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## II. SUMMARY

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### A. INTRODUCTION

The purpose of this section is to provide the reader with a clear and simple description of the proposed project and its potential environmental impacts. Section 15123 of the *CEQA Guidelines* requires that the summary identify each significant effect and recommended mitigation measures that would minimize or avoid potential significant impacts. The summary is also required to identify areas of controversy known to the lead agency, including issues raised by agencies and the public, and issues to be resolved, including the choice among alternatives and whether or how to mitigate significant effects. This section focuses on the major areas of the proposed project that are important to decision-makers, and uses non-technical language to promote understanding.

### B. SUMMARY OF PROPOSED PROJECT

The proposed project would construct and operate an asphalt batch plant, an asphalt and concrete recycling facility, and an aggregate materials off-loading, storage and distribution facility for Dutra Materials (applicant). The proposal includes the construction and operation of new dock facilities within and adjacent to the Petaluma River; for the receipt of barged aggregate materials at various times within any given 24-hour period. The proposed project also includes a conveyor and distribution system, stockpiled aggregates, sand and recycled asphalt and concrete, an asphalt mixing and loading facility, a portable asphalt and concrete recycling plant, and a related office with truck scale. The normal truck loading facilities would operate weekdays between 6:00 AM and 6:00 PM with occasional night and weekend operations based on customer requirements. The project also involves construction and operation of a fire station facility for vehicle storage and training for the San Antonio Volunteer Fire Department.

It is possible that the County could approve the project several months before the applicant obtains permits and approvals from the San Francisco Bay Conservation and Development Commission (BCDC) and the Sonoma Marin Area Rail Transit (SMART) necessary to construct the barge off-loading facility and the conveyor proposed to span over the railroad tracks. If there is a delay in obtaining permits and approvals from BCDC and SMART, the project could operate in a "start-up" mode at less than full capacity. Specifically, the barge off-loading facility at Area A and the conveyor over the railroad tracks would not be in place during the start-up phase, and thus all material importation would be accomplished by trucks to Area B.

The proposed project will require a Sonoma County General Plan Amendment to change the land use designation on the primary portion of the project site (Assessor Parcel Numbers [APN] 019-320-022 and 019-320-023, also known as Areas B, C, and D) from Limited Commercial to Limited Industrial; a Specific Plan Amendment (Petaluma Dairy Belt Plan) to change the land use designation from Limited Commercial to Limited Industrial; and a Zone Change from LC (Limited Commercial) to M3 (Limited Rural Industrial), as well as a Use Permit and Design Review.

Additionally the project includes a proposed amendment to General Plan Policy LU-17e as follows: "Apply the "General Commercial" and "General Industrial" categories only to appropriate uses existing as of 1986 inside the urban service boundary. Apply the "Limited Commercial" and "Limited Industrial" categories only

to appropriate uses existing as of 1986, *except that areas designated "Limited Commercial" may be redesignated to "Limited Industrial" within the Haystack Landing Site along Petaluma Boulevard South (APNs 019-320-022 and 019-320-023) as necessary to accommodate the relocation of an asphalt and recycling plant*". (Proposed changes to Policy LU-17e are italicized.)

The project site is located on three parcels totaling 38 acres at 3355 Petaluma Boulevard South on the east side of the Boulevard, just outside the City of Petaluma. The proposed project would include the re-establishment of Dutra's existing asphalt batch plant facilities, temporarily operating at 1601 Petaluma Boulevard South (which was previously located on the opposite side of Petaluma Boulevard South). The project would include the construction of several new buildings, including the San Antonio Volunteer Fire Department, modular offices, and equipment related to the mixing and distribution of asphalt. In addition to the asphalt plant, the project would construct new dock facilities on the Petaluma River, with an overhead conveyor system that would distribute barged materials to on-site stockpiles adjacent to the proposed asphalt plant. The project also includes an asphalt and concrete recycling facility which would include an area for stockpiles of recycled asphalt product (RAP) and concrete. Additional site improvements consist of new parking areas, significant landscaping along the freeway, stormwater swales, security gates, lighting and a relocated driveway for the project site.

### **C. AREAS OF KNOWN CONTROVERSY / ISSUES TO BE RESOLVED**

Section 15123 of the *CEQA Guidelines* requires an EIR to identify areas of controversy known to the lead agency, including issues raised by agencies and the public and issues to be resolved.

Based on the responses received on the Initial Study and the Notice of Preparation of the EIR, as well as input provided at the February 27, 2006 public scoping meeting, the following summarizes the areas of known controversy and issues to be resolved.

- Alteration to Fish and Wildlife Resources
- Take of Listed Plant or Animal Species
- Changes to the Bed, Channel, or Bank of the Petaluma River
- Surface Water Quality
- Provision of Water Service
- Water Use and Efficiency
- Construction Impacts Related to Traffic, Noise, Air Quality, and Public Health and Safety
- Operational Impacts Related to Traffic, Noise, Air Quality, and Public Health and Safety
- Liquefaction of Project Site and Settlement of Aggregate
- On-site Safety
- Fire Safety
- Conflict with Proposed Caltrans Marin-Sonoma Narrows Project Interchange and Frontage Road Improvements

- Activity Within State Right-of-Way
- Dredging Activity
- Public and Emergency Access
- Conveyor Over a Passenger Railroad and Private Crossing
- Airborne Dust and Particles Related to Train Safety
- Capacity of Existing Drainage Culvert
- Use of Private Railroad Crossing
- Truck Movement on Petaluma Boulevard South
- Production and Use of Crumb Rubber
- Impacts to Highway 101 Scenic Corridor
- Impact of New Light Source to Scenic and Biological Resources
- Potential for Hazardous Materials Spills
- Health Impacts
- Nuisance Odors
- Impacts to Native Species
- Introduction of Invasive Species
- Land Use and Zone Change
- Proximity to Heron/Egret Nesting Area
- Proximity to Shollenberger Park
- Interaction of Barges with River Equipment and Other Vessels
- Historic and Cultural Significance of the Site
- Economic Impact to Birding Activities
- Construction of Visual and Noise Barriers
- Night-time Operations
- Compatibility with Surrounding Land Uses

#### **D. SUMMARY OF ENVIRONMENTAL IMPACTS & MITIGATION MEASURES**

The following Table II-1 summarizes the various significant environmental impacts associated with the construction and operation of the proposed project. Mitigation measures are proposed for significant environmental impacts, and the level of impact significance after mitigation is also identified.

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<b>AESTHETICS</b>		
<p><b><i>Impact AES-1 Implementation of the Proposed Project Would Have a Substantial Adverse Effect on a Scenic Vista</i></b></p>	<p><b><i>Mitigation Measure AES-1</i></b></p>	
<p>Highway 101 acts as a scenic vista toward Sonoma Mountain to the east, which can be seen from and through the project site. In addition, the western border of the project site is within 200 feet of the centerline of Highway 101, which has been designated as a Scenic Corridor. The entire area surrounding the project site west of Highway 101 is designated with a Scenic Resource zoning overlay. Application of Sonoma County's <i>Visual Assessment Guidelines</i> indicates that the project would be visually dominant in the area, which in combination with the high sensitivity characteristics of the area would result in a <b>significant</b> impact to visual resources.</p>	<p>The following mitigation measures would reduce but not completely eliminate the project's significant impact to scenic vistas:</p> <ul style="list-style-type: none"> <li>• The proposed landscape plan shall be revised to include more landscape screening throughout the project site to further screen the proposed project from off-site views. The additional landscaping shall be provided: a) along the northern, western and southern edges of Area A; b) along the northern, eastern and southern edges of Area B; and c) along the eastern side of Area C. The landscape plan shall also be revised to incorporate a landscaped berm along the portion of the site that fronts Highway 101 and Petaluma Boulevard South. Finally, the revised landscape plan shall incorporate trees with the proposed ground cover within Area C to further screen the proposed project from off-site views.</li> <li>• Landscaping improvements along the east side of Petaluma Boulevard South shall conform with the South Petaluma Gateway Project Plan landscaping requirements.</li> <li>• Existing trees in the area between the project site and Highway 101 shall be preserved to the extent possible.</li> <li>• The screen plantings shall borrow from naturally established form, line, color and texture so that the visual characteristics are compatible with their surroundings.</li> <li>• Colors used for exterior building surfaces shall match the hue, lightness, and saturation of colors of the immediately</li> </ul>	<p>Significant and Unavoidable</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><i>Impact AES-2 Implementation of the Proposed Project Would Result in Significant Impact to the Visual Character of the Project Site and Surroundings</i></p> <p>The primary character-defining feature of the site is its open space, rural character and adjacency to the Petaluma River. The proposed project would dominate the views in the area, standing out against the setting and attracting attention away from the surrounding landscape. Due to the project's scale, many other visual characteristics of the area would be diminished.</p>	<p>surrounding trees and vegetation. Several colors matching those of the surrounding trees and vegetation shall be used in order to minimize uniformity.</p> <ul style="list-style-type: none"> <li>• Area A and Area D shall not be used to store equipment, tools, aggregate, etc.</li> <li>• No junk, debris, non-operative vehicles or equipment unrelated to the proposed project operations shall be stored on Areas B, C and D, unless visually screened from off-site views.</li> <li>• Prior to building permit issuance, the grading plan, development plan, landscaping plan, sign plan, elevations, and colors and materials shall be subject to review and approval by the Sonoma County Design Review Committee.</li> </ul> <p>While the additional landscaping would further screen the proposed project's various facilities, it would also increase impacts relative to the obstruction of scenic vistas. Additional landscaping along the eastern edge of Area B and Area C could also increase shadows in the vicinity of the homes situated along the River.</p>	
<p><i>Impact AES-2 Implementation of the Proposed Project Would Result in Significant Impact to the Visual Character of the Project Site and Surroundings</i></p> <p>The primary character-defining feature of the site is its open space, rural character and adjacency to the Petaluma River. The proposed project would dominate the views in the area, standing out against the setting and attracting attention away from the surrounding landscape. Due to the project's scale, many other visual characteristics of the area would be diminished.</p>	<p><i>Mitigation Measure AES-2</i></p> <p>Implementation of Mitigation Measure AES-1 would reduce but not completely eliminate significant visual character impacts associated with the proposed project.</p>	<p>Significant and Unavoidable</p>

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<p>Overall, the proposed development on Areas A, B, and C would change the visual character of the parcel from that of a rural and agricultural nature to that of an industrial development. Because all of the primary character-defining features of the site would be substantially altered, project impacts related to the visual character of the site and surroundings would be <b>potentially significant</b>.</p> <p><b>Impact AES-3 Implementation of the Proposed Project Would Create a New Source of Substantial Light and Glare Which Would Adversely Affect Day or Night-time Views in the Area</b></p> <p>Normal hours of operation would be 6 AM to 6 PM Monday through Friday with night-time and weekend operations when needed. The project site is currently undeveloped, therefore implementation of the proposed project would introduce new sources of light and glare to the project area.</p> <p>The introduction of light and glare from the proposed project would be noticeable to viewers in the surrounding area, particularly by residents on the west side of Highway 101, residents adjacent to the project site, people driving along Highway 101 and Petaluma Boulevard South, and to a lesser extent, boats in the River and visitors at Shollenberger Park, which closes at sunset.</p> <p>The proposed project lighting would follow Sonoma County's guidelines for industrially zoned areas with no lighting directed toward residential areas, the park or open space areas across the River. However, because a lighting plan has yet to be submitted, the light and glare from the proposed project could adversely affect night-time views in the area. This is considered a <b>potentially significant</b> impact.</p>	<p><b>Mitigation Measure AES-3</b></p> <p>Prior to issuance of the Building permit, an exterior lighting plan shall be submitted for review and approval by Permit &amp; Resource Management Dept (PRMD) Project Review staff and Design Review Committee. The lighting plan shall include but not necessarily be limited to the following:</p> <ul style="list-style-type: none"> <li>• Proposed project lighting shall follow Sonoma County's guidelines for industrially zoned areas with no lighting directed toward residential areas, the egret/heron colony on Area B, Shollenberger Park, or open space areas across the River.</li> <li>• The exterior lighting plan shall show all potential light sources with the types of lighting and their locations.</li> <li>• Typical lighting shall include low mounted, downward casting and shielded lights that do not cause spillover onto adjacent properties, and the utilization of motion detection systems where applicable.</li> <li>• No flood lights shall be utilized.</li> <li>• Lighting shall not "wash out" structures or any portions of the site.</li> <li>• Lighting shall be limited to the areas that would be in</li> </ul>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>operation during night-time hours with all recycling operations and general aggregate sales limited to between 6 AM to 6 PM.</p> <ul style="list-style-type: none"> <li>• Low intensity, indirect light sources shall be encouraged.</li> <li>• On-demand lighting systems shall be encouraged.</li> <li>• Mercury, sodium vapor, and similar intense and bright lights shall not be permitted except where their need is specifically approved and their source of light is restricted.</li> <li>• All light sources shall be fully shielded from off-site view.</li> <li>• All buildings and structures shall consist of non-reflecting material or be painted with non-reflective paint.</li> <li>• Generally, light fixtures shall not be located at the periphery of the property and shall shut off automatically when the use is not operating. Security lighting visible from the highway shall be motion-sensor activated.</li> <li>• All lighting shall be installed in accordance with building codes and the approved lighting plan during construction.</li> </ul> <p>Also see <i>Mitigation Measure Bio-4c</i> regarding illumination restrictions during the nesting season.</p>	
<p><b>Cumulative Aesthetics Impacts</b></p> <p>The Novato Narrows, Highway 101 Widening project would entail construction of an interchange on Highway 101 and would require the use of right-of-way that extends into the western portion of the project site. The Highway 101 Widening project would also include a new overpass (and associated lighting) that would touch down near or on the proposed project site. While this related project would result in the removal of the billboard sign just west of the site, it would also require the removal of existing trees and the project's</p>		<p>Significant and Unavoidable</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>proposed landscaping north of the Caltrans right-of-way line. The first landscaping requirement listed above in Mitigation Measure AES-1 was also structured so that this related project would not result in the loss of the 30-foot wide landscape berm required to be installed south of the Caltrans right-of-way line and east of the public right-of-way that extends into the project site. Because the project area is generally rural in nature, it is anticipated that future projects visible from and towards the project site would result in significant aesthetic impacts related to scenic vistas and visual character, and that this project would make a considerable contribution to those impacts. Therefore, cumulative impacts related to aesthetics would be <i>significant</i>.</p>		
<b>AIR QUALITY</b>		
<p><b>Impact AQ-1 Construction Emissions</b></p> <p>Construction activities associated with development of the start-up and full build out phases of the project would include site preparation, soil excavation, backfilling, grading, and equipment vehicular traffic on paved and possibly unpaved roads. Soil disturbance caused by construction activities could be exacerbated by wind erosion. As a result, short-term dust emissions could cause a temporary increase in localized PM<sub>10</sub> emissions. The operation of construction equipment would also result in the emission of criteria pollutants PM<sub>2.5</sub>, ROG, NOx, and CO. Construction activities associated with project development would also result in short-term exhaust emissions from construction-related equipment. The primary pollutants associated with exhaust emissions from construction equipment are ozone precursors (ROG and NOx), CO, and PM<sub>10</sub>.</p> <p>The Bay Area Air Quality Management District (BAAQMD) would</p>	<p><b>Mitigation Measures AQ-1</b></p> <p><u>Mitigation Measure AQ-1a</u></p> <p>The following mitigation measures apply to activities associated with the proposed asphalt plant construction and are intended to reduce the temporary generation of fugitive dust. The measures to reduce construction related PM<sub>10</sub> emissions reflect basic and optional dust control measures recommended by BAAQMD:</p> <ul style="list-style-type: none"> <li>• All active construction areas shall be watered at least twice daily.</li> <li>• All trucks hauling soil, sand, and other loose materials shall be covered with tarpaulins or other effective covers.</li> <li>• All unpaved access roads, parking areas, and staging areas at the construction site shall be paved; otherwise, water or non-toxic soil stabilizers shall be applied to all unpaved access roads. In addition, paved access roads, parking areas, and</li> </ul>	<p>Less Than Significant</p>

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<p>consider project construction activities to be <i>significant</i> if established control measures are not implemented.</p>	<p>staging areas shall be swept daily with a water sweeper. Streets shall be swept daily with a water sweeper in areas where visible soil material is carried onto adjacent public streets.</p> <ul style="list-style-type: none"> <li>• The applicant shall hydroseed or apply non-toxic soil stabilizers to inactive construction areas (previously graded area inactive for ten days or more).</li> <li>• The applicant shall enclose, cover, water twice daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.).</li> <li>• The applicant shall limit traffic speeds on unpaved roads to 15 miles per hour.</li> <li>• The applicant shall install sandbags or other erosion control measures to prevent silt runoff to public roadways.</li> <li>• The applicant shall replant vegetation in disturbed areas as quickly as possible.</li> <li>• The applicant shall construct a gravel pad at all exits used by construction equipment or trucks to minimize soil adhering to the vehicle tires or tracks from leaving the construction site. The pads shall be constructed by placing crushed aggregate (greater than 3 inches and smaller than 6 inches) over geotextile fabric to at least 12 inches in depth. The pad shall be a minimum of 20 feet wide and 50 feet in length.</li> <li>• During periods when trucks are transporting soil to or from the site, dirt that may have been tracked off the site shall be removed daily from the street. The area to be cleaned is to extend to the limit of noticeable dirt tracked from the site or for a distance of 75 feet on each side of a vehicle entrance or exit, whichever is greater. If water is used to clean the street, then the quantity of water used shall not result in sediment</li> </ul>	

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	<p>being washed into the storm sewer catch basins. Street sweepings shall be disposed of as a waste along with waste soil in accordance with applicable regulations.</p> <ul style="list-style-type: none"> <li>The applicant shall terminate excavation and grading activities when winds exceed 25 mph or when fugitive dust emissions are visible for a distance of at least 100 feet from the origin of such emissions, and there is visible evidence of wind driven fugitive dust. Wind speed will be determined when an on-site anemometer registers at least two wind gusts in excess of 25 miles per hour within a consecutive 30-minute period.</li> </ul> <p><i>Mitigation Measure AQ-1b</i></p> <p>Implementation of the following mitigation measures would reduce short-term exhaust emissions from construction-related equipment to a less-than-significant level:</p> <ul style="list-style-type: none"> <li>The idling time of all construction equipment used at the site would not exceed five minutes.</li> <li>The applicant shall limit the hours of operation of heavy-duty equipment and/or the amount of equipment in use.</li> <li>All equipment shall be properly tuned and maintained in accordance with the manufacturer's specifications. Emissions from all off-road diesel powered equipment used on the project site shall not exceed 40 percent opacity for more than three minutes in any one hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) shall be repaired immediately. A visual survey of all in-operation equipment shall be made at least weekly throughout the duration of the project construction. A record of the inspection shall be maintained on-site. The BAAQMD and/or other officials may conduct periodic site inspections to determine compliance.</li> </ul>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact AQ-2 Project Operation Would Result in Emissions of Criteria Pollutants</b></p> <p>Project operations would produce emissions of criteria pollutants, or their precursors (ROG and NOx), from operation of the asphalt and recycling facility, vehicle and barge emissions from the import of raw materials, truck emissions from the export of raw materials and finished product (asphalt), and employee vehicle trips.</p> <p>The overall increase in criteria pollutants from the operation of the proposed facility is the sum of the increase from asphalt plant emissions, truck trips, and barge trips. The net increase of 23 tons of NOx per year exceeds the BAAQMD's threshold of significance of 15 tons per year. This is a <b>significant impact</b>.</p>	<ul style="list-style-type: none"> <li>The applicant shall require construction contractors to install particulate traps when appropriate on diesel engines.</li> <li>The applicant shall use the minimum practical engine size for construction equipment.</li> <li>Gasoline-powered equipment shall be equipped with catalytic converters, where feasible.</li> </ul> <p><b>Mitigation Measure AQ-2</b></p> <p><u>Mitigation Measure AQ-2a</u>                      The off-road equipment used on-site for the proposed asphalt and recycling facility will use 2007 emission standards. The emission standards may be met by upgrading to newer vehicles or retrofitting engines using CARB-verified retrofit technologies.</p> <p><u>Mitigation Measure AQ-2b</u>                      The off-road equipment used on-site for will be operated in the following manner:</p> <ul style="list-style-type: none"> <li>The idling time of all construction equipment used at the site would not exceed five minutes.</li> <li>All equipment shall be properly tuned and maintained in accordance with the manufacturer's specifications. Emissions from all off-road diesel powered equipment used on the project site shall not exceed 40 percent opacity for more than three minutes in any hour. Any equipment found to exceed 40 percent opacity (or Ringelmann 2.0) would be repaired immediately. A visual survey of all in-operation equipment shall be made at least weekly throughout the duration of the project construction. A record of the inspection shall be maintained on-site. The BAAQMD and/or other officials may</li> </ul>	<p>Significant and Unavoidable</p>

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<p><b>Impact AQ-6: Conflict with or Obstruct Implementation of an Applicable Air Quality Plan</b></p> <p>Given that the proposed project would result in both project-level and cumulatively significant contributions to ozone emissions, that a General Plan amendment would be required for this project, and that the General Plan does not appear to be fully consistent with the Bay Area Clean Air Plan (CAP), per BAAQMD guidelines the project conflict with the CAP would appear to be <b>significant</b>.</p>	<p>conduct periodic site inspections to determine compliance.</p> <ul style="list-style-type: none"> <li>• The applicant shall use the minimum practical engine size for construction equipment.</li> <li>• Gasoline-powered equipment shall be equipped with catalytic converters, where feasible.</li> </ul> <p><u>Mitigation Measure AQ-2c</u></p> <p>Although PM10 impacts associated with operation of the asphalt plant and recycling facility was found to be less than significant, the following dust control measures shall be implemented during the movement of aggregate using heavy construction:</p> <ul style="list-style-type: none"> <li>• Minimizing drop heights while loading/unloading aggregate to less than four feet, and</li> <li>• Applying water as needed to maintain visible dust to less than No. 1 on the Ringelmann Chart measured over a three-minute period.</li> </ul>	
		<p>Significant and Unavoidable</p>

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<p><b>Cumulative Air Quality Impacts</b></p> <p>The BAAQMD CEQA Guidelines state that any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. Therefore, cumulative impacts relative to regional air quality emissions would be <i>significant</i>.</p>		<p>Significant and Unavoidable</p>
<p><b>BIOLOGICAL RESOURCES</b></p>		
<p><b>Impact BIO-1 Substantially Adverse Impact on Special-Status Species</b></p>	<p><b>Mitigation Measures BIO-1</b></p>	
<p><u>Special Status Animal Species</u></p> <p>There is a varying potential for a number of special-status animal species to forage and possibly nest in the small band of coastal brackish marsh along the shoreline of the Petaluma River or to seasonally occur in the open waters of the River, including the listed California clapper rail, California black rail, steelhead trout, and chinook salmon, and well as several Species of Special Concern (SSC) species such as the river lamprey, Sacramento splittail, northwestern pond turtle, saltmarsh common yellowthroat, and San Pablo song sparrow. This stand of brackish marsh is relatively small in size, occupying approximately 0.18 acres, and is isolated from other marshland along the west bank of the Petaluma River by the developed residential and industrial uses to the south and the bulkhead of the loading facility to the north.</p> <p>Construction and installation of improvements near or within the River could result in the destruction of active nests or loss of individuals, if present within the limits of disturbance. Fish and other aquatic species could be inadvertently taken during in-channel construction, including placement of pilings, installation of water</p>	<p><u>Mitigation Measure BIO-1a - Nesting Birds</u></p> <p>Initial grubbing, grading, and construction shall be prohibited within 50 feet from the bank of the Petaluma River during the nesting season (February 15 through August 31) to protect the potential nesting habitat that the stand of coastal brackish marsh on Area A that may provide for California clapper rail, California black rail, saltmarsh common yellowthroat, and San Pablo song sparrow. This zone shall be fenced and signed as a "Potential Nesting/No Disturbance Zone" in advance of any construction on the remainder of Parcel A to ensure equipment and workers remain outside the area. Construction within this zone may proceed during the non-nesting season (September 1 through February 14), but must consider other possible restrictions associated with in-channel construction activities.</p> <p><u>Mitigation Measure BIO-1b - Nesting Birds</u></p> <p>Any active raptor nests or nests of other birds protected under State Fish and Game Code and the Migratory Bird Treaty Act in the vicinity of proposed grading shall be avoided until young birds are able to leave the nest (i.e., fledged) and forage on their</p>	<p>Less Than Significant</p>

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Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>diversion structure, and other improvements. Additional loss of fish and aquatic species could occur when water is pumped as part of long-term operations. This is considered a <b>potentially significant</b> impact.</p> <p>The proposed wetland mitigation program would result in the creation of additional tidal marsh, brackish marsh, and seasonal wetland, which would provide expanded foraging opportunities for a number of special-status bird species known or suspected in the project vicinity. The expanded tidal and brackish marsh habitat would be dominated by pickleweed, which would improve the suitability of the site for salt marsh harvest mouse as well. However, new structures and increased human activity along the shoreline of the Petaluma River would reduce the habitat value of the remaining brackish marsh and associated aquatic habitat. Depending on the location of the water diversion intake structure, proposed pumping could affect surface water levels in the wetland mitigation area and the feasibility and value of the proposed habitat enhancement efforts. Proposed lighting, noise generated by the periodic operation of the off-loading facility and conveyor, and vehicle equipment operation would all discourage foraging and possibly nesting along this segment of the River shoreline. Additional lighting could be disruptive to special-status wildlife species, particularly if off-loading were to occur at night. Impacts would be <b>potentially significant</b>.</p> <p>Proposed construction could also affect nests of raptors or other birds recognized by the California Department of Fish and Game (CDFG) as SSC species and protected under the Migratory Bird Treaty Act if new nests are established on the site before vegetation clearance occurs as part of the project. While no raptor nests were observed on the site during the surveys conducted by the applicant's biologist or the EIR biologist, there is a potential for new nests to be</p>	<p>own. Avoidance may be accomplished either by scheduling initial grubbing and grading during the non-nesting period (September 1 through February 14) or, if this is not feasible, by conducting a pre-construction survey for raptors and other birds protected under State Fish and Game Code and the Migratory Bird Treaty Act. Provisions of the pre-construction survey and nest avoidance, if necessary, shall include the following:</p> <ol style="list-style-type: none"> <li>1 If construction is scheduled during the active nesting period (February 15 through August 31), a focused survey for nesting raptors and other birds protected under State Fish and Game Code and the Migratory Bird Treaty Act shall be conducted by a qualified wildlife biologist no more than 15 days prior to initiation of grubbing or grading to provide confirmation on presence or absence of active nests in the vicinity.</li> <li>2 If no active nests are identified during the survey period, or if construction is initiated during the non-breeding season (September 1 through February 14), grading and construction may proceed, unless prohibited by the provisions in Mitigation Measure BIO-1a.</li> <li>3 If active nests are encountered, species-specific measures shall be prepared by a qualified biologist in consultation with the California Department of Fish and Game (CDFG) and implemented to prevent abandonment of the active nest. At minimum, grading in the vicinity of the nest shall be deferred until the young birds have fledged. The perimeter of the nest-setback zone shall be fenced with temporary construction fencing or adequately demarcated, and construction personnel restricted from the area. Signage shall be installed along the perimeter of the nest-setback zone at a minimum 100-foot intervals that read "Nesting/No Disturbance Zone." Fencing</li> </ol>	

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**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>established prior to initiating grubbing and construction. Tree and shrub removal or disturbance in the immediate vicinity of a nest in active use could result in abandonment of the nest or loss of eggs and young. Impacts would be <b>potentially significant</b>.</p> <p><u>Special Status Plant Species</u></p> <p>Areas of coastal salt marsh and brackish water marsh habitat were not surveyed extensively. If a population is present, several aspects of the project associated with in-channel modifications could adversely affect or even eliminate the occurrence unless appropriate protective measures are taken. Species of particular concern include Point Reyes bird's-beak and soft bird's-beak. Impacts related to special-status plant species would remain <b>potentially significant</b> until supplemental detailed surveys are conducted to confirm absence of any coastal salt marsh and brackish water marsh species on the site.</p>	<p>and signage shall remain in place until the qualified biologist has determined that any young have fledged. The distance between the active nest and edge of the "Nesting/No Disturbance Zone" shall depend on the nesting species, with a minimum distance of at least 200 feet for more sensitive species such as raptors and at least 75 feet for more common passerine birds.</p> <p>4 If permanent avoidance of the nest is not feasible, impacts shall be minimized by prohibiting disturbance within the "Nesting/No Disturbance Zone" until a qualified biologist verifies that the birds have either a) not begun egg-laying and incubation, or b) that the juveniles from the nest are foraging independently and capable of independent survival at an earlier date.</p> <p>5 A report of findings shall be prepared by the qualified biologist and submitted to Sonoma County PRMD for review and approval prior to initiation of grading and construction in the "Nesting/No Disturbance Zone." The report shall either confirm the absence of any active nests or shall confirm establishment of a designated "Nesting/No Disturbance Zone" setback during the breeding season for any active nests. Supplemental reports shall be submitted to the PRMD for review and approval to allow construction to proceed within these zones after any young birds have fledged.</p> <p><u>Mitigation Measure BIO-1c - Fish and Other Aquatic Species</u></p> <p>Any in-channel construction work within the Petaluma River shall be restricted between July 15 through October 15 when out-migrating smolts and migrating adults would most likely be absent along this reach of the Petaluma River. The United States Fish and Wildlife Service (USFWS) and National Oceanic</p>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>Atmospheric Administration (NOAA) Fisheries would be involved in the review of the project application because of the potential wetland impacts as part of the Section 404 consultation process, and these agencies may impose additional restrictions to protect essential habitat for special-status species as part of the Section 7 consultation required as part of the Endangered Species Act. This would include screening of any intake for the pumping from the River, and restrictions on pumping when migrating individuals would most likely be present in the River segment bordering the site.</p> <p><u>Mitigation Measure BIO-1d - Western Pond Turtle</u></p> <p>If required by the CDFG and USFWS as part of the permit process, a pre-construction survey shall be conducted by a qualified biologist to determine if western pond turtle is present in the vicinity of proposed in-channel improvements along the Petaluma River and slough. If required by the agencies, a qualified biologist shall be present on-site during construction of in-channel improvements to ensure that any turtles within the vicinity of proposed work are not harmed.</p> <p><u>Mitigation Measure BIO-1e - Permit Authorizations</u></p> <p>As called for under Mitigation Measure BIO-3a, all necessary permits and authorizations shall be secured from regulatory agencies as required to allow for modifications to jurisdictional waters on the site, including any necessary consultation with the USFWS and NOAA Fisheries regarding a take determination. Evidence of permit authorization shall be submitted to the PRMD prior to issuance of any grading or building permits by the County to ensure compliance with applicable State and federal regulations. The applicant shall comply with all conditions therein that are not otherwise included as mitigation measures in</p>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>this Draft EIR or as conditions of project approval by the County.</p> <p><u>Mitigation Measure BIO-If - Special-Status Plants</u></p> <p>Although the potential for occurrence of special-status plant species in areas of coastal salt marsh and brackish water on the site is remote, systematic surveys shall be required to confirm absence in advance of any in-channel disturbance. The supplemental surveys for special-status plants shall include the following components and shall meet the following standards.</p> <ol style="list-style-type: none"> <li>1 Systematic surveys shall be conducted by a qualified botanist in spring and summer (April and June) to confirm absence of any special-status plant species in areas of coastal salt marsh and brackish water marsh. This shall include the segment of Area A along the shoreline of the Petaluma River and portions of Areas B, C, and D along the drainage ditch on the west side of the railroad right-of-way.</li> <li>2 If populations of any special-status plant species area encountered, an appropriate mitigation program shall be prepared by the qualified botanist for any listed species or those maintained on Lists A, 1B, or 2 of the California Native Plant Society (CNPS) Inventory. The mitigation program shall be prepared in consultation with the CDFG, and shall include any appropriate authorizations from the CDFG and/or the USFWS for any species listed under the Endangered Species Acts. Measures taken in the mitigation program shall be based on the life history of the species encountered, successful mitigation treatments used for this species in the past, and legal protective status. These measures may include one or more of the following components as negotiated with agency representatives: avoidance of the population; collection of seed or vegetative material during the appropriate</li> </ol>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact BIO-2 Substantial Adverse Effect on any Riparian Habitat or other Sensitive Natural Community</b></p> <p>The coastal brackish marsh, located along the shoreline of the Petaluma River, is considered a sensitive natural community type by the CDFG. An estimated 0.01 acres of this habitat type was filled during the unauthorized grading in September 2005 and additional habitat could be affected during installation of the off-loading facilities on Area A. The support ramp and conveyor system would overshadow an estimated 500 square feet of emergent marsh and would most likely reduce cover and habitat values beneath these structures. Operation of the conveyor may lead to side-casting of gravel that could accumulate below the structure and eventually fill the marsh and open water habitat over the life of the project. Installation of the pipeline and intake structure as part of the water diversion would also affect the shoreline vegetation and open water habitat of the River.</p> <p>Routine maintenance and operation of the site could lead to inadvertent fill and disturbance to additional shoreline habitat, and even the drainage and wetland mitigation areas to be preserved and</p>	<p>developmental stage of the plant; procedures for sowing, establishment, or translocation of the species; development of a maintenance and monitoring program specific to the environmental conditions necessary for survival of the new population; and identification of a funding source to provide for implementation of the plan, and for long-term management and maintenance of the mitigation area.</p> <p>3 Potential impacts on any species that are maintained on Lists 3 and 4 of the California Native Plant Society (CNPS) Inventory would not be considered significant and no additional mitigation would be required for these species.</p> <p><b>Mitigation Measure BIO-2</b></p>	
	<p>The proposed Wetland Mitigation and Monitoring Plan (WMMP) shall be revised and implemented to include restoration and enhancement of habitat along the shoreline of the Petaluma River on Area A of the site, and ensure its protection as part of long-term operations. The revised WMMP shall include the following:</p> <ol style="list-style-type: none"> <li>1 A limited access zone shall be established within 50 feet of the High Tide Line and within 10 feet of the top of bank to the slough. Permitted improvements within this zone shall be clearly identified and mapped, including the pier, ramp, pier access, conveyor and transition support, pipeline and intake structure for pumping River water, and an access alignment along the north side of the conveyor to allow for future maintenance of these structures.</li> <li>2 All areas outside the permitted improvements shall be designated for habitat restoration and enhancement. Fills shall</li> </ol>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>enhanced. This could lead to placement of additional gravel and fills at the edge of the marsh and drainage, as occurred during the unauthorized grading in September 2005. This would eliminate both the sensitive habitat and the adjacent upland buffer that provides important water quality filtration and other habitat functions. Maintenance of the in-channel improvements could also lead to temporary removal or disturbance to the surrounding marsh cover. This represents a <b>potentially significant</b> impact on a sensitive natural community.</p>	<p>be removed to create additional coastal brackish marsh, transitional upper-zone marsh, and upland buffer habitat.</p> <p>3 The entire habitat enhancement/restoration area shall be designed, revegetated, monitored, and maintained as part of the proposed WMMP for the site.</p> <p>4 A fence shall be installed along the perimeter of the habitat enhancement/restoration area to separate sensitive habitat from permitted industrial use. The fence shall consist of permanent 4-foot high wildlife friendly fencing.</p> <p>5 Permanent signage shall be installed at 50 foot intervals along the perimeter fencing that reads "Sensitive Marsh Habitat/No Disturbance Zone."</p>	
<p><b>Impact BIO-3 Substantial Adverse Effect on Jurisdictional Wetlands and other Waters</b></p> <p>On-going operations could inadvertently result in fill to sensitive wetland habitat unless the limits of authorized work areas and buffers along wetlands and drainage are clearly fenced and signed, as discussed further under Impact BIO-4.</p> <p>The proposed approach to mitigating potential impacts on wetlands defined in the Wetland Mitigation Monitoring Plan (WMMP) appears adequate. However, four aspects require further refinement to ensure successful implementation of created, restored, and enhanced habitat.</p> <p>1 The WMMP contains no provisions for control of invasive exotics, which can severely limit the establishment of native cover and prevent the mitigation program from reaching intended habitat improvement goals.</p> <p>2 The second issue of concern is functioning of the partially obstructed culvert under the railroad right-of-way. This culvert</p>	<p><b>Mitigation Measures BIO-3</b></p> <p><u>Mitigation Measure BIO-3a - Jurisdictional Wetlands and Other Waters</u></p> <p>The proposed WMMP shall be refined and implemented to address potential impacts on jurisdictional waters and to enhance the habitat values along the Petaluma River. The final WMMP shall be prepared by a qualified wetland consultant, and shall meet with the approval of Sonoma County PRMD, the Regional Water Quality Control Board, the San Francisco Bay Conservation and Development Commission (BCDC), the US Army Corps of Engineers (Corps), and the California Department of Fish and Game. The plan shall clearly identify the total wetlands and other jurisdictional waters affected by the project and provide for re-establishment, enhancement, and/or replacement of wetlands. Revisions to the WMMP shall include the following details:</p>	<p>Less Than Significant</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>provides the only hydrologic connection between the entire mitigation area and the Petaluma River.</p> <p>3 The third issue relates to the establishment of enhancement plantings, and need to provide appropriate growing substrate and short-term irrigation to ensure successful establishment.</p> <p>4 Based on the expanded wetland delineation conducted for the site in 2006, additional brackish marsh and uplands occur on the site along the west side of the railroad right-of-way that were not identified in the WMMP as this drainage was originally believed to be off-site.</p> <p>Impacts to jurisdictional wetlands and other waters would be <b>potentially significant</b>.</p>	<p>1 Expand the proposed wetland mitigation area to include the additional habitat protection and creation specified under Mitigation Measure BIO-2 as well as enhancement of the drainage channel along the west side of the railroad right-of-way, a portion of which was previously believed to be off-site when the draft WMMP was prepared. This may provide options to increase the acreage of created or enhanced brackish marsh wetlands and adjacent uplands habitat, and possibly improve circulation in the southeastern portion of the proposed wetland mitigation area.</p> <p>2 Incorporate appropriate provisions for the control of invasive exotic species from the wetland and upland enhancement mitigation area in Sections 5, 6, and 8 of the WMMP, based on input from the Corps, Regional Water Quality Control Board (RWQCB), and CDFG. This shall include monitoring and maintenance provisions that call for periodic inspection and removal in spring and summer, and a success criteria that specifies successful control of target species within five years of initial construction of the wetland mitigation area. Target species to be controlled in the wetland mitigation area include: sweet fennel, poison hemlock, Italian thistle, pampas grass, French broom, Scotch broom, eucalyptus, and acacia, among others.</p> <p>3 Provide appropriate soil testing and amendment as part of the landscape plan and revise the maintenance measures in Section 8 to include additional provisions related to upland habitat created and enhanced as part of the WMMP. Soil amendment shall be provided as necessary to ensure successful establishment of desirable native species, as reflected in on-going monitoring and maintenance requirements of the WMMP</p>	

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>4 Require repair or replacement of the existing partially blocked culvert under the railroad right-of-way as part of the WMMP to improve tidal circulation in the proposed wetland mitigation area. The size and design of the new culvert shall be based on a detailed hydrologic assessment conducted by the applicant's consulting hydrologist, as reviewed and approved by the permitting agencies and the property owner. Sizing of the culvert replacement shall consider any possible water diversion demand proposed for dust control and its affect on surface water levels in the mitigation area, and the affects of possible sedimentation on the long-term viability of the created wetlands.</p> <p>5 Ensure that any proposed water diversion for dust control does not adversely affect the feasibility and success of tidal and brackish marsh to be created in Area D. This shall be demonstrated on an annual basis as part of on-going monitoring and maintenance defined in Sections 8 and 9 of the WMMP. Diversion shall be curtailed or an alternative method secured if performance standards and success criteria defined in the WMMP for areas of tidal and brackish marsh are not met due in part or wholly because of the proposed water diversion.</p> <p>6 Include minimum setbacks from the top of bank to the drainage channels to be retained in Areas C and D where they border proposed industrial uses. A minimum 5 foot setback shall be provided from the top of each bank to provide for improved enhancement and prevent inadvertent fill of these features. A fence shall be installed along the perimeter of the top-of-bank setback to separate sensitive habitat from permitted industrial use. The fence shall consist of a permanent 4-foot high wildlife friendly fencing that shall be</p>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>open in nature to allow for passage of wildlife through or under the structure with a minimum six inch clearance at the bottom. Permanent signage shall be installed at 100 foot intervals along the perimeter fencing that reads "Sensitive Marsh Habitat/No Disturbance Zone."</p> <p><u>Mitigation Measure BIO-3b - Containment System</u></p> <p>A containment system shall be designed and installed to catch and collect any side-cast gravels from the conveyor between the pier and transition support near the high tide line of the Petaluma River to prevent inadvertent fill of the jurisdictional waters. The containment system shall be regularly maintained as part of normal operations during the life of the project.</p> <p><u>Mitigation Measure BIO-3c - Stormwater Pollution Prevention Plan</u></p> <p>As recommended in Section V.G (Hydrology and Water Quality), a Stormwater Pollution Prevention Plan shall be prepared and implemented using Best Management Practices to control both construction-related erosion and sedimentation and project-related non-point discharge into waters on the site. The plan shall contain detailed measures to control erosion of exposed soil, provide for revegetation of graded slopes before the start of the first rainy season following grading, address non-point source pollutants to protect wetlands and water quality in the drainage, and specify procedures for monitoring of the effectiveness of the plan.</p> <p><u>Mitigation Measure BIO-3d - Permit Authorizations</u></p> <p>All necessary permits shall be secured to allow for modifications to wetlands, drainage channels, and the shoreline of the Petaluma River on the site. Evidence of permit authorization from the Corps, BCDC, RWQCB, and CDFG shall be submitted to the</p>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b><i>Impact BIO-4 Interfere Substantially with the Movement of Native Fish or Wildlife, Established Wildlife Corridors, or Impede the Use of Native Wildlife Nursery Sites</i></b></p> <p>Development along the shoreline of the Petaluma River and the location of improvements in the vicinity of the egret/heron colony would impinge on existing wildlife movement opportunities and could impede use of these features. Colonial breeding sites (or rookeries) of egrets and herons are considered sensitive by the California Department of Forestry and Fire Protection. Nesting, roosting, and foraging birds tend to be sensitive to human and vehicle intrusion, and other disturbance factors. Repeated disturbance during the nesting season could disrupt egg incubation and feeding routines, and could possibly result in abandonment of the nests. It is likely that intrusion closer than the existing road on Area B and the railroad tracks to the east of the colony would be disruptive, particularly during the nesting season.</p> <p>Off-loading at night, the associated lighting and noise generation, would occur under the proposed project. This night-time light and noise would be sporadic depending on demand, but could disturb nesting and roosting wildlife, particular diurnal species that may flush and become disoriented as they attempt to flee and locate secure habitat.</p> <p>Collectively, the proposed improvements and project operations could significantly disturb the egret/heron colony on the site, which is a known wildlife nursery, and impede its future viability. Similarly, improvements and operations on the Petaluma River could significantly affect the habitat values along this segment of the River,</p>	<p>PRMD prior to issuance of any grading or building permits by the County to ensure compliance with applicable State and federal regulations.</p> <p><b><i>Mitigation Measures BIO-4</i></b></p> <p><b><i>Mitigation Measure BIO-4a</i></b></p> <p>The egret/heron colony in the stand of blue gum eucalyptus shall be protected from disturbance associated with construction and future operations, particularly during the nesting season (February 15 through August 31). Proposed improvements at the entrance to the site and vicinity of the fire station shall be redesigned to retain most of the existing blue gum eucalyptus trees that provide visual screening of the existing egret/heron colony, including the row of three existing trees in the parking lot between the proposed fire station and the parking stalls to the south. Proposed roadway and building improvements shall be located no closer to the stand of trees supporting the colony than currently proposed. These trees and the blue gum eucalyptus comprising the stand currently used by nesting egrets and herons shall be retained as a condition of project approval unless and until the colony is no longer viable in the future.</p> <p><b><i>Mitigation Measure BIO-4b</i></b></p> <p>Proposed construction shall be restricted away from the known egret/heron colony and from potential nesting habitat along the shoreline of the Petaluma River during the general nesting season to prevent possible nest abandonment and ensure compliance with the Migratory Bird Treaty Act during the active nesting season. Construction activities in Areas A and north of the cross-</p>	<p>Less Than Significant</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>particularly the night-time operations during the nesting and breeding season of terrestrial and aquatic-dependent wildlife. Therefore, impacts to sensitive nesting habitat are considered to be <i>significant</i>.</p>	<p>site access road on Area B shall be restricted to the non-nesting season (construction activities allowed between August 1 and January 31). This includes installation of all improvements on Area A (pier, ramp, pilings, conveyor, access and parking, and wetland enhancement) and the septic leachfield, fire station and associated parking improvements in the north portion of Area B. <u>Mitigation Measure BIO-4c</u></p> <p>Project operations associated with off-loading the barge, running the conveyor, and illumination beyond that necessary for essential security purposes shall be restricted to the minimum necessary for critical tide dependent operations at night between sunset and sunrise during the nesting season (February 15 through August 31) to protect the sensitive nesting habitat in the egret/heron colony and the on-site marshland habitat along the shoreline of the Petaluma River.</p> <p>Barges may be docked during the restricted hours, but no off-loading activities or operation of the conveyor shall be allowed. Lighting as necessary for safety and security purposes during barge docking shall be allowed. If a barge is anticipated to arrive on a particular night during the nesting season, the lighting shall be turned on at dusk and remain on until the barge has docked to minimize the potential for disturbing birds if lights were to be suddenly turned on in the middle of the night. Lighting shall be turned off after docking is complete. Otherwise, night-time lighting during the nesting season shall remain off, with the exception of that necessary for essential security purposes. All lighting shall be designed to minimize light intrusion beyond the operation areas on the site, to protect sensitive wildlife habitat areas along the Petaluma River, the egret/heron colony, and the proposed wetland mitigation area.</p>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p><u>Mitigation Measure BIO-4d</u>                      The conveyor shall be designed to minimize disturbance to the nearby egret/heron colony. The conveyor shall be kept as low to the ground as possible within 300 feet of the colony. A solid roof (metal, fiberglass, or opaque plastic) shall be constructed over the conveyor system, and a walkway/maintenance access from the railroad crossing to the existing access road across Area B on the site. The covering shall extend down at least the upper half of the west wall facing the egret/heron colony. Human access shall be restricted to the covered area along the conveyor during the nesting season (February 15 through August 31).</p> <p><u>Mitigation Measure BIO-4e</u>                      An employee education program shall be prepared and implemented to prevent inadvertent disturbance to the egret/heron colony during the nesting season (February 15 through August 31). Permanent signs shall be installed around the perimeter of a setback zone around the egret/heron colony at a minimum 100-foot interval to alert workers and the public that access to the area is restricted during the nesting season. Signs shall extend along the northern boundary of the site, east edge of the fire station improvements, north side of the cross-site access road, and west side of the railroad right-of-way. The signs shall read "Nesting Colony/No Disturbance Zone/February 15 through August 31."</p>	
<b>CULTURAL RESOURCES</b>		
<p><b>Impact CULT-1 Historical Resources</b>                      According to Section 15064.5(a)(3) of the CEQA Guidelines, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (CRHR) as defined</p>	<p><b>Mitigation Measures CULT-1</b>  <u>Mitigation Measure CULT-1a</u>                      Site documentation shall be updated and brought to the level of current professional standards.</p>	Less Than Significant

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>above. The literature review and field survey for the project site indicated that the Haystack Landing house, barn and artifact scatter described above shall be considered "historically significant" by the lead agency according to the following criteria as specified in Section 15064.5(a)(3)(A)-(B) and (D) of the CEQA Guidelines:</p> <p>Historic site Ca-Son-1465H, Haystack Landing, was "associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage." As has been indicated by historical maps, the house, and possibly the barn, had been situated within the study area prior to 1860 during which time Haystack Landing was a site of shipping and passenger travel activity. The landing was a terminus for steamboats from San Francisco, as well as stage travel north, as early as 1857. The first portion of the third railroad in California, from Haystack Landing to Petaluma, was built in the spring and summer of 1864. Haystack Landing represented the expansion of travel, commerce, and transportation from the city of San Francisco into the North Bay Area during the 1850s and 1860s.</p> <p>A portion of the historic Haystack Landing site is located within the project's boundaries. Though this site no longer contains any standing structures, it is nonetheless considered historically important. The mid-to-late 1800s artifact scatter that was located behind the house (and the potential for other historic features such as trash dumps, privy-pits, etc. to be located within the site area) indicates that the site "has yielded, or may be likely to yield, information important in prehistory or history."</p> <p>Due to the high probability of archaeological deposits and other remaining features associated with the house, ground-disturbing activities associated with the project could result in the loss of integrity of cultural deposits, the loss of information, and the alteration of site setting to cultural resources that are eligible for</p>	<p><u>Mitigation Measure CULT-1b</u> Preservation through historical documentation of the former house and barns shall be completed, following the Secretary of Interior's Standards for the Treatment of Historic Properties.</p>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>listing on the CRHR. Therefore, project impacts would be <i>significant</i>.</p> <p><b>Impact CULT-2 Archaeological Resources</b></p> <p>Although no known unique archaeological resources have been identified on the project site, other it is possible that underlying soils could contain undiscovered resources. Though the project site has been previously disturbed, without proper care during the grading and excavation phases of the proposed project, unknown resources could be damaged or destroyed. Therefore, project impacts to unknown unique archaeological resources would be <i>significant</i>.</p>	<p><b>Mitigation Measures CULT-2</b></p> <p><u>Mitigation Measure CULT-2a</u></p> <p>Prior to earth disturbing activities, archaeological deposits and other features associated with the house will be identified using techniques including remote sensing techniques and/or searching for features with a backhoe equipped with a smooth-edged blade under the direction of a professional archeologist. Following the conclusion of the archaeological monitoring, a Final Report of Findings shall be prepared by the archaeologist which minimally describes the monitoring process, including the final disposition of impacts to archaeological site Ca-Son-1465H and descriptions and analysis of any formal or diagnostic artifacts recovered as a result of the project. This Final Report of Findings shall be completed to the satisfaction of Sonoma County PRMD, abiding by the guidelines specified in Archaeological Resource Management Reports (ARMR): Recommended Contents and Format, developed by the California Office of Historic Preservation (OHP), February 1990.</p> <p><u>Mitigation Measure CULT-2b</u></p> <p>All employees shall undergo a cultural resources orientation and awareness training prior to commencing work activities on the site. Such training shall include familiarization with the stop-work restrictions, noticing, and handling procedures, and ultimate disposition of artifacts as described below:</p> <ol style="list-style-type: none"> <li>1 Immediately upon discover of archaeological resources, the shift foreman or manager at the project site shall be notified, and shall notify Sonoma County PRMD of the discovery. PRMD shall notify the Northwest Information Center and the</li> </ol>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact CULT-3 Human Remains</b></p> <p>No known human burials have been identified on the project site or vicinity. In addition, a search of the Sacred Lands file identified no culturally important areas on the project site. However, it is possible that unknown human remains could occur on the project site, and if proper care is not taken during the project's grading and excavating phases, damage to or destruction of these unknown remains could occur. Therefore, project impacts on human remains would be <i>significant</i>.</p>	<p>Native American Heritage Commission. If the discovery occurs during ground disturbing activities, all work shall be halted in the immediate vicinity of the find, until the County's archaeological and Native American consultants have evaluated the find and mitigated associated impacts. Discovered cultural resources shall be stored in a protected environment to prevent vandalism, damage, or theft; until such time as they are examined by an archaeologist and/or Native American, as appropriate.</p> <p>2 The identification and handling of archaeological resources at the site shall be conducted by qualified archaeologists or approved by local Native American representatives.</p> <p>3 Any Native American artifacts discovered shall be returned to the local Native American Community, which will be responsible for the disposition of these materials.</p> <p>The operator shall provide PRMD with a verification list of the employees completing the orientation.</p> <p><b>Mitigation Measure CULT-3</b></p>	
	<p>In the event that human remains are discovered, there shall be no disposition of such human remains, other than in accordance with the procedures and requirements set forth in the California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. These code provisions require notification of the County Coroner and the Native American Heritage Commission (NAHC), who in turn must notify those persons believed to be most likely descended from the deceased Native American for appropriate disposition of the remains. Excavation or disturbance may continue in other areas of the project site outside the area affected by such discovery.</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact CULT-4 Paleontological Resources</b></p> <p>Much of the project site has been previously disturbed and upper soils layers consist largely of fill materials. Although no known paleontological resources have been identified on the project site, it is possible that deeper underlying soils could contain undiscovered resources. In addition, without proper care during the grading and excavation phases of the proposed project, unknown resources could be damaged or destroyed. Therefore, project impacts to unknown paleontological resources would be <i>significant</i>.</p>	<p><b>Mitigation Measure CULT-4</b></p> <p>If paleontological resources are encountered during the course of site development activities, work in that area shall be halted and the project paleontologist shall be notified of the find. The project paleontologist shall have the authority to temporarily divert or redirect grading to allow time to evaluate any exposed fossil material.</p>	<p>Less Than Significant</p>
<p><b>GEOLOGY &amp; SOILS</b></p>		
<p><b>Impact GEO-1 Seismically-Induced Ground Shaking at the Project Site Could Result in Injuries, Fatalities, and Property Damage</b></p> <p>All structures and improvements in the Bay Area could be affected by ground shaking in the event of an earthquake on regional active faults. Ground shaking potential is estimated on a worst-case basis by assessing the maximum expected earthquakes and designing for peak accelerations that may be generated. Strong to violent ground shaking is expected at the project site during a large earthquake on the Rodgers Creek fault, which is 4.5 miles away. This level of seismic shaking could cause injuries and/or fatalities and extensive structural and non-structural damage to buildings at the site. This is a <i>significant</i> impact.</p>	<p><b>Mitigation Measure GEO-1</b></p> <p>Project design and construction shall be in conformance with current best standards for earthquake resistant construction in accordance with the California Building Code (Seismic Zone 4). In addition, project design shall follow the recommendations of the site-specific geotechnical investigation report. The report provides specific design criteria for construction of the project in response to expected seismic events.</p>	<p>Less Than Significant</p>
<p><b>Impact GEO-2 Surface Instability Could Result in Damage to Buildings, Equipment and Present a Physical Hazard to Workers</b></p> <p>The project site consists of nearly flat slopes, and slope stability is not a geologic hazard. However, due to the presence of soft compressible Bay Mud and the proposed placement of heavy</p>	<p><b>Mitigation Measure GEO-2</b></p> <p>The applicant shall retain a qualified geotechnical engineering firm to fully evaluate the potential for aggregate stockpiles (both new and recycled) to cause overloading and instability of the</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>stockpile loads, the risk of deep rotational failures within the Bay Mud are high. This is a <i>significant</i> impact.</p>	<p>underlying Bay Mud. The geotechnical firm shall, as appropriate, design and construct a stockpile storage area that is stable under both static and dynamic (i.e., seismic) conditions. The geotechnical design may include overexcavation of the Bay Mud and replacement with engineered fill, placement of geogrid reinforcement under the stockpiles, or other effective means to ensure that the stockpiles would not cause rotational failures or damage to the nearby railroad tracks. Controlled settlement over time at the stockpile storage area is acceptable. The design shall allow for no displacement at or adjacent to the railroad tracks. Post-construction monitoring of the performance of the geotechnical solution, including detailed measurement of settlements, shall be required and be conducted on a yearly basis for five years. The applicant shall ensure that annual monitoring reports are submitted to the County for review and approval. Any unexpected failures or settlements exceeding those that were predicted shall be addressed by prompt corrective action (at no cost to the County). If at the end of five years, the geotechnical consultant and the County are in agreement, the monitoring and reporting may be terminated.</p> <p>The geotechnical design shall be reviewed and approved by the County technical staff prior to approval of the grading permit for the project.</p>	
<p><b><i>Impact GEO-3 Lurching and Ground Cracking at the Project Site Could Result in Damage to Project Buildings and Other Improvements</i></b></p>	<p><b><i>Mitigation Measure GEO-3</i></b></p>	
<p>Lurching and ground cracking can occur during strong ground shaking. Ground cracking tends to occur at the top of slopes where stiff soils overlie soft deposits or along channel banks. Bay Mud deposits up to 15-feet in thickness underlie the southern two-thirds</p>	<p>Reduction in the potential for damage due to soil lurching and resulting surface cracking shall be achieved by either soil improvements techniques, such as deep soil mixing, the replacement of unstable soils with engineered fill, or a minimum</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>of the site near the River. Lurching and ground cracking could result in damage to site improvements and present a hazard to workers. This is a <i>significant</i> impact.</p>	<p>of 20 foot setbacks for all improvements from channel banks as recommended by the geotechnical reports.</p>	
<p><b>Impact GEO-4 Differential Settlement at the Project Site Could Result in Damage to Project Buildings and Other Improvements</b></p> <p>Soft, compressible Bay Mud ranges in thickness from 0 to 15-feet across the project site. This layer has the potential to compress under moderate foundation loads or placement of new fill or stockpiles. Southern and eastern portions of the site have been identified as containing variable artificial fill and grading of the project site in preparation for construction of buildings and utilities would result in additional areas of cut and fill.</p>	<p><b>Mitigation Measure GEO-4</b></p>	
<p>Fills of different thickness and fills adjacent to cut areas where native soils are exposed at the surface could create the potential for differential settlements if structures straddle this interface. The areas most susceptible to differential settlement are those where thick fills or fills over Bay Mud are adjacent to native soil or bedrock. If the settlement is not uniform for the fill and native materials (i.e., differential settlement), structural damage can occur. Buried utilities crossing the boundaries of different materials may also experience differential settlements along their alignments. The geotechnical investigation report for the proposed project provides specific recommendations for mitigating settlement, including replacing Bay Mud with engineered fill. The project could result in improvements being damaged due to differential settlement; this is a <i>significant</i> impact.</p>	<p>The recommendations of the geotechnical investigation report regarding settlement shall be implemented. The specific recommendations for mitigation of potential settlements associated with native soil, Bay Mud and fill boundaries shall be implemented, such as excavation of the soft compressible Bay Mud and replacement with compacted fill.</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<b>HAZARDS AND HAZARDOUS MATERIALS</b>		
<p><b><i>Impact HAZ-1 Improper Use, Storage, or Disposal of Hazardous Materials During Construction</i></b></p> <p>Construction activities would require the use and transport of hazardous materials, including fuels, oils, and other chemicals (e.g., paints, adhesives) used during construction. It is likely that these hazardous materials and vehicles would be stored by the contractor(s) on-site during construction activities. Improper use and transportation of hazardous materials could result in accidental releases or spills, potentially posing health risks to workers, the public, and the environment. This is a <b>significant</b> impact.</p>	<p><b><i>Mitigation Measures HAZ-1</i></b></p> <p><b><i>Mitigation Measure HAZ-1a</i></b>                      The Storm Water Pollution Prevention Plan (SWPPP) required for the project (see Mitigation Measures in the Hydrology and Water Quality Section) shall include emergency procedures for incidental hazardous materials releases. The procedures shall include necessary personal protective equipment, spill containment procedures, and training of workers to respond to accidental spills/releases.</p> <p><b><i>Mitigation Measure HAZ-1b</i></b>                      The SWPPP shall also include Best Management Practices, which shall include requirements for hazardous materials storage during construction to minimize the potential for releases to occur (See Mitigation Measures in the Hydrology and Water Quality Section). All use, storage, transport and disposal of hazardous materials during construction activities shall be performed in accordance with existing local, state, and federal hazardous materials regulations.</p>	<p>Less Than Significant</p>
<p><b><i>Impact HAZ-2 Site Grading Could Cause a Release of Potential Soil Contaminants or Creation of Safety Hazards to Construction Workers and the General Public</i></b></p> <p>The proposed development would include grading of the site for construction of the asphalt plant and stockpile areas, barge off-loading facility, conveyor system, and facilities for use by the San Antonio Volunteer Fire Department (SAVFD). Of the total site area, approximately 28.2 acres would be disturbed as part of the grading operation. Acreage at the southeast end of the site would be</p>	<p><b><i>Mitigation Measures HAZ-2</i></b></p> <p><b><i>Mitigation Measure HAZ-2a</i></b>                      Prior to approval for any grading or construction permits at the project site, a Construction Risk Management Plan (CRMP) shall be prepared by a qualified environmental professional and implemented during the duration of construction activities at the site. The CRMP shall summarize previous environmental</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>preserved as open space/wetlands and could create habitat for vectors that may transmit disease (i.e., mosquitoes).</p> <p>During site grading, construction workers could encounter residual contaminants (e.g., cobalt) in site soils and underground structures (septic systems, water wells, and petroleum product pipelines near the railroad tracks). These actions could result in a health and safety risk to construction workers and the off-site receptors.</p> <p>Fill containing brick and fire debris was observed to have been stockpiled in a portion of one of the quarry ponds and could potentially contain hazardous materials and present health risks to construction workers if disturbed or reused on the site. Pipelines that formerly contained quarry wash water were also observed on-site and could be damaged during construction activities, resulting in safety concerns to construction workers.</p> <p>A release of potential soil contaminants or creation of hazards for construction workers or the general public by site grading activities is considered a <i>significant</i> impact.</p>	<p>investigations conducted for the project site and, in accordance with state and federal laws and regulations, shall describe worker health and safety provisions for all workers potentially exposed to residual contaminants in soil, including the need for dust suppression controls, air monitoring, personal protective equipment to be worn by workers to minimize exposures, soil management procedures, management of dewatered groundwater (as applicable), site control, and emergency response procedures. The CRMP shall also provide procedures to be undertaken in the event that previously unreported contamination or subsurface hazards (such as septic systems, wells, underground pipelines) are discovered during construction, and establish detailed procedures for the safe storage, stockpiling, sampling, reuse of fill, and off-site disposal of hazardous materials and other materials (fire debris, soil) at the project site.</p> <p>The CRMP shall incorporate construction safety measures for excavation and other construction activities and procedures for abandonment of the former quarry pipelines. The CRMP shall designate personnel responsible for implementation during construction activities and shall be submitted to the PRMD for review and approval.</p> <p><u>Mitigation Measure HAZ-2b</u></p> <p>The observed fill material containing brick and fire debris shall be sampled prior to soil disturbance by an environmental professional to assess the presence of hazardous materials and the potential risk to human health and public safety from the contamination (if any). The sampling shall be conducted by a qualified environmental professional in accordance with state and local guidelines and regulations, with oversight from the Sonoma County Department of Environmental Health (SCDEH). The</p>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>findings of the soil sampling investigation shall be documented in a written report and submitted to SCDEH and PRMD.</p> <p>If the results of the soil sampling investigation indicate the presence of hazardous materials that could affect public health or the environment, remediation of this area shall be required by the applicable regulatory oversight agencies. Specific remedies would depend on the extent and magnitude of contamination. Under the direction of the SCDEH and the PRMD, a Site Remediation Plan shall be prepared, if required, by the project sponsor or contractor(s). The Plan shall specify: 1) measures to be taken to protect workers and the public from exposure to potential site hazards, and 2) certify that the proposed remediation measures would clean up the waste, dispose of the waste, and protect public health and the environment in accordance with local, state, and federal requirements. Any remediation required shall be completed prior to earthwork in the areas affected.</p> <p><u>Mitigation Measure HAZ-2c</u></p> <p>A mosquito and vector control plan shall be prepared by a qualified professional and submitted to the Marin-Sonoma Mosquito and Vector Control District for approval. The approved plan shall be submitted to PRMD prior to on-site earthwork activities and shall be implemented as part of the proposed project. The plan shall specify areas where mosquito larvae are likely to be present on-site (e.g., in areas with standing water) and mosquito management methods.</p>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact HAZ-3 Operational Routine Transport, Use, Production, or Disposal of Hazardous Materials and Septage, and Potential Risk of Upset Associated with These Hazardous Materials Uses</b></p> <p>Operation of the plant would require materials to be imported to the facility, including asphaltic oil, recycled asphalt products, sand, fines, aggregate, and recycled crumb rubber. In the production of asphalt, liquid asphalt would be sprayed onto the heated aggregate material. The applicant proposes: a 30,000-gallon tank for asphaltic oil storage and a 500-gallon fuel storage tank for equipment usage. The asphalt would be temporarily stored in silos (200 tons each) after it is made and before distribution to the end-user sites. The silos would be heated using natural gas.</p> <p>A Storm Water Pollution Prevention Plan prepared for the temporary facility indicated that lesser quantities of other hazardous materials and hazardous wastes were stored and generated on-site, including motor oil, gear lube, automatic transmission fluid, compressed gases, waste oil, and used oil filters. It is likely that similar hazardous materials and quantities of these materials would be stored and hazardous wastes generated at the proposed asphalt plant.</p> <p>Hazardous materials would be stored on-site for the San Antonio Volunteer Fire Department (SAVFD). Engine oil and other items associated with vehicle and equipment maintenance for four fire-related engines housed at the station would be stored on-site in approved storage containers.</p> <p>All businesses transporting, storing, using, or disposing of hazardous materials must comply with applicable local, state, and federal regulations for hazardous materials management. These include the primary hazardous materials programs administered by Sonoma County Department of Emergency Services as well as other requirements of state and federal laws and regulations, including</p>	<p><b>Mitigation Measure HAZ-3</b></p> <p>The applicant shall engage a Fire Protection Engineer to perform a code analysis and submit a comprehensive fire protection plan (Plan) for the proposed project for review by PRMD and the County Fire Marshall. The Plan shall include an evaluation of the project's compliance with the uniform fire code requirements relating to storage of hazardous materials (including aboveground tanks), the need for fire suppression system, alarm systems, storage of flammable or combustible materials, containment basins around hazardous materials, and compliance with hazardous materials regulations. Both hazardous materials at the proposed asphalt plant and those for the SAVFD shall be considered in the review.</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>compliance with the Uniform Fire Code for hazardous material storage.</p> <p>Numerous hazardous materials would be routinely transported, used, produced, and hazardous waste generated at the site under the proposed project. Accidental releases associated with these hazardous materials uses could adversely affect on-site workers, off-site receptors, and the environment. This is a <i>significant</i> impact.</p>		
<b>HYDROLOGY AND WATER QUALITY</b>		
<p><b><i>Impact HYDRO-1 Substantially Alter the Drainage Pattern in a Manner That Would Result in Substantial Erosion or Siltation On- or Off-Site</i></b></p>	<p><b><i>Mitigation Measures HYDRO-1</i></b></p>	
<p><u><i>Pumping from the Petaluma River and Inland Waterways</i></u></p> <p>The project proposes to include pumping 40 gallons per minute (gpm) of water from the Petaluma River and on-site inlet for dust suppression. Water for dust suppression has been estimated at 10,000 gallons per day (gpd) average, with peak days requiring 20,000 gpd. Although the applicant proposes screening to prevent intake of aquatic species, it is possible that if not properly designed and constructed, entrainment of sediment and/or erosion could occur at the intake. In an extreme case, the suction could scour a depression in the channel bottom, potentially affecting bank stability, particularly at an inland waterway pumping location. Also it is possible that backflow could occur through the suction hose or piping, which could discharge water from the pumping system (which may have come into contact with pollutants) back into the River, degrading water quality. The potential impacts to erosion and sedimentation and water quality at the water supply intakes would be considered <b>significant</b>.</p>	<p><u><i>Mitigation Measure HYDRO-1a</i></u></p> <p>The River water supply intakes shall be designed and constructed to minimize agitation and entrainment of sediments. This may be accomplished by elevating the intake above the River bottom and/or providing an energy dissipation structure around the intake. Water shall not be pumped from an inland tidal waterway when the tide is low and pumping could expose the channel bottom, potentially increasing erosion and scour. The potential for backflow to occur through the system shall be minimized by the incorporation of one or more check valves (backflow prevention devices).</p> <p><u><i>Mitigation Measure HYDRO-1b</i></u></p> <p>The grading of the project site shall be conducted in conformance with the approved Grading Plan. All recommendations for grading presented in the site-specific geotechnical reports shall be incorporated into the grading activities.</p>	<p>Less Than Significant</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><u>Construction Impacts</u> Construction and grading within the project site would require temporary disturbance of surface soils. During the construction period, grading and excavation activities would result in exposure of soil to runoff, potentially causing erosion and entrainment of sediment and contaminants in the runoff. Soil stockpiles and excavated areas on the project site would be exposed to runoff and, if not managed properly, the runoff could cause erosion and increased sedimentation and pollutants in storm water. In addition, installation of concrete piles for the proposed barge off-loading facility could result in temporary disturbance of River sediments and increases in turbidity within the River. The pile-driving activities would be of short duration (on the order of days or weeks). The potential impacts to water quality would be temporary and would be considered <i>significant</i>.</p>	<p><u>Mitigation Measure HYDRO-1c</u> Prior to construction, the owner/operator shall file a Notice of Intent to comply with the statewide General Permit for Discharges of Storm Water Associated with Construction Activities. A Stormwater Pollution Prevention Plan (SWPPP) shall be prepared for construction activities. The SWPPP shall include all provisions of the Erosion and Sediment Control Plan submitted by the applicant. In addition to the regulatory requirements for the SWPPP, the site-specific SWPPP shall include provisions for the minimization of sediment disturbance and production of turbidity in and adjacent to the Petaluma River during construction of the proposed barge unloading facility.</p>	
<p><u>Impact HYDRO-2 Substantially Alter the Drainage Pattern or Substantially Increase the Rate or Amount of Surface Runoff in a Manner That Would Result in Flooding On- or Off-Site</u></p> <p><u>Wetland Maintenance</u> The project proposes the enhancement of existing wetlands in Area D of the site. Maintenance of existing drainage ditches as vegetated drainage channels is also proposed. The hydraulic system for the wetland area is connected to the Petaluma River at only one point, the Railroad Culvert. The project also involves pumping River water from drainage ditch DD 1, west of the culvert. If the culvert partially or fully collapses or becomes otherwise blocked, tidal circulation into the proposed wetlands could be reduced or eliminated. The habitat of the proposed wetlands would be dependent on tidal circulation. Therefore, potential blockage of the Railroad Culvert would be a <i>significant</i> impact on the proposed project.</p>	<p><u>Mitigation Measure HYDRO-2</u> As required by Mitigation Measure BIO-3a(4), the applicant would be required to repair or replace the existing partially blocked culvert under the railroad right-of-way to improve tidal circulation. The function of the culvert shall be maintain for the life of the project. A maintenance program for all culverts shall be developed and incorporated into the site's Storm Water Pollution Prevention Plan (SWPPP).</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact HYDRO-3 Otherwise Substantially Degrade Water Quality</b></p> <p><u>Long-Term Operational Impacts</u></p> <p>The operation of the processing facilities and plant would introduce new potential sources of water quality degradation at the project site. The project proposes the storage of hazardous materials, including heated asphalt, which could be accidentally released to the surface and subsurface. Intensified land uses at the project site would result in increased vehicle use and potential discharge of associated pollutants. Increased numbers of vehicles and outdoor parking facilities at the project site would likely result in increased leaks of fuel, lubricants, tire wear, and fallout from exhaust, which would contribute petroleum hydrocarbons, heavy metals, and sediment to the pollutant load in runoff being transported to receiving waters. Runoff from landscaped areas at the site may contain residual pesticides and nutrients.</p> <p>In addition, the barge off-loading facility would include operation of a diesel-powered loader and aggregate conveyor system adjacent to and over the Petaluma River. This operation could result in the direct discharge of petroleum hydrocarbons and sediment to the Petaluma River.</p> <p>Long-term degradation of water quality runoff from the site could impact local water quality in the River. The project proposes design elements that would reduce the potential for the discharge of untreated runoff from the proposed industrial facilities. According to the applicant, runoff from the asphalt plant area of the site would be directed into a below-ground catchment basin designed to provide for settlement of larger solids entrained in runoff. Discharge from the basin would pass through a sand filter prior to flowing to the vegetated drainage ditch DD6 at the western margin of the site. The ditch would serve as an extended detention basin during low and</p>	<p><b>Mitigation Measures HYDRO-3</b></p> <p><u>Mitigation Measure HYDRO-3a</u></p> <p>Prior to commencement of operations, the owner/operator shall prepare a site-specific SWPPP for the operational period of the project. The SWPPP shall meet all requirements of the most recent statewide Industrial Storm Water General Permit. At minimum, the SWPPP shall include design, operation, and maintenance specifications for:</p> <ul style="list-style-type: none"> <li>Control of sediment discharges at the loading facility on the Petaluma River that minimizes the potential for spillage of aggregate materials into the River and the disturbance of River sediments during anchorage of the barges. Barges shall arrive "clean" (no sediment or aggregate materials on horizontal surfaces outside of the hold). Off-loading procedures shall include provisions for eliminating the creation of dust (e.g., continuous misting so that newly exposed aggregate surfaces stay wet, but not so much water application that runoff is created). The conveyor system shall be enclosed and fitted with dust control devices (e.g., misting units). Aggregate exiting the conveyor system shall be moist to wet so that dust is not generated as it drops from the conveyor to the storage piles.</li> <li>Measures designed to protect River water quality at the barge off-loading facility. The loader shall not be refueled or receive major maintenance while on the over-the-water off-loading facility. The loader shall be moved to an appropriate land-based location (a minimum of 30 feet from the top of River bank) for refueling and maintenance.</li> <li>The entire parcel adjacent to the off-loading facility (Area A) shall be modified to provide enhanced water quality protection</li> </ul>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>moderate runoff events. Additional settlement of suspended sediments (and associated contaminants such as hydrocarbons and metals) would occur within the ditch. Runoff from the aggregate storage area would primarily drain westward to DD5, which would also be operated as an extended detention basin. The project as proposed does not include specific measures to prevent stormwater and River water quality degradation at the barge off-loading facility. The application does not include specifications for site-specific emergency preparedness and response for the potential release of hazardous materials or a maintenance plan for operation of the storm water management system. This is a <b>significant</b> impact.</p> <p>The portion of the River adjacent to the project site has been designated as water-quality impaired for diazinon, pathogens, nutrients, and sediment. However, the project would not be expected to generate or discharge diazinon (an insecticide that has been banned except for specific agricultural uses). The project could create new sediment sources (as described under the Impact HYDRO-3 discussion above), but these potential sediment discharges would be fully mitigated by the project-level mitigation. Similarly, the project could generate a new pathogen source by installing a new septic system near the River. This is considered a <b>potentially significant</b> impact.</p>	<p>for the River and tidal inlet. A limited access zone shall be established within 50 feet of the High Tide Line and within 10 feet of the top of bank to the slough as further described under Mitigation Measure Bio-2 in Section V.C. (Biological Resources). This will allow limited access roads to the off-loading facility and along the conveyor system to be constructed. The roads shall be placed at the maximum feasible distance (but not less than 50 feet) from the tidal inlet to provide a water quality buffer. If it is necessary for any road to be elevated above the surrounding grade, the escarpment created by the road shall be protected by riprap and/or bioengineering techniques so that the road is stable if the site is inundated during flooding. Permitted improvements within this zone shall be clearly identified and mapped, and no industrial or commercial activities other than those proposed by this project shall be permitted on this parcel. The remainder of the parcel shall be regraded so that shallow stormwater bioswales border the access roads on either side. The bioswales shall be designed and constructed in accordance with the requirements of the County PRMD. The existing baserock shall be removed from the parcel and the existing soils either amended or new planting medium imported so that vegetation can be re-established over the entire parcel (except at the road locations). The applicant shall ensure that no net fill occurs on the site (i.e. any fill imported to the site must be offset by an equal or greater volume of material export out of the floodplain).</p> <ul style="list-style-type: none"> <li>• A pretreatment catch basin and sand filter (or multiple basins and filters) that will capture and treat all runoff from all processing and storage areas for at least the 10-year design storm event. Discharge from the catch basin and sand filter</li> </ul>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>shall be visibly clear (i.e., not turbid). If turbid water is observed to be discharging from the catch basin and sand filter, the system shall be expanded and/or redesigned in coordination with the County and Regional Water Quality Control Board (RWQCB) so that adequate pretreatment is achieved. Only visibly clear water shall be discharged to the secondary treatment system. The SWPPP shall include specifications for regular maintenance of the basin and sand filter and procedures for disposal and/or reuse of the used filtration material.</p> <ul style="list-style-type: none"> <li>• An emergency shutoff system that will allow the plant operator to stop discharge from the catch basin should a chemical spill occur at the facility. A gate valve or similar structure that can shut off flows out of the catch basin shall be included in the basin design. The method for engaging the shutoff system shall be simple and the procedure provided to all appropriate plant employees as part of routine training.</li> <li>• The secondary storm water treatment system shall use a portion of the existing network of drainage ditches to provide additional treatment and on-site residence time prior to discharge of site runoff to the Petaluma River. These drainage ditches shall be redesigned to act as extended wet ponds and/or detention features. Flows for the catch basin and sand filter shall be discharged into the tidally-influenced ditches in a manner so that turbulence is not created (e.g., using an energy dissipation structure). The grading plan and drainage design shall include measures that ensure maximum residence times in the detention features.</li> <li>• As required by the general permit for industrial activities, the applicant shall conduct regular inspections of the facility Best Management Practices (BMPs) and collect storm water runoff</li> </ul>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Cumulative Water Quality Impacts</b></p> <p>The proposed project would result in an incremental increase in nutrient loading. As noted in Impact Hydro-3, the implementation of BACT measures would significantly reduce phosphorous emissions, but a relatively small amount may be emitted from the asphalt plant process. This amount would not exceed National Oceanic and Atmospheric Administration's water quality screening criteria of 0.1 ug/L even under a worst case scenario, in which all phosphorous emissions from the plant are assumed to deposit directly into the River. The amount would nevertheless represent a contribution to nutrient loading in the River, which is likely to continue experiencing a significant cumulative impact due to the contributions from Related Projects. Given the River's finite location</p>	<p>samples during storm events where a discharge occurs. These data shall be reviewed for compliance with applicable published U.S. EPA benchmark values for storm water runoff. If the analytical results from the sampling events indicate that benchmark values are being exceeded, corrective action shall be implemented in coordination with RWQCB.</p> <p>All activities and operation of storm water runoff BMPs are subject to regular inspection by the County and the RWQCB. If the County inspectors observe practices that do not protect surface water quality to the maximum extent practicable, then they are empowered to and shall require the operator to implement corrective action.</p> <p><u>Mitigation Measure HYDRO-3b</u></p> <p>Prior to the commencement of operations, the proposed septic system shall be installed under permitting by the PRMD. Additionally, abandonment of the existing septic system shall be performed under PRMD permitting requirements.</p>	
		<p>Significant and Unavoidable</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>and number of pollutant sources, the project's contribution is conservatively assumed to be <i>cumulatively considerable</i>.</p>		
<b>LAND USE</b>		
<p><b>Impact LU-1 Conflict With Applicable Land Use Plans, Policies, or Regulations</b></p>	<b>Mitigation Measure LU-1</b>	
<p>The applicant seeks a General Plan Amendment to change Limited Commercial to Limited Industrial for APNs 019-320-022 and -023 (Areas B, C and D). As stated in Regulatory Settings for General Plan Land Use, a list of seven specific criteria must be met before amending land use to the Limited Industrial designation. The project does not appear to meet all of the required criteria (i.e., Criterion #5 and Criterion #7) for an amendment to the General Plan designation to Limited Industrial. The project also appears to be in conflict with several applicable policies listed in Section V.H. (Land Use) Tables V.H-2 through 4. Therefore, impacts related to the project's consistency with applicable land use plans, policies or regulations appear <b>significant</b>.</p> <p>The two specific criteria in potential conflict are:</p> <p>5. <i>Lands shall not be in environmentally sensitive or hazardous areas</i></p> <p>The proposed General Plan Amendment would include land in an environmentally sensitive area, although required mitigation measures would reduce project impacts relative to on-site resources (e.g. Biological Resources, Cultural Resources) to less-than-significant levels. Additionally, the proposed amendment would include land in a hazardous area. Much of the project site is in the 100-year flood plain (F2). Other potential hazards include groundshaking and liquefaction from seismic activity. Section V.E (Geology and Soils) acknowledges that seismic hazards at the site;</p>	<p>There are no feasible mitigation measures known at this time that would eliminate this significant land use impact.</p>	<p>Significant and Unavoidable</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>however, mitigation measures have been included in the EIR to reduce the potential hazards associated with seismic activity to a less-than-significant level. All other potentially significant impacts related to on-site hazards would be mitigated to less-than-significant levels. However, not all of the mitigation measures involve avoidance of the environmentally sensitive and hazardous areas, which appears to be the intent of Criterion #5. Therefore, the project does not appear to meet Criterion #5.</p> <p><i>7. Applicable Planning Area Policies</i></p> <p>The project appears to be in conflict with several applicable policies in the Sonoma County General Plan, and the Petaluma Dairy Belt Area Plan as discussed in the Land Use Section.</p> <p><b>Impact LU-2 Land Use Compatibility</b></p>	<p><b>Mitigation Measure LU-2</b></p>	
<p>The proposed project would result in a change to the intensity and type of use for the site, as the project site is currently vacant. The primary land use compatibility impacts would be to several residences on the east side of the railroad tracks directly adjacent to the proposed project. Shollenberger Park, located across the Petaluma River from the project site, is also considered a sensitive receptor and would be subject to noise and aesthetic impacts from the proposed project.</p> <p>The project site has Combining District Zoning for Scenic Resources (SR) to preserve the visual character and scenic resources, and Scenic Design (SD). The project site is currently vacant, allowing views to the surrounding hills and adjacent River area. The proposed project would result in significant and unavoidable impacts relative to scenic vistas and visual character. The proposed project would create noise from a variety of sources. As described in detail in Section V.I (Noise) the impact from noise to adjacent sensitive receptors would be considered significant and unavoidable.</p>	<p>Implementation of the mitigation measures listed in Sections IV.A (Aesthetics) and IV.I (Noise) would reduce but not fully eliminate the significant land use impacts to adjacent residences and users of Shollenberger Park. No other feasible mitigation measures are known at this time.</p>	<p>Significant and Unavoidable</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>Other considerations include sensitive receptors exposure to potential odors, as well as being subject to additional sources of light when the project is operating at night, including light from the barge and pier and associated front loader.</p> <p>Although the proposed project is consistent with adjacent area zoning to the north, the existing residential uses located along the River and, to a lesser extent, the residential uses across the highway and park users across the River would be subject to these impacts. Therefore, land use compatibility impacts would be <i>significant</i>.</p>		
<p><b>Cumulative Land Use Impacts</b></p> <p>With regard to potential cumulative land use compatibility impacts, implementation of the proposed project, in conjunction with the SMART Train and the Novato Narrows Widening Project and associated interchange, would exacerbate the project's land use compatibility impacts.</p> <p>The SMART Train would travel within 65 feet of the nearest residence, generating additional (intermittent) noise beyond the noise from the proposed project. If proper safety precautions are not taken, the SMART train could result in potential safety impacts as the residents along the River have to cross the rail road tracks to access their homes. SMART has prefaced that access to all of the parcels east of the tracks along the waterfront may be limited, as there should only be one place where vehicles would cross the tracks for safety purposes. This may require an easement from Shamrock Materials that would allow access to the east side of the tracks.</p> <p>The interchange associated with the Novato Narrows Widening Project is currently proposed to encroach upon Area B of the project site, which, depending on the final design, could ultimately require the removal or relocation of the proposed fire station, trees, and modifications to the off-site transportation improvements proposed</p>		<p>Significant and Unavoidable</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>by the project. This related project would also exacerbate the project's impacts relative to aesthetics and noise. Therefore, given that the proposed project would result in land use compatibility impacts that can not be completely mitigated, cumulative land use compatibility impacts are considered <i>significant and unavoidable</i>.</p>		
<b>NOISE</b>		
<p><b>Impact NOISE-1 Substantial Temporary or Periodic Increases in Noise</b></p> <p>Construction of the proposed project would result in temporary and periodic increases in daytime ambient noise levels in excess of the existing ambient noise standards. Therefore, temporary increases in noise levels from construction would be considered a significant impact.</p>	<p><b>Mitigation Measure NOISE-1</b></p> <p><u>Mitigation Measure NOISE-1a</u>                      Prior to issuance of a building permit, the project developer shall provide the County with the name and telephone number of the individual empowered to manage construction noise from the project. The individual's name, telephone number, and responsibility for noise management shall be posted at the project site for the duration of construction in a location easily visible to the public. The individual shall record all noise complaints received and actions taken in response, and submit this record to the project planner upon request.</p> <p><u>Mitigation Measure NOISE-1b</u>                      The project developer shall implement measures to reduce the noise levels generated by construction equipment operating at the project site during project grading and construction phases. The developer shall include the following requirements or measures shown to be equally effective in construction contracts:</p> <ul style="list-style-type: none"> <li>• All construction equipment shall be equipped with improved noise muffling, and have the manufacturers' recommended noise abatement measures, such as mufflers, engine covers, and engine isolators in good working condition.</li> </ul>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact NOISE-6 Asphalt Concrete Facility Equipment Noise</b></p> <p>Predicted asphalt plant noise emissions would exceed County daytime noise standards for nearby residences and users of Shollenberger Park on the trail across the River. Operations of the asphalt plant would also exceed County night-time noise standards at all sensitive receptors. Therefore, this would be considered a <i>significant</i> impact.</p>	<ul style="list-style-type: none"> <li>Stationary construction equipment that generates noise levels in excess of 65 decibels level equivalent (dBA Leq) shall be located as far away from existing occupied residences as possible. If required to minimize potential noise conflicts, the equipment shall be shielded from noise sensitive receptors by using temporary walls, sound curtains, or other similar devices.</li> <li>All equipment shall be turned off if not in use for more than 10 minutes.</li> </ul> <p><b>Mitigation Measure NOISE-6</b></p>	
<p>Predicted asphalt plant noise emissions would exceed County daytime noise standards for nearby residences and users of Shollenberger Park on the trail across the River. Operations of the asphalt plant would also exceed County night-time noise standards at all sensitive receptors. Therefore, this would be considered a <i>significant</i> impact.</p>	<ul style="list-style-type: none"> <li>Baghouse fan stack silencer. Install a silencer between the baghouse fan and the exhaust stack. The silencer shall be designed to reduce the A-weighted sound level of the fan exhaust by 20 dBA when the fan is operating in the range of 70-100% of maximum airflow.</li> <li>Baghouse fan casing barrier or enclosure. Install a barrier along the west side of the baghouse fan casing. The barrier shall be made of sound absorptive steel panels or mass-loaded quilted vinyl (1.5 pounds per square foot). The barrier shall be 12 feet tall and located within 3 feet of the fan casing. It shall return along the south and north sides of the baghouse fan casing. Alternatively, a ventilated enclosure can be used that is constructed of sound absorptive metal panels and designed to achieve an A-weighted noise reduction of 15 dBA.</li> <li>Fiberbed fan stack silencer. Install a silencer between the fiberbed fan and the exhaust stack. The silencer shall be designed to reduce the A-weighted sound level of the fan exhaust by 15 dBA when the fan is operating at 100% of</li> </ul>	<p>Significant and Unavoidable</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact NOISE-7 Concrete Recycling Facility Noise</b></p> <p>The recycle plant noise could exceed daytime noise standards by approximately 1 to 9 dBA at residences R1, R2, R4 and R5. Noise levels associated with the recycling plant could also exceed County daytime noise standards at the adjacent park facilities. This exposure is a potentially <i>significant</i> impact.</p>	<p>maximum airflow.</p> <ul style="list-style-type: none"> <li>• Gear reducer enclosure. Install an enclosure around the gear reducer for the asphalt burner drum to reduce its noise level by 15 dBA.</li> <li>• Air compressor enclosure. Install an enclosure around the air compressor to reduce its noise level by 20 dBA.</li> <li>• Air cylinder silencers. Install air cylinder silencers at the batcher and discharge gates designed to reduce the air release noise by a minimum of 20 dBA.</li> <li>• Asphalt Plant stockpiles along loop road. The loop road included in the proposed development plan shall be relocated to the west to allow for the asphalt plant stockpiles to be placed between the loop road and railroad tracks.</li> </ul>	
<p><b>Mitigation Measure NOISE-7</b></p> <ul style="list-style-type: none"> <li>• Non-metallic aggregate sorting screens. Use non-metallic screening panels. Non-metallic materials such as neoprene, rubber or high-density polyethylene (HDPE) can significantly reduce the noise generated by the crushed concrete bouncing on the screens.</li> <li>• Hopper and chute liners. Line all unenclosed hoppers and chutes at which aggregate materials fall onto a metal surface with a sound deadening material such as heavy neoprene, rubber or HDPE.</li> <li>• Use PG&amp;E power instead of an engine-generator set. Operate the recycling plant without the engine-generator commonly used to power portable concrete recycling plants.</li> <li>• Stockpiles to the north and east. Stockpiles of processed and unprocessed materials shall be located to the north and east sites of the recycling plant. These stockpiles will help reduce</li> </ul>		<p>Significant and Unavoidable</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
	<p>noise at the homes along the River and the park across the River. Since the presence of the stockpiles is dependent on the amount of material at the site, this EIR does not rely on their noise reduction potential in mitigating noise levels at the residential receivers. The noise predictions at the Shollenberger Park include the effect of stockpiles, because the recycle yard has enough space to always maintain piles at least 15 feet high.</p> <ul style="list-style-type: none"> <li>Revision of landscape plan to include 10-foot high berm. As required in Mitigation Measure AES-1, the landscape plan shall be revised to incorporate a 10-foot high, 30-foot wide irrigated landscaped berm along the portion of the site that fronts Highway 101 and Petaluma Boulevard South, specifically south of the Caltrans right-of-way line and east of the public right-of-way that extends into the project site. The portions of the site plan affected by the 30-foot wide landscape buffer (i.e., stockpiles, access road, etc) shall be reconfigured to accommodate the landscaped buffer. Finally, the revised landscape plan shall incorporate trees with the proposed ground cover within Area C to further screen the proposed project from off-site views.</li> <li>At the request of the homeowners along the River and at the hillside west of Highway 101, the applicant shall provide windows rated for a 10 dBA exterior to interior noise reduction for all habitable rooms on the side of the residence facing the project site. The applicant shall provide specifications for the windows to the homeowner. The homeowner will then be responsible for receiving 3 bids from qualified contractors to purchase and install the windows. The applicant shall promptly pay the homeowner for the cost of the lowest bid after the windows are installed and accepted by</li> </ul>	

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact NOISE-8 Barge Unloading Facility Noise</b></p> <p>County noise standards would be exceeded at residences R3 and R5 and one of the park facilities (R6) as a result of barge unloading operations, therefore this would be considered a potentially <i>significant</i> impact.</p> <p>Additionally, noise from the tugboat would generate noise levels of 68 dBA at a distance of 160 feet. The barge-unloading facility is approximately 120 feet from R3, the nearest residence. This would exceed both night and day County standards for the nearest residence, and users of the Shollenberger Park viewing platform across the River.</p>	<p>the homeowner. The applicant shall pay for normal installation of the windows but will not pay for any additional work necessary to allow installation of the window, such as repair of dry rot or termite damage.</p> <p><b>Mitigation Measure NOISE-8</b></p> <ul style="list-style-type: none"> <li>• The applicant shall enclose the points along the conveyor system where material transfers from one belt to another by means of a hopper. The enclosure material shall have a minimum surface density of 1.5 pounds per square foot.</li> <li>• The tug boat shall either turn off its engines during barge unloading operations or relocate away from the riverfront residences while unloading operations are underway.</li> <li>• Noise barriers shall be placed on the southern portion of the barge to completely screen barge unloading activities in the direction of the riverfront residences.</li> <li>• Although the County's performance standards for non-transportation sources apply only to outdoor sound levels, consideration shall be given to improving the sound insulating properties of the affected residential structures. This mitigation measure, however, requires the cooperation of the residence owner, but could result in substantial reduction in indoor noise levels.</li> <li>• Project operations associated with off-loading the barge and running the conveyor shall be prohibited at night between sunset and sunrise. Note that sunset and sunrise times change with the seasons, and will range from approximately 5:30 PM to 7 AM in early February, to 8:30 PM to 6 AM in mid-June, to 7:30 PM to 6:30 AM in late August. Official sunrise and sunset times shall be obtained from a reputable source, such as the National Weather Service.</li> </ul>	<p>Significant and Unavoidable</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact NOISE-10 Composite Noise Levels from Project Operations</b></p> <p>The combined noise levels associated with operations of all three facilities, the asphalt plant, barge unloading facility, and recycling plant, simultaneously would exceed the County daytime noise standards at all seven sensitive receptors. In addition, the Rosen, Goldberg &amp; Der Report indicates that indoor noise levels generated by combined operations of the project would exceed the World Health Organization (WHO) recommendation for avoiding sleep interference at each of the three adjacent River residences, with the windows open. With the windows closed, only the northernmost residence would be exposed to noise levels expected to interfere with sleep. It should be noted that the night-time noise level at the northernmost residence is generated by barge unloading activities that would occur infrequently, about one or two nights per month. Considering that combined operations of the project would exceed County and WHO noise standards, this impact would be considered <i>significant</i>.</p>	<p><b>Mitigation Measure NOISE-10</b></p> <p>In conjunction with the other mitigation measures above, the following mitigation measure is recommended to reduce noise impacts from the combined operations.</p> <ul style="list-style-type: none"> <li>• Strobe Lights. 1) Install an Occupational Safety and Health Administration (OSHA) approved strobe light back-up notification system on front-end loaders that are used at the asphalt plant and the barge unloading. 2) Use the strobe lights exclusively instead of the beepers during night-time hours.</li> </ul>	<p>Significant and Unavoidable</p>
<p><b>Cumulative Noise Impacts</b></p> <p>In addition to traffic noise, railroad noise from proposed SMART commuter trains and proposed freight trans could potentially affect cumulative noise levels in the project area, at least on a temporary yet periodic basis. The SMART FEIR concludes, the cumulative daily noise exposure from all rail operations, based on the above assumptions for freight operations, would be approximately 59 dBA Ldn at 50 feet and 54 dBA Ldn at 100 feet from the tracks. Cumulative noise exposure from passenger and freight rail operations at distances greater than 50 feet from the tracks would be less than 60 dBA Ldn, the level considered normally acceptable for outdoor use in residential areas. However, these temporary yet</p>		<p>Significant and Unavoidable</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>periodic noise levels would exceed the County daytime and night-time noise standards for residence R4. Implementation of the proposed project in conjunction with potential future commuter and freight trains would therefore result in <i>significant</i> cumulative operational noise impacts.</p>		
<b>TRANSPORTATION/TRAFFIC</b>		
<p><b>Impact TRANS-3 Highway Impacts</b></p> <p>The project would add traffic to ramp movements and to Highway 101 mainline in both directions. Under existing conditions the highway mainline operates unacceptably in the southbound direction during the AM peak hour. Additional traffic from the project would exacerbate already unacceptable conditions; therefore, this is a <i>significant</i> impact. County staff indicate that although flow volumes are not high in the northbound direction during the PM peak hour, this is often because highway flow breaks down. Additional truck traffic would exacerbate this condition. This is a <i>potentially significant</i> impact. The project would also add traffic to the congested southbound ramps during the AM peak hour. This is also a <i>significant</i> impact. Overall, the project creates <i>significant</i> impacts to Highway 101 operations.</p>	<p><b>Mitigation Measure TRANS-3</b></p> <p><u>Mitigation Measure TRANS-3a</u></p> <p>The project shall be conditioned to require a fair share contribution towards the planned construction of High Occupancy Vehicle (HOV) lanes along the highway mainline. The added HOV capacity would improve highway operations to a minimum level of service (LOS E) in the southbound direction south of Petaluma Boulevard South. This would be an improvement over the existing conditions of LOS F.</p> <p>This is a planned improvement that Caltrans intends to serve existing traffic and background growth in traffic, therefore the project's fair share would be computed as a proportion of total near term cumulative traffic.</p> <p>The project sponsor shall fund a fair share towards any planned interchange improvements for the Highway 101/Petaluma Boulevard South interchange project. Since improvements have been planned and are intended to address existing conditions, and not simply future growth, a fair share is calculated as the project share of total peak hour traffic on the northbound and southbound ramps. Such an interchange is planned by Caltrans as part of the Marin Sonoma Narrows Project. Participation by the project sponsor would need to be coordinated with Caltrans. The future dedication of Caltrans right-of-way situated within the project</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact TRANS-4 Safety Impacts</b></p> <p>The proposed access would force northbound project truck traffic on Highway 101 to weave across the northbound through lane to make left turns onto the on-ramp, this must occur within 460 feet neglecting any queues. Although the modified design of Petaluma Boulevard South would result in reduced speeds, trucks would be forced to accelerate, then weave, and brake all within a distance less than the minimum recommended acceleration distance. This condition is unsafe and constitutes a <b>potentially significant</b> impact.</p>	<p>site for the Highway 101/Petaluma Boulevard South interchange project may be used in part or all of the fair share contribution.</p> <p><u>Mitigation Measure TRANS-3b</u></p> <p>The project shall be conditioned to prohibit material export during the PM peak period from 4 PM to 6 PM. The trip generation determination assumes that no truck traffic would occur during the PM peak hour, based on existing patterns at the temporary site. The condition would eliminate the potential for some truck traffic to slip through during the PM peak hour. County staff anticipates that Caltrans input would be required.</p> <p><b>Mitigation Measure TRANS-4</b></p> <p>The project sponsor shall install an actuated signal at the new intersection of Petaluma Boulevard South at the project driveway. The applicant shall also coordinate with Caltrans and the County to design the northbound off-ramp lane and shoulder striping to "narrow" width perception in an effort to lower driver exit speeds so they are closer to posted advisory speeds. The levels of service with signalization would be LOS B in the AM peak hour and LOS A in the PM peak hour. Outbound right turns from the driveway shall not be permitted on red. The applicant shall get Caltrans' comments on the signalized intersection mitigation for AM/PM signal timing in order to give priority to exiting Highway 101 northbound traffic and avoid excessive queuing. Advance signal detection warning devices shall be required for off-ramp traffic combined with long green times and short recall times for the northbound through movement. All future maintenance costs for signal maintenance shall be borne by applicant. Agreement between Caltrans and County shall be necessary for operational control.</p>	<p>Less Than Significant</p>
		<p>Less Than Significant</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact TRANS-7 Near-Term Cumulative Queuing Impacts</b></p> <p>The project contributes to additional queuing at the northbound through approach to Petaluma Boulevard South at Highway 101 southbound ramps where the queue without the project would already exceed available storage. This queue would already extend beyond Landing Way. Therefore, impacts would be <b>potentially significant</b>.</p>	<p><b>Mitigation Measure TRANS-7</b></p> <p>The exclusive northbound left-turn lane from Petaluma Boulevard South onto the Highway 101 southbound on-ramp shall be re-stripped as a shared left turn/through lane. The exclusive lane is not necessary to avoid delay or queuing on the northbound left turn. The opposing (north) leg of the intersection already has a second receiving lane and the approach is brought to a complete stop so there are no operational constraints preventing the return to a shared left turn/through configuration. Under this configuration the intersection would have improved level of service (from LOS F with 90 seconds delay in the AM to LOS E with 35.5 seconds delay). This mitigation measure would result in queuing on the northbound approach would improve from 825 feet to 125 feet on both the through and the shared lane.</p>	<p>Less Than Significant</p>
<p><b>Impact TRANS-8 Near-Term Cumulative Highway Impacts</b></p> <p>The project would add trips to congested segments of southbound Highway 101 during the AM peak hour, which is a <b>potentially significant</b> impact. The project could potentially add traffic to northbound Highway 101 during the PM peak hour where traffic has been observed to break down which is also a potentially significant impact. The project would add traffic to the congested southbound ramps during the AM peak hour where operation would be LOS F without project traffic. This is a <b>potentially significant</b> impact. Overall the project has a <b>significant</b> impact on highway operations.</p>	<p><b>Mitigation Measure TRANS-8</b></p> <p><u>Mitigation Measure TRANS-8a</u></p> <p>Mitigation Measure TRANS-3 (funding a fair share of the construction of planned HOV lanes, right-of-way dedication) would also address the significant impact identified in Impact TRANS-8. With this improvement the LOS would improve from LOS F to LOS E for the southbound AM condition and the impact would be reduced to less-than-significant levels. Improvements to the highway mainline are planned to address cumulative conditions and serve existing deficiencies as well as future growth. The near-term cumulative plus project condition is the ultimate scenario where the improvement would constitute a mitigation measure as it is assumed as part of the 2020 no-project cumulative condition. Therefore, the fair share is calculated based on near-term plus project conditions. It is</p>	<p>Less Than Significant</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact TRANS-11 Cumulative 2020 Queuing Impacts</b></p> <p>The project would cause 95th percentile queues to grow where they already exceed available storage on the eastbound approach to the proposed Petaluma Boulevard South/Highway 101 southbound ramps intersection. The project would extend the queuing on the northbound through approach to 1,300 feet, well beyond the Landing Way intersection. This is a <b>significant</b> impact.</p>	<p>evaluated as the project share of total peak hour mainline traffic. The project shall fund a fair share towards the construction of any new interchange between Highway 101 and Petaluma Boulevard South. The fair share for this improvement would be calculated under cumulative 2020 plus project impacts. Such an interchange is planned by Caltrans as part of the Marin Sonoma Narrows Project. Participation by the project sponsor would need to be coordinated with Caltrans.</p> <p>The future dedication of Caltrans right-of-way situated within the project site for the Highway 101/Petaluma Boulevard South interchange project may be used in part or all of the fair share contribution.</p> <p><u>Mitigation Measure TRANS-8b</u></p> <p>As indicated under Mitigation Measure TRANS-3b, the project sponsor shall establish that no material export occur during the PM peak hour. Caltrans input would be required.</p> <p><b>Mitigation Measure TRANS-11</b></p>	
	<p>As under near-term cumulative conditions, Mitigation Measure TRANS-7 would reduce the queuing impact to less-than-significant levels. Under 2020 plus project conditions returning to a shared left turn/through lane and an exclusive through lane on the northbound approach of Petaluma Boulevard South to the Highway 101 southbound ramps would reduce the queuing to 175 feet without adversely affecting the northbound left turn (which would also be at 175 feet). Also, the AM peak intersection level of service would improve to 60.7 seconds of delay, which is better than cumulative 2020 conditions without the project.</p>	<p>Less Than Significant</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p><b>Impact TRANS-12 2020 Cumulative Highway Impacts</b></p> <p>The project would add traffic to the Highway 101 southbound on-ramp, which is already at LOS F. This is a <i>significant impact</i> similar to Impact TRANS-3.</p>	<p><b>Mitigation Measure TRANS-12</b></p> <p><u>Mitigation Measure TRANS-12a</u> The project sponsor shall contribute a fair share towards interchange improvements for the planned Highway 101/Petaluma Boulevard South interchange. Since improvements have been planned and are intended to address existing conditions, and not simply future growth, a fair share is calculated as the project share of total peak hour traffic on the northbound and southbound ramps.</p> <p>The future dedication of Caltrans right-of-way situated within the project site for the Highway 101/Petaluma Boulevard South interchange project may be used in part to contribute to the fair share contribution.</p> <p><u>Mitigation Measure TRANS-12b</u> As indicated under Mitigation Measure TRANS-3b, the project sponsor shall establish that no material export occur during the PM peak hour from 4 PM to 6 PM. Caltrans input would be required.</p>	<p>Less Than Significant</p>
<p><b>Impact TRANS-13a Transportation Policy Impacts</b></p> <p>The proposed project is predicated upon obtaining permission to utilize an at-grade crossing and to construct a conveyor system above the tracks. The crossing would allow for access to Area A, off-loading facilities, and the barge. Trucks would need to use this crossing to access the docks when barges are scheduled, and for occasional maintenance and refueling. The Sonoma Marin Area Rail Transit (SMART) sent a letter to the applicant in January 2007 conceptually agreeing to give permission (via an easement) for the conveyor system to cross the railroad tracks. Agreement would be conditioned on limiting access to all of the</p>	<p><b>Mitigation Measure TRANS-13a</b></p> <p>The project sponsor shall obtain the necessary entitlement from SMART to allow for both a rail crossing and the conveyor system.</p> <p>It is assumed that SMART will allow the conveyor to be constructed on the condition that the at-grade rail crossing be closed. This could result in a secondary impact by eliminating the local access to the Area A for project traffic and for a few private residences along the River.</p> <p>To address this secondary impact the applicant/owner shall make an irrevocable offer to the County of Sonoma for a 50-foot public</p>	<p>Less Than Significant</p>

**Table II-1  
Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>parcels east of the railroad tracks along the waterfront to one crossing only for the Haystack Landing area. Specifically, the rail crossing at the project site would be terminated, leaving only one crossing in the area at Landing Way. Without SMART approval, neither the conveyor nor the rail crossing would be permissible. This would prevent the use of barges to import aggregate material, requiring that the resources instead be brought in by truck. Although the SMART Board has met with the project applicant, the final approval has not been obtained. Because the project sponsor does not yet have the entitlements necessary to service the site with material imported by barge, impacts would be <i>significant</i>.</p>	<p>access and utility easement parallel to the SMART railroad tracks on APN 019-220-001 for the purposes of ingress, egress and utilities. This would preserve options for a future public roadway through Landing Way to allow access to Area A and neighboring residential properties along the River if the existing railroad crossing is closed. This measure will cause a small number of passenger vehicles to be mixed with the larger volume of truck trips along the right-of-way. This is not a substantial concern, however, because most of this traffic would be from residents who are familiar with the area and currently there are employee and other passenger vehicle trips in the area so this increase will not represent a new condition for truck drivers using this route.</p>	
<p><b>Impact TRANS-13b Access for Neighboring Residential Land Uses</b></p> <p>Neighboring residents currently cross part of the Landing Way easement, SMART railroad tracks, and the project site to access the County's Petaluma Boulevard South. The same access route used by these residents is also used by emergency and service vehicles as well as the project proponent. Traffic circulation impacts to these existing access arrangements may occur as a result of the proposed project because SMART has expressed concern to the applicant about allowing the continued use of the existing railroad track crossing with the installation of a new overhead conveyor. In addition, mixing residential, emergency and service vehicle traffic with the proposed site plan and asphalt manufacturing activities could also affect safe traffic circulation in and around the facility. Landing Way was viewed as a possible solution to these potential traffic circulation and access impacts because it adjoins and partly crosses the project site before connecting to Petaluma Boulevard South. However, the private properties in the project area and the</p>	<p><b>Mitigation Measure TRANS-13b</b></p> <p>The applicant shall provide neighboring residents an all-weather vehicular access route to Petaluma Boulevard South. Access shall be designed, operated, maintained and recorded to the satisfaction of SMART, DTPW, PRMD and the County Fire Marshall prior to building permit issuance.</p>	<p>Significant and Unavoidable</p>

**Table II-1**  
**Summary of Significant Environmental Impacts & Mitigation Measures**

Significant Environmental Impacts	Mitigation Measures	Level of Significance after Mitigation
<p>underlying interests that have the recorded use of the easement is unclear. Until such time that it is clear whether access to and from Petaluma Boulevard South can be provided to these residents via Landing Way, a <i>potentially significant</i> impact to existing and proposed traffic circulation and access could occur with the implementation of the proposed project.</p>		