintained, and restored where needed, to its natural condition. The LTMP will also include documentation of baseline conditions, any needed site preparation, anticipated restoration/enhancement activities, a biological monitoring program, the creation of a set of success criteria for managing the site, anticipated maintenance activities, an annual reporting process, and a set of contingency or adaptive management measures to be implemented in case success criteria are not being met; to ensure that the implementation of the LTMP is fully funded, a Property Action Report (PAR) will be prepared that will document costs for site security, maintenance activities, site preparation, restoration/enhancements activities, biological monitoring, contingency measure and annual reporting. The	Confirm recordation of easement.	Prior to issuance of grading permits and the initiation of clearing or grading activities on the Project site	California Department of Fish and Wildlife (CDFW)		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
costs identified in the PAR will be used to develop a non-wasting endowment that will ensure all costs will be available to establish the site, conduct any needed restoration and enhancements, and to fund reoccurring annual cost needed to manage the site in perpetuity. The easement shall, at a minimum, restrict all use of the property that has the potential to impact Bald Eagle perch trees, the quality of valuable biological habitat, including the occurrences of the Federally Threatened ash-grey Indian paintbrush. The property shall be fenced and signs shall be placed on the fencing indicating the sensitive nature of the property habitat and warning that any entry would be prosecuted as a trespass.					
<p><b>BR-1c.</b> The Project Applicant shall take the following actions to further ensure the permanent preservation of the Conservation Areas:</p> <ul style="list-style-type: none"> <li>• Except for access by residents to Lot B &amp; C between April 1 and December 1, restrict access by pedestrians and motor vehicles to the Conservation Areas. The Conservation Areas shall be secured through installation of fencing or other barriers to prevent access to Conservation Areas. Barriers shall be installed prior to commencement of any construction activities on-site. The Project Applicant shall also include provisions in the CC&amp;Rs for the Project instituting penalties to residents who violate the restrictions and cause any damage to the protected plant habitat and Bald Eagle perch trees.</li> <li>• Include enforcement provisions in the CC&amp;Rs requiring the Homeowner’s Association, individual resident within the project, the Conservation Entity and/or County of San Bernardino to enforce any violation of the provisions intended for the protection of sensitive plant species located within Lot A and Lot H.</li> <li>• Install appropriate signage identifying Conservation Areas</li> </ul>	<p>Submit the Project CC&amp;Rs to the County of San Bernardino Planning Department</p> <p>Distribute list of prohibited invasive plant to lot owners</p> <p>Review and approval of Grading Plan</p> <p>Review of annual biological monitoring report</p> <p>Prepare annual</p>	<p>Prior to final project approvals</p> <p>During Project implementation</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>and the sensitive nature of such areas on the Project site and that access is prohibited. The Conservation Areas shall be monitored on a regular basis by the Conservation Entity.</p> <ul style="list-style-type: none"> <li>Prohibit use of invasive plant species in landscaping. Each lot owner shall be given a list of prohibited invasive plant species upon purchase of lot with the parcel. Landscape plans for individual parcels shall be approved by the County prior to development to ensure no inappropriate plant material is incorporated into the design of any individual lot or common area which may compromise the quality of the Conservation Areas.</li> <li>Development may not change the natural hydrologic conditions of the Conservation Areas. All grading plans shall be reviewed by the County to ensure hydrologic conditions of the conservation lands are not adversely changed by development.</li> <li>The Project Applicant or Appointed Conservation Entity shall monitor Conservation Areas on a periodic basis to ensure invasive, non-native species are not present. All non-nature invasive plant species shall be removed from Conservation Areas.</li> <li>Fuel modification zones and programs shall not be implemented in Lots A and H.</li> <li>The Conservation Entity shall prepare an annual biological monitoring report identifying the current status of the rare plant species and any necessary actions to further enhance and protect the habitat.</li> <li>The Conservation Entity shall conduct routine monitoring of rare plant resources on Lot A and H. The occurrence of non-native species outbreaks, or other examples of ecological disturbance as a result of indirect impacts of development in and around Lots A and H shall be reported in the annual</li> </ul>	<p>biological monitoring report on rare plant species status and necessary enhancement and protection actions</p> <p>Routine monitoring of rare plant resources on Lot A and H</p>				

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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biological monitoring reports and remedial action shall be recommended and implemented by the Conservation Entity.					
<b>BR-1d.</b> Construction to the rear portions of Lots 47, 48, 49, and 50 shall be restricted by means of building envelopes or building setback lines to prevent construction in the occupied Ashy-Gray Paintbrush habitat, wherever feasible.	Review and approval of site plans.	Prior to final project approvals	County of San Bernardino		
<b>BR-2.</b> Trees and downed logs shall remain in place, to the extent that clearing is not required by the development process, and a 50-foot setback (measured on each side of the centerline) must be maintained along the deepest ravine at the eastern edge of the property. This measure will serve to preserve habitat for potential special status wildlife species.	On-site inspection to confirm implementation of mitigation measures.	During construction	County of San Bernardino		
<b>BR-3.</b> Given the negative results of on-site surveys and the available technical and peer reviewed literature, negative effects to the San Bernardino flying squirrel are not expected. However, because marginal foraging habitat was found on-site, the following mitigation measures will be implemented in the lots with densely forested areas and snags. These mitigation measures are to be implemented to avoid and minimize impacts to San Bernardino flying squirrels: <ul style="list-style-type: none"> <li>• The Project Applicant shall have a qualified biologist as a monitor just prior to and during all tree removal on-site.</li> <li>• Minimize the removal of large coarse woody debris (&gt;10cm diameter), which provide microhabitat for the growth of hypogeous fungi.</li> <li>• Limit removal of standing snags (&gt;25cm dbh) and large trees (&gt;25cm dbh), which provide both structural complexity and potential nesting habitat.</li> <li>• Prioritize the retention of large trees and snags with visible potential cavity nesting structures, which are associated with</li> </ul>	Confirm presence of a qualified biologist.	During project construction	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p>higher densities of northern flying squirrels.</p> <ul style="list-style-type: none"> <li>Minimize the loss of continuous canopy closure, especially in the drainages, which provides protection from predators while foraging and may play an important role in maintaining habitat connectivity.</li> <li>The Project Applicant must compensate for the removal of suitable habitat through construction and erection of two nest boxes and one aggregate box per snag removed.</li> <li>The Project Applicant is required to provide homeowners with information on the biology of the San Bernardino flying squirrel and suggest steps that homeowners can take to reduce their urban-edge effects.</li> <li>All subsequent home developers must comply with these provisions, which shall be enforced by the County of San Bernardino through implementation of the Mitigation Monitoring and Reporting Program as mandated by CEQA.</li> </ul> <p>If the monitoring biologist observes a flying squirrel during pre-construction and/or construction monitoring, the biologist will immediately halt work until the occupied tree can be vacated prior to felling the tree; however, if the work is during the nesting season (generally March through May), when baby squirrels could be present, the nest will not be vacated until after the nesting season ends (June 1<sup>st</sup>), as cleared by the monitoring biologist.</p>					
<p><b>BR-4.</b> Eagle perch trees identified in the 2002 Bonterra Consulting Bald Eagle Survey for Tentative Tract 16136, Moon Camp, Fawnskin, San Bernardino County, California, (see Appendix A of the Revised and Recirculated Draft EIR No. 2), and the Long Term Management Plan shall be preserved in place upon project completion. If any of the designated perch trees should become hazardous and need to be taken down,</p>	<p>Confirm presence of qualified consultant.</p>	<p>Prior to commencement of construction activity and during construction</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

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<p>replacement will be either (1) at a 5:1 ratio with the creation of artificial perch trees within the Conservation Areas or by enhancing other trees by trimming and limbing to make suitable for eagle perching. The exact method of perch tree replacement shall be made after consultation with a certified arborist. Prior to commencement of construction activity, the applicant shall have a qualified consultant survey all trees on-site to determine the location of all perch trees to be preserved. Any development that may occur within the Project site and in the individual lots must avoid impacts to trees larger than 24 inches dbh and their root structures to the maximum extent feasible. If any additional non-perch trees on-site larger than 24 inches dbh are removed, then a replacement ratio of 2:1 shall be required and replacement trees shall be 24-inch box trees or larger. Whenever an eagle perch tree or other non-perch tree larger than 24 inches dbh is removed, the Homeowners Association shall retain a qualified consultant to oversee removal and compliance with the replacement requirement. All construction or landscaping improvements, including irrigation, will be prohibited on or around the exposed root structures or within the dripline of these trees. These restrictions on development of the individual lots must be clearly presented and explained to any potential prospective developers and/or homeowners prior to assumption of title and close of escrow. This measure shall be identified as a Note on the Composite Development Plan.</p>					
<p><b>BR-5.</b> Prior to vegetation clearing, grading, or other disturbance, the Project site shall be surveyed to identify all large trees (i.e., greater than 20 inches in diameter at 4.5 feet from the ground) within 600 feet from the high water line. Trees identified on the Project site as having a diameter in excess of 20 inches at 4.5 feet from the ground within 600 feet of the shoreline shall be</p>	<p>Confirm completion of survey for Project site.</p>	<p>Prior to vegetation clearing, grading, or other disturbance</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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documented and tagged. Any development that may occur within the Project site and in the individual lots shall avoid impacts to tagged trees and their root structures. If such trees cannot be avoided, their removal shall be coordinated with the County of San Bernardino to minimize impacts to the extent feasible. All construction or landscaping improvements, including irrigation, will be prohibited on or around the exposed root structures or within the dripline of these trees. These restrictions on development of individual lots must be clearly presented and explained to any potential prospective developers and/or homeowners prior to assumption of title and close of escrow. This measure shall be identified as a Note on the Composite Development Plan.					
<p><b>BR-6.</b> Seven days prior to the onset of construction activities, a qualified biologist shall survey within the limits of project disturbance for the presence of any active raptor nests. Any nest found during survey efforts shall be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to the CDFW.</p> <p>If nesting activity is present at any raptor nest site, the active site shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code. Nesting activity for raptors in the region of the Project site normally occurs from February 1 to July 31. To protect any nest site, the following restrictions on construction are required between February 1 and July 31 (or until nests are no longer active as determined by a qualified biologist): (1) clearing limits shall be established a minimum of 300 feet in any direction from any occupied nest and (2) access and surveying shall not be allowed within 200 feet of any occupied</p>	Confirm completion of survey for Project site by a qualified biologist.	Seven days prior to the onset of construction activities	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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nest. Any encroachment into the 300/200-foot buffer area around the known nest shall only be allowed if it is determined by a qualified biologist that the proposed activity shall not disturb the nest occupants. Construction during the nesting season can occur only at the sites if a qualified biologist has determined that fledglings have left the nest.					
<b>BR-7.</b> Vegetation removal, clearing, and grading on the Project site should be performed outside of the breeding and nesting season (between February 1 and July 31), when feasible, to minimize the effects of these activities on breeding activities of migratory birds and other species. If clearing occurs during breeding season, a 30-day clearance survey for nesting birds shall be conducted. Any nest found during survey efforts shall be mapped on the construction plans. If no active nests are found, no further mitigation would be required. Results of the surveys shall be provided to the CDFW. If nesting activity is present at any nest site, the active site shall be protected until nesting activity has ended to ensure compliance with Section 3503.5 of the California Fish and Game Code.	Confirm vegetation removal, clearing, and grading does not occur during nesting season. If so, confirm 30-day clearance survey was completed.	Prior to project construction	County of San Bernardino		
<b>BR-8.</b> The use of the boat dock for motorized boating shall be prohibited between the dates of December 1 and April 1. No motorized boats shall be allowed to launch or moor in the vicinity of the boat dock at any time during this period. This restriction shall be clearly displayed on signage at the entrance to the parking lot and on the boat dock visible from both land and water. This requirement shall also be published in the Homeowner’s Association Conditions, Covenants & Restrictions (CC&Rs).	Submit the Project CC&Rs to the County of San Bernardino Planning Department.	Prior to approval of final Project plans	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
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<p><b>BR-9.</b> Street lamps on the Project site shall not exceed 20 feet in height, shall be fully shielded to focus light onto the street surface and shall avoid any lighting spillover onto adjacent open space or properties. Furthermore, street lights shall utilize low color temperature lighting (e.g., red or orange).</p>	<p>Review and approval of lighting plans.</p>	<p>Prior to final project approvals</p>	<p>County of San Bernardino</p>		
<p><b>BR-10.</b> Outdoor lighting for proposed homes on the individual tentative tracts shall not exceed 1,000 lumens. Furthermore, residential outdoor lighting shall not exceed 20 feet in height and must be shielded and focused downward to avoid lighting spillover onto adjacent open space or properties. These restrictions on outdoor lighting of the individual lots must be clearly presented and explained to any potential prospective developers and/or homeowners prior to assumption of title and close of escrow. This requirement shall also be published in the Homeowner’s Association CC&amp;Rs.</p>	<p>Review and approval of lighting plans.</p>	<p>Prior to final project approvals</p>	<p>County of San Bernardino</p>		
<p><b>BR-11.</b> To limit the amount of human disturbance on adjacent natural open space areas, signs shall be posted, to the satisfaction of the Planning Director or appointee, along the northern and eastern perimeter of the Project site where the property boundary abuts USFS open space with the following statement: “Sensitive plant and wildlife habitat. Please use designated trails and keep pets on a leash at all times.”</p> <p>In addition, a requirement stating that residents shall keep out of adjacent open space areas to the north with the exception of designated trails will be published in the Homeowner’s Association CC&amp;Rs and a map of designated hiking trails will be provided to all residents.</p>	<p>On-site inspection to confirm implementation of mitigation measures.</p> <p>Submit the Project CC&amp;Rs to the County of San Bernardino Planning Department.</p>	<p>During Project implementation</p> <p>Prior to final project approvals</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p><b>BR-12.</b> Prior to recordation of the final map, a landscaping plan for the entire tract shall be prepared (inclusive of a plant palette) with an emphasis on native trees and plant species, and such plan shall be submitted to the County of San Bernardino for review and approval by a qualified biologist. The review shall determine that invasive, non-native plant species are not to be used in the proposed landscaping. The biologist will suggest appropriate native plant substitutes or non-invasive, nonnative plants. A note shall be placed on the Composite Development Plan indicating that all proposed landscaping (including landscaping on individual lots) shall conform to the overall approved tract map landscaping plan. A requirement shall be included stating that residents shall be restricted to the use of tree and plant species approved per the overall tract map landscaping plan. The Homeowner’s Association CC&amp;Rs shall also require individual lot owners to use only tree and plant species approved per the overall tract map landscaping plan/plant palette.</p>	<p>Review and implement proposed plans.</p> <p>Submit the Project CC&amp;Rs to the County of San Bernardino Planning Department.</p>	<p>Prior to recordation of the final map</p>	<p>County of San Bernardino</p>		
<p><b>BR-13.</b> Prior to issuance of grading permits, the Project applicant shall obtain all required authorization from agencies with jurisdiction over all unavoidable impacts to State and Federal jurisdictional lakes, streams, and associated habitat within the Project site. Impacted features shall be offset through onsite restoration, offsite restoration, or purchase of credits at an agency-approved mitigation bank in the region at no less than a 3:1 for direct impacts and 1:1 for indirect impacts if impacts cannot be avoided.</p>	<p>Confirm receipt of required authorizations.</p>	<p>Prior to issuance of grading permits</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<b>Section 4.4—Hydrology</b>					
<b>HYD-1.</b> Prior to issuance of a building permit, a program satisfactory to the County will be formulated to handle storm drain waters adequately.	Review and implement proposed program.	Prior to issuance of a building permit	County of San Bernardino		
<b>HYD-2.</b> All required drainage improvements must be designed and constructed to County standards. Tentative tract map, site plan, and other precise plans for individual lots will be accompanied by adequate plans for drainage improvements prepared by registered professional engineers.	Review and implement proposed plans.	Prior to final project approvals	County of San Bernardino		
<b>HYD-3.</b> The proposed cross culverts shall be sized for 100-year burn and bulking flow rates. The burn and bulking method would increase the runoff from the natural areas. The method provided in the Los Angeles County Hydrology Manual is recommended. In addition, the cross culverts shall all be designed with headwalls to prevent CMP crushing, and shall be maintained adequately.	Review and approval of proposed plans  On-site inspection to confirm implementation of mitigation measures.	Prior to final project approvals  During construction activities	County of San Bernardino		
<b>HYD-4.</b> To mitigate sediment transport during construction, the developer shall submit a sedimentation control plan with the grading plan for review and approval by the Public Works Department. The Project engineer shall certify compliance.	Review and implement proposed plans.	Prior to final project approvals	County of San Bernardino Project Engineer		
<b>HYD-5.</b> Prior to Grading Permit issuance and as part of the Proposed Alternative Project’s compliance with the NPDES requirements, a Notice of Intent (NOI) shall be prepared and submitted to the Santa Ana Regional Water Quality Control Board providing notification and intent to comply with the State of California general permit. Also, a Storm Water Pollution Prevention Plan (SWPPP) shall be completed for the construction	Review and implement proposed plan.	Prior to Grading Permit issuance	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
activities on-site. A copy of the SWPPP shall be available and implemented at the construction-site at all times. The SWPPP shall outline the source control and/or treatment control BMPs to avoid or mitigate runoff pollutants at the construction site to the “maximum extent practicable.”					
<p><b>HYD-6.</b> At a minimum, the following shall be implemented from the California Storm Water Best Management Practice Handbook-Construction Activity:</p> <ul style="list-style-type: none"> <li>• Dewatering Operations—This operation requires the use of sediment controls to prevent or reduce the discharge of pollutants to storm water from dewatering operations.</li> <li>• Paving Operations—Prevent or reduce the runoff of pollutants from paving operations by proper storage of materials, protecting storm drain facilities during construction, and training employees.</li> <li>• Structural Construction and Painting—Keep site and area clean and orderly, use erosion control, use proper storage facilities, use safe products and train employees to prevent and reduce pollutant discharge to storm water facilities from construction and painting.</li> <li>• Material Delivery and Storage—Minimize the storage of hazardous materials on-site. If stored on-site, keep in designated areas, install secondary containment, conduct regular inspections and train employees.</li> <li>• Material Use—Prevent and reduce the discharge of pesticides, herbicides, fertilizers, detergents, plaster, petroleum products and other hazardous materials from entering the storm water.</li> <li>• Solid Waste Management—This BMP describes the requirements to properly design and maintain trash storage areas. The primary design feature requires the storage of trash in covered areas.</li> </ul>	<p>Review Project SWPPP to confirm inclusion of the listed BMPs</p> <p>Confirm BMPs are incorporated into design and construction phases.</p>	<p>Prior to SWPPP approval</p> <p>Before ground-disturbing (preparation and construction activities)</p>	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<ul style="list-style-type: none"> <li>• Hazardous Waste Management—This BMP describes the requirements to properly design and maintain waste areas.</li> <li>• Concrete Waste Management—Prevent and reduce pollutant discharge to storm water from concrete waste by performing on and off-site washouts in designated areas and training employees and consultants.</li> <li>• Sanitary Septic Water Management—Provide convenient, well-maintained facilities, and arrange regular service and disposal of sanitary waste.</li> <li>• Vehicle and Equipment Cleaning—Use off-site facilities or wash in designated areas to reduce pollutant discharge into the storm drain facilities.</li> <li>• Vehicle and Equipment Fueling—Use off-site facilities or designated areas with enclosures or coverings to reduce pollutant discharge into the storm drain facilities.</li> <li>• Vehicle and Equipment Maintenance—Use off-site facilities or designated areas with enclosing or coverings to reduce pollutant discharge into the storm drain facilities. In addition, run a “dry site” to prevent pollution discharge into storm drains.</li> <li>• Employee and Subcontractor Training—Have a training session for employees and subcontractors to understand the need for implementation and usage of BMPs.</li> <li>• Preservation of Existing Vegetation—Minimize the removal of existing trees and shrubs since they serve as erosion control.</li> <li>• Seeding and Planting—Provide soil stability by planting and seeding grasses, trees, shrubs, vines, and ground cover.</li> <li>• Mulching—Stabilize cleared or freshly seeded areas with mulch.</li> <li>• Geotextiles and Mats—Natural or synthetics material can be used for soil stability.</li> <li>• Dust Control—Reduce wind erosion and dust generated by construction activities by using dust control measures.</li> </ul>					

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<ul style="list-style-type: none"> <li>• Construction Road Stabilization—All on-site vehicle transport routes shall be stabilized immediately after grading and frequently maintained to prevent erosion and control dust.</li> <li>• Stabilized Construction Entrance—Stabilize the entrance pad to the construction area to reduce amount of sediment tracked off-site.</li> <li>• Earth Dikes—Construct earth dikes of compacted soil to divert runoff or channel water to a desired location. Temporary Drains and Swales—Use temporary drains and swales to divert off-site runoff around the construction-site and stabilized areas and to direct it into sediment basins or traps.</li> <li>• Outlet Protection—Use rock or grouted rock at outlet pipes to prevent scouring of soil caused by high velocities.</li> <li>• Check Dams—Use check dams to reduce velocities of concentrated flows, thereby reducing erosion and promoting sedimentation behind the dams. Check dams are small and placed across swales and drainage ditches.</li> <li>• Silt Fence—Composed of filter fabric, these are entrenched, attached to support poles, and sometimes backed by wire fence support. Silt fences promote sedimentation behind the fence of sediment-laden water.</li> <li>• Straw Bale Barrier—Place straw bales end to end in a level contour in a shallow trench and stake them in place. The bales detain runoff and promote sedimentation.</li> <li>• Sand Bag Barriers—By stacking sand bags on a level contour, a barrier is created to detain sediment-laden water. The barrier promotes sedimentation.</li> <li>• Brush or Rock Filter—Made of 0.75 to 3-inch diameter rocks placed on a level contour or composed of brush wrapped in filter cloth and staked to the toe of the slope provides a sediment trap.</li> <li>• Storm Drain Inlet Protection—Devices that remove sediment from sediment laden storm water before entering the storm drain inlet or catch basin.</li> </ul>					

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<ul style="list-style-type: none"> <li>• Sediment Trap—A sediment trap is a small, excavated, or bermed area where runoff for small drainage areas can pass through allowing sediment to settle out.</li> </ul>					
<p><b>HYD-7.</b> A water quality maintenance program will be implemented to mitigate the impact of Proposed Alternative Project generated runoff on surface water quality over the long term. The program outlined in Water Pollution Aspects of Street Surface Contaminants (prepared by the United States Environmental Protection Agency) provides recommendations for street cleaning and prevention of pollution generation.</p> <ul style="list-style-type: none"> <li>• Prior to Grading Permit issuance, a Water Quality Management Plan (WQMP) shall be developed and shall include both Non-Structural and Source Control BMPs. The WQMP shall conform to the San Bernardino County Draft NPDES permit and WQMP standards. The following are the minimum required controls to be implemented as a part of the WQMP for Urban Runoff.</li> <li>• Education for Property Owners, Tenants and Occupations—The Property Owners Association is required to provide awareness educational material, including information provided by San Bernardino County. The materials shall include a description of chemicals that should be limited to the property and proper disposal, including prohibition of hosing waste directly to gutters, catch basins, storm drains or the lake.</li> <li>• Activity Restrictions—The developer shall prepare conditions, covenants and restriction of the protection of surface water quality.</li> <li>• Common Area Landscape Management—For the common landscape areas on-going maintenance shall occur consistent with County Administrative Design Guidelines or city equivalent, plus fertilizer and pesticide usage consistent with the instructions contained on product labels and with</li> </ul>	Review and implement proposed program.	Prior to issuance of grading permits  During grading activities  During Project implementation	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>regulation administered by the State Department of Pesticide Regulation or county equivalent.</p> <ul style="list-style-type: none"> <li>• Common Area Catch Basin Inspection—Property Owners</li> <li>• Associations shall have privately owned catch basins cleaned and maintained, as needed. These are intended to prevent sediment, garden waste, trash and other pollutants from entering the public streets and storm drain systems.</li> <li>• Common Area Litter Control—POAs shall be required to implement trash management and litter control procedures to minimize pollution to drainage waters.</li> <li>• Street Sweeping Private Streets and Parking Lots—Streets and Parking lots shall be swept as needed, to prevent sediment, garden waste, trash and other pollutants from entering public streets and storm drain systems.</li> </ul>					
<p><b>HYD-8.</b> The following controls from the California Storm Water Best Management Practice Handbook—Municipal shall be employed:</p> <ul style="list-style-type: none"> <li>• Housekeeping Practices—This entails practices such as cleaning up spills, proper disposal of certain substances and wise application of chemicals.</li> <li>• Used Oil Recycling—May apply to maintenance and security vehicles.</li> <li>• Vegetation Controls—Vegetation control typically includes chemical (herbicide) application and mechanical methods. Chemical methods are discussed in SC10. Mechanical methods include leaving existing vegetation, cutting less frequently, hand cutting, planting low maintenance vegetation, collecting and properly disposing of clippings and cuttings, and educating employees and the public.</li> <li>• Storm Drain Flushing—Although general storm drain gradients are sufficiently steep for self-cleansing, visual inspection may reveal a buildup of sediment and other pollutants at the inlets</li> </ul>	<p>Confirm BMPs are incorporated into design and construction plans.</p>	<p>Prior to construction of project</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
or outlets, in which case flushing may be advisable.					
<b>HYD-9.</b> The Water Quality Management Plan (WQMP) shall include Structural or Treatment BMPs. The structural BMPs utilized shall focus on meeting potential TMDL requirements for noxious aquatic plants, nutrients, sedimentation and siltation. The structural BMPs shall conform to the San Bernardino County NPDES permit and the San Bernardino WQMP standards.	Confirm BMPs are incorporated into the WQMP.	Prior to final Project approvals	County of San Bernardino		
<b>HYD-10.</b> Consistent with the WQMP guidelines contained in the Draft National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for San Bernardino County, Structural BMPs shall be required for the Proposed Alternative Project. They shall be sized to comply with one of the following numeric sizing criteria or be considered by the Permittees to provide equivalent or better treatment. Volume-based BMPs shall be designed to infiltrate or treat either: <ul style="list-style-type: none"> <li>• The volume of runoff produced from the 85th percentile 24-hour storm event, as determined from the local historical rainfall record; or</li> <li>• The volume of the annual runoff produced by the 85th percentile 24-hours rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87 (1998); or</li> <li>• The volume of annual runoff based on unit basin storage volume, to achieve 80 percent or more volume treatment by the method recommended in California Stormwater Best Management Practice Handbook—Industrial/Commercial (1993); or</li> <li>• The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same</li> </ul>	Confirm BMPs are incorporated into the WQMP.	Prior to final Project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event.</p> <p>—OR—</p> <ul style="list-style-type: none"> <li>• Flow-based BMPs shall be designed to infiltrate or treat either:</li> <li>• The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour; or</li> <li>• The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or</li> <li>• The maximum flow rate of runoff, as determined from the local historical rainfall record that achieved by mitigation of the 85<sup>th</sup> percentile hourly rainfall intensity multiplied by a factor of two.</li> </ul>					
<p><b>HYD-11.</b> The following are the minimum required controls to be implemented as a part of the Water Quality Management Plan (WQMP) for Urban Runoff.</p> <ul style="list-style-type: none"> <li>• Control of Impervious Runoff—Surface runoff shall be directed to landscaped areas or pervious areas.</li> <li>• Common Area Efficient Irrigation—Physical implementation of the landscape plan consistent with County Administrative Design Guidelines or city equivalent, which may include provision of water sensors, programmable irrigation timers, etc.</li> <li>• Common Area Runoff—Minimizing Landscape Design—Group plants with similar water requirements in order to reduce excess irrigation runoff and promote surface filtration.</li> <li>• Catch Basin Stenciling—“No Dumping—Flows to Lake” or equivalent effective phrase shall be stenciled on catch basins to alert the public as to the destination of pollutant discharging into storm drain.</li> <li>• Debris Posts—These shall be installed to prevent large floatable debris from entering the storm drains. They shall</li> </ul>	On-site inspection to confirm implementation of mitigation measures.	Ongoing	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>be placed upstream of the cross culverts.</p> <ul style="list-style-type: none"> <li>• Inlet Trash Racks—These shall be installed where appropriate to reduce intake and transport through the storm drain system of large floatable debris. Trash racks shall be provided where drainage from open areas enters storm drain or cross culverts.</li> </ul>					
<p><b>HYD-12.</b> Storm water treatment under the NPDES Permit and the future TMDL requirements shall include the construction of treatment BMPs.</p>	Verify construction of treatment BMPs are included.	During construction activities	County of San Bernardino		
<p><b>HYD-13.</b> Treatment BMPs appropriate for on-site use shall include infiltration trenches and basins, swales, inlet filtration, and/or water quality basins.</p>	Confirm BMPs are incorporated.	Every 5 years	County of San Bernardino		
<p><b>HYD-14.</b> All storm water runoff shall be treated before leaving the site to reduce pollutants in Big Bear Lake.</p>	Review and approval of project WQMP	Prior to final Project approvals	County of San Bernardino		
<p><b>HYD-15.</b> Infiltration trenches and/or basins shall be used on site to meet potential future TMDLs for noxious aquatic plants and nutrients. Infiltration trenches and basins treat storm water runoff through filtration. A typical infiltration trench is essentially an excavated trench that is lined with filter fabric and backfilled with stones. Depth of the infiltration trench shall range from three to eight feet and shall be located in areas with permeable soils, and water table and bedrock depth situated well below the bottom of the trench. Trenches shall not be used to trap coarse sediments since large sediment would likely clog the trench. Grass buffers may be installed to capture sediment before it enters the trench to minimize clogging.</p> <p>Infiltration basins shall be used for drainage areas between 5 and 50 acres. Infiltration basins shall be either in-line or offline, and may treat different volumes such as the water quality volume or the 2-year or 10-year storm.</p>	Review and approval of project WQMP to ensure the listed BMPs are incorporated into the WQMP.	Prior to final Project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p><b>HYD-16.</b> The Proposed Alternative Project shall implement either vegetative swales, enhanced vegetated swales utilizing check dams and wide depressions, a series of small detention facilities designed similarly to a dry detention basin, or a combination of these treatment methods into a treatment train (series of Structural BMPs). The Water Quality Management Plan shall address treatment for the Proposed Alternative Project to assure that runoff from the site is treated to the “maximum extent practicable.” The swales shall be treated as water quality features and shall be maintained differently than grass areas. Specifically, pesticides, herbicide, and fertilizers, which may be used on the grass areas, shall not be used in the vegetation swales.</p>	<p>Review and approval of project WQMP to ensure the listed BMPs are incorporated into the WQMP.</p>	<p>Prior to final project approvals</p>	<p>County of San Bernardino</p>		
<p><b>HYD-17.</b> Filtration shall be implemented as a treatment method and shall use drop-in infiltration devices or inline devices. Drop-infiltration devices at all curb inlets within the internal parking lots shall be implemented to provide potential pollutant removal. Existing examples of these filtration devices include the Drain Pac Storm Drain Inserts and Fossil Filters. These types of devices are efficient at removing oil and grease, debris, and suspended solids from treated waters. Some of these devices have also exhibited high efficiencies at removing heavy metals and other pollutants.</p> <p>Inline devices suggested for use on-site include the Continuous Deflection Separator (CDS unit). Once the runoff has entered the storm drain, an in-line diversion would direct the treatment flow to a CDS unit. The CDS unit is a non-blocking, non-mechanical screening system, which would provide a second line of defense for solids removal. Adsorption materials can be added within the CDS unit to aid in the removal of oil and grease. The treated flow would then exit the CDS unit and continue downstream. Monitoring of filtration devices shall be conducted.</p>	<p>Review and approval of project WQMP to ensure the listed BMPs are incorporated into the WQMP.</p> <p>Routine monitoring of filtration devices.</p>	<p>Prior to final project approvals</p> <p>During Project implementation</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p>The use of street sweeps on the parking lots and streets shall aid in reducing the amounts of sediment and debris that flow through the devices. This would extend the effectiveness of the devices during a storm event and would lower the frequency of required maintenance. The devices shall be checked and cleaned, if necessary, once a month during the rainy season, following any precipitation and at the end of the dry season prior to the first precipitation event of the rainy season.</p> <p>Consideration shall be given to using these filtration units in other areas besides the parking lot inlets. Another potential location is at the downstream end of the tributary pipes that feed the discharge point. Siting these units at a downstream point would allow for the treatment of a greater amount of runoff.</p>					
<p><b>HYD-18.</b> The Developer shall comply with any requirements of the U.S. Army Corps of Engineers (ACOE) and the California Department of Fish and Wildlife (CDFW) regarding water quality and drainage.</p>	<p>Review and approval of Project SWPPP and WQMP to confirm that ACOE and CDFW requirements are met through the incorporation of appropriate BMPs</p>	<p>Prior to final project approvals</p>	<p>County of San Bernardino</p>		
<p><b>HYD-19.</b> A well located on the site of the Proposed Alternative Project, if not used as a water supply well or a monitoring well, shall be capped and taken out of service in accordance with accepted civil engineering standards.</p>	<p>Confirm implementation of mitigation measures.</p>	<p>Ongoing</p>	<p>County of San Bernardino</p>		
<p><b>Section 4.6—Noise</b></p>					
<p><b>NOI-1.</b> Construction contractors shall be required to ensure that construction equipment is well tuned and maintained</p>	<p>Confirm implementation of</p>	<p>During construction activities</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
according to the manufacturer’s specifications, and that the equipment’s standard noise reduction devices are in good working order. (MM5.7-1b, modified.)	mitigation measures.				
<b>NOI-2.</b> Consistent with the County of San Bernardino Development Code Section 87.0901, construction activities shall be limited as follows (MM 5.7-1a modified):  For general construction activities, the operation of construction equipment and outdoor construction or repair work shall be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday.	Confirm implementation of mitigation measures.	Prior to issuance of grading permits  During construction activities	County of San Bernardino		
<b>NOI-3.</b> Construction equipment noise shall be minimized during project construction by muffling and shielding intakes and exhaust on construction equipment (per the manufacturers’ specifications) and by shrouding or shielding impact tools. All equipment shall have sound-control devices no less effective than those provided by the manufacturer. (MM5.7-1c, modified.)	Confirm implementation of mitigation measures.	During construction activities	County of San Bernardino		
<b>NOI-4.</b> Construction activities contractors shall locate fixed construction equipment (such as compressors and generators) and construction staging areas as far as possible from adjacent residences. Activities within these staging areas shall conform to the time limitations established in Mitigation Measure NOI-2. (MM5.7-1d, modified.)	Confirm implementation of mitigation measures.	During construction activities	County of San Bernardino		
<b>Section 4.7—Public Services</b>					
<b>PS-1.</b> The fire flow requirement shall be 1750 gpm @ 2 hours based on homes in the range of 3,600 to 4,800 square feet, and 2,000 gpm @ 2 hours for homes greater than 4,800 square feet. (MM 5.3-1a.)	Review and approval of Project plans  Confirm a hydrant flow test has been	Prior to final project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
	conducted by the water supplier				
<b>PS-2.</b> All residences less than 5,000 square feet shall be subject to the standard fire sprinkler requirement (NFPA 13D). Homes above 5,000 square feet shall be subject to the NFPA13R sprinkler requirement. (MM 5.3-1b, as modified.)	Review and approval of Project plans  Confirm a hydrant flow test has been conducted by the water supplier	Prior to final project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p><b>PS-3.</b> A Fuels Management Plan, with specifications, shall be prepared and subject to approval by the County of San Bernardino Fire Department and San Bernardino National Forest Service. The Fuels Management Plan shall implement the fire safety requirements of the FS1 Fire Safety Overlay District, including a 100-foot minimum setback requirement from the National Forest. The fuel modification zone shall be located entirely within the project boundaries. The minimum fuel modification zone requirements may be greater in steeper areas (up to 300 feet), as determined by the Fire Department. (MM 5.3-1c, as modified.)</p>	Review and implement proposed program.	Prior to final Project approvals	County of San Bernardino Fire Department and San Bernardino National Forest Service		
<p><b>PS-4.</b> A Homeowner’s Association shall be established to implement the Fuels Management Plan. The Fuels Management Plan shall specify any professional assistance, if necessary, to implement the action portion of the plan. The Plan shall determine if a Registered Professional Forrester is necessary for professional guidance to implement the Plan. The HOA is to be responsible for fuel modification in common areas. (MM 5.3-1e, as modified.)</p>	Confirm implementation of mitigation measures.	Prior to final project approval	County of San Bernardino		
<b>Section 4.8—Traffic</b>					
<p><b>T-1.</b> Project Design Features recommended in the TIA shall be incorporated into the project design. These include:</p> <ul style="list-style-type: none"> <li>• Construction of North Shore Drive at its ultimate half-section width as a Mountain Major highway from Canyon Drive to the Easterly project boundary.</li> <li>• Installation of a stop sign control at Driveway #1 and Driveway #2.</li> <li>• Construction of an Eastbound Left Turn Lane at Driveway 1/North Shore Drive and Driveway 2/North Shore Drive for 2030 Buildout Conditions.</li> <li>• Construction of a 2nd Eastbound Through Lane at Driveway/North Shore Drive and Driveway 2/North Shore Drive for 2030 Buildout Conditions.</li> </ul>	Confirm implementation of mitigation measures into project plans.	Prior to final project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p><b>T-2.</b> The eastbound left turn lanes at both project access points will be constructed at opening year at 100% cost to the Applicant. The Applicant shall pay fair share costs of the construction of the eastbound through lanes at both project access points for the horizon year conditions. The developer shall pay the fair share cost of \$99,320 toward the off-site traffic improvements recommended in Appendix G of the San Bernardino Congestion Management Program, 2003 Update.</p>	Confirm implementation of mitigation measures.	Prior to final project approvals	County of San Bernardino		
<p><b>T-3.</b> The following Project Design Features recommended in the Revised 2018 Focused Traffic Impact Assessment (FEIR Appendix M) shall be incorporated into the Proposed Alternative Project design:</p> <ul style="list-style-type: none"> <li>• Construction of left-turn pockets on driveways along North Shore Drive (SR-38) on Driveway 1 and Driveway 2.</li> <li>• Construction of a Class II Bicycle Lane on North Shore Drive (SR-38) in the eastbound direction.</li> </ul>	Confirm implementation of mitigation measures.	Prior to final project approvals	County of San Bernardino		
<b>Section 4.9—Utilities</b>					
<p><b>U-1a.</b> The Moon Camp Homeowners Association shall create a “conservation guidelines” booklet that outlines the following measures:</p> <ul style="list-style-type: none"> <li>• All indoor water fixtures shall be low flow/low flush.</li> <li>• Landscape shall not be irrigated between the hours of 9:00 a.m. and 6:00 p.m.</li> <li>• Residences, buildings, and premises shall be limited to watering landscaping every other day.</li> <li>• Water from landscape irrigation shall not be allowed to run off into streets or other paved areas.</li> <li>• Water leaks are not permitted and must be repaired as soon as practicable.</li> <li>• Sidewalks, paved driveways, and parkways shall not be washed off with hoses, except as required for sanitary purposes.</li> </ul>	Confirm implementation of mitigation measures.	Prior to final project approvals	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<ul style="list-style-type: none"> <li>• Washing non-commercial vehicles (cars, boats RVs) is permitted; however, it shall only be permitted with an automatic shut-off nozzle on a hose, or with a bucket.</li> <li>• Turf landscaping shall be limited to 500 square feet on a parcel or lot unless the water purveyor’s regulations allow additional turf area.</li> <li>• Turf irrigation shall include an automatic controller that incorporates evapotranspiration and rain shutoff features.</li> <li>• Sprinklers are only allowed on turf. All other landscape plantings must be irrigated with efficient, low water use devices, such as, drip systems or bubblers.</li> <li>• All outdoor irrigation systems shall be shut off and winterized between November 1st and April 1st of each year.</li> <li>• A model landscaping and irrigation guide shall be prepared for the tract and required by homeowner association rules. The guide shall identify the following conservation measures: Landscaping shall include a plant palate that emphasizes Xeriscape, native plants and cultivars that are suitable for the mountain climate. Plant materials shall be low water consuming and fire resistant. Irrigation shall limit aerial spray methods and shall emphasize drip and bubbler type emitters. The landscaping guidelines shall be reviewed and approved by the Land Use Services Department.</li> <li>• The Project shall comply with the local water agency’s “Model Landscape and Irrigation” ordinance.</li> </ul>					
<p><b>U-1b.</b> Pumping and extraction of groundwater shall be limited to 9 acre-feet per year for Well FP-2, 0 acre-feet per year for Well FP-3, and 5 acre-feet per year for Well FP-4. If DWP desires to extract groundwater from Well FP-2 in excess of 9 acre-feet per year, the purveyor shall conduct an independent environmental analysis and consider potential impacts at that time.</p>	Confirm implementation of mitigation measures.	Ongoing	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<b>U-1c.</b> The grant deeds transferring ownership of Wells FP-2, FP-3 and FP-4 shall include the pumping and extraction limitations included in Mitigation Measure U-1b. The grant deeds shall also state that DWP, on January 1st of each year, shall report the amount of the prior year’s annual groundwater production from Wells FP-2, FP-3 and FP-4 to the County Planning Department and the County Health Department.	Confirm implementation of mitigation measures.	Ongoing	County of San Bernardino		
<b>U-2.</b> Prior to issuance of building permits, the Applicant shall fund all on-site and off-site sewer improvements required to support development of the Project site. Such improvements shall be to the satisfaction of the County Service Area (CSA) 53B.	Confirm implementation of mitigation measures.	Prior to issuance of building permits	County of San Bernardino		
<b>U-3.</b> Prior to issuance of building permits, the Applicant shall provide evidence to the County of San Bernardino that the BBARWA has sufficient transmission and treatment plant capacity to accept sewage flows from the Project site.	Confirm implementation of mitigation measures.	Prior to issuance of building permits	County of San Bernardino		
<b>Cultural Resources (from 2005 EIR)</b>					
<b>5.9-1.</b> Project-related grading, grubbing, trenching, excavations, and/or other earth-moving activities in the project area shall be monitored by a qualified archaeologist. In the event that a material of potential cultural significance is uncovered during such activities on the Project site, all earth-moving activities in the project area shall cease and the archeologist shall evaluate the quality and significance of the material. Earth-moving activities shall not continue in the area where a material of potential cultural significance is uncovered until resources have been completely removed by the archaeologist and recorded as appropriate.	Confirm presence of a qualified archaeologist.	Prior to grading, grubbing, trenching, excavations, and/or other earth-moving activities	County of San Bernardino		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p><b>5.9-2a.</b> Grading shall be monitored during excavation in areas identified as likely to contain paleontologic resources by a qualified paleontological monitor. Monitoring shall be accomplished for any undisturbed subsurface older alluvium, which might be present in the subsurface. The monitor shall be equipped to salvage fossils as they are unearthed to avoid construction delays and to remove samples of sediments which are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor must be empowered to temporarily halt or divert grading equipment to allow for removal of abundant or large specimens.</p>	<p>Confirm presence of a paleontological monitor, as necessary.</p>	<p>During grading and excavation</p>	<p>County of San Bernardino</p>		
<p><b>5.9-2b.</b> Recovered specimens shall be prepared to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates.</p>	<p>Confirm implementation of mitigation measures.</p>	<p>During construction activities</p>	<p>County of San Bernardino</p>		
<p><b>5.9-2c.</b> Identification and curation of specimens into a museum repository with permanent retrievable storage shall occur for paleontological resources.</p>	<p>Confirm implementation of mitigation measures.</p>	<p>During construction activities</p>	<p>County of San Bernardino</p>		
<p><b>5.9-2d.</b> A report of findings shall be prepared with an appended itemized inventory of specimens. The report shall include pertinent discussion of the significance of all recovered resources where appropriate. The report and inventory when submitted to the appropriate Lead Agency, shall signify completion of the program to mitigate impacts to paleontologic resources.</p>	<p>Confirm inventory is itemized in a report.</p>	<p>At the completion of construction</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p><b>5.9-3.</b> In the event human remains are discovered during grading/construction activities, work shall cease in the immediate area of the discovery and the Project Applicant shall comply with the requirements and procedures set forth in Section 5097.98 of the Public Resources Code, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the “most likely descendent.”</p>	<p>Cease construction when there is a discovery of human remains and contact County Coroner and NAHC.</p>	<p>During construction activities</p>	<p>County of San Bernardino</p>		
<p><b>Geology and Soils (from 2005 EIR)</b></p>					
<p><b>GS-1.</b> The stability of south facing cut slopes shall be analyzed as part of the design-level geotechnical investigation. Utilizing 2:1 buttressed slopes using onsite native soil materials, or constructing geotextile-reinforced soil buttresses for planned unstable cut slopes are typical engineering designs for stabilizing slopes. Either of these methods, or other methods, must be approved by the San Bernardino County Department of Building and Safety. (MM 5.10-1 of the 2005 Final EIR was modified in response to comments on the 2005 Draft EIR.)</p>	<p>Review and approval of design-level geotechnical investigation to ensure that the stability of south facing cut slopes have been analyzed.</p>	<p>Prior to final Project approvals</p>	<p>County of San Bernardino</p>		
<p><b>GS-2a.</b> Due to the potential for erosion associated with younger alluvial deposits within the two major on-site stream channels, increased surface drainage quantities associated with development on-site shall be directed away from the stream channels. (MM5.10-2a of the 2005 Final EIR.)</p>	<p>Review and approval of Project drainage plans</p>	<p>Prior to final Project approvals</p>	<p>County of San Bernardino</p>		
<p><b>GS2b.</b> Prior to the issuance of Grading Permits, the Project Applicant shall prepare a Soil Erosion and Sedimentation Plan for submittal and approval by the County Building and Safety Department. (MM 5.10-2b of the 2005 Final EIR.)</p>	<p>Review and implement proposed plans.</p>	<p>Prior to the issuance of Grading Permits</p>	<p>County of San Bernardino</p>		

**Table 1 (cont.): Project Mitigation Monitoring and Reporting Program**

Mitigation Measures	Method of Verification	Timing of Verification	Responsible for Verification	Verification of Completion	
				Date	Initial
<p><b>GS-3.</b> Engineering design for all structures and roadways shall be based on the current California Uniform Building Code at the time of project development.</p> <p>Construction plans shall be in accordance with seismic design standards set forth by the County’s Development Code and Uniform Building Code. (MM 5.10-3 of the 2005 Final EIR.)</p>	Review of construction plans.	Prior to final Project approvals	County of San Bernardino		
<p><b>GS-4.</b> Residential structures shall be located in areas which provide a minimum of five feet of freeboard above the high water line for any structures. (MM 5.10-4 of the 2005 Final EIR.)</p>	Review and approval of Project plans.	Prior to final Project approvals	County of San Bernardino		
<p><b>GS-5.</b> Prior to grading permit issuance, a quantitative geotechnical analysis and design-level geotechnical engineering report shall be required and submitted to the County of San Bernardino Department of Building and Safety for their approval. (MM 5.10-5 of the 2005 Final EIR has been modified in response to comments on the 2005 Final EIR.)</p>	Review and approval of quantitative geotechnical analysis and design-level geotechnical engineering report	Prior to grading permit issuance	County of San Bernardino		
<b>Recreation (from 2005 EIR)</b>					
<p><b>R-1.</b> The proposed project shall be conditioned to provide the right of way to allow future construction of a pedal path along the south side of North Shore Drive, prior to map recordation. The right-of-way is included in the 66-foot offer of dedication included on the Site Plan. (MM 5.2-2 of the 2005 Final EIR has been modified in response to public comments to provide access.)</p>	Review and approval of Project site plans	Prior to final project approvals	County of San Bernardino		

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