

## **Attachment 3**

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### Mitigation Monitoring and Reporting Plan for the Tesoro Viejo Master Planned Community

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>AESTHETICS</b>							
<b>MM4.1-4</b> Design of the proposed structures shall primarily include the use of textured or other nonreflective exterior surfaces and nonreflective glass.	Pre-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>AIR QUALITY</b>							
<b>MM4.3-2(a)</b> At the times required by Rule 9510, the Project Applicant shall file an Air Impact Assessment (AIA) with the SJVAPCD to reduce net NO <sub>x</sub> and PM <sub>10</sub> emissions impacts from construction of the Proposed Project. The construction related reduction measures shall include, but not be limited to the following: <ul style="list-style-type: none"> <li>■ Exhaust emissions for construction equipment greater than fifty (50) horsepower used or associated with the development project shall be reduced by the following amounts from the statewide average as estimated by the ARB: <ul style="list-style-type: none"> <li>&gt; 20 percent of the total NO<sub>x</sub> emissions</li> <li>&gt; 45 percent of the total PM<sub>10</sub> exhaust emissions</li> </ul> </li> <li>■ Construction emissions on-site may be reduced by using less polluting construction equipment, which can be achieved by utilizing add-on controls, cleaner fuels, or newer lower emitting equipment.</li> <li>■ These requirements can be met through any combination of on-site emission reduction measures or off-site fees (see <b>MM4.3-2(b)</b> below), including, but not limited to, the replacement of old diesel engines within the Valley.</li> </ul>	Pre-Construction (for Agreement)/ Construction (for reduction measures)	SJVAPCD	Madera County Department of Planning/ SJVAPCD	Submittal of Air Impact Assessment; Issuance of Grading Permits; Periodic Compliance Reporting			
<b>MM4.3-2(b)</b> The Project Applicant shall pay to the SJVAPCD a monetary sum necessary to offset the required construction NO <sub>x</sub> and PM <sub>10</sub> emissions not reduced on-site and subject to the fee schedule specified in Section 7.2 of Rule 9510.	Pre-Construction/ Construction	SJVAPCD	Madera County Department of Planning/ SJVAPCD	Submittal of Air Impact Assessment; Issuance of grading permits; Periodic Compliance Reporting			

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<p><b>MM4.3-3</b> At the times required by Rule 9510, the Project Applicant shall file an Air Impact Assessment (AIA) with the SJVAPCD to reduce net NO<sub>x</sub> and PM<sub>10</sub> emissions impacts from operation of the Proposed Project. The Project Applicant shall propose reduction measures that would achieve the following emission reduction rates:</p> <ul style="list-style-type: none"> <li>■ NO<sub>x</sub> Emissions: The project must provide a reduction of 33.3 percent of the project's operational baseline NO<sub>x</sub> emissions over a period of ten years</li> <li>■ PM<sub>10</sub> Emissions: The project must provide reduction of 50 percent of the project's operational baseline PM<sub>10</sub> emissions over a period of ten years</li> <li>■ These requirements can be met through any combination of on-site emission reduction measures or off-site fees (see <b>MM4.3-2(b)</b>), including, but not limited to, the replacement of old diesel engines within the Valley.</li> </ul>	Ongoing during Operation	SJVAPCD	Madera County Department of Planning/SJVAPCD	Submittal of Air Impact Assessment; Periodic Compliance Reporting			
<b>BIOLOGICAL RESOURCES</b>							
<p><b>MM4.4-1(a)</b> Loss of Nesting Habitat for the Swainson's Hawk</p> <p>(1) If construction occurs during the breeding season (February 1-August 31), the Project Applicant shall conduct CDFG-recommended protocol-level surveys prior to construction, as required by the <i>Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley</i> (Swainson's Hawk Technical Advisory Committee 2000), unless the CDFG indicates that no surveys or a less intensive survey methodology would be appropriate.</p> <p>(2) If active nests are found in the construction area, mitigation measures consistent with the CDFG's <i>Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California</i> (CDFG 1994) shall be incorporated in the following manner, unless the CDFG indicates that no mitigation or a less intensive mitigation program would be appropriate:</p> <ul style="list-style-type: none"> <li>(i) If an active nest is found, no intensive new disturbances (e.g., heavy equipment operation associated with construction, use of cranes or draglines, new rock crushing activities) or other project-related activities that may cause nest abandonment or forced fledging, can be initiated within 0.5 mile or 2,640 feet (buffer zone) of an active nest between March 1 and September 15. The</li> </ul>	Pre-Construction	Madera County Department of Planning/CDFG	CDFG	Issuance of Grading Permit			

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<p>size of the buffer area may be adjusted if a qualified biologist and CDFG determine if it would not be likely to have adverse effects on the hawks. No project activity shall commence within the buffer area until a qualified biologist confirms that the nest is no longer active.</p> <p>(ii) Nest trees shall not be removed unless there is no feasible way of avoiding removal of the tree. If a nest tree must be removed, the Project Applicant shall initiate consultation with the CDFG prior to taking any action to obtain a determination of “take” potential from CDFG under CESA or under California Fish and Game Code Sections 3503.5 and 3513.</p> <p>If determined necessary by CDFG as a result of consultation, a Management Authorization (including conditions to offset the loss of the nest tree) shall be obtained from CDFG with the tree removal period specified in the Management Authorization, generally between October 1 and February 1, or other period required by CDFG.</p> <p>If determined necessary by CDFG as a result of consultation, the Project Applicant shall prepare and submit an application for an Incidental Take Permit (ITP) to the CDFG pursuant to California Fish and Game Code Section 2081 for any activities that have the potential to constitute a “take” of the species.</p> <p>If determined necessary by CDFG as a result of ITP application submittal and consultation, the Project Applicant shall obtain an ITP that may include provisions, measures, and other requirements specific to the ITP authorization. The Project Applicant shall implement all provisions, measures, and other requirements specified in the ITP to the satisfaction of CDFG.</p> <p>(iii) If construction or other project-related activities that may cause nest abandonment or forced fledging are necessary within the buffer zone, monitoring of the nest site (funded by the Project Applicant) by a qualified biologist, as determined by the CDFG, will be required to determine if the nest is abandoned, as deemed necessary by CDFG as a result of consultation, Management Authorization, or ITP issuance.</p>							

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<p><b>MM4.4-1(b)</b> Loss of Foraging Habitat for the Swainson’s Hawk</p> <p>If it is not possible to avoid impacts to foraging or nesting habitat of Swainson’s hawk, on or off site mitigation may be required. Mitigation for the loss of Swainson’s hawk foraging habitat (and by default other raptor foraging habitat) shall occur at the applicable ratio(s) set forth in the CDFG’s Staff Report Regarding Mitigation for Impacts to Swainson’s Hawks (<i>Buteo swainsoni</i>) in the Central Valley of California (CDFG 1994).</p>	Pre-Construction	Madera County Department of Planning/CDFG	CDFG	Issuance of Grading Permit			
<p><b>MM4.4-1(c)</b> Burrowing Owl Nesting Habitat</p> <p>(1) Prior to construction activities associated with each phase of the project, as determined by the County, focused pre-construction surveys shall be conducted for burrowing owls where suitable habitat is present within the construction areas. Surveys shall be conducted no less than 14 days and no more than 30 days prior to commencement of construction activities and surveys shall be conducted in accordance with current CDFG burrowing owl survey protocol.</p> <p>(2) If unoccupied burrows are found during the nonbreeding season, the Project Applicant may collapse the unoccupied burrows, or otherwise obstruct their entrances to prevent owls from entering and nesting in the burrows. This measure would prevent inadvertent impacts during construction activities.</p> <p>(3) If no occupied burrows are found in the survey area, a letter report documenting survey methods and findings shall be submitted to the County and CDFG for approval, and no further mitigation is necessary.</p> <p>(4) If occupied burrows are found, impacts on the burrows shall be avoided by providing a buffer of 165 feet during the nonbreeding season (September 1 through January 31) or 250 feet during the breeding season (February 1 through August 31). The size of the buffer area may be adjusted if a qualified biologist approved by the County and the CDFG determine it would not be likely to have adverse effects on the owls. No project activity shall commence within the buffer area until the qualified biologist confirms that the burrow is no longer occupied. If the burrow is occupied by a nesting pair, a minimum of 7.5 acres of foraging habitat contiguous to the</p>	Pre-Construction	Madera County Department of Planning/CDFG	CDFG	Issuance of Grading Permit/ Preconstruction Surveys			

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<p>burrow shall be maintained until the breeding season is over.</p> <p>(5) If impacts on occupied burrows are unavoidable, onsite passive relocation techniques currently approved by CDFG shall be used to encourage owls to move to alternative burrows outside of the impact area. No occupied burrows shall be disturbed during the nesting season unless the qualified biologist verifies through non-invasive methods that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Mitigation for foraging habitat for relocated individuals or pairs shall follow guidelines provided in the CDFG’s Staff Report on Burrowing Owl Mitigation (1995) and/or Burrowing Owl Consortium’s <i>Burrowing Owl Survey Protocol and Mitigation Guidelines</i> (April 1993). This includes mitigation for loss of foraging habitat through the preservation of, a minimum of 6.5 acres of foraging habitat (calculated on a 100 m [approximately 300 feet] foraging radius around the burrow) per pair or unpaired resident bird.</p>							
<p><b>MM4.4-1(d)</b> Nesting habitat for other <i>Migratory Bird Treaty Act</i> (MBTA) or otherwise protected or sensitive avian species:</p> <p>(1) When feasible, all tree removal shall occur between August 31 and February 1 to avoid the breeding season of any raptor species that could be using the area, and to discourage hawks from nesting in the vicinity of an upcoming construction area. This period may be modified with the authorization of the CDFG; or</p> <p>(2) Prior to the beginning of mass grading, including grading for major infrastructure improvements, during the period between February 1 and August 31, all areas supporting trees, shrubs, or structures capable of supporting bird nests within 350 feet of any grading or earthmoving activity shall be surveyed for active raptor nests or owl burrows by a qualified biologist no more than 21 days prior to disturbance. If active raptor nests are found within 350 feet of potential construction activity, a fence shall be erected around the tree at a distance of up to 350 feet, depending on the species, from the nest location to prevent construction disturbance and intrusions on the nest area. The appropriate buffer shall be determined by the County in consultation with qualified biologists and/or the CDFG.</p> <p>(3) Completion of the nesting cycle shall be determined by a qualified ornithologist or biologist, as determined by the County.</p>	Pre-Construction	Madera County Department of Planning/CDFG	CDFG	Issuance of Grading Permit			

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<p><b>MM4.4-2</b> To mitigate for effects to the Valley Elderberry Longhorn Beetle (VELB), the Applicant shall provide compensatory mitigation in accordance with the mitigation guidelines set forth in the <i>Conservation Guidelines for the Valley Elderberry Longhorn Beetle</i> (USFWS 1999). The following measures shall be implemented to provide compensatory mitigation for effects to the VELB:</p> <p>Elderberry shrubs that would be removed as a result of the Proposed Project shall be removed and transplanted to a conservation area or USFWS-approved mitigation bank. Shrub removal and transplantation techniques shall be in accordance with the guidelines provided by the USFWS. A qualified biologist as determined by the County, shall be present on site for the duration of the transplanting activities. Elderberry plants shall only be transplanted when they are dormant and have lost their leaves, which is approximately November through the first two weeks of February.</p> <p>Each elderberry stem measuring 1-inch or greater in diameter at ground level that is transplanted or destroyed shall be compensated at the ratios shown in mitigation guidelines set forth in the <i>Conservation Guidelines for the Valley Elderberry Longhorn Beetle</i> (USFWS 1999).</p>	Pre-Construction/ Survey once a year (before April) for duration of construction	Madera County Department of Planning/USFWS	USFWS	Issuance of Grading Permit			
<p><b>MM4.4-3</b> Loss of Western Pond Turtle</p> <p>(1) Before any ground-disturbing construction activities begin within 150 feet of potential habitat, the Project Applicant shall retain a qualified biologist to conduct focused surveys for western pond turtle to determine the presence or absence of this species on the Project Site. Surveys shall meet the requirements of current CDFG protocols as appropriate and must be conducted every year in which construction activities would occur within potential habitat for this species and must comply with the following conditions. Surveys shall occur before April 1 to allow evaluation of the population before the turtle nesting season.</p> <p>(2) If western pond turtles are not found on the Project Site, a letter report documenting survey methods and findings shall be submitted to CDFG at least 5 days before construction.</p> <p>(3) If juvenile or adult turtles are found on the Project Site, the individuals shall be moved to suitable habitat out of the construction site with technical assistance from CDFG, as needed. All relocation shall</p>	Pre-Construction	Madera County Department of Planning/CDFG	CDFG	Issuance of Grading Permit			

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occur prior to April 1 unless otherwise allowed by CDFG. If a nest is found in the construction area, CDFG shall be notified immediately to determine appropriate measures to protect or relocate the nest.							
<p><b>MM4.4-4(a)</b> Prior to the issuance of a grading permit, the Project Applicant shall perform protocol level surveys and assessment for the California Tiger Salamander (CTS) within the Project Site. The surveys and assessment shall be performed by a qualified biologist in accordance with the <i>Interim Guidance on Site Assessment and Field Surveys for Determining Presence or Negative Finding of the California Tiger Salamander</i> (CDFG 2003). The results shall be submitted to the USFWS and CDFG, and if needed, the Project Applicant shall initiate an informal consultation with the USFWS and CDFG to discuss measures to avoid potential take of CTS. Although details of these measures would be developed in consultation with the USFWS and CDFG, they are likely to include:</p> <ul style="list-style-type: none"> <li>■ Retaining a qualified biologist to conduct a preconstruction survey of the Project Site area to ensure that no potential upland retreat habitat has been created (i.e., through ground squirrel activity) since the 2005 habitat assessment</li> <li>■ Seasonal restrictions on grading and construction to avoid the wet season dispersal period</li> <li>■ Installation of drift fences around the perimeter of the construction area to prevent any CTS from moving into the area</li> <li>■ Retaining qualified biologists to monitor the Project Site area during construction to ensure that no CTS are harmed</li> </ul>	Pre-Construction/ Construction	Madera County Department of Planning/USFWS	USFWS	Issuance of Grading Permit			



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<p><b>MM4.4-4(b)</b> If CTS are found within an area that would be directly or indirectly impacted by the Proposed Project, the Project Applicant and/or their representatives shall initiate consultation with the USFWS pursuant to Section 7 or 10 of the FESA, and with the CDFG pursuant to California Fish and Game Code Section 2081(b) or 2080.1, to obtain an Incidental Take Statement (ITS), Incidental Take Permit (ITP), and/or Consistency Determination for loss of individual CTS. Detail of the processing and specific requirements of the ITS, ITP, and Consistency Determination would be developed during consultations between the U.S. Army Corps of Engineers (USACE), USFWS, and CDFG, but are likely to include (but not be limited to) the following:</p> <ul style="list-style-type: none"> <li>■ Preparation of a Biological Assessment pursuant to Section 7 of the FESA for submission to the USFWS and CDFG for their review</li> <li>■ Conservation of designated critical habitat that meets the species habitat requirements, or payment of mitigation fees, and/or purchase of mitigation land to compensate for the loss of CTS habitat</li> <li>■ Retaining a CTS permitted biologists to monitor for, and potentially move CTS outside of the Project Site area</li> </ul>	Pre-Construction	Madera County Department of Planning/USFWS	USFWS	Issuance of Grading Permit			

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<p><b>MM4.4-4(c)</b> If construction activities for the Off-Site Avenue 15 Pipeline would occur before July 1, including mobilization, staging, or ground disturbance activities (e.g., ripping, excavation, and grading), the Project Applicant shall retain a qualified biologist to perform a pre-construction survey of the alignment and immediate vicinity (i.e., within 50 feet of the planned activities in all areas adjacent to potential wetland and upland non-native grassland habitat which could support CTS) to confirm that all vernal pools and other seasonally wet habitats capable of supporting active CTS have completely dried. The survey shall verify the onset of the dry season in the region and that CTS potentially occurring in the alignment vicinity are positively aestivating in underground refugia and are not dispersing or migrating aboveground. The results of the pre-construction survey shall be documented in a report prepared by the qualified biologist and the report shall be submitted to the County, USFWS, and CDFG.</p> <p>Construction of the Off-Site Avenue 15 Pipeline shall not commence until it has been verified by the County, USFWS, and CDFG, in writing, that the activities would be restricted to the dry season and would not directly or indirectly impact CTS or its habitat, or other special-status vernal pool species and their habitat, as determined by the qualified biologist.</p> <p>In the unlikely event that CTS are found within an area that would be directly or indirectly impacted by the Off-Site Avenue 15 Pipeline, the Project Applicant shall implement mitigation measure MM4.4-4(b).</p>	Pre-Construction	Madera County Department of Planning/USFWS	USFWS	Issuance of Grading Permit			

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<p><b>MM4.4-4(d)</b> Prior to construction activities for the Off-Site Avenue 15 Pipeline, including mobilization, staging, or ground disturbance activities (e.g., ripping, excavation, and grading), the Project Applicant shall retain a qualified biologist to monitor the installation of temporary silt fencing along the south side of Avenue 15 and the proposed alignment, which occur within 25 feet of sensitive areas, including vernal pools, potential jurisdictional resources, and suitable aquatic habitat for CTS and western spadefoot toad. Upon completing the installation of the silt fencing, the qualified biologist shall inspect all fencing to verify it has been installed in the appropriate locations and it will be effective in serving as a protective barrier to construction-related activities. The temporary silt fencing shall be monitored and repaired by the Construction Contractor, as appropriate, throughout the duration of construction activities. The fencing shall be removed and properly disposed of by the Construction Contractor upon completion of construction activities.</p>	Pre-Construction	Madera County Department of Planning/USFWS	USFWS	Issuance of Grading Permit			
<p><b>MM4.4-5</b> The aquatic habitat that could potentially be occupied by western spadefoot shall be determined through surveys conducted during the appropriate season (generally February, but dependant on rainfall), by a qualified biologist, as determined by the County. Those areas that are found to support western spadefoot shall be avoided, if feasible. If avoidance is not feasible, the CDFG shall be consulted to approve a western spadefoot’s adult, larval, or egg mass capture and relocation plan. While there are no set protocols for the capture and relocation of reptile and amphibian species (from areas that will be destroyed to areas of unoccupied suitable habitat), it is a standard measure employed by both the USFWS and CDFG for mitigating the loss of population. When done in combination with habitat restoration and preservation that is required through State and Federal no net loss of wetlands policy, the procedure is known to be successful in preserving displaced populations. This measure would mandate that, to the extent feasible, western spadefoots that are displaced from occupied aquatic habitat destroyed during construction, would be relocated to protected areas of suitable habitat, thereby reducing impacts on western spadefoots to less-than-significant levels.</p>	Pre-Construction	Madera County Department of Planning/CDFG	CDFG	Issuance of Grading Permit			

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<p><b>MM4.4-9(a)</b> Permanently impacted sensitive habitat that cannot be avoided shall be replaced or restored on site at a minimum 1:1 ratio for temporary and 2:1 for permanent impacts under a mitigation plan approved by the CDFG under Section 1600 of the California <i>Fish and Game Code</i>, (and/or other appropriate agencies such as the U.S. Army Corps of Engineers for 404 wetlands). A vegetation and mitigation monitoring plan shall be prepared and approved by the CDFG and/or U.S. Army Corps of Engineers prior habitat modification.</p> <p>The revegetation plan shall include the following:</p> <ul style="list-style-type: none"> <li>a. The details and procedures required to prepare the restoration site for planting (i.e., grading, soil preparations, soil stocking, etc.)</li> <li>b. The methods and procedures for the installation of the native plant materials</li> <li>c. Guidelines for the maintenance of the mitigation site during the establishment phase of the native plantings; the maintenance program shall contain guidelines for the control of nonnative and invasive plant species and the replacement of plant species that have failed to recolonize</li> <li>d. The revegetation plan shall provide for monitoring to evaluate the growth of the developing habitat and/or vegetation; specific goals for the restored habitat shall be defined by quantitative and qualitative characteristics of similar habitats and plants (e.g., density, cover, species composition, structural development)</li> <li>e. Contingency plans and appropriate remedial measures shall also be outlined in the revegetation plan should the plantings fail to meet designated success criteria and planting goals</li> </ul> <p>This measure may be implemented through a Streambed Alteration Agreement or other regulatory mechanism to the satisfaction of the County.</p>	Pre-Construction	Madera County Department of Planning/CDFG	CDFG	Issuance of Grading Permit/ Revegetation Plan/Streambed Alteration Agreement			

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<p><b>MM4.4-9(b)</b> The Project Applicant shall include adequate signage and appropriate fencing adjacent to any sensitive habitats that remain or are created through mitigation. A signage and fencing plan shall be developed with the CDFG, but at a minimum “Sensitive habitat” signs shall be installed along the sensitive habitat boundaries every 100 feet. The signs would inform the public of the sensitive habitat and species in the area and that unauthorized disturbance could be subject to penalties imposed by the CDFG and USFWS. Fencing shall be designed to allow free movement of wildlife, but restrict human movement.</p>	Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits/ Installation of Signage			
<p><b>MM4.4-11(a)</b> As identified in Madera County General Plan Policy 5.E.1, a minimum 200-foot wildlife corridor buffer will be established and maintained in perpetuity along the undeveloped portions of the San Joaquin River’s riparian corridor. Policy 3.6.1 from the Tesoro Viejo Specific Plan states that all existing drainage channels shall be public open space from top-of-bank to top-of-bank. In addition, as required by Madera County General Plan Policy 5.D.4, on either side of the primary (main) drainage channel wildlife corridor buffer zones of 100 feet, as measured from the top of bank of un-vegetated portion of the channel, or 50 feet as measured from the outer edge of any riparian canopy shall be established. No lighting shall occur within the buffer area. If passive recreational trails limited to daytime use are proposed in the buffer area, the specific types of uses and/or the terms under which these uses could be developed in the buffer areas would be subject to review and approval by the County, with the input of a qualified biologist.</p>	Pre-Construction	Madera County	Madera County	Issuance of Grading Permit			
<p><b>MM4.4-11(b)</b> To avoid degradation of habitat values for wildlife along the river and the primary drainage portion of the site, areas where automobile headlights could be directed at a 90 degree angle onto the vegetation shall be screened through the placement of a 3–4 foot tall vegetated hedge of native California species or other structural methods that would not additionally hinder wildlife movement through the aforementioned corridor.</p>	Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County	Issuance of Building Permit			

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<p><b>MM4.4-11(c)</b> Any road crossings through the wildlife movement corridors on site shall incorporate measures to safely facilitate the movement of wildlife under the roadway. These measures shall include, but not be limited to, the use of either bridges or culverts that are large enough that wildlife have enough space to pass through these road crossings without having to travel over the road surface, the implementation of bank stabilization measures, and/or restoration and revegetation of stream corridor habitat that has been damaged by the project's construction. Furthermore, any recreational trails adjacent to the open space corridor shall be lined by post and rail fence and signage would be used to direct trail users and their pets to stay within the designated trail corridor.</p>	Pre-Construction/ Construction/ Post-Construction	Madera County	Madera County	Issuance of Grading Permit			
<b>CULTURAL RESOURCES</b>							
<p><b>MM4.5-2(a)</b> A qualified archaeologist, hired by the Project Applicant, shall be retained to complete a Preservation Plan for the eligible resource (CA-MAD-2394, Locus B), which shall be reviewed and approved by the County prior to implementation. The Preservation Plan shall identify protective measures, including incorporation into open or undeveloped space (as proposed by the Project), as well as guidance on setbacks from any proposed trails in the vicinity to deter unwanted pedestrian traffic, methods to minimize the potential for looting or vandalism of exposed surface or subsurface resources, and provisions for semi-annual or annual monitoring by a qualified archaeologist and/or by the local Native American community with reports filed with the County and other agencies, such as the SSJVIC. Consistent with the Comprehensive Settlement Agreement, the Plan shall also identify signage to be placed along public trails to provide indicators of the previous activities of the ancestors of the Dumna Tribe as part of their migration, settlement, and life in the San Joaquin Valley. The Plan could additionally include any or all of the following: permanent fencing; planting; intervening earthworks; cautionary signage; funding for permanent maintenance of the fencing; and/or acquisition of the site by a group, such as the Archaeological Conservancy.</p>	Pre-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Grading Permit/ Submission of Preservation Plan			

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<p><b>MM4.5-2(b)</b> During construction, the site (CA-MAD-2394, Locus B) shall be protected from vandalism, illicit excavation or artifact collection, and inadvertent direct impact. Orange protective fencing shall be installed prior to the initiation of any construction activities within 100 feet of the site boundary. A qualified archeological monitor shall be retained by the Project Applicant to conduct construction monitoring. If appropriate and deemed necessary by the archaeological monitor, the County, and the local Native American community (as determined by establishing the Most Likely Descendent in consultation with the Native American Heritage Commission), a Native American monitor shall be retained by the Project Applicant to conduct construction monitoring to ensure that Native American resources are appropriately handled.</p>	Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division/ NAHC	Issuance of Building Permits/ Monitoring during Construction/ Periodic Compliance Reporting During Construction			
<p><b>MM4.5-2(c)</b> The site (CA-MAD-2394, Locus B) must further be protected after development from vandalism, illicit excavation or artifact collection, after the completion of construction. The County shall discuss measures for long-term protection with the local Native American Community (as determined by establishing the Most Likely Descendent in consultation with the Native American Heritage Commission), and an appropriate plan shall be developed and included in the Preservation Plan described in mitigation measure MM4.5-2(a).</p>	Ongoing during buildout	Madera County Department of Planning	Madera County Department of Planning	Issuance of Building Permits/ Submission of Preservation Plan			
<p><b>MM4.5-3(a)</b> Upon the final determination of the location for all Project-related components, a qualified archaeologist, hired by the Project Applicant, shall be retained to complete a Data Recovery Plan for the those portions of eligible resource CA-MAD-295/827, Locus A that cannot be preserved in open or undeveloped space. The Plan shall be reviewed and approved by the County prior to implementation and shall address the disposition of the materials recovered, depending on the significance of what is found, and could include curation, preservation in another place, or possession by the Dumna. A Native American monitor shall be retained by the Project Applicant to conduct monitoring during the approved Data Recovery Plan to ensure that Native American resources are appropriately handled.</p>	Pre-Construction and ongoing during buildout	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits/ Monitoring during Construction/ Periodic Compliance Reporting During Construction			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p><b>MM4.5-3(b)</b> Any excavation or grading activities associated with Project-related facilities shall be subject to monitoring by representatives of the Dumna Tribe consistent with the requirements of the Comprehensive Settlement Agreement, which would allow oversight during the recovery of artifacts, if discovered. Full analysis shall be completed for the artifacts and other cultural materials recovered. The results of the analysis shall be incorporated into a report meeting accepted professional standards and be submitted to the SSJVIC.</p>	Pre-Construction and ongoing during buildout	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Grading Permits			
<p><b>MM4.5-3(c)</b> Upon the final determination of location for all Project-related components, a qualified archaeologist, hired by the Project Applicant, shall be retained to complete a Preservation Plan for the those portions of eligible resource CA-MAD-295/827, Locus A that can be preserved, which shall be reviewed and approved by the County prior to implementation. The Preservation Plan shall identify protective measures, including incorporation into open or undeveloped space (as proposed by the Project), avoidance, as well as guidance on setbacks from any proposed trails in the vicinity to deter unwanted pedestrian traffic, methods to minimize the potential for looting or vandalism of exposed or subsurface resources, and provisions for semi-annual or annual monitoring by a qualified archaeologist and/or by the local Native American community with reports filed with the County and other agencies, such as the SSJVIC. Consistent with the Comprehensive Settlement Agreement, the Plan shall also identify signage to be placed along public trails to provide indicators of the previous activities of the ancestors of the Dumna Tribe as part of their migration, settlement, and life in the San Joaquin Valley. The Plan could additionally include any or all of the following: permanent fencing; planting; intervening earthworks; cautionary signage; funding for permanent maintenance of the fencing; and/or acquisition of the site by a group, such as the Archaeological Conservancy.</p>	Pre-Construction and ongoing during buildout	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Grading Permits/ Submission of Preservation Plan			



**Table 13-2 Mitigation Monitoring and Reporting Program**

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					Initials	Date	Remarks
<b>MM4.5-3(d)</b> During construction, the site (CA-MAD-295/827, Locus A) shall be protected from vandalism, illicit excavation or artifact collection, and inadvertent direct impacts. Orange protective fencing shall be installed prior to the initiation of any construction activities within 100 feet of areas proposed to be avoided or incorporated into open space. A qualified archeological monitor shall be retained by the Project Applicant to conduct construction monitoring. If appropriate and deemed necessary by the archaeological monitor, the County, and the local Native American community (as determined by establishing the Most Likely Descendent in consultation with the Native American Heritage Commission), a Native American monitor shall be retained by the Project Applicant to conduct construction monitoring to ensure that Native American resources are appropriately handled.	Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Grading Permits/ Monitoring during Construction/ Periodic Compliance Reporting During Construction			
<b>MM4.5-3(e)</b> The site (CA-MAD-295/827, Locus A) must further be protected after development from vandalism, illicit excavation or artifact collection, after the completion of construction. The County shall discuss measures for long-term protection with the local Native American Community (as determined by establishing the Most Likely Descendent in consultation with the Native American Heritage Commission), and an appropriate plan shall be developed and included in the Preservation Plan described in mitigation measure MM4.5-3(c).	Ongoing during buildout	Madera County Department of Planning	Madera County Department of Planning	Issuance of Building Permits/ Submission of Preservation Plan			
<b>MM4.5-6</b> The Project Applicant shall initiate contact with the Bureau of Reclamation and shall complete all requested tasks with qualified cultural resource professionals as required by that agency for the Section 106 review process. As part of the review process, a professional historian may be required to prepare a Determination of Effect document. If the effect is found to be adverse, a Historic Properties Treatment Plan shall be prepared. Once the mitigation measures suggested in the Historic Properties Treatment Plan are approved by the Office of Historic Preservation, a Memorandum of Agreement shall be prepared and signed by the Project Applicant, agency, and the Office of Historic Preservation. All tasks required by the Bureau of Reclamation shall be completed by the Project Applicant prior to the commencement of any construction activities that could impact the Madera Canal.	Pre-Construction	Madera County Department of Planning and Department of Engineering Building Division/ Bureau of Reclamation	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Grading Permit/ Preparation of Determination of Effect Document			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
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<p><b>MM4.5-7</b> If unknown cultural resources are discovered during project construction, all work within 100 feet of the discovery shall cease, and a qualified archaeologist shall be retained by the Project Applicant, and approved by the County. A qualified archaeologist shall be retained by the Project Applicant to assess the significance of the find, make recommendations on its disposition, and prepare appropriate field documentation, including verification of the completion of required mitigation. If archaeological resources are discovered during earth moving activities, all construction activities within 100 feet of the find shall cease until the archaeologist evaluates the significance of the resource. If the resource is determined to be significant, the archaeologist shall prepare Data Recovery Plan that satisfies the requirements of <i>Public Resources Code</i> Section 21083.2. The archaeologist shall complete a report of the excavations and findings. Upon approval of the report, the Project Applicant shall submit the report to the regional office of the California Historic Resources Information System (CHRIS) and Madera County.</p>	Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Periodic Compliance Reporting During Construction/ Submission of Data Recovery Plan to California Historic Resources Information System and Madera County			
<p><b>MM4.5-8</b> Should paleontological resources be identified in a particular location within the Project Site, the Project Applicant shall cease operations within 100 feet of the potential resource until a qualified professional can complete the following actions:</p> <ol style="list-style-type: none"> <li>1. Identify and evaluate paleontological resources by intense field survey where impacts are considered high</li> <li>2. Assess effects on identified sites</li> <li>3. Consult with the institutional/academic paleontologists conducting research investigations within the geological formations that are slated to be impacted</li> <li>4. Obtain comments from the researchers</li> <li>5. Comply with researchers' recommendations to address any significant adverse effects where determined by the County to be feasible</li> </ol>	Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Periodic Compliance Reporting During Construction			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
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<p><b>MM4.5-9</b> If human remains are discovered during earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the County Coroner shall be notified immediately, according to Section 5097.98 of the California <i>Public Resources Code</i> and Section 7050.5 of California's <i>Health and Safety Code</i>. If the remains are determined by the County Coroner to be Native American, the NAHC shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. Madera County shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains before resuming ground-disturbing activities within 100 feet of where the remains were discovered.</p>	Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Periodic Compliance Reporting During Construction			
<b>HAZARDS AND HAZARDOUS MATERIALS</b>							
<p><b>MM4.7-4(a)</b> In order to determine if contaminants may be present in the soil, a sampling program shall be conducted in areas proposed for sensitive land uses, such as residences and schools. Sampling protocol shall include, but not be limited to, sampling in random grid locations, sampling at various soil depths, and sampling in areas where known mixing of pesticides has occurred. Soil samples shall be analyzed for elevated levels of agricultural chemicals.</p> <p>Remediation activities shall be required if testing reveals levels of contaminants that exceed regulatory requirements and/or pose a threat to the public health and the environment. Remediation may be required for both soils and groundwater, if regulatory requirements are exceeded. The remediation plan shall require approvals from the appropriate agencies. Remediation activities could include excavation and disposal, excavation and on-site treatment, or capping the soil with an impenetrable surface such as asphalt or concrete.</p>	Pre-Construction	Madera County, Department of Public Health, Environmental Health Division	Madera County, Department of Public Health, Environmental Health Division	Report of Findings; Issuance of Grading Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

<i>Mitigation Measure(s) and/or Project Requirements</i>	<i>Implementation</i>	<i>Enforcement Agency</i>	<i>Monitoring Agency</i>	<i>Action Indicating Compliance</i>	<i>Verification of Compliance</i>		
					<i>Initials</i>	<i>Date</i>	<i>Remarks</i>
<p><b>MM4.7-4(b)</b> In the event that previously unknown or unidentified soil or groundwater contamination that could present a threat to human health or the environment is encountered during construction on the Project Site or off-site infrastructure construction, construction activities in the immediate vicinity of the contamination shall cease immediately. If contamination is encountered, a Risk Management Plan shall be prepared by the developer(s) and implemented that (1) identifies the contaminants of concern and the potential risk each contaminant would pose to human health and the environment during construction and post-development; and (2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures could include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., Madera County Fire Department). If needed, a Site Health and Safety Plan that meets Occupational Safety and Health Administration requirements shall be prepared and in place prior to commencement of work in any contaminated area.</p>	Construction	Madera County, Department of Public Health, Environmental Health Division	Madera County, Department of Public Health, Environmental Health Division	Periodic Compliance Reporting During Construction			
<p><b>MM4.7-5</b> During construction of the Proposed Project, all staging areas, welding areas, or areas slated for development that use spark-producing equipment shall be cleared of dried vegetation or other material that could ignite. Any construction equipment that includes a spark arrestor shall be monitored to ensure the spark arrestor is in good working order. All vehicles and crews working on the Project Site shall have access to functional fire extinguishers at all times. In addition, construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, including accidental sparks.</p>	Construction	MCFD	MCFD	Periodic Compliance Reporting During Construction			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
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<p><b>MM4.7-6</b> The developer(s) shall prepare a Vector and Vegetation Management Program to be submitted for approval to Madera County and the Madera County Mosquito and Vector Control District. The program would be ongoing and may require that no vegetation conducive to mosquito breeding is allowed to exist within or around the detention basins, with or without the presence of water. The Vector and Vegetation Management Program may also require that no undue obstructions to wind circulation are allowed to occur around the detention basins. The program shall also require adequate access be maintained to the entire perimeter of each detention basin.</p> <p>The Vector and Vegetation Management Program may also establish provisions for stocking mosquitofish or other species that will reduce conditions conducive to mosquito and other vector production when water is present. An ongoing contract for mosquito control services shall be maintained by the developer(s) if the water detention basin is determined by a mosquito and vector control specialist as requiring extensive monitoring and vector control services.</p>	Pre-Construction (for development of the Plan)/ Construction and Operation (for implementation of the Plan)	Madera County, Department of Public Health, Environmental Health Division/ MCMVCD	Madera County, Department of Public Health, Environmental Health Division	Approval of a Vector and Vegetation Management Program by the County with the MCMVCD; Issuance of Building Permits; Periodic Compliance Reporting During Operation			
<b>HYDROLOGY AND WATER QUALITY</b>							
<p><b>MM4.8-2(a)</b></p> <ul style="list-style-type: none"> <li>■ <b>Wet Pond.</b> The stormwater detention basins could operate as stormwater wet ponds if a permanent pool of water is maintained (i.e., the bottom of the basin intersect the local shallow groundwater table). Wet ponds treat incoming stormwater runoff by settling and algal uptake. The primary removal mechanism is settling while stormwater runoff resides in the pool. Nutrient uptake also occurs through biological activity in the pond. While there are several different versions of the wet pond design, the most common modification is the extended detention wet pond, where storage is provided above the permanent pool in order to detain stormwater runoff in order to provide greater settling</li> <li>■ <b>Dry Extended Detention Pond.</b> If all stormwater infiltrates or is discharged through control structures such that the pond completely drains within a certain time frame (e.g., 24 to 72 hours), the basins would function as dry extended detention ponds. Dry extended detention ponds (e.g., dry ponds, extended detention basins, detention ponds, and extended detention ponds) are basins whose</li> </ul>	Pre-Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Grading Permit			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
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<p>outlets are designed to detain the stormwater runoff from a water quality "storm" for some minimum duration, which allow sediment particles and associated pollutants to settle out. Unlike wet ponds, dry extended detention ponds do not have a permanent pool. However, dry extended detention ponds are often designed with small pools at the inlet and outlet of the pond, and can also be used to provide flood control by including additional detention storage above the extended detention level.</p> <ul style="list-style-type: none"> <li>■ <b>Stormwater Wetland.</b> If basins are designed to have some standing water in a shallow pool for an extended period of time, they may act as stormwater wetlands. Stormwater wetlands are structural practices similar to wet ponds that incorporate wetland plants in a shallow pool. As stormwater runoff flows through the wetland, pollutant removal is achieved by settling and biological uptake within the practice. Stormwater wetlands are designed specifically for the purpose of treating stormwater runoff, and typically have less biodiversity than natural wetlands both in terms of plant and animal life.</li> </ul>							
<p><b>MM4.8-2(b) Stormwater Quality Management Plan.</b> The Project Applicant shall prepare and implement an approved Stormwater Management Plan (SQMP) and obtain coverage under the Small MS4 General Permit. The following standard stormwater quality BMPs, or similar practices, shall be required in the SQMP.</p> <p><b>Education</b></p> <ul style="list-style-type: none"> <li>■ Educational materials concerning stormwater quality protection shall be provided to the owner of the development and BMPs and shall be distributed to all employees. Educational materials shall also be provided to residents and commercial building occupants.</li> <li>■ A spill contingency plan shall be provided to employees in the commercial and light industrial portions of the Proposed Project in accordance with Section 6.95 of the California <i>Health and Safety Code</i>.</li> <li>■ The maintenance program shall include signage that informs the public that there is "no dumping allowed" in storm drains.</li> </ul> <p><b>Operations and Maintenance</b></p> <ul style="list-style-type: none"> <li>■ A BMP Operations and Maintenance Program (OMP) shall be</li> </ul>	<p>Pre-Construction (for development of the SQMP Plan)/Construction (for implementation of the SQMP and development of the OMP and NMP)/ Operation (for implementation of the OMP and NMP)</p>	<p>RWQCB/Madera County Department of Engineering Building Division</p>	<p>RWQCB/Madera County Department of Engineering Building Division</p>	<p>Approval of a Stormwater Quality Management Plan (SQMP) by the RWQCB; Issuance of Grading Permit (for work covered by the SQMP); Approval of an Operations and Maintenance Program (OMP) and Nutrient and Pesticide Management Plan (NMP) by the Madera County, Issuance</p>			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p>developed and implemented to ensure continued functioning and effectiveness of BMPs and shall be incorporated as part of the SQMP. The BMP OMP shall include, at a minimum, inspection and maintenance of all structural BMPs on the property; a report of non-structural BMP operating protocols, inspection, and compliance; and reporting requirements. The BMP OMP must be approved by the Madera County Director of Public Works or their designee prior to the beginning of occupancy. The owner shall be responsible for the BMP OMP. The BMP OMP can be administered through lease agreements assigning responsibility to the occupants or creation of a separate entity with responsibility. If property titles are transferred, the new owner shall be responsible for their respective portion of the BMP OMP.</p> <ul style="list-style-type: none"> <li>■ Stabilization of all disturbed areas through revegetation or other erosion control practices. Mulch, plastic sheeting, erosion control blankets, or sandbags shall be used to control erosion caused by rainfall until surfaces have been stabilized</li> <li>■ The storm drain system shall incorporate common area catch basins that shall be inspected and cleaned monthly. They shall also be inspected before, during and after storms.</li> <li>■ Storm drain inlet trash racks shall be inspected, and maintained before, during and after storms.</li> <li>■ For both the residential and commercial portions of the Proposed Project, open areas shall be maintained neat, clean, and free from trash or debris at all times, to prevent contamination of stormwater and to ensure proper drainage. The site shall be inspected weekly, and trash would be cleaned up. For the commercial area, trash storage areas would be constructed.</li> <li>■ Streets and parking lots shall be swept weekly during the wet weather season beginning October 15 through April 30. During the dry season, streets and parking lots shall be swept every two weeks. A dry vacuum-assisted street sweeper shall be used.</li> <li>■ Operation and maintenance BMPs for public and commercial area irrigation and landscaping shall include weekly inspection, clean up and maintenance, and quarterly adjustment of irrigation systems.</li> </ul> <p><b>Landscaping Requirements</b></p> <ul style="list-style-type: none"> <li>■ Landscaped areas shall be designed to maximize natural water</li> </ul>				of Building Permit (for activities covered by the OMP); Periodic Compliance Reporting During Construction and Operation			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
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<p>storage and infiltration opportunities.</p> <ul style="list-style-type: none"> <li>■ Pesticides in common areas must be applied by an applicator certified by the State of California.</li> <li>■ All irrigation systems for public and commercial area shall be designed to incorporate water efficient irrigation technologies and shall be adjusted quarterly for maximum efficiency.</li> <li>■ All irrigation operations shall not cause or contribute to nuisance runoff conditions.</li> </ul> <p><b>Nutrient and Pesticide Management Plan (NPMP)</b></p> <ul style="list-style-type: none"> <li>■ The NPMP shall include requirements and recommendations for nutrient and pesticide handling, use, and disposal to minimize transport of landscape and lawn chemicals in stormwater runoff or infiltration to groundwater.</li> <li>■ The NPMP shall detail individual, private property requirements and recommendations, as well as public area requirements and maintenance practices.</li> <li>■ Quick-release fertilizers shall not be allowed for any application; organic fertilizers and use of reclaimed water shall be encouraged.</li> <li>■ All contractors maintaining public landscaped areas shall be trained in accordance with the NPMP practices and shall comply with provisions set forth.</li> <li>■ Each resident shall be provided with a copy of the NPMP and an accompanying fact sheet identifying individual responsibilities.</li> </ul> <p><b>Other BMPs</b></p> <ul style="list-style-type: none"> <li>■ Erosion control and drainage BMPs shall be implemented where required; appropriate paving of exposed ground surfaces, landscaping, providing terraces on slopes, placing berms at the tops of slopes, velocity dissipation devices at all outlets, and installing adequate storm drain systems shall be used where necessary. Porous paving is suggested in the IMP. Porous paving shall be used to the maximum extent practicable and shall consist of either vegetated, graveled, pervious concrete, or pervious asphalt materials; porous pavement blocks shall not be used unless the SQMP-associated OMP details maintenance protocols to ensure continued functioning and effectiveness.</li> <li>■ Graded slopes shall be protected until healthy plant growth or other</li> </ul>							



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					Initials	Date	Remarks
<p>soil stabilization is established.</p> <ul style="list-style-type: none"> <li>■ Proposed new slopes shall be protected with planting of shrubs and ground cover to assist in rainwater absorption and erosion control.</li> <li>■ Landscape buffers shall be placed between residential and commercial areas, except in mixed-use areas</li> <li>■ Roof top runoff shall be directed to landscaped areas, swales, rain gardens, biofiltration devices, filter strips, or other filtration and treatment BMP, to the maximum extent practicable.</li> <li>■ The Proposed Project commercial, institutional, and light industrial areas shall have extensive foundation planting with shrubs and other ground cover to the maximum extent practicable. Roof runoff shall drain into these landscaped areas and runoff that does not infiltrate therein, would drain to catch basins.</li> <li>■ Parking lots shall be designed to drain to landscaped areas, biofiltration areas, swales, or other filtration/treatment BMPs prior to entering the storm drain system.</li> <li>■ Parking lots, streets, and sidewalks shall be designed to minimum feasible widths</li> <li>■ Implement water conservation practices similar to those specified in Madera County Code Section 13.55.020, except in such situations where excess reclaimed water is available for the use.</li> </ul> <p><b>Performance Standards</b></p> <ul style="list-style-type: none"> <li>■ The selected stormwater quality BMPs incorporated in the SQMP shall be targeted to reduce stormwater pollutant loads to existing conditions levels. In combination, the BMPs shall have expected pollutant removal rates targeted to reduce Project Site stormwater pollutant loads by at least as much as listed in the "Required Removal" column of Table 4.8-4 Estimated Pollutant Loads Without BMPs.</li> <li>■ Stormwater detention basins shall be designed for effectiveness in reducing pollutant loads, as well as detaining stormwater runoff flows. The potential pollutant removal of these stormwater detention basins shall be included in the overall SQMP design to meet targeted reduction rates.</li> <li>■ The design, construction, and maintenance of structural BMPs shall be in accordance with the California Stormwater Quality Association</li> </ul>							

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Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p>New Development and Redevelopment Handbook (CASQA 2004) or other established guidelines and handbooks (such as the FMFCD standards and guidelines or Caltrans BMPs), and applicable regulations for stormwater quality BMPs.</p> <p><b>Preferred BMPs</b></p> <ul style="list-style-type: none"> <li>■ If deemed acceptable by Madera County, underground or above-ground cisterns should be considered for stormwater detention and subsequent landscape irrigation where implementation would not result in additional substantial environmental effects.</li> <li>■ Maximize the use of dry swales, or grassed/vegetated channels, where soil infiltration conditions are sufficient, to treat stormwater runoff prior to discharge to the Proposed Project storm drain system.</li> <li>■ Porous concrete/asphalt is preferred for parking lots and other areas where heavy traffic and vehicles would not be a design constraint. Porous concrete/asphalt would effectively reduce the amount of directly connected impervious area and contributions to stormwater runoff when properly designed and implemented.</li> <li>■ Bioretention should be used to the maximum extent practicable:               <ul style="list-style-type: none"> <li>&gt; Landscape areas shall be implemented as bioretention BMPs to the maximum extent practicable, especially in parking lot areas, along medians, and in the buffer area between commercial and residential land uses. They are intended to receive and filter storm runoff from both impervious areas and lawns.</li> <li>&gt; Parking lots and streets draining into bioretention areas should drain as sheet flow or should have curbs with curb inlets regularly spaced to accept drainage into the swale</li> </ul> </li> </ul> <p><b>Limitations on BMPs</b></p> <ul style="list-style-type: none"> <li>■ Underground sand filters shall not be used unless provisions are made to remove ammonia and other nitrogen sources prior to discharge to the sand filters. This is because underground sand filters may increase nitrate concentrations as ammonia in the stormwater undergoes nitrification in the filter environment.</li> <li>■ Flow velocity through grassed swales and channels shall not exceed 5.2 feet per second through the swale</li> <li>■ Bioretention system must not be placed into operation until the contributing drainage area is completely stabilized. Therefore, system</li> </ul>							

**Table 13-2 Mitigation Monitoring and Reporting Program**

<i>Mitigation Measure(s) and/or Project Requirements</i>	<i>Implementation</i>	<i>Enforcement Agency</i>	<i>Monitoring Agency</i>	<i>Action Indicating Compliance</i>	<i>Verification of Compliance</i>		
					<i>Initials</i>	<i>Date</i>	<i>Remarks</i>
<p>construction must either be delayed or upstream runoff diverted around the system until such stabilization is achieved. Such diversions must continue until stabilization is achieved.</p> <p><b>Limitations on Infiltration BMPs</b></p> <ul style="list-style-type: none"> <li>■ Infiltration rate tests of the top 5-feet of soil below the bottom of the infiltration BMP shall be conducted for all areas selected for Infiltration BMPs. Infiltration BMPs shall not be located in soils where the infiltration rate exceeds 10 inches per hour or is less than 0.1 inch per hour, unless suitable augmentation is incorporated into the design to effectively remove pollutants from the infiltrating stormwater.</li> <li>■ Infiltration BMPs shall not be installed until the drainage area has been stabilized.</li> <li>■ All infiltration BMPs shall incorporate pretreatment, preferably in the form of swales, vegetated buffers, or bioretention areas.</li> <li>■ Infiltration facilities are subject to clogging and, therefore, are not recommended for areas where sediment, grease, or oil loadings may be high. Such areas include roadways, parking lots, car service facilities, and others. To increase the life expectancy of an infiltration facility, a pretreatment facility, such as a settling basin or “cell,” or additional BMPs in a series should be used to remove sediments or other substances from the stormwater runoff before it enters the infiltration facility.</li> <li>■ Any pretreatment facility design should be included in the design of the infiltration basing/trench, complete with maintenance and inspection requirements.</li> <li>■ For infiltration trenches, a grass strip or other type of vegetated buffer at least 20 feet wide shall be maintained around the trench, to the maximum extent practicable, and accept surface runoff as sheet flow.</li> <li>■ Stormwater runoff that has the potential to reach the groundwater table through infiltration or other means should be treated sufficiently prior to release such that additional filtration, through soil percolation, would reduce potential pollutants to levels that would not result in exceedance of existing groundwater quality.</li> <li>■ Concrete swales and v-ditches shall not be installed and used to convey stormwater or nuisance runoff unless used to direct runoff to an appropriate stormwater pre-treatment BMP and incorporates</li> </ul>							

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					Initials	Date	Remarks
appropriate energy dissipation. Concrete swales and v-ditches would bypass any potential treatment through soils or buffer areas prior to discharge and increase the potential for concentrated flows and associated erosion at the outlet. Furthermore, concrete ditches would reduce the potential for groundwater recharge and water conservation.							
<p><b>MM4.8-2(c)</b> Identify an entity to manage the operation and maintenance of the on-site stormwater and water quality management systems, such as the stormwater detention basins. The entity shall be responsible for on-site management system maintenance and performance goals, and shall establish a Stormwater and Water Quality Management Program, which shall include the following:</p> <ul style="list-style-type: none"> <li>■ Public outreach</li> <li>■ Technical guidelines for site evaluation, design, construction, and operation of BMPs</li> <li>■ Regular system inspections</li> <li>■ Technical training of staff</li> <li>■ Funding mechanisms</li> </ul>	Construction (for approval of the entity and development of the SWQMP)/ Operation (for implementation of the SWQMP)	RWQCB/Madera County Department of Engineering Building Division	RWQCB/Madera County Department of Engineering Building Division	Approval of an entity to manage the on-site stormwater and water quality management systems by the County; Approval of a Stormwater and Water Quality Management Program (SWQMP) by the County and the RWQCB; Issuance of Building Permit			
<p><b>MM4.8-3(a)</b> Identify an entity to manage the operation and maintenance of the on-site systems. The entity shall be responsible for establishing an on-site wastewater management program that shall include:</p> <ul style="list-style-type: none"> <li>■ Public outreach</li> <li>■ Technical guidelines for site evaluation, design, construction, and operation including a provision to prohibit installation on lot sizes less than one-acre in size</li> <li>■ Regular system inspections</li> <li>■ Technical training of staff</li> <li>■ Funding mechanisms</li> <li>■ Periodic program evaluations and revisions (U.S. EPA 2002, 2-1)</li> </ul> <p><b>OR</b></p>	Construction (for approval of the entity and development of the SQMP)/ Operation (for implementation of the SQMP)	RWQCB/Madera County Department of Engineering Building Division	RWQCB/Madera County Department of Engineering Building Division	Approval of an entity to manage the on-site stormwater and water quality management systems by the County; Approval of a Stormwater and Water Quality Management Program			

**Table 13 2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p><b>MM4.8-3(b)</b> Implement a Septic Tank Effluent Pumping (STEP) System. Where on-site sewage treatment is used within the Project Site, the sewage treatment facility shall use a STEP system. The STEP system includes an enclosed septic tank to hold wastewater and waste products with liquid effluent pumped to the local WWTP. Solid material is held in the septic tank, but liquid effluent is pumped to the WWTP for treatment using a STEP system instead of being dispersed through a leach field or septic tank field that is typical of on-site sewage treatment systems. When the septic tank is full of solid waste material, it must be pumped out for disposal at an approved facility, as is typical of all on-site sewage treatment systems. Use of a STEP system eliminates the need and use of septic absorption fields or leach fields. Use of a contained septic tank isolates potential pollutants in wastewater from surrounding soils and groundwater.</p> <p>The STEP systems shall be maintained to ensure adequate capacity and solids removal from the wastewater effluent.</p>				(SWQMP) by the County and the RWQCB; Issuance of Building Permit			
<p><b>MM4.8-9(a) Design Detention Basin and Outlets to Re-establish Existing Conditions Flows.</b> The Project Applicant shall conduct a hydrology study to determine the existing flow to the retained water resources and shall design the up-gradient detention basins' configurations and outlet structures to pass through the existing conditions flows to down-gradient receiving water resources.</p> <ul style="list-style-type: none"> <li>■ A low-flow channel or by-pass shall be included in the basin design to allow existing low flow runoff of stormwater to pass through to down-gradient receiving waters.</li> <li>■ The outlet structure shall be designed to allow discharge of larger storm flows (10-year to 100-year storm events) at the existing rate, volume, and duration.</li> </ul>	Pre-Construction (for development of the Study)	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Approval of a Hydrology Study by the County; Issuance of Grading Permit			
<p><b>MM4.8-9(b) Stormwater Quality Treatment BMPs.</b> The WQMP shall be modified to incorporate sufficient stormwater quality BMPs prior to discharge into the detention basins to sufficiently treat stormwater runoff such that pollutant concentrations in flows that must bypass treatment conditions of the detention basins, pursuant to mitigation measure MM4.8-9(a), shall be targeted to achieve discharge concentrations that do not exceed existing conditions levels.</p> <p>Source control and treatment BMPs shall be implemented prior to</p>	Pre-Construction	RWQCB/Madera County Department of Engineering Building Division	RWQCB Madera County Department of Engineering Building Division	Approval of the SQMP by the RWQCB; Issuance of Building Permit; Periodic Compliance Reporting During Operation			

**Table 13 2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance																																
					Initials	Date	Remarks																														
<p>stormwater discharge into the storm drain system and they shall be designed to target for reductions in pollutant concentrations by the amount listed in the table below:</p> <table border="1" data-bbox="184 423 814 932"> <thead> <tr> <th colspan="3">Pollutant Reduction Targets for Passed Through Stormwater Runoff</th> </tr> <tr> <th>Pollutant<sup>a</sup></th> <th>Commercial Areas (percent)</th> <th>Residential Areas (percent)</th> </tr> </thead> <tbody> <tr> <td>Filtered phosphorous</td> <td>0</td> <td>24</td> </tr> <tr> <td>Total Nitrogen</td> <td>54</td> <td>47</td> </tr> <tr> <td>Inorganic-Nitrogen</td> <td>64</td> <td>44</td> </tr> <tr> <td>Total Copper</td> <td>41</td> <td>17</td> </tr> <tr> <td>Total Lead</td> <td>44</td> <td>17</td> </tr> <tr> <td>Total Zinc</td> <td>73</td> <td>45</td> </tr> <tr> <td>Oil and Grease</td> <td>72</td> <td>67</td> </tr> <tr> <td>Fecal Coliforms</td> <td>0</td> <td>13</td> </tr> </tbody> </table> <p>SOURCE: PBS&amp;J 2007</p> <p><sup>a</sup> Total Suspended Solids and Total Phosphorous concentrations would not increase</p> <p>■ BMPs implemented before discharge to the storm drain systems shall be designed to treat only the amount of stormwater runoff equivalent to existing conditions runoff.</p> <p>This mitigation measure is intended to constrain design of the project, and is not intended to impose post-construction or on-going water quality testing requirements.</p>	Pollutant Reduction Targets for Passed Through Stormwater Runoff			Pollutant <sup>a</sup>	Commercial Areas (percent)	Residential Areas (percent)	Filtered phosphorous	0	24	Total Nitrogen	54	47	Inorganic-Nitrogen	64	44	Total Copper	41	17	Total Lead	44	17	Total Zinc	73	45	Oil and Grease	72	67	Fecal Coliforms	0	13							
Pollutant Reduction Targets for Passed Through Stormwater Runoff																																					
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**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>NOISE</b>							
<p><b>MM4.10-1(a)</b> The Project Applicant shall require by contract specifications that the following construction best management practices (BMPs) be implemented by contractors to reduce construction noise levels:</p> <ul style="list-style-type: none"> <li>■ As individual parcels within the Project Site are proposed to be developed, notification shall be mailed to owners and occupants of all developed land uses immediately bordering the parcels to be developed including the Sumner Hill Subdivision, and all occupied lands within the Project Site bordering the parcel to be developed. The notification shall provide a schedule for major construction activities that will occur through the duration of the construction period within each parcel to be developed. In addition, the notification will include the identification and contact number for a designated construction manager for the proposed development that would be available on site to monitor construction activities. The construction manager will be located at the on-site construction office during construction hours for the duration of all construction activities.</li> <li>■ Hours of construction shall be limited to between 7:00 A.M. and 6:00 P.M. on weekdays and from 9:00 A.M. to 5:00 P.M. on Saturdays.</li> <li>■ Ensure that construction equipment is properly muffled according to industry standards.</li> <li>■ Place noise-generating construction equipment and locate construction staging areas away from sensitive uses, where feasible.</li> <li>■ Implement noise attenuation measures to the extent feasible, which may include, but are not limited to, noise barriers or noise blankets.</li> </ul>	Pre-Construction (for contract specifications)/ Construction (for noise reduction measures)	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Grading Permit			
<p><b>MM4.10-1(b)</b> The Project Applicant shall require by contract specifications that construction staging areas, along with the operation of earthmoving equipment within the Project Site, would be located as far away from vibration- and noise-sensitive sites as possible, such as the Sumner Hill Subdivision, and occupied land within the Project Site. Contract specifications shall be included in the Proposed Project construction documents, which shall be reviewed and approved by the County.</p>	Pre-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Grading Permit			

Table 13-2 Mitigation Monitoring and Reporting Program

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.10-2</b> The commercial and retail uses within the mixed use areas of the Proposed Project shall not engage in loading, unloading, opening, closing or other handling of boxes, crates, containers, building materials, refuse containers or similar objects between the hours of 10:00 P.M. and 6:00 A.M. if such activities would cause noise levels to exceed Madera County's nighttime exterior noise levels of 45 dBA $L_{eq}$ and 65 dBA $L_{max}$ .	Operation	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Periodic Compliance Reporting During Operation			
<b>TRANSPORTATION/TRAFFIC</b>							
<b>MM4.13-1(a)</b> Prior to the approval of a project phase that significantly affects the intersection of SR-41/SR-145, the following improvements shall be completed: re-stripe the shared through-right lane into a through lane and add a right turn only lane for the northbound approach, and add a second left-turn lane to the southbound approach.	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-1(b)</b> Prior to the approval of a project phase that significantly affects the intersection of Road 36/Avenue 15, the following improvements shall be completed: re-stripe the shared through-right lane into a through lane and add a right-turn only lane for the southbound, eastbound, and westbound approaches.	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-1(c)</b> Prior to the approval of a project phase that significantly affects the intersection of SR-41/Avenue 15, the following improvements shall be completed: provide an east leg connection, with a through lane, right-turn lane, and two left-turn lanes for the westbound approach; and two receiving lanes for the eastbound approach; add a right-turn lane and a second left-turn lane for the northbound approach, and add two left-turn lanes for the southbound approach; and add one through lane, and convert the right-turn lane into a shared through-right lane for the eastbound approach.	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-1(d)</b> Prior to the approval of a project phase that significantly affects the intersection of SR-41/Road 204, the following improvements shall be completed: re-stripe the shared through-right lane into a through lane and a free-flow right-turn only lane for the northbound approach, and add two left-turn lanes and re-stripe the shared through-left-right turn lane to a shared through-right lane for the westbound approach.	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			



**Table 13-2 Mitigation Monitoring and Reporting Program**

<i>Mitigation Measure(s) and/or Project Requirements</i>	<i>Implementation</i>	<i>Enforcement Agency</i>	<i>Monitoring Agency</i>	<i>Action Indicating Compliance</i>	<i>Verification of Compliance</i>		
					<i>Initials</i>	<i>Date</i>	<i>Remarks</i>
<b>MM4.13-1(e)</b> Prior to the approval of a project phase that significantly affects the intersection of SR-41/Avenue 13, the following improvements shall be completed: re-stripe the shared through-right lane into a through lane and add a right-turn-only lane for the southbound approach, and add a left-turn lane and re-stripe the shared through-left-right turn lane to a shared through-right lane for the eastbound approach.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-1(f)</b> Prior to the approval of a project phase that significantly affects the intersection of SR-41 northbound ramps/Children's Boulevard intersection, the following improvements shall be completed: add a through lane for the southbound approach and remove one free-flow right-turn lane for the eastbound approach.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-2(a)</b> The Project Applicant shall construct the roundabout at the intersection of Road 204/Rio Mesa Boulevard/East-West Connector with approaches that flare from two lanes to three lanes. Prior to constructing the roundabout, the Project Applicant (in consultation with Madera County) shall study the road grid around the intersection to determine if it is dense enough to provide a sufficient number of alternative routes that would allow the intersection to operate as a roundabout with a LOS D or better with two-lane approaches. Madera County shall make the final determination as to the number of lanes needed on the roundabout approaches.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p><b>MM4.13-2(b)</b> Prior to constructing the roundabout at the intersection of Road 204/North-South Connector, the Project Applicant, in consultation with Madera County, shall study the road grid around the intersection to determine if the road grid is dense enough to provide a sufficient number of alternative routes that would allow the intersection to operate as a roundabout with a LOS of LOS D or better. If the road grid is unable to provide a sufficient number of alternative routes, the intersection shall be constructed as a conventional signalized intersection, with three lane approaches on Road 204 and two lanes on the North-South Connector, with single turning lanes on all approaches. Madera County shall make the final determination as to whether the road grid is dense enough to provide a sufficient number of alternative routes that would allow the intersection to operate as a roundabout with a LOS D or better. Madera County shall make the final determination as to the number of lanes needed on the roundabout approaches, if the roundabout is determined to be feasible.</p>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<p><b>MM4.13-3(a)</b> Trucks delivering materials to and from the construction site shall stay on designated truck routes determined by Madera County. It is expected that most of the truck trips would occur to and from SR-41, thus, primary truck routes during construction would be along Road 204. A construction haul route map shall be prepared.</p>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<p><b>MM4.13-3(b)</b> Should a temporary road and/or lane closure be necessary during construction, the Project Applicant shall provide traffic control activities and personnel, as necessary, to minimize traffic impacts. This may include detour signage, cones, construction area signage, flagmen and other measures as required for safe traffic handling in the construction zone.</p>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p><b>MM4.13-4(a)</b> Prior to the occupancy of 20 percent or more of planned Project dwelling units, the following improvements shall be completed at the intersection of SR-41/Avenue 15: provide an east leg connection, with one left-turn lane and one through/right-turn lane (only one shared left/through/right-turn lane is needed for Tesoro Viejo phased development with a dedicated left-turn lane needed for Jamison and Morgan phased development) for the westbound approach: widen the southbound approach to one left-turn lane and one through/right-turn lane (add left-turn lane for Tesoro Viejo Project); restripe the northbound approach to one left-turn lane and one through/right-turn lane (include shared right-turn lane for Tesoro Viejo Project); and restripe the eastbound approach to one left/through/right-turn lane (include a shared through lane for the Tesoro Viejo Project).</p> <p>If Caltrans does not permit a signal at SR-41/Road 204 as shown in MM4.13-4(b) below, the following alternative mitigation shall be implemented to mitigate Project impacts: Construct a Project access road at Avenue 15/SR-41 to link to the internal road system of the first phase of the Project; construct two dedicated left-turn lanes and one shared through/right-turn lane to the east leg connection; construct one left-turn lane and one shared through/right-turn lane for the southbound approach (add left-turn lane for Tesoro Viejo Project); construct a dedicated right-turn lane for the eastbound approach and re-stripe the existing shared left-turn/right-turn lane to a shared left-turn/through lane (add dedicated right-turn lane and re-stripe existing lane to include a shared through lane for Tesoro Viejo Project); and restripe the northbound approach to include a left-turn lane and shared through/right-turn lane (add shared right-turn lane for Tesoro Viejo Project).</p>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<p><b>MM4.13-4(b)</b> Prior to the occupancy of 20 percent or more of planned Project dwelling units, the following improvements shall be completed at the intersection of SR-41/Road 204: install a traffic signal (Tesoro Viejo Project) at this intersection; and widen the westbound approach to two left-turn lanes and one through/right-turn lane (add dual left-turn lanes for the Tesoro Viejo Project).</p>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p><b>MM4.13-4(c)</b> Prior to the occupancy of 20 percent or more of planned Project dwelling units, the following improvements shall be completed at the intersection of SR-41/Avenue 12: widen the eastbound approach to one left-turn/through lane and two right-turn lanes (add second right-turn lane for Jamison and Morgan phased development).</p>	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<p><b>MM4.13-4(d)</b> Prior to the occupancy of 50 percent or more of planned Project dwelling units, the following improvements at the intersection of SR-41/Avenue 15 shall be completed: widen the westbound approach to two left-turn lanes, one through lane, and one right-turn lane (add second left-turn lane and dedicated right-turn lane for Tesoro Viejo Project); and widen the eastbound approach to one left-turn/through lane and one right-turn lane (add dedicated right-turn lane for Tesoro Viejo Project).                      If Caltrans does not permit a signal at SR-41/Road 204 as shown in MM4.13-4(b), the following alternative mitigation at the intersection of SR-41/Avenue 15 shall be implemented to mitigate Project impacts: widen the northbound approach to include two left-turn lanes, one through lane, and one shared through/right-turn lane (add second left-turn lane and second through lane for Tesoro Viejo Project); widen the southbound approach to include two left-turn lanes, one through lane, and one through/right-turn lane (add second left-turn lane and second through lane for Tesoro Viejo Project); widen the eastbound approach to include one left-turn lane, one through lane, and one right-turn lane (add dedicated left-turn lane for Tesoro Viejo Project); and widen the westbound approach to include two left-turn lanes, one through lane, and one right-turn lane (add dedicated right turn lane for Tesoro Viejo Project).</p>	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<p><b>MM4.13-4(e)</b> Prior to the occupancy of 50 percent or more planned Project dwelling units, the following improvements at the intersection of SR-41/Road 204 shall be completed: widen the northbound approach to one left-turn lane, one through lane, and one right-turn lane for a free right turn (add dedicated right-turn lane with free movement for the Tesoro Viejo Project); and widen the southbound approach to one left-turn lane, one through lane, and one through/right-turn lane (add second through lane for Tesoro Viejo Project).</p>	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

<i>Mitigation Measure(s) and/or Project Requirements</i>	<i>Implementation</i>	<i>Enforcement Agency</i>	<i>Monitoring Agency</i>	<i>Action Indicating Compliance</i>	<i>Verification of Compliance</i>		
					<i>Initials</i>	<i>Date</i>	<i>Remarks</i>
<b>MM4.13-4(f)</b> Prior to the occupancy of 50 percent or more planned Project dwelling units, the following improvements at the intersection of SR-41/Avenue 12 (assuming no interchange) shall be completed: widen the northbound approach to one left-turn lane, two through lanes, and one right-turn lane (add second through lane for Tesoro Viejo Project).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-4(g)</b> Prior to the occupancy of 100 percent of planned Project dwelling units, the following improvements at the intersection of Road 36/Avenue 15 shall be completed: install traffic signal; and widen the westbound, southbound, and eastbound approaches to one left-turn lane and one through/right-turn lane (add dedicated left-turn lane).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<p><b>MM4.13-4(h)</b> Prior to the occupancy of 100 percent of planned Project dwelling units, the following improvements at the intersection of SR-41/Avenue 15 shall be completed: widen the northbound approach to two left-turn lanes, two through lanes, and one right-turn lane (add second left-turn lane, second through lane, and dedicated right-turn lane for Tesoro Viejo Project); widen the southbound approach to two left-turn lanes, one through lane, and one through-right-turn lane (add second left-turn lane for Tesoro Viejo Project and second through lane for Jamison and Morgan development); widen the eastbound approach to one left-turn lane, one through lane, and one through/right-turn lane (add dedicated left-turn lane and shared through/right-turn lane for Tesoro Viejo Project); and widen the segment along SR-41 between Avenue 15 and Road 204 to two lanes in each direction (add one lane in each direction for Jamison and Morgan development) to coincide with adjacent intersection improvements.<sup>2</sup></p> <p>If Caltrans does not permit a signal at SR-41/Road 204 as shown in MM4.13-4(b), the following alternative mitigation at the intersection of SR-41/Avenue 15 shall be implemented to mitigate Project impacts: widen the northbound approach to include two left-turn lanes, two through lanes, and one free right-turn lane (add dedicated right-turn lane with free movement for Tesoro Viejo Project); widen the eastbound approach to include one left-turn lane, two through lanes, and one free right-turn lane (add second through lane and provide free movement to right-turn lane for Tesoro Viejo Project).</p>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

<sup>2</sup> This roadway segment mitigation is not required based on segment level of service results, but to be consistent with mitigation measures at adjacent intersections (SR-41/Avenue 15 and SR-41/Road 204).

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.13-4(i)</b> Prior to the occupancy of 100 percent of planned Project dwelling units, the following improvements at the intersection of SR-41/Avenue 12 (assuming no interchange) shall be completed: widen the northbound approach to two left-turn lanes, two through lanes, and one right-turn lane (add second left-turn lane for Jamison and Morgan development); restripe the westbound approach to one left-turn lane and one through/right-turn lane (for Tesoro Viejo Project); widen the southbound approach to one left-turn lane, two through lanes, and one right-turn lane (add dedicated right-turn lane for Tesoro Viejo Project); and widen the eastbound approach to one left-turn lane, one left-turn/through lane, and two right-turn lanes (add dedicated left-turn lane for Tesoro Viejo Project).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-5</b> Prior to the occupancy of 100 percent of planned Project dwelling units, the following improvements at the intersection of SR-41/Road 204 shall be completed: widen the northbound approach to one left-turn lane, two through lanes, and one right-turn lane with free right (add second through lane for Tesoro Viejo development); and widen the segment along SR-41 between Avenue 15 and Road 204 to two lanes in each direction (add one lane in each direction for Jamison and Morgan development) to coincide with adjacent intersection improvements. <sup>3</sup>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(a)</b> Prior to approval of a Project phase by 2015 that significantly affects the intersection of Road 206/Friant Road, the following improvements shall be completed: install a traffic signal.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(b)</b> Prior to approval of a Project phase by 2015 that significantly affects the intersection of SR-41/Avenue 15 (with Proposed Project connection to Avenue 15), the following improvements shall be completed: provide an east leg connection, with one left-turn/through/right-turn lane (due to assumed connections at Avenue 12, Avenue 13, and Rio Mesa Boulevard for cumulative development, the dedicated left-turn lane required for the Existing 2011 Plus Project in 2015 is no longer needed) for the westbound approach.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

<sup>3</sup> This roadway segment mitigation is not required based on segment level of service results, but to be consistent with mitigation measures at adjacent intersections (SR-41/Avenue 15 and SR-41/Road 204).

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.13-6(c)</b> Prior to approval of a Project phase by 2015 that significantly affects the intersection of SR-41/Road 204 (with Proposed Project connection to Avenue 15), the following improvements shall be completed: provide an east leg connection, with one left-turn/through/right-turn lane (due to assumed connections at Avenue 12, Avenue 13, and Rio Mesa Boulevard for cumulative development, the dual left-turn lanes required for the Existing 2011 Plus Project in 2015 are no longer needed) for the westbound approach.	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(d)</b> Prior to approval of a Project phase by 2015 that significantly affects the intersection of SR-41/Avenue 12 (assuming no interchange), the following improvements shall be completed: widen the northbound approach to two left-turn lanes, two through lanes, and one right-turn lane (add second left-turn lane and second through lane); widen the westbound approach to two left-turn lanes, one through lane, and one right-turn lane (add dual left-turn lanes and convert shared through/left-turn lane into a through lane only); widen the southbound approach to one left-turn lane, two through lanes, and one right-turn lane (add dedicated right-turn lane and convert shared through/right-turn lane into a through lane only); and widen the eastbound approach to one left-turn lane, one through lane, and two right-turn lanes (add dedicated left-turn lane and convert the shared left-turn/through lane into a through lane only).	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(e)</b> Prior to approval of a Project phase by 2015 that significantly affects the intersection of Children’s Boulevard/Peck Boulevard, the following improvements shall be completed: install a traffic signal. Development planned under the Gunner Ranch West Area Plan (GRWAP) assumes a southbound leg is installed with one left-turn lane and one through/right-turn lane (install southbound leg with one left-turn lane and one through/right-turn lane), the eastbound approach is widened to one left-turn lane, one through lane, and one through/right-turn lane (add dedicated left-turn lane), the westbound approach is re-stripped to one left-turn lane, one through lane, and one through/right-turn lane (re-stripe to include shared right-turn lane), and the northbound approach is restriped to include one left-turn lane and one through/right-turn lane (add shared through lane). <sup>4</sup>	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

<sup>4</sup> Assumed improvements are expected to be constructed for access to cumulative developments (Gunner Ranch West and Villages of Gateway).



**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.13-6(f)</b> Prior to approval of a Project phase by 2015 that significantly affects the intersection of SR-41/Friant Road Northbound Ramps, the following improvements shall be completed: reconstruct the interchange; convert all westbound movements into free flow (add free flow movement signal phasing) and convert the eastbound approach into two through lanes and one right-turn lane with a free right (convert shared through/right-turn lane into dedicated right-turn lane with free flow movement).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(g)</b> Prior to approval of a Project phase by 2015 that significantly affects the intersection of SR-41/Herndon Avenue Northbound Ramps, the following improvements shall be completed: widen the northbound approach to two left-turn lanes, one left/right-turn lane, and two right-turn lanes (add shared left/right-turn lane).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(h)</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of Road 206/Friant Road, the following improvements shall be completed: install a traffic signal.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(i)</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of SR-41/Avenue 15 (with Proposed Project connection to Avenue 15), the following improvements shall be completed: widen the eastbound approach to one left-turn lane, one through lane, and one through-right-turn lane (add dedicated left-turn lane and re-stripe right-turn lane to include a shared through lane); and widen the northbound approach to one left-turn lane, one through lane, and one right-turn lane (add dedicated right-turn lane).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(j)</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of SR-41/Road 204 (with Proposed Project connection to Avenue 15), the following improvements shall be completed: provide one left-turn lane and one through/right-turn lane to the westbound approach; <sup>5</sup> provide one left-turn lane, one through lane, and one right-turn lane to the northbound approach; <sup>6</sup> and retain the existing one left-turn lane and one through/right-turn lane to the southbound approach. <sup>7</sup>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

<sup>5</sup> Due to assumed connections at Avenue 12, Avenue 13, and Rio Mesa Boulevard for cumulative development, the second left-turn lane required for the Existing 2011 Plus Project in 2020 scenario is no longer needed.

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.13-6(k)</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of SR-41/Road 204 (without Proposed Project connection to Avenue 15), the following improvements shall be completed: provide one left-turn lane, one through lane, and one right-turn lane to the northbound approach; <sup>8</sup> and retain the existing one left-turn lane and one through/right-turn lane to the southbound approach. <sup>9</sup>	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(l)</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of Road 40½/Avenue 9, the following improvements shall be completed: install a traffic signal.	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(m)</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of Children’s Boulevard/Peck Boulevard, the following improvements shall be completed: install a traffic signal. Development planned under the Gunner Ranch West Area Plan (GRWAP) assumes a southbound leg is installed with one left-turn lane and one through/right-turn lane (install southbound leg with one left-turn lane and one through/right-turn lane), the eastbound approach is widened to one left-turn lane, one through lane, and one through/right-turn lane (add dedicated left-turn lane), the westbound approach is restriped to include one left-turn lane, one through lane, and one through/right-turn lane (add shared right-turn lane) and the northbound approach is restriped to include one left-turn lane and one through/right-turn lane (add shared through lane). <sup>10</sup>	Subdivision/Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

<sup>6</sup> Due to assumed connections at Avenue 12, Avenue 13, and Rio Mesa Boulevard for cumulative development, the free flow movement for the right-turn lane is no longer needed.

<sup>7</sup> Due to assumed connections at Avenue 12, Avenue 13, and Rio Mesa Boulevard for cumulative development, the second through lane is no longer needed.

<sup>8</sup> Due to assumed connections at Avenue 12, Avenue 13, and Rio Mesa Boulevard for cumulative development, the free flow movement for the right-turn lane is no longer needed.

<sup>9</sup> Due to assumed connections at Avenue 12, Avenue 13, and Rio Mesa Boulevard for cumulative development, the second through lane is no longer needed.

<sup>10</sup> Assumed improvements are expected to be constructed for access to cumulative developments (Gunner Ranch West and Villages of Gateway).

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.13-6(n)</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of SR-41/Friant Road Northbound Ramps, the following improvements shall be completed: reconstruct the interchange; convert all westbound movements into free flow (add free flow movement signal phasing) and convert the eastbound approach into two through lanes and one right-turn lane with a free right (convert shared through/right-turn lane into dedicated right-turn lane with free flow movement).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-6(o)</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of SR-41/Herndon Avenue Northbound Ramps, the following improvements shall be completed: widen the northbound approach to two left-turn lanes, one left/right-turn lane, and two right-turn lanes (add shared left/right-turn lane); and widen the westbound approach to three through lanes, one through/right-turn lane, and one right-turn lane with free flow movement for through/right-turn lane and dedicated right-turn lane (add fourth through lane and dedicated right-turn lane with free flow movements).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-7</b> Prior to approval of a Project phase by 2020 that significantly affects the intersection of SR-41/Avenue 12 (assuming no interchange), the following improvements shall be completed: widen the eastbound approach to two left-turn lanes, one through lane, and two right-turn lanes (add dual left-turn lanes); widen the westbound approach to two left-turn lanes, one through lane, and one right-turn lane (add dual left-turn lanes and convert the shared left-turn/through lane into a through lane only); widen the northbound approach to two left-turn lanes, two through lanes, and one right-turn lane (add second left-turn lane); and widen the southbound approach to one left-turn lane, two through lanes, and one right-turn lane (add dedicated right-turn lane).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-8(a)</b> Prior to the occupancy of 50 percent or more planned Project dwelling units, the following improvements at the roadway segment of SR-41 between Avenue 12 and Road 204 shall be completed: widen SR-41 to four lanes (add one lane in each direction for the Jamison and Morgan development) along this segment of the roadway.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.13-8(b)</b> Prior to approval of a Project phase by 2015 that significantly affects the roadway segment of SR-41 south of Herndon Avenue, the following improvements shall be completed: widen SR-41 to four lanes in each direction along this segment of the roadway.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-8(c)</b> Prior to approval of a Project phase by 2020 that significantly affects the roadway segment of SR-41 between Avenue 12 and Avenue 13, the following improvements shall be completed: widen SR-41 to four lanes (add one additional lane in each direction). <sup>11</sup>	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-8(d)</b> Prior to approval of a Project phase by 2020 that significantly affects the roadway segment of SR-41 between Friant Road and Children's Boulevard, the following improvements shall be completed: widen SR-41 to three lanes in each direction (add one additional lane in each direction).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-10(a)</b> Prior to the approval of a Project phase that significantly affects the intersection of SR-41/Avenue 15 (with Proposed Project connection to Avenue 15) by the year 2015, the following improvements shall be completed: widen the eastbound approach to one left-turn lane and one through/right-turn lane (add a dedicated left-turn lane for Tesoro Viejo development); and widen the westbound approach to one left-turn lane and one through/right-turn lane (add a dedicated left-turn lane for Tesoro Viejo development).	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-10(b)</b> Prior to the approval of a Project phase that significantly affects the intersection of Road 200/Outback Industrial Way by the year 2020, the following improvements shall be completed: install a traffic signal at this intersection.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			
<b>MM4.13-11</b> Prior to full project buildout, SR-41 shall be widened from four lanes (two in each direction) to six lanes (three in each direction) from Avenue 12 to Friant Road.	Subdivision/ Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Subdivision Conditions/ Building Permits			

<sup>11</sup> Due to assumed connections at Avenue 12, Avenue 13, and Rio Mesa Boulevard for cumulative development, the additional one lane in each direction is no longer needed between Avenue 13 and Road 204.

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>UTILITIES AND SERVICE SYSTEMS</b>							
<b>MM4.14-5(a)</b> The Developer shall determine and implement (with the approval of the County) best practicable treatment or control methods of the discharge prior to operation of the wastewater treatment plant to avoid pollution or nuisance and to maintain the highest water quality consistent with the maximum benefit to the people of the State.	Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Building Permits; Periodic Compliance Reporting During Operation			
<b>MM4.14-5(b)</b> A design application rate for recycled water irrigation shall be established to reduce impacts for salts. The design application rate may limit total salt load or require blending with surface water. This shall be implemented by the Developer's Project Engineer, with approval by the County, prior to operation of the wastewater treatment plant.	Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Building Permits; Periodic Compliance Reporting During Operation			
<b>MM4.14-5(c)</b> The effluent limitation for salinity (as electrical conductivity, or EC) shall not exceed 500 µmhos/cm over source water EC or a greater limit established and enforced by the Central Valley Regional Water Quality Control Board.	Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Building Permits; Periodic Compliance Reporting During Operation			
<b>MM4.14-5(d)</b> Water softeners shall be prohibited for use within the Project Site.	Construction	Madera County Department of Engineering Building Division	Madera County Department of Engineering Building Division	Issuance of Building Permits; Periodic Compliance Reporting During Operation			
<b>ENERGY AND CLIMATE CHANGE</b>							
<b>MM4.15-3(a)</b> Trees and other shade structures shall be incorporated into residential and nonresidential development to maximize summer shade and to minimize winter shade.	Post-Construction	Madera County Department of Planning and Engineering Building Division	Madera County Department of Planning and Engineering Building Division	Issuance of Building Permits			

Table 13-2 Mitigation Monitoring and Reporting Program

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.15-3(b)</b> The Project Applicant shall require the installation and use of electrical support for TRUs at loading docks, to the extent feasible and practicable.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(c)</b> The Project Applicant shall require the use of “green” cement (which contains recycled materials and is produced using emission-reducing technologies), if available, structurally appropriate for the intended use, and where feasible and practicable.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(d)</b> The Proposed Project shall require the installation of facilities to support the use of alternative fuel vehicles, if feasible and available based on market conditions.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(e)</b> The Proposed Project shall require the use of LED traffic lights, where feasible.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(f)</b> The Project Applicant shall require future building owners and tenants to use energy efficient lighting, to the extent feasible and appropriate.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

Mitigation Measure(s) and/or Project Requirements	Implementation	Enforcement Agency	Monitoring Agency	Action Indicating Compliance	Verification of Compliance		
					Initials	Date	Remarks
<b>MM4.15-3(g)</b> Project buildings shall have passive solar design features that include roof overhangs or canopies that block summer shade, but that allow winter sun, from penetrating south facing windows. Trees and other shade structures shall be incorporated into residential development to maximize summer shade and to minimize winter shade. The Proposed Project shall meet the nonroof surfaces requirement through a combination of shade coverage, open grid pavement, and paving materials that meet the solar reflectance index requirements, if feasible and practicable.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(h)</b> All roofing materials used in commercial/retail buildings shall be Energy Star certified. All roof products shall also be certified to meet ATSM high emissivity requirements.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(i)</b> Where feasible, recycled components shall be used in the construction of Proposed Project buildings.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(j)</b> The Project Applicant shall require the reuse or recycling of construction waste materials in all construction contracts, as appropriate and feasible.	Pre-Construction/ Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Grading Permit			
<b>MM4.15-3(k)</b> The Project Applicant shall require the installation of water saving devices that reduce the flow of wastewater to the sewer system, to the extent feasible.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			

**Table 13-2 Mitigation Monitoring and Reporting Program**

<i>Mitigation Measure(s) and/or Project Requirements</i>	<i>Implementation</i>	<i>Enforcement Agency</i>	<i>Monitoring Agency</i>	<i>Action Indicating Compliance</i>	<i>Verification of Compliance</i>		
					<i>Initials</i>	<i>Date</i>	<i>Remarks</i>
<b>MM4.15-3(l)</b> The Proposed Project shall include recycling containers and facilities for all waste products removed from the waste stream by the Madera Disposal Service. Such containers shall be clearly labeled, regularly maintained, and widely distributed throughout high traffic areas of the Project Site. Recycling services shall be provided for residential and nonresidential uses.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(m)</b> The Proposed Project shall include one bicycle parking space for every 20 off-street vehicle parking spaces for commercial uses.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(n)</b> The Proposed Project may support a ride sharing program by designating a certain percentage of parking spaces for high-occupancy vehicles, providing larger parking spaces to accommodate vans used for ride-sharing, and/or designating adequate passenger loading and unloading and waiting areas.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			
<b>MM4.15-3(o)</b> The Proposed Project may support a car-sharing program. Accommodations for such programs include providing parking spaces for the car-share vehicles at convenient locations accessible by public transportation.	Post-Construction	Madera County Department of Planning and Department of Engineering Building Division	Madera County Department of Planning and Department of Engineering Building Division	Issuance of Building Permits			