Negative Declaration & Notice Of Determination

SAN LUIS OBISPO COUNTY DEPARTMENT OF PLANNING AND BUILDING
976 OSOS STREET • ROOM 200 • SAN LUIS OBISPO • CALIFORNIA 93408 • (805) 781-5600

ENVIRONMENTAL DETERMINATION NO. ED14-055 **DATE:** 12/4/14

PROJECT/ENTITLEMENT: Freeport-McMoRan Hyla Bridge Replacement Grading Permit; PMT2013-01980

APPLICANT NAME: Freeport McMoRan Oil & Gas
ADDRESS: 1821 Price Canyon Road, San Luis Obispo, CA 93401
CONTACT PERSON: Michelle Gibbs **Telephone:** 805-934-8210

PROPOSED USES/INTENT: Request by Freeport-McMoRan Oil & Gas for a Major Grading Permit to replace the existing Hyla culvert crossing with a bridge, which includes (1) construction of a new all-weather bridge over Pismo Creek and realignment of approach roads to provide access to the existing Hyla Extension lease area within the Arroyo Grande Oil Field; (2) removal of the existing, structurally compromised Hyla Road culvert crossing Pismo Creek and existing approach roads; and (3) streambed restoration activities within Pismo Creek to improve steelhead fish passage. The Hyla Crossing Replacement Project would result in the total disturbance of approximately 2.51 acres of a 347-acre parcel within the 1,605 acre unitized agreement area for the Arroyo Grande Oil Field.

LOCATION: The project is located on the east side of Price Canyon Road, approximately 2.7 miles northeast of the City of Pismo Beach, in the South County planning area (San Luis Bay Inland sub area South).

LEAD AGENCY: **County of San Luis Obispo**
Dept of Planning & Building
976 Osos Street, Rm. 200
San Luis Obispo, CA 93408-2040
Website: http://www.sloplanning.org

STATE CLEARINGHOUSE REVIEW: YES ☒ **NO** ☐

OTHER POTENTIAL PERMITTING AGENCIES: California Department of Fish and Wildlife

ADDITIONAL INFORMATION: Additional information pertaining to this Environmental Determination may be obtained by contacting the above Lead Agency address or (805)781-5600.
COUNTY "REQUEST FOR REVIEW" PERIOD ENDS AT .....4:30 p.m. (2 wks from above DATE)

30-DAY PUBLIC REVIEW PERIOD begins at the time of public notification

Notice of Determination

State Clearinghouse No. _____

This is to advise that the San Luis Obispo County_____ as ☐ *Lead Agency* ☐ *Responsible Agency* approved/denied the above described project on _____, and has made the following determinations regarding the above described project:

The project will not have a significant effect on the environment. A Negative Declaration was prepared for this project pursuant to the provisions of CEQA. Mitigation measures and monitoring were made a condition of approval of the project. A Statement of Overriding Considerations was not adopted for this project. Findings were made pursuant to the provisions of CEQA.

This is to certify that the Negative Declaration with comments and responses and record of project approval is available to the General Public at the 'Lead Agency' address above.

County of San Luis Obispo

Signature	Project Manager Name	Date	Public Agency

Initial Study Summary – Environmental Checklist

PLANNING & BUILDING DEPARTMENT • COUNTY OF SAN LUIS OBISPO
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(ver 5.1)Using Form

Project Title & No. **Freeport-McMoran Hyla Crossing Grading Permit** **PMT2013-01980**
ED14-055

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED: The proposed project could have a "Potentially Significant Impact" for at least one of the environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

☐ Aesthetics	☒ Geology and Soils	☐ Recreation
☐ Agricultural Resources	☒ Hazards/Hazardous Materials	☐ Transportation/Circulation
☐ Air Quality	☐ Noise	☐ Wastewater
☒ Biological Resources	☐ Population/Housing	☒ Water /Hydrology
☒ Cultural Resources	☐ Public Services/Utilities	☐ Land Use

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation, the Environmental Coordinator finds that:

☐ The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ The proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Emily Creel, SWCA			November 25, 2014
Prepared by (Print)	Signature		Date
John McKenzie	John McKenzie	Ellen Carroll, Environmental Coordinator	11/25/14
Reviewed by (Print)	Signature	(for)	Date

Project Environmental Analysis

The County's environmental review process incorporates all of the requirements for completing the Initial Study as required by the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The Initial Study includes staff's on-site inspection of the project site and surroundings and a detailed review of the information in the file for the project. In addition, available background information is reviewed for each project. Relevant information regarding soil types and characteristics, geologic information, significant vegetation and/or wildlife resources, water availability, wastewater disposal services, existing land uses and surrounding land use categories and other information relevant to the environmental review process are evaluated for each project. Exhibit A includes the references used, as well as the agencies or groups that were contacted as a part of the Initial Study. The County Planning Department uses the checklist to summarize the results of the research accomplished during the initial environmental review of the project.

Persons, agencies or organizations interested in obtaining more information regarding the environmental review process for a project should contact the County of San Luis Obispo Current Planning Division, 976 Osos St., Rm. 200, San Luis Obispo, CA, 93408-2040 or call (805)781-5600.

A. PROJECT

DESCRIPTION: Request by Freeport-McMoRan Oil & Gas for a Major Grading Permit to replace the existing Hyla culvert crossing with a bridge, which includes (1) construction of a new all-weather bridge over Pismo Creek and realignment of approach roads to provide access to the existing Hyla Extension lease area within the Arroyo Grande Oil Field; (2) removal of the existing, structurally compromised Hyla Road culvert crossing Pismo Creek and existing approach roads; and (3) streambed restoration activities within Pismo Creek to improve steelhead fish passage. The Hyla Crossing Replacement Project would result in the total disturbance of approximately 2.51 acres of a 347-acre parcel within the 1,605 acre unitized agreement area for the Arroyo Grande Oil Field. The project is located on the east side of Price Canyon Road, approximately 2.7 miles northeast of the City of Pismo Beach, in the South County planning area (San Luis Bay Inland sub area South).

ASSESSOR PARCEL NUMBER(S): 044-201-002

Latitude: 35 degrees 11 ' 04 " N Longitude: 120 degrees 37' 01" W **SUPERVISORIAL DISTRICT** # 3

B. EXISTING SETTING

PLANNING AREA: San Luis Bay (Inland), Rural

TOPOGRAPHY: Nearly level to steeply sloping

LAND USE CATEGORY: Agriculture

VEGETATION: Riparian, Oak woodland

COMBINING DESIGNATION(S): Energy Extractive area Flood Hazard

PARCEL SIZE: 347.7 acres

EXISTING USES: Industrial uses (oil field), undeveloped

SURROUNDING LAND USE CATEGORIES AND USES:

North: Agriculture; industrial uses	*East:* Agriculture; industrial uses
South: Agriculture; industrial uses	*West:* Agriculture; industrial uses

C. ENVIRONMENTAL ANALYSIS

During the Initial Study process, several issues were identified as having potentially significant environmental effects (see following Initial Study). Those potentially significant items associated with the proposed uses can be minimized to less than significant levels.

1. AESTHETICS

Will the project:

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Create an aesthetically incompatible site open to public view?	☐	☐	☒	☐
b) Introduce a use within a scenic view open to public view?	☐	☐	☒	☐
c) Change the visual character of an area?	☐	☐	☒	☐
d) Create glare or night lighting, which may affect surrounding areas?	☐	☐	☒	☐
e) Impact unique geological or physical features?	☐	☐	☒	☐
f) Other: _____	☐	☐	☐	☐

Setting. The project is located within the Arroyo Grande Oil Field, which is an active oil producing facility that includes publicly visible industrial elements, such as processing facilities, above-ground pipes and power lines, well pads and pumps, trucks and heavy machinery, pipelines and industrial infrastructure, accessory buildings, and access roads. However, large portions of the site's industrial components are well shielded by existing oak woodland, which remains largely intact in the areas where oil producing activities are not present. Access to the existing Hyla crossing is from an existing entrance along Price Canyon Road. The existing crossing is not visible from Price Canyon Road, which is the closest public road. The project is not within a Sensitive Resource combining designation.

Impact. The project proposes replacement of the existing structurally deficient Hyla culvert crossing with a new bridge crossing at an immediately adjacent location to provide improved access for oil producing activities at the Hyla extension area. The new bridge would be generally similar to existing conditions and compatible with surrounding uses. The new Hyla bridge crossing would consist of one 12-foot-wide travel lane with traffic railings and would require minor realignment of existing approach roads. The proposed permanent project footprint (0.15 acre) is larger than the existing crossing, but the project would not introduce a new or incompatible use in the project area. The new crossing would not be visible from Price Canyon Road or other public vantage points after the construction period due to intervening vegetation and topography. However, some heavy machinery (i.e., cranes) may be visible during project construction through or above existing intervening vegetation. Construction-related views would be generally consistent with other industrial uses in the vicinity and any visual effects would be short-term and limited to the construction period (estimated spring to fall of 2015).

The new crossing is proposed immediately adjacent to the existing structure and does not propose any use of night lighting. The project would involve substantial vegetation removal within Pismo Creek, including removal of two mature western sycamore trees and approximately 18 coast live oaks. However, any resulting visual impacts would be minimized through proposed restoration activities following construction and would be largely undetectable from Price Canyon Road or other public vantage points due to the presence of significant additional vegetation in the project area. The project would not constitute a significant change in the visual character of the area and would be

almost entirely obscured from public view. No significant impacts to aesthetic resources are anticipated.

Mitigation/Conclusion. No mitigation measures are necessary.

2. AGRICULTURAL RESOURCES ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Convert prime agricultural land, per NRCS soil classification, to non-agricultural use?	☐	☐	☒	☐
b) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use?	☐	☐	☒	☐
c) Impair agricultural use of other property or result in conversion to other uses?	☐	☐	☒	☐
d) Conflict with existing zoning for agricultural use, or Williamson Act program?	☐	☐	☐	☒
e) Other: _____	☐	☐	☐	☐

Setting. Project Elements. The following area-specific elements relate to the property's importance for agricultural production:

Land Use Category: Agriculture

State Classification: Farmland of Statewide Importance

Historic/Existing Commercial Crops: None

In Agricultural Preserve? Yes, Edna Valley

Under Williamson Act contract? No

The soil type(s) and characteristics for the proposed development include:

Arnold loamy sand (5 - 15 percent slopes). Arnold series soils occur on hills and hilly uplands at elevations of 100 to 2,500 feet along the south-central portion of California's Coast Range, generally within 30 miles of the coast. This series consists of deep soils that formed in material weathered from soft sandstone. Permeability is rapid, and the available water capacity is low or moderate. Surface runoff is medium, and the hazards of water erosion and soil blowing are high. Arnold series soils tend to support chaparral, coastal sagebrush (*Artemisia californica*), coast live oak (*Quercus agrifolis*), shrubs, annual grasses, and forbs. The soils are primary used for range, with very limited areas used for growing truck crops, Christmas trees, and improved pasture. The soil is considered Class IVe-4 with and without irrigation.

Impact. Although within the Agricultural land use designation, the project is located in a predominantly non-agricultural area with no agricultural activities occurring on the project site or in the immediate vicinity. Soils for this project area are given a Class IVe-4 rating, which indicates very severe limitations that restrict the choice of plants or require very careful management (or both) and erosion risk caused by sandy or gravelly soils that have a low available water capacity. The project would not convert existing agricultural uses and the project area is located predominantly within the banks of Pismo Creek in areas that would not generally be suited for agricultural uses. The existing and proposed Hyla crossing facilities are consistent with the Agriculture land use designation and the project would serve existing and/or proposed uses under the previously approved Phase IV

expansion. No significant impacts to agricultural resources are anticipated.

Mitigation/Conclusion. No mitigation measures are necessary.

3. AIR QUALITY ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Violate any state or federal ambient air quality standard, or exceed air quality emission thresholds as established by County Air Pollution Control District?	☐	☐	☒	☐
b) Expose any sensitive receptor to substantial air pollutant concentrations?	☐	☐	☒	☐
c) Create or subject individuals to objectionable odors?	☐	☐	☒	☐
d) Be inconsistent with the District's Clean Air Plan?	☐	☐	☒	☐
e) Result in a cumulatively considerable net increase of any criteria pollutant either considered in non-attainment under applicable state or federal ambient air quality standards that are due to increased energy use or traffic generation, or intensified land use change?	☐	☐	☒	☐
GREENHOUSE GASES				
f) ***Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***	☐	☐	☒	☐
g) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐
h) Other: _____	☐	☐	☐	☐

Setting. The Air Pollution Control District (APCD) has developed and updated their CEQA Air Quality Handbook (2012) to evaluate project specific impacts and help determine if air quality mitigation measures are needed, or if potentially significant impacts could result. To evaluate long-term emissions, cumulative effects, and establish countywide programs to reach acceptable air quality levels, the APCD has prepared and adopted a Clean Air Plan.

Greenhouse Gas (GHG) Emissions are said to result in an increase in the earth's average surface temperature. This is commonly referred to as global warming. The rise in global temperature is associated with long-term changes in precipitation, temperature, wind patterns, and other elements of

the earth's climate system. This is also known as climate change. These changes are now thought to be broadly attributed to GHG emissions, particularly those emissions that result from human production and use of fossil fuels.

The passage of AB32, the California Global Warming Solutions Act (2006), recognized the need to reduce GHG emissions and set a greenhouse gas emissions reduction goal for the State of California into law. The law required that by 2020, state emissions must be reduced to 1990 levels. This is to be accomplished by reducing greenhouse gas emissions from significant sources via regulation, market mechanisms, and other actions. Subsequent legislation (e.g., SB97-Greenhouse Gas Emissions bill) directed the California Air Resources Board (CARB) to develop statewide thresholds.

In March 2012, the San Luis Obispo County Air Pollution Control District (APCD) approved thresholds for GHG emission impacts, and these thresholds have been incorporated into the APCD's CEQA Air Quality Handbook. APCD determined that a tiered process for land use development projects was the most appropriate and effective approach for assessing the GHG emission impacts. The tiered approach includes three methods, any of which can be used for any given project:

1. Qualitative GHG Reduction Strategies (e.g. Climate Action Plans): A qualitative threshold that is consistent with AB 32 Scoping Plan measures and goals; or,
2. Bright-Line Threshold: Numerical value to determine the significance of a project's annual GHG emissions; or,
3. Efficiency-Based Threshold: Assesses the GHG impacts of a project on an emissions per capita basis.

For most projects the Bright-Line Threshold of 1,150 Metric Tons CO2/year (MT CO2e/yr) will be the most applicable threshold. In addition to the land use development threshold options proposed above, a bright-line numerical value threshold of 10,000 MT CO2e/yr was adopted for stationary source (industrial) projects.

It should be noted that projects that generate less than the above mentioned thresholds will also participate in emission reductions because air emissions, including GHGs, are under the purview of the California Air Resources Board (or other regulatory agencies) and will be "regulated" either by CARB, the Federal Government, or other entities. For example, new vehicles will be subject to increased fuel economy standards and emission reductions, large and small appliances will be subject to more strict emissions standards, and energy delivered to consumers will increasingly come from renewable sources. Other programs that are intended to reduce the overall GHG emissions include Low Carbon Fuel Standards, Renewable Portfolio standards and the Clean Car standards. As a result, even the emissions that result from projects that produce fewer emissions than the threshold will be subject to emission reductions.

Under CEQA, an individual project's GHG emissions will generally not result in direct significant impacts. This is because the climate change issue is global in nature. However, an individual project could be found to contribute to a potentially significant cumulative impact. Projects that have GHG emissions above the noted thresholds may be considered cumulatively considerable and require mitigation.

Freeport-McMoran Oil & Gas currently holds operational permits from the San Luis Obispo Air Pollution Control District (SLOAPCD) for its oil extraction and processing activities at the Arroyo Grande Oil Field. If allowable thresholds are exceeded, Freeport-McMoran is required to pay applicable fees/fines.

Impact. Project development would result in the total disturbance of 2.51 acres, and permanent disturbance of 0.15 acre. Project construction would require an estimated 1,070 cubic yards of cut and 1,680 cubic yards of fill, for a net fill of 610 cubic yards. Grading, compaction, placement of aggregate, and/or demolition of existing materials would be necessary for access road and crossing demolition and construction. These construction activities would result in the creation of construction dust, as

well as short-term construction vehicle emissions.

The project would disturb less than 1,200 cubic yards/day of material and less than 4 acres of area. Therefore, the project would not exceed the general thresholds triggering construction-related mitigation. However, APCD typically recommends that the following standard construction measures be implemented in project development: minimize disturbance, use water trucks to keep dust down and increase frequency when wind is above 15 mph, spray stockpile areas, and designate an on-site person to monitor for dust control. The project is not in close proximity to sensitive receptors that may be more likely to result in nuisance complaints and would not be subject to limited dust and/or emission control measures during construction.

From an operational standpoint, based on Table 1-1 of the CEQA Air Quality Handbook (2012), the project will not exceed operational thresholds triggering mitigation. The project would replace the existing Hyla culvert/crossing with a new all-weather crossing at an immediately adjacent location. Project development would not result in a new or increased use in the project area, as the crossing and adjacent Hyla extension area are currently used for oil extraction operations consistent with approved Phase IV development permits. The approved Phase IV development governs allowable industrial use of this area and would not change or increase as a result of development of the new crossing.

The project site is within an existing oilfield and the closest sensitive receptors are rural agricultural residences approximately 0.6 miles east of the project site. The project does not propose a new or increased use in the project area and is consistent with the general level of development anticipated and projected in the Clean Air Plan as well as anticipated for previously approved phases of development at the Arroyo Grande Oil Field. Therefore, no significant operational air quality impacts are expected to occur.

This project requests issuance of a Major Grading Permit. Development of the project would result in GHG emissions during short-term construction activities. The extent of construction activities associated with the Hyla Crossing Replacement Project would be limited in the context of regional development and would not be expected to result in a significant contribution of GHG emissions in the County. The short-term nature of the construction duration, the typical nature of construction activities proposed, and the limited size of the proposed construction area would not be expected to substantially increase GHG emissions.

Development of the project would not increase vehicle trips in the project area or result in the development of new stationary GHG emission sources. Replacement of the existing crossing would not generate significant amounts of operational traffic or energy demands (the top GHG emission sectors) above existing levels. Therefore, operational project-related GHG emissions would be substantially less than the Bright-Line Threshold of 1,150 metric tons of GHG emissions. Therefore, the project's potential direct and cumulative GHG emissions would be less than significant and would not constitute a cumulatively considerable contribution to GHG emissions. Section 15064(h)(2) of the CEQA Guidelines provides guidance on how to evaluate cumulative impacts. If it is shown that an incremental contribution to a cumulative impact, such as global climate change, is not 'cumulatively considerable', no mitigation is required. Because this project's emissions fall under the threshold, no mitigation for GHG is required.

Mitigation/Conclusion. The project does not propose a new use and would not exceed any air quality thresholds established by the APCD. APCD typically recommends that the following construction measures be used to reduce construction-related dust: minimize disturbance, use water trucks to keep dust down and increase frequency when wind is above 15 mph, spraying stockpile areas, and designate an on-site person to monitor for dust control; however, the project does not exceed the thresholds for implementation of standard mitigation measures for construction activities. No significant impacts associated with air quality or GHG emissions are anticipated and no mitigation is necessary.

4. BIOLOGICAL RESOURCES

Will the project:

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Result in a loss of unique or special status species* or their habitats?	☐	☒	☐	☐
b) Reduce the extent, diversity or quality of native or other important vegetation?	☐	☒	☐	☐
c) Impact wetland or riparian habitat?	☐	☒	☐	☐
d) Interfere with the movement of resident or migratory fish or wildlife species, or factors, which could hinder the normal activities of wildlife?	☐	☒	☐	☐
e) Conflict with any regional plans or policies to protect sensitive species, or regulations of the California Department of Fish & Wildlife or U.S. Fish & Wildlife Service?	☐	☒	☐	☐
f) Other: _____	☐	☐	☐	☐

* **Species – as defined in Section15380 of the CEQA Guidelines, which includes all plant and wildlife species that fall under the category of rare, threatened or endangered, as described in this section.**

Setting. URS, on behalf of the project applicant, prepared a Biological Resources Summary Report (URS 2014), Draft Wetland Delineation and Jurisdictional Determination Report (URS 2014), and Draft Biological Assessment (URS 2014) for the project. These reports have been incorporated into the analysis below, as appropriate.

The project site is characterized by the perennially-flowing channel of Pismo Creek, lined on both sides by riparian vegetation comprised of willow tree species (*Salix laevigata* and *S. lasiolepis*), California sycamore (*Platanus racemosa*), and coast live oak (*Quercus agrifolia*). Upland areas of the project site are heavily disturbed as a result of grading, well pad development, paved and unpaved internal access roads, and oilfield operations. At the crossing itself, the existing Hyla crossing structure is in degraded condition and exhibits signs of erosion and surface cracking. Recent maintenance work was completed to unplug the culvert and shore up the down-gradient side of the crossing through installation of rip rap.

The project area includes an approximately 336 foot stretch of Pismo Creek. The Draft Wetland Delineation and Jurisdictional Determination Report (URS 2014) identified approximately 0.6 acre of other (non-wetland) waters of the U.S. and approximately 0.75 acre of jurisdictional streambeds subject to California Department of Fish and Wildlife (CDFW) permitting authority under Section 1600 of the California Fish and Game Code.

Native/naturalized vegetation communities identified within the project site include coast live oak woodland, red/arroyo willow thickets, and coyote brush scrub. The project site also supports ruderal vegetation, developed areas, and open water within Pismo Creek.

Pismo Creek is known to support multiple special status species, including California red-legged frog (*Rana draytonii*), South-Central California Coast steelhead (*Oncorhynchus mykiss*), western pond turtle (*Actinemys marmorata*), American badger (Taxidea taxus), Santa Margarita manzanita (*Arctostaphylos pilosula*), Pismo clarkia (*Clarkia speciosa* ssp. *immaculata*), Brewer's spineflower

(*Chorizanthe breweri*), and San Luis Obispo owl's clover (*Castilleja densiflora* ssp. *obispoensis*). The entire length of Pismo Creek through the project area and extending to the Pacific Ocean is designated critical habitat for steelhead.

Impact. Project construction would include the following activities within or adjacent to Pismo Creek:

- Temporary dewatering of Pismo Creek through installation and use of a cofferdam, diversion pipe, and gravel check dams;
- Clearing of riparian vegetation within the banks and channel of the creek;
- Installation of a temporary construction pad within the creek channel just upstream of the existing crossing to provide support for construction equipment, including a pad area of approximately 2,000 square feet within Pismo Creek and the addition of approximately 160 cubic yards of additional large rocks; limited refueling within creek banks of several immobile pieces of equipment (e.g., crane);
- Access road reconfiguration to facilitate bridge access at the approaches on both sides of the bridge;
- Bridge installation;
- Removal of the existing culvert crossing and approach roadways; and
- Streambed restoration and enhancement activities.

The project proposes stream restoration and enhancement activities following construction. The primary purpose of the proposed stream restoration activities is to create a geomorphically stable step-pool system within upstream and downstream areas of Pismo Creek that has historically been altered due to the presence of the existing crossing and culverts. Restoration activities have been designed to provide a proper gradient, relatively stable stream conditions, and allow for migration of native steelhead and other aquatic life. The step-pools would be characterized by an accumulation of cobbles and boulders into organized structures that span the channel to control the grade and flow velocity of the steep stream by allowing the flow to step down over a series of drops.

Impacts to Jurisdictional Waters and Streams. Jurisdictional wetlands and 'other waters' are considered sensitive and important habitats by U.S. Army Corps of Engineers (USACE) and other regulatory agencies (California Coastal Commission, CDFW, and the Regional Water Quality Control Board [RWQCB]). Project impacts to wetlands and 'other waters' are considered significant under state and federal policies. The Draft Wetland Delineation and Jurisdictional Determination Report (URS 2014) identified the presence of 0.19 acre of federal and 0.75 acre of state jurisdictional areas within the project area.

Project construction would involve temporary and permanent impacts to state and federal jurisdictional areas as a result of grading and vegetation removal to conduct the new bridge structure, installation of proposed bridge footings, bridge deck, bridge abutments, and new approaches, and the placement of permanent fill material within Pismo Creek for stream enhancement purposes. Based on the Biological Resources Summary Report prepared for the project (URS 2014), project construction would include the following temporary and permanent impacts to jurisdictional areas within the project area:

Table 1. Impacts to Jurisdictional Waters within the Project Area.

Jurisdictional Area	Area of Permanent Impacts (acres)	Area of Temporary Impacts (acres)	Total Impacted Acreage
USACE – Section 404 Clean Water Act (Other Waters)	0.01	0.18	0.19
CDFW – Section 1600 California Fish and Game Code[1]	0.09	0.48	0.56

Total	**0.10**	**0.66**	**0.75**

[1] *CDFW jurisdictional areas only include those areas above the Ordinary High Water Mark (OHWM) to avoid double counting CDFW areas that are also within USACE jurisdiction.*

Source: URS. February 2014. Biological Resources Summary Report for the Hyla Crossing Replacement Project, Arroyo Grande Oil Field, San Luis Obispo County, California*. Prepared for: Freeport-McMoRan Oil & Gas.*

Alterations to the bed, bank, and channel of CDFW jurisdictional areas of Pismo Creek will require authorizations pursuant to Section 1600 et seq. of the California Fish and Game Code. Proposed stream enhancement activities include discharges of fill material into USACE jurisdictional waters of Pismo Creek; therefore, authorization under Section 404 of the Clean Water Act will be required. In addition, the Section 404 permit cannot be issued without an accompanying Clean Water Act Section 401 Water Quality Certification from the Central Coast Regional Water Quality Control Board (RWQCB).

CDFW and USACE typically require mitigation at a 1:1 ratio for temporary impacts and a 3:1 ratio for permanent impacts to jurisdictional waters when on-site in-kind mitigation is proposed (such as the proposed stream restoration and enhancement activities). Mitigation ratios can fluctuate based on the results of regulatory agency consultation; however, based on anticipated 1:1 and 3:1 mitigation requirements, the applicant will have to mitigate for a total of 0.66 acre of temporary disturbance and an additional 0.3 acre for permanent impacts to jurisdictional waters, for total mitigation of 0.96 acre.

Based on the Biological Resources Summary Report prepared for the project, the applicant proposes stream restoration and enhancement activities as follows:

Table 2. Proposed Stream Restoration and Enhancement Activities

Jurisdictional Area	Restored Area (acres)	Enhanced Area (acres)	Total Area
USACE – Section 404 Clean Water Act (Other Waters)	0.06	0.04	0.1
CDFW – Section 1600 California Fish and Game Code[1]	0.63	0	0.63
Total	**0.69**	**0.04**	**0.73**

[1] *CDFW jurisdictional areas only include those areas above the Ordinary High Water Mark (OHWM) to avoid double counting CDFW areas that are also within USACE jurisdiction.*

Source: URS. February 2014. Biological Resources Summary Report for the Hyla Crossing Replacement Project, Arroyo Grande Oil Field, San Luis Obispo County, California*. Prepared for: Freeport-McMoRan Oil & Gas.*

It is possible that proposed stream restoration and enhancement activities will be adequate to fully mitigate the impacts associated with bridge construction activities (i.e., because the project proposes restoration activities within the creek to restore the natural flow conditions of the creek and improve steelhead habitat, regulatory agencies may adjust required mitigation ratios). However, implementation of the proposed restoration and enhancement activities as appropriate mitigation would be subject to approval by regulatory agencies and issuance of necessary permits, as described above. For mitigation to adequately offset impacts, NOAA Fisheries requires that the proposed mitigation provide an appropriate level of benefit to the subject species or habitat based on specific guidelines and regulations. The ultimate feasibility and success of the proposed stream restoration and enhancement activities as project mitigation will require close coordination with USACE, CDFW, and NOAA Fisheries.

Impacts to jurisdictional waters would be reduced to less than significant through design and implementation of a Habitat Mitigation and Monitoring Plan (HMMP), which would include a minimum 3:1 replacement ratio for permanent loss of jurisdictional areas and a 1:1 replacement ratio for temporarily disturbed areas, or as otherwise directed by regulatory agencies. In addition, the

proposed stream restoration and enhancement activities would have a beneficial impact on jurisdictional and aquatic species habitat.

With the exception of three pieces of relatively immobile equipment (crane, pile driving hammer's power pack and two compressors), all refueling will be conducted at least 100 feet from the top of creek bank. As described in BIO Mitigation Measure #22 below, there are a number of existing Best Management Practices that will be applied to these immobile pieces for all refueling efforts to minimize any leaks or spills, and immediate actions to be taken should there be such an occurrence. Furthermore, in addition to diverting surface flows away from where this immobile equipment will be placed, such work is planned to be conducted outside of the rainy season.

Impacts to Vegetation Communities and Land Covers. Sensitive plant communities located within the project area include coast live oak woodland and red/arroyo willow thickets, as described above. The project area includes approximately 0.32 acre of coast live oak woodland along the upper terraces of the Pismo Creek streambed and within upland areas and 0.44 acre red/arroyo willow thicket throughout the riparian corridor along the Pismo Creek channel.

Project construction would include the following temporary and permanent impacts to vegetation communities within the project area:

Table 3. Impacts to Vegetation Communities and Land Covers within the Project Area.

Vegetation Community	Area of Permanent Impacts (acres)	Area of Temporary Impacts (acres)	Total Acreage within Project Area
Coast Live Oak Woodland	0.03	0.29	0.32
Red/Arroyo Willow Thickets	0.05	0.39	0.44
Coyote Brush Scrub	0	0.01	0.01
Ruderal Vegetation	0.01	0.03	0.04
Developed	0.06	1.62	1.68
Open Water	0	0.02	0.02
Total	**0.15**	**2.36**	**2.51**

Source: URS. February 2014. Biological Resources Summary Report for the Hyla Crossing Replacement Project, Arroyo Grande Oil Field, San Luis Obispo County, California*. Prepared for: Freeport-McMoRan Oil & Gas.*

In total, project construction would result in the permanent removal of 0.08 acre of existing natural vegetation, 0.06 acre of previously developed areas, and 0.01 acre of ruderal vegetation.

Mitigation to reduce impacts to sensitive vegetation communities to less than significant has been incorporated below.

Impacts to Special Status Species. It is anticipated that two special-status species, California red-legged frog (CRLF) and South-Central California Coast steelhead, utilize the project footprint, due to the availability of habitat for these species and documented occurrences. Other species with potential to occur based on CNDDB mapping and habitat at the project area include western pond turtle and American badger. During biological field investigations conducted by URS in February 2013, no sensitive plant species were observed in the project area.

The proposed project is located within designated critical habitat for South-Central California Coast steelhead and positive occurrences of steelhead and CRLF were documented during project surveys. Implementation of the project would result in temporary impacts to the open water habitat resulting from: dewatering the project work area, constructing a temporary construction pad, completing construction activities in the creek channel, constructing the new bridge, and demolishing the existing culvert crossing. Based on the current project plans, approximately 0.18 acre of temporary impacts

and 0.01 acre of permanent impacts would occur within the perennial creek channel. These impacts would result in the temporary loss of access by steelhead through the estimated 2015 spring to fall construction period and permanent loss of 0.01 acre of access after project completion. The bridge design does not include any piles or other permanent fill in the creek channel outside of proposed restoration and enhancement activities, which would provide beneficial enhancements on steelhead critical habitat. Therefore, no permanent adverse impacts to steelhead critical habitat are expected.

Additional areas of proposed disturbance within riparian habitat adjacent to the creek provide highly suitable habitat for CRLF. Proposed construction activities within these areas would result in potentially significant impacts to CRLF and/or its habitat, including include direct effects associated with the use and movement of construction equipment, fuel spills, construction debris, vegetation removal, and worker foot traffic. Indirect effects of construction activities, including noise and vibration and the indirect effects of erosion and sedimentation, may also impact CRLF. Implementation of the proposed mitigation measures, including preconstruction surveys and biological monitoring during construction activities, would reduce the potential impact to CRLF.

The project site has the potential to support western pond turtle, which is a CDFW species of special concern, though no occurrences were discovered during site surveys. Potential impacts would include direct impacts during construction, including equipment access, vegetation removal, fuel spills and increased worker and vehicle traffic, and indirect effects, including noise, vibration, erosion, and sedimentation. Indirect effects of construction activities may cause western pond turtles to temporarily abandon habitat adjacent to work areas. This disturbance may increase the potential for predation if western pond turtles abandon shelter sites. Potential impacts to this species will be reduced to less than significant through implementation of proposed mitigation, including preconstruction surveys and biological monitoring during construction activities.

There is also the potential for take of steelhead and other sensitive aquatic species due to hydroacoustic impacts associated with pile driving activities in close proximity of the creek. URS, on behalf of the project applicant, prepared a Memorandum on the Hydroacoustic Effects of Pile Driving on Steelhead – Hyla Crossing Replacement Project on Pismo Creek (URS 2014). Based on URS's Memorandum, impacts associated with noise and vibration from pile driving activities would be less than significant due to the distance between the proposed pile driving activities and the blocking nets that would be installed upstream and downstream of the project area to prevent steelhead from entering the construction area or water diversion system.

There is a low potential for take of steelhead and/or CRLF during bridge replacement activities. In the event take occurs, the impact would be considered significant. Consultation with NOAA Fisheries and the U.S. Fish and Wildlife Service (USFWS) through Section 7 of the Federal ESA and issuance of incidental take permits may be warranted. Also, should it be determined that a Biological Opinion is necessary, it would include agency mandated "Reasonable and Prudent Measures" for project activities. Project construction activities are proposed to occur between May 1 to October 15, which coincides with the summer low-precipitation period (April 15 to October 15) and avoids the CRLF breeding season (December to April), although CRLF egg masses have potential to be present during May. In addition, several mitigation measures have been provided below that would further reduce the potential for impacts to steelhead and CRLF. Therefore, impacts would be less than significant with recommended mitigation.

In addition to these sensitive species, several common species are expected to occur within the project area. Impacts to common species are expected to be minimal considering the limited area of disturbance, proposed mitigation measures to avoid and minimize impacts to wildlife, and the implementation of habitat mitigation and restoration activities, which will benefit species habitat in the long-term. Therefore, impacts would be less than significant with recommended mitigation.

Pismo Creek serves as an important corridor for the movement of aquatic species. Surrounding grassland, woodland, and chaparral habitats also help facilitate wildlife movement in the project area. Dewatering and diversion of Pismo Creek and other construction activities would result in temporary

impacts on wildlife movement within the creek, along adjacent riparian areas, and within other proximate areas where construction related noise and disturbance activities may divert wildlife. These impacts would be short-term and limited to the proposed construction period. Proposed restoration and enhancement activities would ultimately provide beneficial impacts to wildlife movement within the creek and in adjacent riparian areas due to the reestablishment of migratory habitat for steelhead and improved breeding habitat for CRLF. Therefore, impacts to wildlife movement would be less than significant with recommended mitigation.

Impacts to Oak Woodland. Impacts to oak trees may be evaluated as individual tree impacts or as a habitat impact. CEQA affords special protection to oak woodlands (California Public Resources Code Section 21083.4). To help define oak woodlands and when impacts are considered potentially significant, the County of San Luis Obispo considers the following two questions:

1. Is the area where oaks are being impacted considered to have an oak canopy coverage area of 10% or more?
2. If 'yes' to question #1, will 10% or more of the existing oak trees within the property boundary be impacted by the project, or will more than 10 oak trees be removed (two impacted trees count as one removed tree)?

In answering question #1, the oaks proposed for removal and/or impact are within an area considered having a greater than 10% canopy coverage.

In answering question #2, the project will result in the removal of more than 10 trees (up to 18 to be removed and up to 20 impacted would equate to 28 trees removed). Furthermore, as this is a part of the larger Phase IV development, when all of the previously approved elements on this parcel are also considered, the '10% of oaks on the property' threshold may also be exceeded. Therefore, impacts to oak woodland are considered potentially significant and mitigation has been recommended to reduce potential impacts to less than significant. Oak woodland mitigation will also provide the adequate mitigation to address the loss of individual trees.

Project construction would also require the removal of two mature sycamore trees. Impacts associated with removal of mature trees would be significant but mitigable through application of recommended measures.

Impacts to Nesting and Migratory Birds. Tree and vegetation removal could impact nesting birds and/or birds protected by the Migratory Bird Treaty Act. The removal of vegetation could directly impact bird nests and eggs or young residing in nests. Noise and disturbance associated with construction could also alter perching, foraging, and/or nesting behaviors, resulting in indirect impacts. Impacts to these species would be considered significant but mitigable through application of the recommended measures.

Introduction of Invasive Species. The project area includes sensitive plant communities and natural riparian areas that are relatively free of invasive species and Freeport-McMoRan Oil & Gas currently implements an oil field-wide weed abatement program to manage and minimize the presence of weeds within the oil field. The ruderal and disturbed areas adjacent to the project site have the potential to support several invasive species. Project construction activities would also require removing and replacing soil that could contain seeds of invasive plant species. Disturbance of soil containing invasive species seeds could facilitate the spread of invasive species in the project area; however, these impacts could be mitigated through biological monitoring and habitat management measures.

Mitigation/Conclusion.

To minimize potential significant impacts to sensitive biological resources within and surrounding the project site, the following measures would be implemented.

BIO/mm-1 County Environmental Monitor. Prior to issuance of a construction/ grading permit*, the applicant shall provide the funding for a County Environmental Monitor to oversee and monitor compliance with County conditions of approval (COAs) and mitigated negative declaration measures. The Environmental Monitor shall assist the County in condition compliance and mitigation monitoring for all applicable construction, operational, and decommissioning stages of the project, as specified in a scope of work, and as approved by the County Department of Planning and Building.*

The Environmental Monitor will prepare a working monitoring plan that reflects the County-approved environmental mitigation measures/conditions of approval. This plan will include (1) goals, responsibilities, authorities, and procedures for verifying compliance with environmental mitigation measures; (2) lines of communication and reporting methods; (3) daily and weekly reporting of compliance; (4) authority to stop work; and (5) action to be taken in the event of non-compliance. The Environmental Monitor shall provide a work scope to the County for review and approval. The entire expense of retaining and supervising the Environmental Monitor shall be paid by the applicant.

The applicant shall also be responsible for funding work required by mitigation measures requiring use of individuals with special expertise (e.g., botanist, wildlife biologist). The County's Environmental Monitor will coordinate with these experts to ensure their availability at appropriate times (e.g., prior to issuance of construction permits, during construction or post-approval, etc.).

BIO/mm-2 Biologist. Prior to construction*, the applicant shall retain a qualified biologist to monitor construction activities and ensure compliance with measures within the project environmental documents. Monitoring by the qualified biologist shall occur throughout the length of construction or as directed by the County Environmental Monitor and regulatory agencies. Full-time biological monitoring shall occur* ***during vegetation removal and earthmoving activities****. Monitoring may be reduced to part time once construction activities are underway and the potential for additional impacts are reduced, as determined appropriate by the County.*

The qualified biologist shall prepare and submit weekly biological monitoring/progress reports to the County Environmental Monitor to confirm field compliance with all conditions of approval and mitigation requirements.

BIO/mm-3 Rainy Season*. Construction activities shall be conducted outside of the rainy season (November 1 through March 31) of any year. This provides a work window from April 1 to October 31 in any given year, or as otherwise directed by regulatory agencies. Deviations from this work window can be made with permission from permitting regulatory agencies if it can be shown that no additional environmental impacts would result.*

BIO/mm-4 Sensitive Vegetation Protection*.* ***Prior to construction permit issuance,*** *to protect sensitive vegetation, the project plans shall clearly show the placement of sturdy construction exclusion fencing along project limits where such vegetation exists. The fencing shall be installed immediately* ***prior to any ground disturbance****. The balance of the project limits will be flagged as off-limit areas. Flagging and fencing shall be kept in good working order* ***during the entire construction phase****.*

BIO/mm-5 Habitat Mitigation and Monitoring Plan*.* ***Prior to construction permit issuance****, the applicant shall prepare a comprehensive Habitat Mitigation and Monitoring Plan (HMMP)for County review and approval to mitigate impacts to jurisdictional areas and sensitive vegetation communities consistent with the following requirements. The final HMMP will include the specific mitigation sites within Pismo Creek area, based on a minimum replacement of 3:1 for permanent impacts and a minimum of 1:1 for temporary impacts, or as otherwise directed by regulatory agencies. Impacted areas of red/arroyo willow thickets shall be restored at a 1:1 ratio. Project areas shall be revegetated with an assemblage of native riparian, wetland, and upland vegetation*

suitable for the area. Locally collected plant materials shall be used to the extent practicable. Exotic plants shall be controlled to the maximum extent practicable. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the USACE, in consultation with the USFWS and County, determine that it is not feasible or practical. The HMMP shall include ecologically based success criteria consistent with the Final Rule for Compensatory Mitigation for Losses of Aquatic Resources, dated April 10, 2008. The HMMP must be consistent with federal and state regulatory requirements and shall be amended with any regulatory permit conditions, as required. The applicant shall implement the HMMP ***during construction and immediately following project completion****.*

BIO/mm-6 Best Management Practices*.* ***During construction****, the applicant shall implement standard Best Management Practices to reduce erosion and sedimentation, including but not limited to the following:*

a. *Silt fencing, fiber rolls, and barriers (e.g., hay bales) shall be installed between the project site and adjacent sensitive areas and waters.*

b. *No synthetic plastic mesh products shall be used in any erosion control materials.*

c. *At a minimum, silt fencing shall be checked and maintained on a daily basis throughout the construction period.*

d. *The contractor shall also apply adequate dust control techniques, such as site watering, during construction.*

BIO/mm-7 Invasive Exotic Plants*.* ***During construction****, the biological monitor(s) shall ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible through the following measures:*

a. *Review and modification as appropriate of the existing Arroyo Grande Oil Field Weed Control Plan. The Weed Control Plan shall be updated (as necessary) and shall be implemented throughout the duration of project activities.*

b. *When practicable, invasive exotic plants in the project site shall be removed and properly disposed.*

c. *The use of imported soils for fill shall be limited to the extent feasible. Soils currently existing on-site shall be used for fill material to the extent feasible. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species, or the material must consist of purchased clean material such as crushed aggregate, sorted rock or similar materials.*

d. *As a post-construction activity, and a part of the annual survey for invasive plants, the project limits will be surveyed. If presence of such species are found, hand removal of all invasive species within the project area shall be conducted within 60 days of identification. Invasive plant removal shall be done for at least two successive years after construction is completed.*

BIO/mm-8 Trash*.* ***During construction****, trash shall be contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas and properly disposed of at a certified landfill. All vegetation removed from the construction site shall be taken to a certified landfill to prevent the spread of invasive species. If soil from weedy areas (such as areas with invasive exotic plant species) must be removed off-site, the top 6 inches (in) (152 millimeters [mm]) containing the seed layer in areas with weedy species shall be disposed of at a certified landfill.*

BIO/mm-9 Pets. During construction*, no pets shall be allowed on the construction site.*

BIO/mm-10 Environmental Awareness Training. Prior to commencing work*, each construction and on-site management personnel shall participate in an environmental awareness training*

program conducted by the County-approved qualified biologist. The training program must include a description of all sensitive species and sensitive habitats within the project area, including aquatic species such as south-central California coast steelhead, CRLF, and western pond turtle, their ecology, legal status, and the need for species conservation. New or additional construction and on-site management personnel shall participate in subsequent environmental awareness trainings, as necessary, ***prior to commencement of work activities****.*

BIO/mm-11 Steelhead*.* ***Prior to conducting any in-stream work activities****, the applicant shall retain a qualified biologist with experience in steelhead biology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating fish species. The biologist shall be approved by the County and NOAA Fisheries.*

During in-stream work*, the qualified biologist shall monitor placement and removal of any required stream diversions to capture stranded steelhead and other native fish species and relocate them to suitable habitat as appropriate. The biologist shall note the number of native fish observed in the affected area, the number of fish relocated, and the date and time of the collection and relocation and shall submit weekly monitoring reports to the County's Environmental Monitor to ensure compliance with regulatory permits and mitigation requirements.*

BIO/mm-12 Dewatering*.* ***During in-stream work****, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 0.2-inch wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin allowing the suspended sediment to settle out prior to re-entering the stream outside of the isolated area. The form and function of all pumps used during the dewatering activities* ***shall be checked daily****, at a minimum, by the County-approved qualified biologist to ensure a dry work environment and minimize adverse effects to aquatic species and habitats. Effectiveness of this effort shall be incorporated into the biologist's weekly reports and include any remedial efforts determined appropriate to meet the intent of the measure.*

BIO/mm-13 Sedimentation and Erosion Control*.* ***During construction****, the County-approved qualified biologist shall monitor erosion and sediment controls to identify and correct any conditions that could adversely affect sensitive aquatic species or habitats. Should non-compliance become an issue, the biologist shall follow the Monitoring Plan protocol (see Bio/mm-1) to resolve the issue and avoid/minimize significant adverse effects to sensitive species and habitats, which may include the halting of work. As needed, the biologist shall consult with the County's Environmental Monitor.*

BIO/mm-14 California Red-legged Frog*.* ***Prior to conducting any in-stream work****, the applicant shall retain a qualified biologist with experience in CRLF biology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating CRLF and other aquatic species. The qualified biologist shall be approved by the County, in consultation with USFWS.*

The qualified biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the CRLF is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work activities begin. The qualified biologist shall relocate CRLF the shortest distance possible to a location that contains suitable habitat and that will not be affected by activities associated with the project. The qualified biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]). The qualified biologist shall prepare and submit ***weekly monitoring reports*** *to the County Environmental Monitor to ensure compliance with regulatory permit requirements, conditions of approval, and mitigation requirements.*

BIO/mm-15 Avoid Nesting Season*.* ***Prior to construction****, the applicant shall schedule*

vegetation removal to occur between September 1 to February 14, outside of the nesting season to the greatest extent possible.

***BIO/mm-16 Pre-Construction Nesting Survey/Buffers**.- **Prior to construction**, if construction activities occur during the typical nesting season (February 15 to August 31), a nesting bird survey shall be conducted by a qualified biologist(s) **immediately prior to commencement of work activities** (but no more than two weeks prior to construction) to determine presence/absence of nesting birds within the project area. Periodic subsequent spot-check surveys shall be completed **throughout the duration of construction activities** in the nesting season to determine if new nests are created within the work area subsequent to commencement of construction activities.*

Work activities shall be avoided within 50 feet of active bird nests and 250 feet of active raptor nests until young birds have fledged and left the nest. Readily visible exclusion zones shall be established in areas where nests must be avoided. USFWS and CDFW shall be contacted if any federally or state listed bird species' nests are observed during surveys. Nests, eggs, or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code may not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor can adult birds be killed, injured, or harassed at any time. In the event a variance to these avoidance buffers is necessary, the applicant shall make a request for variance to the County Environmental Monitor. Any variance shall require proof that no additional impact on nesting birds would occur and approval of USFWS and CDFW.

***BIO/mm-17 Bypass Intake**. **Prior to construction and throughout the duration of construction activities**, a 0.2-inch seine, of appropriate height to span from the channel bed to the water surface and sufficient width to span from bank to bank, will be installed on the upstream side of the bypass intake to prevent steelhead and CRLF from entering the site within the Pismo Creek channel. The net will be monitored regularly for integrity and repaired immediately if breaches are detected. Debris shall be removed from the net by the qualified biologist promptly upon detection.*

***BIO/mm-18 Entrapment Avoidance**. **During construction,** any trenches or excavations left open overnight will include an escape route for CRLF and other wildlife, or will be covered at the end of each workday in a manner that prevents entry. Any covered excavations shall be checked regularly for presence of any wildlife. Construction equipment and materials shall be covered (i.e., pipes, tubes, or other small enclosures shall be plugged or covered) to prevent entry and or use by birds or other wildlife.*

***BIO/mm-19 CRLF Exclusion**. **During construction**, in the event the qualified biologist finds CRLF are entering the worksite despite the upstream block net, lateral blocking structures comprised of silt fencing or plywood may be constructed to further reduce the potential for CRLF entering the site.*

***BIO/mm-20 Tree Protection/Removal**. **Prior to construction permit issuance,** applicable drawings shall show all oak trees to be removed and impacted. **Prior to any vegetation removal**, all mature trees within the project area shall be clearly marked for removal or protection/ avoidance. At such time, a final tally of oak trees to be removed (up to 18) and oak trees to be impacted/trimmed (up to 20) shall be made and verified by the Environmental Monitor. The final tally shall be used for oak woodland mitigation purposes (see BIO/mm-22). Temporary fencing shall be installed around all trees to remain (wherever feasible, sturdy fencing shall be placed at least 10 feet beyond the tree's canopy edge/dripline), and kept in good working order for the duration of the construction phase.*

*A certified arborist, approved by the County, shall be retained by the applicant to perform any necessary trimming of tree limbs overhanging into the active construction zone or along access routes between the construction zone and equipment staging areas. Trimming activities by the certified arborist shall occur **prior to access to the work** areas by construction equipment to*

avoid and minimize the potential for inadvertent damage to oak tree limbs.

***BIO/mm-21 Oak Woodlands**. Based on the "final tally" (see BIO/mm-21), and **prior to final inspection**, payment to the State Wildlife Conservation Board will be made at $970 per oak tree that is removed and $485 per oak tree that is encroached upon or trimmed, but not removed, or as otherwise required at project completion by the County.*

***BIO/mm-22 Riparian – Activities Excluded**. **During construction**, all refueling, maintenance, and cleaning of equipment and vehicles (with the exception of the crane, the pile driving hammer's power pack, and two compressors which are relatively immobile) shall occur at least 100 feet from all on-site riparian habitat or water bodies and not in a location where a spill would drain directly toward aquatic habitat. For the crane, the pile driving hammer's power pack, and two compressors, which are somewhat immobile, and refueling in place is proposed, the following Best Management Practices shall be used:*

- *Pismo Creek will be dewatered upstream of the existing Hyla road crossing in advance of use of this equipment for bridge construction activities.*
- *All refueling, maintenance and repair shall be performed in accordance with California Stormwater Quality Association (CASQA) Standard NS-9.*
- *All work shall conform to the Arroyo Grande Oil Field Spill Prevention, Containment and Countermeasures (SPCC) Plan.*
- *All work shall conform to the Arroyo Grande Production Facilities Emergency Response and Action Plan.*
- *Third party fuel suppliers must have a Spill Contingency Plan, emergency spill kit, and insurance at the time of transfer.*
- *During refueling, maintenance, and repair, drip pans or absorbent mats shall be used to contain potential drips, spills, parts, or debris.*
- *During hours of non-operation, equipment shall be parked with drip pans or absorbent mats. All fuel or maintenance fluid storage containers shall be stored at least 100 feet from the riparian area or water bodies per CASQA Standard WM-1.*
- *Fuel trucks involved in the refueling process shall meet all applicable DOT standards (49 CFR).*
- *Fuel tank vents shall be closed, hoses secured and nozzles protected from drips prior to mobilizing refueling trucks to and from equipment.*
- *Equipment shall be turned off prior to refueling.*
- *Two trained personnel shall oversee all refueling operations and maintain presence at all times during refueling.*
- *Funnels shall be utilized when required.*
- *Refueling operations shall only be performed on level ground.*
- *Topping off shall be strictly prohibited.*
- *Gauges shall be inspected prior to refueling to ensure they are properly working.*
- *Capacity of tank shall be known prior to filling.*
- *A "dip-stick" will be used to confirm the approximate volume of fuel to be transferred.*
- *Hoses, fittings, and drip pans shall be inspected and maintained or repaired as necessary prior to each refueling operation.*
- *Nozzles shall be operated by hand and not locked open and they will be hung and stored*

facing up.

- *Nozzle contact shall be maintained with fill pipe at all times when refueling operations are occurring.*
- *Nozzles shall be drip-dried before being removed from a tank and nozzles will be held upright to prevent fuel from dripping out of the nozzle.*
- *Sufficient time shall be allotted for refueling operations.*
- *Absorbent pad material shall be stored onsite for use in the event of an accidental spill.*
- *Should a refueling spill or leak occur below the top of creek bank, the County shall be notified immediately. In addition, work shall stop in this area until it has been cleaned up and the County concludes it poses no significant threat to the environment or groundwater table. As applicable, other permitting agencies shall also be notified immediately.*
- *Applicant shall review 7-day weather forecasts daily. Should the forecast identify a high probability of a large event, adequate precautions shall be taken, including the potential temporary removal of all equipment within the top of creek banks, to ensure project elements will not contaminate the creek from surface runoff and elevated creek flows.*

Construction staging and vehicle refueling areas shall be clearly marked on project plans. The County-approved qualified biologist shall ensure contamination of habitat does not occur during such operations through regular vehicle and equipment checks for leaks and spills, development of appropriate secondary containment devices in areas where leaks or spills are likely to occur, and implementation of the Arroyo Grande Oil Field Spill Prevention Control and Countermeasure Plan (refer to HAZ/mm-1). The biologist shall be present for all refueling of the crane, the pile driving hammer's power pack, and two compressors. ***Prior to commencement of work****, the County Department of Planning and Building shall ensure that an adequate plan is in place for prompt and effective response to any accidental spills (refer to HAZ/mm-1).* ***Prior to grading and construction****, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. County Environmental Monitor shall regularly provide field inspections while any immobile equipment is within the top of creek banks. The County monitor shall be present daily should any work be done during the rainy season, or immediately before and after any rain event outside of the rainy season to verify BMPs are in good working order and compliance with this condition is met.*

BIO/mm-23 Slope Restoration*. Topographic contours shall be restored to blend with or match the adjacent contours at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the USFWS and County determine that it is not feasible or modification of contours would benefit sensitive species, including CRLF.*

BIO/mm-24 Pile Driving*.* ***At the commencement of pile driving activities****, the applicant shall measure underwater sound levels at locations immediately upstream of the upstream block net and immediately downstream of the downstream block net. Measurements will be taken by a hydrophone or other appropriate instrument approved by NOAA Fisheries. In the event measured sound levels exceed threshold levels utilized by NOAA Fisheries (206 dB peak and 150 dB effective quiet), pile driving activities shall be immediately stopped and NOAA Fisheries and the County Department of Planning and Building consulted. At such time, the project applicant may be required to implement additional hydroacoustic impact minimization measures, as directed by NOAA Fisheries, including use of alternative methods of pile installation, limiting the daily duration of pile driving activities, situating the blocking nets farther from the pile driving locations in areas where measured sound levels are confirmed to be within acceptable levels, and other techniques as may be recommended by the County or NOAA Fisheries. Pile driving activities shall not be permitted to continue unless measured sound levels in adjacent creek areas accessible to steelhead and other aquatic species confirm hydroacoustic sound levels are within the acceptable*

range.

***BIO/mm-25 Agency Permits. Prior to issuance of a grading permit**, the applicant shall provide copies of all required regulatory approvals and permits to the County, such as a Section 404 permit from USACE, Section 401 Water Quality Certification from the RWQCB, and Section 1600 Streambed Alteration Agreement from CDFW.*

See also N/mm-1 for limited construction hours.

With the incorporation of these measures, residual impacts to biological resources would be less than significant.

5. CULTURAL RESOURCES

Will the project:	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Disturb archaeological resources?	☐	☒	☐	☐
b) Disturb historical resources?	☐	☐	☒	☐
c) Disturb paleontological resources?	☐	☐	☒	☐
d) Other: _____	☐	☐	☐	☐

Setting. The project is located in an area historically occupied by the Obispeno Chumash. No historic structures are present.

The project site includes areas within a blue line creek (Pismo Creek). Potential for the presence or regular activities of the Native American increases in close proximity to reliable water sources (most common within 300 feet). Pismo Creek is a perennial source of water. 'Pismu' means 'tar' in Obispeno Chumash, and is likely the origin of name 'Pismo' used in the area. Surface oil and tar seeps existed in the area prior to oil development. Thick tars were applied by the Chumash to seal their canoes and make them ocean worthy.

Previous cultural surveys (Phase I surface survey and records search) have been prepared for the Arroyo Grande Oil Field facility, including the subject project boundaries. Previous archaeological survey work identified one prehistoric site in the project vicinity, a portion of which exists within the project area boundaries. The site is described as a prehistoric habitation site comprised of a dense concentration of marine shellfish fragments and a few flakes stone artifacts, which were primarily observed in disturbed contexts. The site has been heavily disturbed by the construction of roads, large graded well pads and wells, drilling activities, grading and placement of artificial fill material, power poles and other infrastructure.

The project area is also within the designated Juan Bautista de Anza Historic Trail Corridor; though the expedition is not believed to have camped near the project site.

The County LUO includes a provision for work to stop should any cultural resources be unearthed during excavation. In the event human remains are discovered, California state law requires that there be no further excavation or disturbance at the site or nearby areas until the coroner of the County in which the remains are discovered has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American decent, the coroner has 24 hours to notify the Native American Heritage Commission, which will determine and notify a most likely descendant (California Health and Safety Code Section 7050.5).

The Geotechnical Engineering Feasibility Report prepared for the project (Earth Systems Pacific 2013) reflects that the project site is underlain with alluvium to depths ranging between 42.5 and 49

feet, and then sandstone and conglomeritic sandstone bedrock of the Edna Member of the Pismo Formation (Earth Systems Pacific 2013). Where the Pismo Formation is exposed at the site, it comprises the Edna Member, and outcrops of the conglomerate sandstone unit of the Edna Member were noted in the vicinity of the new bridge location. Based on the EIR prepared for Phase IV development at the Arroyo Grande Oil Field, the presence of both vertebrate and invertebrate fossils have been documented in the major submembers of the Edna member. Therefore, the entire geological unit is considered to have the potential to contain scientifically important vertebrate and invertebrate fossils (Padre Associates, Inc. 2008).

Impact. Surface and subsurface investigations on both banks of Pismo Creek in the project area did not reveal the presence of any cultural material within the areas of proposed disturbance associated with the proposed Hyla Crossing Replacement Project. All positive survey observations were limited to areas of the prehistoric site delineated outside of the Hyla Crossing project area. However, surface visibility within the project area was very low (less than 5 percent) due to the extent of existing vegetation and subsurface test pits were not placed at regular intervals due to dense vegetation and access constraints.

The applicant proposes to utilize existing graded/disturbed areas in the project area for temporary construction staging and laydown, thereby minimizing the areas of disturbance and potential for disturbance of resources. However, due to the known presence of a recorded prehistoric site and known cultural sensitivities in the project vicinity, there is a potential for disturbance of unknown subsurface resources during project construction and earthmoving activities.

It is unlikely that there would be any artifacts from the Anza expedition within the historic corridor at the project location due to the very transitory nature of the expedition, lack of a camp near the project site, and extent of existing surface disturbance.

Mitigation was identified in the Phase IV EIR to reduce the potential for incidental destruction or alteration of fossils or the stratigraphic integrity of fossils as a result of construction activities, such as grading and excavation. These measures have been updated with the County's standard mitigation requirements and incorporated below to reduce potential significant impacts to paleontological resources.

Mitigation/Conclusion.

To minimize the potential for significant effects associated with the unanticipated disturbance of unknown archaeological resources, the following measures shall be implemented.

Archaeological Resources

CR/mm-1 Cultural Resources – Monitoring Plan. Prior to issuance of a grading permit*, the applicant shall submit an 'Archaeological Resources Monitoring Plan', prepared by a qualified archaeologist, for review and approval by the County Department of Planning and Building. The intent of this plan is to monitor all earth-disturbing activities in areas identified as potentially sensitive for cultural resources, per the approved monitoring plan. The Plan shall describe the methods and procedures to be utilized during all earth-disturbing activities associated with the Hyla Crossing Replacement Project. The monitoring plan shall include at a minimum:*

a. list of personnel involved in the monitoring activities;

b. inclusion of involvement of the Native American community, as appropriate;

c. description of how the monitoring shall occur;

d. description of frequency of monitoring (e.g., full-time, part time, spot checking);

e. recommended excavation and vegetation clearing methods to be utilized;

f. description of what resources are expected to be encountered;

g. description of circumstances that would result in the halting of work at the project site (e.g., What is considered "significant" archaeological resources?);

h. description of procedures for halting work on the site and notification procedures;

i. provisions defining education of the construction crew;

j. protocol for treating unanticipated finds; and,

k. description of monitoring reporting procedures.

As applicable, all recommendations shall be put on applicable construction drawings and implemented ***during construction****.*

CR/mm-2 Cultural Resources – Construction Monitoring. During all initial ground disturbing construction activities*, the applicant shall retain a county-qualified archaeologist to monitor all earth disturbing activities, per the approved Archaeological Resources Monitoring Plan. The archaeologist shall recommend methods of initial excavation and vegetation clearing, which shall be implemented by the applicant. Upon the conclusion of vegetation removal, the exposed ground surface shall be surveyed for potentially intact archaeological resources by the archaeologist. Surface inspection shall be augmented with shovel test pits or similar techniques as determined necessary by the archaeologist. The timing and duration of the monitoring may be adjusted during project implementation by the archaeologist, in consultation with the County Department of Planning and Building.*

CR/mm-3 Worker Training. Prior to ground disturbance and construction activities*, the designated archaeologist shall provide cultural resources awareness training to all field crews and field supervisors. This training will include a description of the types of resources that may be found in the project area, the protocols to be used in the event of an unanticipated discovery, the importance of cultural resources to the Native American community, and the laws protecting significant archaeological and historical sites. In addition, the applicant shall provide all field supervisors with maps showing those areas sensitive for potential buried resources.*

CR/mm-4 Cultural Resource – Monitoring Report. During construction*, the qualified archaeologist shall prepare monthly progress reports to be filed with the applicant and the County of San Luis Obispo. Upon completion of all monitoring/mitigation activities, and* ***prior to final inspection****, the designated archaeologist shall submit a report to the Environmental Coordinator summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been met.*

CR/mm-5 Human Remains – Discovery. Prior to issuance of a grading permit*, the requirements of California Health and Safety Code Section 7050.5, regarding the discovery of human remains, shall be noted on project plans.* ***Prior to construction activities****, the requirements of California Health and Safety Code Section 7050.5 shall be reviewed during cultural resources awareness training as described in CR/mm-3. Should human remains be encountered, work shall stop in the vicinity until the issue has been resolved per this Code.*

Paleontological Resources

CR/mm-6 Paleontological Monitoring and Treatment Plan. Prior to issuance of a grading permit*, the applicant shall retain a County-approved paleontologist to prepare a Paleontological Monitoring and Treatment Plan (Plan), and submit the Plan to the County for review and approval. The Plan shall be based on 'Society of Vertebrate Paleontology (SVP) guidelines' and meet all regulatory requirements. The County-approved paleontologist shall have a Master's Degree or Ph.D. in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering potential paleontological resources and the*

shallowest depths at which those resources may be encountered. The Plan shall detail the criteria to be used to determine whether an encountered resource is significant, and if it should be avoided or recovered for its data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting.

The Plan shall outline a coordination strategy to ensure that a County-approved paleontological monitor will conduct full-time monitoring of all grading activities in the "deeper" sediments determined to have a moderate to high sensitivity. For sediments of low or undetermined sensitivity, the Plan shall determine what level of monitoring is necessary. Sediments with no sensitivity will not require paleontological monitoring.

The Plan shall define specific conditions in which monitoring of earthwork activities could be reduced and/or depth criteria established to trigger monitoring. These factors shall be defined by the project paleontological resource specialist, following examination of sufficient, representative excavations. As specified in the Plan, approved measures shall be implemented ***during construction****.*

CR/mm-7 Paleontology Construction Monitoring*.* ***During construction****, based on the Mitigation Measure CR/mm-6 (Paleontological Monitoring and Treatment Plan), the applicant shall conduct construction monitoring by a County-approved paleontological monitor as specified in the Plan. This shall include monitoring during rough grading and trenching in areas determined to have moderate to high paleontological sensitivity and which have the potential to be shallow enough to be adversely affected by such earthwork. Sediments of low, marginal undetermined sensitivity shall be monitored by a County-approved paleontological monitor on a part-time basis (as determined by the County-approved paleontologist).*

CR/mm-8 Paleontological Data Recovery*. Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the County-approved paleontologist.* ***Prior to final inspection****, if avoidance of significant paleontological resources is not feasible during grading, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the applicant, in accordance with the approved Paleontological Monitoring and Treatment Plan per Mitigation Measure CR/mm-6 (Paleontological Monitoring and Treatment Plan), which shall at minimum include the following:*

a. If the discovery meets the criteria for a fossil locality, formal locality documentation activities will be performed.

b. If microfossil localities are discovered, locality documentation activities shall include the collection of matrix material for processing. These activities may include use of equipment to excavate fossil-containing soils, and establishment of stockpiles away from the construction area. Testing of stockpiles shall consist of screen washing small samples (200 pounds) to determine if fossils are present. Productive tests shall result in screen washing of additional matrix from the stockpiles to a maximum of 6000 pounds per locality.

c. Fossils recovered shall be prepared, identified and cataloged, and donated to an accredited repository approved by the County of San Luis Obispo. Any resources determined not to meet significance criteria shall be offered to local schools for use in educational programs.

CR/mm-9 Paleontological Construction Personnel Training*.* ***Prior to the initiation of construction or ground-disturbing activities****, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction grading. The County-approved paleontologist shall complete training for all applicable personnel. Training shall inform all applicable personnel of the procedures to be followed upon the discovery of paleontological materials.*

All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on

or offsite by the applicant, its representatives, or employees will not be allowed. Violators shall be subject to prosecution under the appropriate State and federal laws. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

a. All construction contracts shall include clauses that require grading personnel to attend training so that they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.

b. A County-approved paleontologist shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential paleontological resources, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.

c. Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted until cleared by the project paleontologist. Once the find has been inspected and a preliminary assessment made by the paleontologist, the County will be notified. The applicant shall then proceed with data recovery in accordance with the approved Treatment Plan and approval of the Environmental Coordinator.

***CR/mm-10 Paleontological Resources – Monitoring Report**. **During construction**, the qualified paleontologist shall prepare monthly progress reports to be filed with the applicant and the County of San Luis Obispo. Upon completion of all monitoring/mitigation activities, and **prior to final inspection**, the designated paleontologist shall submit the final report which shall include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and shall include all specialist's reports as appendices. It will also summarize all monitoring/ mitigation activities and confirming that all recommended mitigation measures have been met.*

Incorporation of these measures would reduce potential impacts to cultural resources to less than significant levels.

6. GEOLOGY AND SOILS ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Result in exposure to or production of unstable earth conditions, such as landslides, earthquakes, liquefaction, ground failure, land subsidence or other similar hazards?	☐	☒	☐	☐
b) Be within a California Geological Survey "Alquist-Priolo" Earthquake Fault Zone", or other known fault zones*?	☐	☐	☐	☒
c) Result in soil erosion, topographic changes, loss of topsoil or unstable soil conditions from project-related improvements, such as vegetation removal, grading, excavation, or fill?	☐	☒	☐	☐

6. GEOLOGY AND SOILS *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
d) Include structures located on expansive soils?	☐	☒	☐	☐
e) Be inconsistent with the goals and policies of the County's Safety Element relating to Geologic and Seismic Hazards?	☐	☒	☐	☐
f) Preclude the future extraction of valuable mineral resources?	☐	☐	☒	☐
g) Other: _____	☐	☐	☐	☐

* **Per Division of Mines and Geology Special Publication #42**

Setting. The following relates to the project's geologic aspects or conditions:

Topography: Nearly level to steeply sloping

Within County's Geologic Study Area?: No

Landslide Risk Potential: Low to high

Liquefaction Potential: Low to moderate

Nearby potentially active faults?: No Distance? Not applicable

Area known to contain serpentine or ultramafic rock or soils?: Potentially

Shrink/Swell potential of soil: Low

Other notable geologic features? Within Energy Extraction designation due to the known oil reserves below ground.

This geologic setting section relies predominantly on a Geotechnical Engineering Feasibility Report prepared for the project (Earth Systems Pacific 2013). The project site is within the Coast Ranges geologic and geomorphic province. This province consists of north-northwest trending sedimentary, volcanic, and igneous rocks. It starts at the Transverse Ranges south and extends into northern California. Rocks of the Coast Ranges province are predominantly of Jurassic and Cretaceous age, although some pre-Jurassic rocks and Paleocene-age to recent sediments are also present. Within southern San Luis Obispo County, the Coast Ranges province is dominated by the San Luis Range, an elongated, northwest trending mountain range generally composed of Miocene and Pliocene marine sedimentary bedrock formations.

The geologic structure in the project vicinity consists of northwest-southeast trending faults and folds (anticlines and synclines). The project area consists of alluvium to depths ranging from 42.5 to 49 feet below the surface. The alluvial soils are generally loose with isolated lenses of medium dense materials, cobbles, and isolated layers of organic matter. Below the alluvium, the site consists of sandstone and congolmeritic sandstone bedrock of the Edna Member of the Pismo Formation at depths ranging from 42.5 to 49 feet below the surface.

On-site soils consist of Arnold loamy sand (5 to 15 percent slopes) based on the Natural Resources Conservation Service's Web Soil Survey (U.S. Department of Agriculture, available at http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm). This soil type is described in Section 2, Agricultural Resources, above.

Groundwater was encountered in exploratory borings at depths ranging from 7.5 to 15 feet. The

project site is also mapped within the APCD's naturally occurring asbestos (NOA) zone.

Regulatory Policies. In addition to the California Structure Building Code, the County's Safety Element and Land Use Ordinance (LUO) provide guidance for new development in areas with soil or geologic challenges. The County's Safety Element includes goals, policies, and standards to minimize the potential for loss of life and property resulting from geologic and seismic hazards.

The County's Land Use Ordinance includes provisions to address geological problem areas, drainage, and sedimentation and erosion control. Portions of the project boundaries are within a 'high' landslide area, and most development over such areas is subject to the preparation of a geological report per the County's Land Use Ordinance [LUO section 22.14.070 (c)], to evaluate the area's geological stability. The County's LUO and Framework for Planning recognize this area for its oil extraction capabilities through the Energy and Extractive Resource Area (EX) overlay and Ordinance provisions for Petroleum Resource Development (Sec. 22.34).

Impact. The project would replace an existing culvert crossing structure over Pismo Creek through minor approach road realignment and installation of a new structure at an adjacent location. The project would require the total disturbance of approximately 2.51 acres (0.15 acre of permanent disturbance). The Geotechnical Engineering Feasibility Study prepared for the project identified potential geologic concerns associated with static settlement, dynamic settlement and lateral spreading due to liquefaction, scour, and the foundation type to support the bridge's abutments and bents. The Feasibility Study made preliminary geotechnical recommendations for conceptual use only and to be used in the development of a design-level geotechnical reports for use in preparing plans and specifications for the Hyla Crossing project. The design-level geotechnical report would incorporate generally accepted engineering standards, including all standards of the California Structure Building Code. Compliance with the recommendations of the design-level geotechnical report would indicate that risks to people and structures, including those associated with unstable soil conditions, would be properly safeguarded against, through implementation of appropriate engineering standards and design techniques.

Construction of the new Hyla crossing would also result in short-term increases in erosion and sedimentation resulting from earth-moving operations and exposed soils. Severe erosion could occur if surface runoff is uncontrolled, particularly on and adjacent to steep fill slopes adjacent to the creek channel. These effects would adversely affect Pismo Creek by increasing its sediment load, as described in Section C4, Biological Resources, above. The applicant would be required to reduce risk of increased erosion and sedimentation through preparation and/or implementation of erosion control, grading, and stormwater pollution prevention plans, as required by the LUO and Regional Water Quality Control Board regulations.

The project is proposed in an area known to potentially contain serpentine or ultramafic rock, which can contain NOA. Based on the SLOAPCD CEQA Air Quality Handbook (2012) and the Air Resources Board's Air Toxics Control Measure for Construction, Grading, Quarrying, and Surface Mining Operations, a geologic investigation is required to determine if NOA is present within the proposed area of disturbance.

A Sediment and Erosion Control Plan (SECP) and Stormwater Pollution Prevention Plan (SWPPP) were required as conditions of the approved Phase IV development activities at the Arroyo Grande Oil Field. The Hyla Crossing Replacement Project will be subject a number of similar regulations and requirements to address drainage, sedimentation and erosion control, and surface water quality. Compliance may be feasible through implementation of the existing SECP and SWPPP. Alternatively, new plans would need to be prepared for the proposed project.

The project would replace the existing Hyla culvert crossing with an all-weather bridge on a slightly modified alignment, thereby improving access to the Hyla extension lease area. The new structure would not substantially interfere with existing resource extraction at the Arroyo Grande Oil Field and would not preclude the future extraction of valuable mineral resources at the project site. In addition,

the proposed structure would provide for all-weather access.

Mitigation/Conclusion. To minimize the potential for significant effects associated with the soils and geologic conditions, the following measures shall be implemented.

GEO/mm-1 Geotechnical Report. Prior to issuance of a grading permit*, the applicant shall submit a design-level geotechnical report to the County Department of Planning and Building for review and approval. The geotechnical report shall be prepared by a qualified, registered civil engineer or other qualified professional licensed by the state to perform such work. The plan shall incorporate and conform to all applicable requirements of the latest edition of the California Building Code and American Association of State Highway and Transportation Officials (AASHTO) requirements, including applicable AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications, Caltrans Load Factor Design (LFD) Bridge Design Specifications, and Caltrans Seismic Design Criteria (SDC).* ***During construction****, the applicant shall incorporate all design and engineering recommendations within the geotechnical report to meet or exceed current engineering standards.*

GEO/mm-2 Grading Plan. Prior to issuance of a grading permit*, the applicant shall provide a grading plan that meets the requirements of Section 22.52.100 of the San Luis Obispo County Land Use Ordinance. The grading plan shall be prepared by a qualified, registered civil engineer or other qualified professional licensed by the state to perform such work, and shall be subject to review and approval by the County Department of Planning and Building, in consultation with the County Public Works Department. Construction and grading work shall be completed according to the approved grading plan.*

GEO/mm-3 Drainage Plan. Prior to issuance of a grading permit*, the applicant shall provide a drainage plan that meets the requirements of Section 22.52.110 of the San Luis Obispo County Land Use Ordinance. The drainage plan shall be prepared by a registered civil engineer and subject to review and approval by the County Department of Planning and Building, in consultation with the County Public Works Department. Construction and grading work shall be completed according to the approved drainage plan.*

GEO/mm-4 Erosion and Sedimentation Control Plan. Prior to issuance of a grading permit, *the applicant shall provide an erosion and sedimentation control plan that meets the requirements of Section 22.52.120 of the San Luis Obispo County Land Use Ordinance. The erosion and sedimentation control plan shall identify how disturbed soils will be stabilized to prevent wind and water erosion during construction and immediately after construction until the revegetation activities are commenced. The plan shall include temporary best management practices (BMPs) to be installed during the rainy season that may include, but are not limited to, use of mulch, soil stabilizers, or other recognized surface stabilization measures determined to be compatible with project area sensitive species. The plan shall include standard provisions for dust control by water truck (LUO Sec. 22.52.160 - Construction Procedures) or periodic application of soil stabilizers during construction. Construction and grading work shall be completed according to the approved sedimentation and erosion control plan.*

GEO/mm-5 Stormwater Pollution Prevention Plan. Prior to issuance of a grading permit*, the applicant shall provide the County evidence that a stormwater pollution prevention plan has been prepared (or modified) meeting RWQCB standards and* ***prior to construction****, implemented on site. The SWPPP shall be retained on-site during construction.*

GEO/mm-6 Rainy Season*. All reasonable efforts will be made to conduct all construction activities within the dry season (April 15 through October 15). If construction activities outside of the dry season are necessary, implementation of Best Management Practices (BMPs) per the approved erosion and sedimentation control plan is required prior to the start of the rainy season or ground clearing activities. In addition, the applicant must demonstrate that no additional biological resource impacts would result (see BIO/mm-3).*

GEO/mm-7 ***Naturally Occurring Asbestos****. Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the California Air Resources Board (ARB). Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations,* ***prior to any grading activities*** *a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the APCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD.*

Incorporation of these measures would reduce potential impacts related to geologic conditions and soils to less than significant levels.

7. HAZARDS & HAZARDOUS MATERIALS - ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Create a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within ¼-mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on, or adjacent to, a site which is included on a list of hazardous material/waste sites compiled pursuant to Gov't Code 65962.5 ("Cortese List"), and result in an adverse public health condition?	☐	☐	☒	☐
e) Impair implementation or physically interfere with an adopted emergency response or evacuation plan?	☐	☐	☒	☐
f) If within the Airport Review designation, or near a private airstrip, result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
g) Increase fire hazard risk or expose people or structures to high wildland fire hazard conditions?	☐	☒	☐	☐

7. HAZARDS & HAZARDOUS MATERIALS - *Will the project:*	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
h) Be within a 'very high' fire hazard severity zone?	☐	☒	☐	☐
i) Be within an area classified as a 'state responsibility' area as defined by CalFire?	☐	☒	☐	☐
j) Other: _____	☐	☐	☐	☐

Setting

Pursuant to the Environmental Impact Report prepared for Phase IV development (Padre Associates, Inc. 2004), the Arroyo Grande Oil Field has supported oil well drilling and production activities since 1886. The crude oil-producing zone at the Arroyo Grande oil field is relatively shallow, at an average of depth of 750 feet. The produced oil has an oil gravity of 13 to 15 degrees API, which is considered heavy crude with high viscosity. The oil has a temperature of 90 to 100 degrees Fahrenheit when it is produced from the wells.

Crude oil produced from the field is trucked off-site and then off-loaded to a pipeline to goes to a refinery. At the time of preparation of the Phase IV EIR in 2004, crude oil production was approximately 1,900 barrels of oil per day (BOPD) and natural gas production was approximately 1.5 million standard cubic feet per day (MMSCFD).

The 2004 Phase IV EIR reported that seven reportable spills had occurred in the Arroyo Grande Oil Field in the preceding five years. The spills were mostly of small volume, less than five barrels (1 barrel = 42 gallons).

In June 2011, a spill from a tank containing 50 percent sodium hydroxide solution occurred within the overall oil field boundary. Approximately 4,000 gallons of the solution flowed across the site and into a tributary to Pismo Creek. After multiple-agency coordination (RWQCB, Environmental Health, CDFW), cleanup activities were commenced, including testing of soil, sediment, and surface water and removal of contaminated soil and sediment. As part of the cleanup effort, 1,050 tons of soil was excavated and disposed of at the Clean Harbors disposal facility in Buttonwillow, California. Groundwater was not affected by the spill, and confirmation testing of soil, sediment, and surface water confirmed that cleanup goals were met. The site cleanup was considered closed by all affected agencies in May 2012.

No other cleanup sites are identified in the State Water Resources Control Board's GeoTracker database or California Department of Toxic Substances Control's EnviroStor database.

State Responsibility Area**.** The project is within a 'State Responsibility Area' (SRA), which indicates that fire protection responsibilities fall under the jurisdiction of Cal Fire. Within San Luis Obispo County, Cal Fire is responsible for wildland fire protection of almost 1.5 million acres. The County has contracted with Cal Fire to provide protection of structures within the rural unincorporated areas. Recent state legislation (AB X1-29) has also established a property owner fee to help offset the costs of protecting structures within the wildland areas.

The project site is within the Very High Fire Hazard Severity Zone. Based on the County's fire response time map, it will take approximately 0-5 minutes to respond to a call regarding fire or life safety. The Arroyo Grande Oil Field is currently operating under approved fire safety and emergency response plans, which include the existing industrial activities and infrastructure. Plans currently in place to reduce impacts related to hazards, hazardous materials, and potential spills include:

- Arroyo Grande Production Facility Emergency Response Action Plan
- Hazardous Materials Business Plan
- Spill Prevention Control and Countermeasure Plan
- Arroyo Grande Production Facility Fire Safety Plan, and
- Vegetation Management Plan.

The Emergency Response Action Plan is subject to annual review and approval by Cal Fire, County Fire, and County Environmental Health. The applicant also participates in annual inspections and annual training exercises with Cal Fire on procedures for a petroleum or hydrogen sulfide emergency.

A portion of the project's footprint is within the 100-year Flood Hazard 'combining designation' (FH) associated with Pismo Creek. The project is not within any Airport Review area or within 0.25 mile of any school.

Impact

Hazardous materials. Although the project is within an area historically and currently used for the production and transport of hazardous materials, the Hyla Crossing Replacement Project would not increase or otherwise alter existing operational uses within the oil field. No new production activities or transport of hazardous materials would result from the project.

Construction of the proposed crossing and approach roads would include the use, storage, and transport of small amounts of hazardous materials, such as oils, solvents and lubricants and other similar products used for machinery and vehicle maintenance. Construction activities proposed are typical of construction activities in general, and implementation of the existing Arroyo Grande Production Facility Emergency Response Action Plan, Hazardous Materials Business Plan, and Spill Prevention Control and Countermeasure Plan are expected to adequately reduce potential impacts related to accidental spill of hazardous materials to less than significant.

Prior to project development, the existing plans would be reviewed for adequacy and application to the proposed Hyla Crossing Replacement Project. Construction activities would also be subject to standard requirements for the handling of hazardous materials.

Upon completion, the elevated bridge would not be subject to the periodic flooding that exists with the current crossing, thereby reducing the potential for spills and/or accidents during higher creek flows.

Fire Safety. The project would not result in development of a new use at the project site or any habitable structures. Construction activities have the potential to increase fire hazards due to the use of equipment and fuels in proximity to vegetation and other flammable matter and the potential for accidental ignition. However, it is anticipated that the existing Arroyo Grande Production Facility Fire Safety Plan will be adequate to minimize such risks to less than significant levels. The fire safety plan will be reviewed for adequacy and applicability to the Hyla Crossing Replacement Project prior to project development.

The new crossing would be designed to accommodate 100-year storm flows; therefore, hazards associated with flooding would be less than significant. The project would improve access within the oil field and is not expected to conflict with any regional emergency response or evacuation plan.

Mitigation/Conclusion. To minimize the potential for significant effects associated with hazards and hazardous materials, the following measures shall be implemented.

HAZ/mm-1 Emergency Response and Fire Safety Plans. Prior to issuance of a grading permit*, the applicant shall review, modify as appropriate, and submit emergency response and fire safety plans for review and approval by the County Department of Planning and Building (in consultation with other County departments with jurisdiction), including the following:*

- *Arroyo Grande Production Facility Emergency Response Action Plan;*
- *Hazardous Materials Business Plan;*

- *Spill Prevention Control and Countermeasure Plan; and*
- *Arroyo Grande Production Facility Fire Safety Plan.*

If any of the materials proposed for use during project construction is not already addressed in the facility's existing plans, the applicant would be required to amend the plan(s) subject to approval by the County Department of Planning and Building, Cal Fire, and the County Environmental Health Division ***prior to the issuance of a grading permit****. The applicant would then be required to follow such plans throughout project construction activities.*

Incorporation of these measures would reduce potential impacts related to hazards and hazardous materials to less than significant levels.

8. NOISE ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Expose people to noise levels that exceed the County Noise Element thresholds?	☐	☐	☒	☐
b) Generate permanent increases in the ambient noise levels in the project vicinity?	☐	☐	☒	☐
c) Cause a temporary or periodic increase in ambient noise in the project vicinity?	☐	☐	☒	☐
d) Expose people to severe noise or vibration?	☐	☐	☒	☐
e) If located within the Airport Review designation or adjacent to a private airstrip, expose people residing or working in the project area to severe noise levels?	☐	☐	☐	☒
f) Other: _____	☐	☐	☐	☐

Setting. The project is within an existing oil field with a higher ambient noise level when compared to other more typical rural areas. Within the Arroyo Grande Oil Field, heavy equipment is used periodically throughout the site generating loud noise (e.g., heavy equipment, night time drilling). The proposed project is not within close proximity of any sensitive noise receptors (e.g., residences) and none are located within the larger oil field boundaries. The closest residences are approximately 0.6 mile to the northeast.

Based on the Noise Element's projected future noise generation from known stationary and vehicle-generated noise sources, the project is not within any known areas with potentially or periodically high noise levels. The closest known non-project noise source is the Union Pacific Railroad approximately 350 feet to the east of the proposed replacement crossing. Eastern portions of the project area are within the 60 dB noise contour associated with the railroad.

Behrens and Associates, Inc. prepared a Pile Driving Noise Assessment for the project (Behrens and Associates 2013). Ambient noise levels were measured at various sensitive receptor locations

surrounding the Arroyo Grande Oil Field. Average daytime sound levels at surrounding properties were found to range from 41.5 to 55.1dbA.

Impact. Project construction would include use of heavy machinery, earthmoving activities, construction equipment trips, demolition activities, and pile driving activities. The most significant construction noise source would result from proposed pile driving activities, which are proposed for a period of two weeks, from 7:00 a.m. to 7:00 p.m., Monday through Friday. Based on the applicant's noise assessment, pile driving activities would not increase the ambient noise level at any adjacent sensitive receptors by 5 dbA or more. The County Land Use Ordinance further exempts construction noise between 7:00 a.m. and 9 p.m. Mondays through Fridays, and between 8:00 a.m. and 5 p.m. on Saturdays and Sundays, from applicable noise standards (LUO Section 22.10.120A). Therefore, based on County thresholds, noise impacts associated with pile driving activities would be less than significant.

The Noise Assessment also considered potential vibration impacts associated with pile driving activities. Although some perceptible vibration would occur up to 1,560 feet away from proposed pile driving activities, vibration would not be detectible outside of the Arroyo Grande Oil Field or at any adjacent sensitive receptors (Behrens 2013).

The new Hyla crossing would operate similar to existing conditions, and serve as a crossing for work trucks, drilling and production vehicles, and heavy equipment over Pismo Creek. The project would not increase capacity of the bridge or result in increased oil production activities in the Hyla Extension area that would generate additional traffic trips in the project area. Therefore, no significant operational increase in noise or vibration levels would occur.

The project is a bridge replacement project to serve existing areas of the Arroyo Grande Oil Field and employees in the project vicinity are accustomed to the periodic noises occurring in conjunction with activities at the oil production facility.

Mitigation/Conclusion. The applicant proposes to limit pile driving activities and construction work during the daylight hours exempted under the County's Land Use Ordinance (see following measure reflecting the County's LUO). No significant noise or vibration impacts are anticipated; therefore, no additional mitigation measures are necessary.

N/mm-1 ***Construction Hours****. The Applicant shall conduct all noisy construction activities within the following timeframes:*

- *Between 7:00 a.m. and 9 p.m. on Mondays through Fridays, and*
- *Between 8:00 a.m. and 5 p.m. on Saturdays and Sundays.*

9. POPULATION/HOUSING

Will the project:	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
a) Induce substantial growth in an area either directly (e.g., construct new homes or businesses) or indirectly (e.g., extension of major infrastructure)?	☐	☐	☒	☐
b) Displace existing housing or people, requiring construction of replacement housing elsewhere?	☐	☐	☐	☒

9. POPULATION/HOUSING

Will the project:

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
c) Create the need for substantial new housing in the area?	☐	☐	☒	☐
d) Other: _____	☐	☐	☐	☐

Setting. There are no housing units or residential uses with the project site or within the larger Arroyo Grande Oil Field.

In its efforts to provide for affordable housing, the County currently administers the Home Investment Partnerships (HOME) Program and the Community Development Block Grant (CDBG) program, which provides limited financing to projects relating to affordable housing throughout the county. The County's Inclusionary Housing Ordinance requires provision of new affordable housing in conjunction with both residential and nonresidential development and subdivisions.

Impact. The project would replace an existing crossing with a substantially similar crossing at an immediately adjacent location. It would not result in a need for a significant amount of new housing, and will not displace existing housing. Construction activities would generate a short-term need for construction personnel, estimated to range between 5 and 25 workers at any one time. The number of construction personnel needed would be minimal and would likely be comprised of workers from the local work force. Therefore, the project would not generate the need for new housing in the area.

Mitigation/Conclusion. No significant population and housing impacts are anticipated. The project will mitigate its cumulative impact to the shortage of affordable housing stock by providing a housing impact fee. No additional mitigation measures are necessary.

10. PUBLIC SERVICES/UTILITIES

Will the project have an effect upon, or result in the need for new or altered public services in any of the following areas:

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Fire protection?	☐	☐	☒	☐
b) Police protection (e.g., Sheriff, CHP)?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Roads?	☐	☐	☒	☐
e) Solid Wastes?	☐	☐	☒	☐
f) Other public facilities?	☐	☐	☒	☐
g) Other: _____	☐	☐	☐	☐

Setting. The project area is served by the following public services/facilities:

Police: County Sheriff Location: Oceano (Approximately six miles to the south)

Fire: Cal Fire (formerly CDF) Hazard Severity: Very High Response Time: 5-10 minutes

Location: Avila Station, approximately 10 miles to the west

School District: San Luis Coastal Unified School District.

The County-adopted Public Facilities Fee Ordinance (Title 18) provides for the collection of a fair-share fee from new development to help mitigate for cumulative impacts on public facilities. This fee currently being collected helps fund capital improvement projects in the following areas: libraries, fire, general government, parks and recreation, and sheriff's patrol.

Emergency Services

Emergency services generally include ambulance and hospital service. Private companies based throughout the County provide ambulance service. Response times are generally within acceptable levels with the exception of the more rural portions of the County where the large area being served and the distances involved lend to poorer levels of service. Hospital services are provided by Arroyo Grande Community Hospital in the City of Arroyo Grande, and by French and Sierra-Vista hospitals in the City of San Luis Obispo.

Solid Waste Collection

Trash collection and disposal service is provided by South County Sanitary. The County currently has three permitted public landfill facilities that accept a variety of municipal solid waste: Cold Canyon, Chicago Grade and Paso Robles. Construction and demolition waste generated by project development is expected to primarily go to Cold Canyon.

Cold Canyon Landfill is located approximately 6 miles south of the City of San Luis Obispo on Highway 227. This landfill is under the jurisdiction of, and permitted by, the CalRecycle (previously California Integrated Waste Management Board). These facilities accept waste for disposal and provide recycling opportunities for the users.

Please refer to the Transportation section for existing public road conditions.

Impact. The Hyla Crossing Replacement Project would replace the existing crossing over Pismo Creek with a substantially similar crossing at an immediately adjacent location. The project would not result in increased access or oil drilling or extraction activities within the oil field. Therefore, no increased demand on police or fire protection services would occur and no new public service impacts are anticipated. The project's direct and cumulative impacts are consistent with existing uses and are within the general assumptions of allowed use for the Arroyo Grande Oil Field that are used to estimate the fees currently in place.

The project would not result in any long-term change in the generation of solid waste at the project site or larger oil field. However, project construction would generate substantial amounts of solid waste during proposed excavation and vegetation clearing activities and demolition of the existing crossing. The Cold Canyon Landfill is currently operating at approximately 83 percent capacity (CalRecycle 2014, http://www.calrecycle.ca.gov/SWFacilities/Directory/40-AA-0004/Detail). In 2013, the County approved the expansion of the Cold Canyon Landfill site extending its life by approximately 25 years. The landfill currently, and with the approved expansion would be able to adequately meet the solid waste disposal needs that would be generated by development of the project.

The project would improve internal access through the project area, but would not generate additional traffic trips outside of the limited construction period; therefore, no impacts to County roads would occur. Due to the existing railroad tracks, the existing or proposed crossing does not provide access to Ormonde Road.

Mitigation/Conclusion. No potentially significant impacts to public services or utilities would occur and no additional mitigation is necessary.

11. RECREATION

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Increase the use or demand for parks or other recreation opportunities?	☐	☐	☒	☐
b) Affect the access to trails, parks or other recreation opportunities?	☐	☐	☒	☐
c) Other _____	☐	☐	☐	☐

Setting. Based on the County Trails Map, the Juan Batista De Anza National Historic Trail historically ran along the east side of the Arroyo Grande Oil Field property, generally following Pismo Creek and extending through the project site. As a part of Phase IV development approvals, an easement to ultimately improve this trail was secured and once the oil field is decommissioned / closed, the recreational trail would be built. Development of the trail prior to decommissioning of the oil field and cessation of all oil producing activities at the site was determined to be inappropriate due to the potential safety conflicts associated with developing a public access way in an active oil field.

Impact. The project would replace the existing Hyla crossing with a similar crossing at an immediately adjacent area and would not generate an increase in use of the project area, population in the area, or use of existing recreational facilities. Construction activities would occur within areas designated as within the Historic Juan Bautista de Anza Trail Corridor. However, the project site and surrounding areas did not serve as a camp site for the expedition and archaeological monitoring proposed by the applicant to minimize impacts to cultural resources would also minimize the potential for disturbance of artifacts associated with the historic trail.

Mitigation/Conclusion. No significant impacts to recreational resources are anticipated, and no additional mitigation measures are necessary.

12. TRANSPORTATION/CIRCULATION

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Increase vehicle trips to local or areawide circulation system?	☐	☐	☒	☐
b) Reduce existing "Level of Service" on public roadway(s)?	☐	☐	☒	☐
c) Create unsafe conditions on public roadways (e.g., limited access, design features, sight distance, slow vehicles)?	☐	☐	☒	☐
d) Provide for adequate emergency access?	☐	☐	☒	☐
e) Conflict with an established measure of effectiveness for the performance of the circulation system considering all modes of transportation (e.g. LOS, mass transit, etc.)?	☐	☐	☒	☐
f) Conflict with an applicable congestion management program?	☐	☐	☒	☐

12. TRANSPORTATION/CIRCULATION

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
g) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐
h) Result in a change in air traffic patterns that may result in substantial safety risks?	☐	☐	☐	☒
i) Other: _____	☐	☐	☐	☐

Setting. The project area would be accessed by Price Canyon Road and internal oil field access roads. The County has established the acceptable Level of Service (LOS) on roads for this rural area as "C" or better. The existing road network in the area, including Price Canyon Road, is currently operating at acceptable levels. Public Works has recently trimmed vegetation at the access entrance to Price Canyon Road to improve sight distance. The Applicant has planned in the near future to potentially complete additional vegetation modification to further improve sight distance to ensure adequate sight distance given the prevailing speeds. The existing railroad tracks would remain a barrier for any vehicles at the Hyla Well area to gaining any access to Ormonde Road.

Impact. The proposed project would replace the existing Hyla crossing with a substantially similar structure at an immediately adjacent location to improve access to existing operations at the Hyla Extension lease area. Construction activities would result in a short-term increase in construction equipment and worker vehicle trips; however, the project would not generate any long-term increase in traffic trips. The project would improve access along the Hyla crossing and internal access roads within this portion of the oil field, but no change to existing road service or traffic safety levels within or outside of the oil field are anticipated. Aside from a slight modification in approach road and crossing alignment, the project would not alter site access, design features, or sight distance. The project does not conflict with adopted policies, plans and programs on transportation and would have no impact on air traffic patterns in the County.

Mitigation/Conclusion. No significant traffic impacts were identified, and no mitigation measures are necessary.

13. WASTEWATER

Will the project:	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Violate waste discharge requirements or Central Coast Basin Plan criteria for wastewater systems?	☐	☐	☒	☐
b) Change the quality of surface or ground water (e.g., nitrogen-loading, day-lighting)?	☐	☐	☒	☐
c) Adversely affect community wastewater service provider?	☐	☐	☐	☒
d) Other: _____	☐	☐	☐	☐

Setting.

The project site is comprised of Arnold loamy sand (5 to 15 percent slopes). The main limitation(s) of these soils for wastewater effluent include:

--***shallow depth to bedrock***, which is an indication that there may not be sufficient soil depth to provide adequate soil filtering of effluent before reaching bedrock. Once effluent reaches bedrock, the chances increase for the effluent to infiltrate cracks that could lead directly to groundwater source or surrounding wells without adequate filtering, or allow for daylighting of effluent where bedrock is exposed to the earth's surface.

--***steep slopes***, where portions of the soil unit contain slopes steep enough to result in potential daylighting of wastewater effluent.

The Arroyo Grande Oil Field uses on-site wastewater systems to handle their wastewater effluent.

Impact. The project does not propose use or development of any on-site wastewater disposal systems or connection to any community wastewater system. The project would not include any use that would require wastewater discharges, except for short-term construction activities that would be serviced by on-site portable restroom and hand-washing facilities and/or existing facilities within the oil field. Therefore, potential impacts associated with wastewater would be less than significant.

Mitigation/Conclusion. No significant wastewater impacts were identified, and no mitigation measures are necessary.

14. WATER & HYDROLOGY ***Will the project:***	**Potentially Significant**	**Impact can & will be mitigated**	**Insignificant Impact**	**Not Applicable**
QUALITY				
a) Violate any water quality standards?	☐	☒	☐	☐
b) Discharge into surface waters or otherwise alter surface water quality (e.g., turbidity, sediment, temperature, dissolved oxygen, etc.)?	☐	☒	☐	☐
c) Change the quality of groundwater (e.g., saltwater intrusion, nitrogen-loading, etc.)?	☐	☐	☒	☐
d) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff?	☐	☒	☐	☐
e) Change rates of soil absorption, or amount or direction of surface runoff?	☐	☒	☐	☐
f) Change the drainage patterns where substantial on- or off-site sedimentation/ erosion or flooding may occur?	☐	☒	☐	☐

14. WATER & HYDROLOGY ***Will the project:***	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
g) Involve activities within the 100-year flood zone?	☐	☒	☐	☐
QUANTITY				
h) Change the quantity or movement of available surface or ground water?	☐	☒	☐	☐
i) Adversely affect community water service provider?	☐	☐	☒	☐
j) Expose people to a risk of loss, injury or death involving flooding (e.g., dam failure,etc.), or inundation by seiche, tsunami or mudflow?	☐	☐	☒	☐
k) Other: _____	☐	☐	☐	☐

Setting.

The topography of the project is nearly level to steeply sloping The proposed development would include disturbance within and directly adjacent to Pismo Creek. As described in the NRCS Soil Survey, the soil surface is considered to have high erodibility.

As discussed above in Section 6, Geology and Soils, projects involving more than one acre of disturbance are required to prepare a Storm Water Pollution Prevention Plan (SWPPP) to minimize on-site sedimentation and erosion. When work is done in the rainy season, the County's Land Use Ordinance requires that temporary erosion and sedimentation measures to be installed.

DRAINAGE – The following relates to the project's drainage aspects:

Within the 100-year Flood Hazard designation? Yes

Closest creek? Pismo Creek Distance? 0 feet

Soil drainage characteristics: Well drained

For areas where drainage is identified as a potential issue, the Land Use Ordinance (LUO Sec. 22.52.110) includes a provision to prepare a drainage plan to minimize potential drainage impacts. When required, this plan would need to address measures such as: constructing on-site retention or detention basins, or installing surface water flow dissipaters. This plan would also need to show that the increased surface runoff would have no more impacts than that caused by historic flows.

SEDIMENTATION AND EROSION – Soil type, area of disturbance, and slopes are key aspects to analyzing potential sedimentation and erosion issues. The project's soil types and descriptions are listed above in Section 2, Agriculture. As described in the NRCS Soil Survey, the project's soil erodibility is as follows:

Soil erodibility: High

A sedimentation and erosion control plan is required for all construction and grading projects (LUO Sec. 22.52.120) to minimize these impacts. When required, the plan is prepared by a civil engineer to address both temporary and long-term sedimentation and erosion impacts. Projects involving more than one acre of disturbance are subject to the preparation of a Storm Water Pollution Prevention Plan (SWPPP), which focuses on controlling storm water runoff. The Central Coast Regional Water

Quality Control Board (RWQCB) is the local extension who monitors this program. A facilities level SWPPP is currently in place that provides sedimentation and erosion control for existing oil field facilities and structures.

Impact – Water Quality/Hydrology

With regards to project impacts on water quality the following conditions apply:

- The project will be subject to standard County requirements for drainage, sedimentation and erosion control for construction and permanent use;
- The project would disturb over an acre and will be subject to the requirements of an approved SWPPP, which will be implemented during construction;
- The project is on highly erodible soils, and on moderate to steep slopes;
- The project is within a 100-year Flood Hazard designation;
- The project is within 100 feet from the closest creek or surface water body;
- Stockpiles will be properly managed during construction to avoid material loss due to erosion;
- All hazardous materials and/or wastes will be properly stored on-site, which include secondary containment should spills or leaks occur;

The project would require temporary diversion of water within Pismo Creek to allow construction of the new crossing and demolition of the existing structure. Diversion would remain within the banks of the Creek and flows would be restored through proposed stream restoration and enhancement activities following project construction.

The development of impervious surfaces at the project site, including along approach roads and the crossing structure would change the drainage pattern of surface waters in the project area. However, a similar amount of impervious area would be removed through demolition of the existing crossing; therefore, the amount and rate of surface water runoff and ground absorption and percolation is not expected to change significantly. Drainage at the project site follows natural contours and flows into Pismo Creek. Preparation of a drainage plan would be required to ensure that project construction would not have a significant effect on on-site or adjacent uses as a result of surface water drainage or runoff.

The project does not propose any change in long-term use of the site; therefore, no permanent effects associated with discharge into or contamination of surface waters would result above that which currently exists. Construction activities would result in temporary impacts to open surface waters resulting from dewatering the project work area, constructing a temporary construction pad/platform within the normal wetted channel of Pismo Creek, constructing the new crossing, and demolishing the existing crossing. Water quality could be impacted by the use of hazardous substances within the Creek channel and increased potential for erosion, sedimentation and stormwater runoff. These impacts would be limited in nature by the scope and length of the construction activities and further minimized by implementation of recommended mitigation.

The project would result in ground disturbance of approximately 2.51 acres (approximately 0.15 acres of permanent disturbance). Therefore, the project is subject to the requirements of an approved SWPPP pursuant to RWQCB requirements. Stormwater pollutants in the project area currently drain naturally into the Slough or Pacific Ocean. Potential stormwater pollutants in the project area would include oil, grease, sediments and other heavy metals on the roads deposited by vehicle use, which

percolate into the soil and/or drain into the surrounding water bodies by storm flows. However, the project would not result in an increase in the type or amount of pollutants in the area or substantially alter the amount or rate of stormwater runoff. As a result, impacts associated with the project would be relatively unchanged over baseline (existing) conditions. Mitigation has been recommended which would further reduce the potential for contamination of water during construction activities.

The project would not create the need for flood control facilities or substantially alter the course or flow of flood waters. The new crossing would be designed to accommodate 100-year storm conditions and would, therefore, not result in the exposure of people or structures to a new water-related hazard.

Groundwater is present at relatively shallow depths at the project site. However, placement of the piles and development of the project would not significantly alter the direction, rate or flow of that water.

Water Quantity

Development and operation of the replacement Hyla crossing would not result in any long-term increase in water usage or demand. Therefore, water quantity impacts would be less than significant.

Mitigation/Conclusion. To minimize the potential for significant effects water resources, the following measures shall be implemented.

Implement measures BIO/mm-2, BIO/mm-6, BIO/mm-13, BIO/mm-25, and BIO/mm-26 and GEO/mm-1 through GEO/mm-6, above.

Incorporation of these measures would reduce potential impacts related to water and hydrology to less than significant levels.

15. LAND USE

Will the project:	**Inconsistent**	**Potentially Inconsistent**	**Consistent**	**Not Applicable**
a) Be potentially inconsistent with land use, policy/regulation (e.g., general plan [County Land Use Element and Ordinance], local coastal plan, specific plan, Clean Air Plan, etc.) adopted to avoid or mitigate for environmental effects?	☐	☐	☒	☐
b) Be potentially inconsistent with any habitat or community conservation plan?	☐	☐	☒	☐
c) Be potentially inconsistent with adopted agency environmental plans or policies with jurisdiction over the project?	☐	☐	☒	☐
d) Be potentially incompatible with surrounding land uses?	☐	☐	☒	☐
e) Other: _____	☐	☐	☐	☐

Setting/Impact. Existing and surrounding land uses at the project site are identified in Section B, Existing Setting, above. The proposed project was reviewed for consistency with policy and/or

regulatory documents relating to the environment and appropriate land use (e.g., County Land Use Ordinance, General Plan, etc.). The project was found to be consistent with these documents (refer also to Exhibit A on reference documents used).

The project does not propose any new or modified land use in the project area and existing use of the Hyla crossing to access the Hyla Extension lease area would not be substantially altered. The project is not within or adjacent to a Habitat Conservation Plan area. The project is consistent or compatible with the existing use and surrounding uses as summarized on page 2 of this Initial Study.

Mitigation/Conclusion. No significant land use impacts or inconsistencies were identified and therefore no additional measures are necessary.

16. MANDATORY FINDINGS OF SIGNIFICANCE

Will the project:

	Potentially Significant	Impact can & will be mitigated	Insignificant Impact	Not Applicable
a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)	☐	☐	☒	☐
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

For further information on CEQA or the county's environmental review process, please visit the County's web site at "www.sloplanning.org" under "Environmental Information", or the California Environmental Resources Evaluation System at: http://www.ceres.ca.gov/topic/env_law/ceqa/guidelines for information about the California Environmental Quality Act.

Exhibit A - Initial Study References and Agency Contacts

The County Planning Department has contacted various agencies for their comments on the proposed project. With respect to the subject application, the following have been contacted (marked with an ☒) and when a response was made, it is either attached or in the application file:

Contacted	Agency	Response
☒	County Public Works Department	**None**
☐	County Environmental Health Division	**Not Applicable**
☐	County Agricultural Commissioner's Office	**Not Applicable**
☐	County Airport Manager	**Not Applicable**
☐	Airport Land Use Commission	**Not Applicable**
☐	Air Pollution Control District	**Not Applicable**
☐	County Sheriff's Department	**Not Applicable**
☐	Regional Water Quality Control Board	**Not Applicable**
☐	CA Coastal Commission	**Not Applicable**
☒	CA Department of Fish and Wildlife	**None (Stream Alt. Agreement Req'd)**
☒	CA Department of Forestry (Cal Fire)	**None(Ongoing Fire Safey Plan review)**
☐	CA Department of Transportation	**Not Applicable**
☐	Community Services District	**Not Applicable**
☒	Other USACE, NOAA Fisheries	**None (Permits may be Req'd)**
☐	Other	**Not Applicable**

*** "No comment" or "No concerns"-type responses are usually not attached*

The following checked ("☒") reference materials have been used in the environmental review for the proposed project and are hereby incorporated by reference into the Initial Study. The following information is available at the County Planning and Building Department.

☒ Project File for the Subject Application

County documents

- ☐ Coastal Plan Policies
- ☒ Framework for Planning (Coastal/Inland)
- ☒ General Plan (Inland/Coastal), includes all maps/elements; more pertinent elements:
  - ☒ Agriculture Element
  - ☒ Conservation & Open Space Element
  - ☐ Economic Element
  - ☒ Housing Element
  - ☒ Noise Element
  - ☐ Parks & Recreation Element/Project List
  - ☒ Safety Element
- ☒ Land Use Ordinance (Inland/Coastal)
- ☒ Building and Construction Ordinance
- ☒ Public Facilities Fee Ordinance
- ☐ Real Property Division Ordinance
- ☒ Affordable Housing Fund
- ☐ Airport Land Use Plan
- ☐ Energy Wise Plan
- ☒ South County (Inland) Area Plan
  - San Luis Bay South subarea
- ☐ Design Plan
- ☐ Specific Plan
- ☒ Annual Resource Summary Report
- ☐ Circulation Study

Other documents

- ☒ Clean Air Plan/APCD Handbook
- ☒ Regional Transportation Plan
- ☒ Uniform Fire Code
- ☒ Water Quality Control Plan (Central Coast Basin – Region 3)
- ☒ Archaeological Resources Map
- ☒ Area of Critical Concerns Map
- ☒ Special Biological Importance Map
- ☒ CA Natural Species Diversity Database
- ☒ Fire Hazard Severity Map
- ☒ Flood Hazard Maps
- ☒ Natural Resources Conservation Service Soil Survey for SLO County
- ☒ GIS mapping layers (e.g., habitat, streams, contours, etc.)
- ☐ Other

In addition, the following project specific information and/or reference materials have been considered as a part of the Initial Study:

Behrens and Associates, Inc., Environmental Noise Control. November 27, 2013. *FM O&G Arroyo Grande Hyla Bridge Pile Driving Noise Assessment.* Prepared for: URS.

Earth Systems Pacific. October 31, 2013. *Geotechnical Engineering Feasibility Report.* Prepared for: Freeport-McMoRan Oil & Gas.

Padre Associated, Inc., Engineers, Geologists & Environmental Scientists. September 2004. *Final Plains Exploration and Production Phase IV Development Plan Environmental Impact Report.* Prepared in conjunction with the County of San Luis Obispo, Department of Planning and Building, as CEQA Lead Agency.

United States Department of Agriculture, Natural Resources Conservation Service. August 27, 2014. *Custom Soil Resource Report for San Luis Obispo County, California, Coastal Part*. Available at: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

URS. December 5, 2013. *Phase I Archaeological Surveys for the Hyla Crossing Replacement Project.* Prepared for: Freeport-McMoRan Oil & Gas.

URS. January 2014. *Draft Wetland Delineation and Jurisdictional Determination Report for the Hyla Crossing Replacement Project, Arroyo Grande Oil Field, San Luis Obispo County, California.* Prepared for: Freeport-McMoRan Oil & Gas.

URS. February 2014. *Project Description for the Hyla Crossing Replacement Project, Arroyo Grande Oil Field, San Luis Obispo County, California.* Prepared for: Freeport-McMoRan Oil & Gas.

URS. February 2014. *Biological Resources Summary for the Hyla Crossing Replacement Project, Arroyo Grande Oil Field, San Luis Obispo County, California.* Prepared for: Freeport-McMoRan Oil & Gas.

URS. March 2014. *Draft Biological Assessment for the Hyla Crossing Replacement Project, Arroyo Grande Oil Field, San Luis Obispo County, California*. Prepared for: Freeport-McMoRan Oil & Gas.

URS. July 31, 2014. *Freeport-McMoRan Oil & Gas, Hyla Crossing Replacement Project at Arroyo Grande Oil Field, San Luis Obispo County – Response to Archaeological-Related Questions relayed to URS by SWCA Environmental Consultants at the July 15, 2014 Site Visit*. Prepared for: Freeport-McMoRan Oil & Gas.

URS. August 25, 2014. *Memorandum: Hydroacoustic Effects of Pile Driving on Steelhead – Hyla Crossing Replacement Project on Pismo Creek*. Prepared for: Freeport-McMoRan Oil & Gas.

Exhibit B - Mitigation Summary Table

Per Public Resources Code Section 21081.6, the following measures also constitute the mitigation monitoring and/or reporting program that will reduce potentially significant impacts to less than significant levels. These measures will become conditions of approval (COAs) should the project be approved. The Lead Agency (County) or other Responsible Agencies, as specified in the following measures, are responsible to verify compliance with these COAs.

Furthermore, the applicant will be required to retain an Environmental Monitor (see Mitigation Measure BIO/mm-1) to provide greater assurance environmental project COAs will be met.

BIO/mm-1 *County Environmental Monitor. Prior to issuance of a construction/ grading permit, the applicant shall provide the funding for a County Environmental Monitor to oversee and monitor compliance with County conditions of approval (COAs) and mitigated negative declaration measures. The Environmental Monitor shall assist the County in condition compliance and mitigation monitoring for all applicable construction, operational, and decommissioning stages of the project, as specified in a scope of work, and as approved by the County Department of Planning and Building.*

The Environmental Monitor will prepare a working monitoring plan that reflects the County-approved environmental mitigation measures/conditions of approval. This plan will include (1) goals, responsibilities, authorities, and procedures for verifying compliance with environmental mitigation measures; (2) lines of communication and reporting methods; (3) daily and weekly reporting of compliance; (4) authority to stop work; and (5) action to be taken in the event of non-compliance. The Environmental Monitor shall provide a work scope to the County for review and approval. The entire expense of retaining and supervising the Environmental Monitor shall be paid by the applicant.

The applicant shall also be responsible for funding work required by mitigation measures requiring use of individuals with special expertise (e.g., botanist, wildlife biologist). The County's Environmental Monitor will coordinate with these experts to ensure their availability at appropriate times (e.g., prior to issuance of construction permits, during construction or post-approval, etc.).

BIO/mm-2 *Biologist. Prior to construction, the applicant shall retain a qualified biologist to monitor construction activities and ensure compliance with measures within the project environmental documents. Monitoring by the qualified biologist shall occur throughout the length of construction or as directed by the County Environmental Monitor and regulatory agencies. Full-time biological monitoring shall occur during vegetation removal and earthmoving activities. Monitoring may be reduced to part time once construction activities are underway and the potential for additional impacts are reduced, as determined appropriate by the County.*

The qualified biologist shall prepare and submit weekly biological monitoring/progress reports to the County Environmental Monitor to confirm field compliance with all conditions of approval and mitigation requirements.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor and review of weekly biological monitoring reports submitted by the qualified biologist.

BIO/mm-3 *Rainy Season. Construction activities shall be conducted outside of the rainy season (November 1 through March 31) of any year. This provides a work window from April 1 to October 31 in any given year, or as otherwise directed by regulatory agencies. Deviations from this work window can be made with permission from permitting regulatory agencies if it can be shown that no additional environmental impacts would result.*

BIO/mm-4 *Sensitive Vegetation Protection. Prior to construction permit issuance, to protect sensitive vegetation, the project plans shall clearly show the placement of sturdy construction exclusion fencing along project limits where such vegetation exists. The fencing shall be installed immediately prior to any ground disturbance. The balance of the project limits will be flagged as off-limit areas. Flagging and fencing shall be kept in good working order during the entire construction phase.*

BIO/mm-5 *Habitat Mitigation and Monitoring Plan. Prior to construction permit issuance, the applicant shall prepare a comprehensive Habitat Mitigation and Monitoring Plan (HMMP)for County review and approval to mitigate impacts to jurisdictional areas and sensitive vegetation communities consistent with the following requirements. The final HMMP will include the specific mitigation sites within Pismo Creek area, based on a minimum replacement of 3:1 for permanent impacts and a minimum of 1:1 for temporary impacts, or as otherwise directed by regulatory agencies. Impacted areas of red/arroyo willow thickets shall be restored at a 1:1 ratio. Project areas shall be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Exotic plants shall be controlled to the maximum extent practicable. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the USACE, in consultation with the USFWS and County, determine that it is not feasible or practical. The HMMP shall include ecologically based success criteria consistent with the Final Rule for Compensatory Mitigation for Losses of Aquatic Resources, dated April 10, 2008. The HMMP must be consistent with federal and state regulatory requirements and shall be amended with any regulatory permit conditions, as required. The applicant shall implement the HMMP during construction and immediately following project completion.*

BIO/mm-6 *Best Management Practices. During construction, the applicant shall implement standard Best Management Practices to reduce erosion and sedimentation, including but not limited to the following:*

a. Silt fencing, fiber rolls, and barriers (e.g., hay bales) shall be installed between the project site and adjacent sensitive areas and waters.

b. No synthetic plastic mesh products shall be used in any erosion control materials.

c. At a minimum, silt fencing shall be checked and maintained on a daily basis throughout the construction period.

d. The contractor shall also apply adequate dust control techniques, such as site watering, during construction.

BIO/mm-7 *Invasive Exotic Plants. During construction, the biological monitor(s) shall ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible through the following measures:*

a. Review and modification as appropriate of the existing Arroyo Grande Oil Field Weed Control Plan. The Weed Control Plan shall be updated (as necessary) and shall be implemented throughout the duration of project activities.

b. When practicable, invasive exotic plants in the project site shall be removed and properly disposed.

c. The use of imported soils for fill shall be limited to the extent feasible. Soils currently existing on-site shall be used for fill material to the extent feasible. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species, or the material must consist of purchased clean material such as crushed aggregate, sorted rock or similar materials.

d. As a post-construction activity, and a part of the annual survey for invasive plants, the project limits will be surveyed. If presence of such species are found, hand removal of all invasive species within the project area shall be conducted within 60 days of identification. Invasive plant removal shall be done for at least two successive years after construction is completed.

BIO/mm-8 *Trash. During construction, trash shall be contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas and properly disposed of at a certified landfill. All vegetation removed from the construction site shall be taken to a certified landfill to prevent the spread of invasive species. If soil from weedy areas (such as areas with invasive exotic plant species) must be removed off-site, the top 6 inches (in) (152 millimeters [mm]) containing the seed layer in areas with weedy species shall be disposed of at a certified landfill.*

BIO/mm-9 *Pets. During construction, no pets shall be allowed on the construction site.*

BIO/mm-10 *Environmental Awareness Training. Prior to commencing work, each construction and on-site management personnel shall participate in an environmental awareness training program conducted by the County-approved qualified biologist. The training program must include a description of all sensitive species and sensitive habitats within the project area, including aquatic species such as south-central California coast steelhead, CRLF, and western pond turtle, their ecology, legal status, and the need for species conservation. New or additional construction and on-site management personnel shall participate in subsequent environmental awareness trainings, as necessary, prior to commencement of work activities.*

BIO/mm-11 *Steelhead. Prior to conducting any in-stream work activities, the applicant shall retain a qualified biologist with experience in steelhead biology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating fish species. The biologist shall be approved by the County and NOAA Fisheries.*

During in-stream work, the qualified biologist shall monitor placement and removal of any required stream diversions to capture stranded steelhead and other native fish species and relocate them to suitable habitat as appropriate. The biologist shall note the number of native fish observed in the affected area, the number of fish relocated, and the date and time of the collection and relocation and shall submit weekly monitoring reports to the County's Environmental Monitor to ensure compliance with regulatory permits and mitigation requirements.

BIO/mm-12 *Dewatering. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 0.2-inch wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin allowing the suspended sediment to settle out prior to re-entering the stream outside of the isolated area. The form and function of all pumps used during the dewatering activities shall be checked daily, at a minimum, by the County-approved qualified biologist to ensure a dry work environment and minimize adverse effects to aquatic species and habitats. Effectiveness of this effort shall be incorporated into the biologist's weekly reports and include any remedial efforts determined appropriate to meet the intent of the measure.*

BIO/mm-13 *Sedimentation and Erosion Control. During construction, the County-approved qualified biologist shall monitor erosion and sediment controls to identify and correct any conditions that could adversely affect sensitive aquatic species or habitats. Should non-compliance become an issue, the biologist shall follow the Monitoring Plan protocol (see Bio/mm-1) to resolve the issue and avoid/minimize significant adverse effects to sensitive species and habitats, which may include the halting of work. As needed, the biologist shall consult with the County's Environmental Monitor.*

BIO/mm-14 *California Red-legged Frog. Prior to conducting any in-stream work, the applicant shall retain a qualified biologist with experience in CRLF biology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating CRLF and other aquatic species. The qualified biologist shall be approved by the County, in consultation with USFWS.*

The qualified biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the CRLF is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work activities begin. The qualified biologist shall relocate CRLF the shortest distance possible to a location that contains suitable habitat and that will not be affected by activities associated with the project. The qualified biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]). The qualified biologist shall prepare and submit weekly monitoring reports to the County Environmental Monitor to ensure compliance with regulatory permit requirements, conditions of approval, and mitigation requirements.

BIO/mm-15 *Avoid Nesting Season. Prior to construction, the applicant shall schedule vegetation removal to occur between September 1 to February 14, outside of the nesting season to the greatest extent possible.*

BIO/mm-16 *Pre-Construction Nesting Survey/Buffers.- Prior to construction, if construction activities occur during the typical nesting season (February 15 to August 31), a nesting bird survey shall be conducted by a qualified biologist(s) immediately prior to commencement of work activities (but no more than two weeks prior to construction) to determine presence/absence of nesting birds within the project area. Periodic subsequent spot-check surveys shall be completed throughout the duration of construction activities in the nesting season to determine if new nests are created within the work area subsequent to commencement of construction activities.*

Work activities shall be avoided within 50 feet of active bird nests and 250 feet of active raptor nests until young birds have fledged and left the nest. Readily visible exclusion zones shall be established in areas where nests must be avoided. USFWS

and CDFW shall be contacted if any federally or state listed bird species' nests are observed during surveys. Nests, eggs, or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code may not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor can adult birds be killed, injured, or harassed at any time. In the event a variance to these avoidance buffers is necessary, the applicant shall make a request for variance to the County Environmental Monitor. Any variance shall require proof that no additional impact on nesting birds would occur and approval of USFWS and CDFW.

BIO/mm-17 *Bypass Intake. Prior to construction and throughout the duration of construction activities, a 0.2-inch seine, of appropriate height to span from the channel bed to the water surface and sufficient width to span from bank to bank, will be installed on the upstream side of the bypass intake to prevent steelhead and CRLF from entering the site within the Pismo Creek channel. The net will be monitored regularly for integrity and repaired immediately if breaches are detected. Debris shall be removed from the net by the qualified biologist promptly upon detection.*

BIO/mm-18 *Entrapment Avoidance. During construction, any trenches or excavations left open overnight will include an escape route for CRLF and other wildlife, or will be covered at the end of each workday in a manner that prevents entry. Any covered excavations shall be checked regularly for presence of any wildlife. Construction equipment and materials shall be covered (i.e., pipes, tubes, or other small enclosures shall be plugged or covered) to prevent entry and or use by birds or other wildlife.*

BIO/mm-19 *CRLF Exclusion. During construction, in the event the qualified biologist finds CRLF are entering the worksite despite the upstream block net, lateral blocking structures comprised of silt fencing or plywood may be constructed to further reduce the potential for CRLF entering the site.*

BIO/mm-20 *Tree Protection/Removal. Prior to construction permit issuance, applicable drawings shall show all oak trees to be removed and impacted. Prior to any vegetation removal, all mature trees within the project area shall be clearly marked for removal or protection/ avoidance. At such time, a final tally of oak trees to be removed (up to 18) and oak trees to be impacted/trimmed (up to 20) shall be made and verified by the Environmental Monitor. The final tally shall be used for oak woodland mitigation purposes (see BIO/mm-22). Temporary fencing shall be installed around all trees to remain (wherever feasible, sturdy fencing shall be placed at least 10 feet beyond the tree's canopy edge/dripline), and kept in good working order for the duration of the construction phase.*

A certified arborist, approved by the County, shall be retained by the applicant to perform any necessary trimming of tree limbs overhanging into the active construction zone or along access routes between the construction zone and equipment staging areas. Trimming activities by the certified arborist shall occur prior to access to the work areas by construction equipment to avoid and minimize the potential for inadvertent damage to oak tree limbs.

BIO/mm-21 *Oak Woodlands. Based on the "final tally" (see BIO/mm-21), and prior to final inspection, payment to the State Wildlife Conservation Board will be made at $970 per oak tree that is removed and $485 per oak tree that is encroached upon or trimmed, but not removed, or as otherwise required at project completion by the County.*

BIO/mm-22 *Riparian – Activities Excluded. During construction, all refueling, maintenance, and cleaning of equipment and vehicles (with the exception of the crane, the pile driving hammer's power pack, and two compressors which are relatively immobile) shall occur at least 100 feet from all on-site riparian habitat or water bodies and not in a location where a spill would drain directly toward aquatic habitat. For the crane, the pile driving hammer's power pack, and two compressors, which are somewhat immobile, and refueling in place is proposed, the following Best Management Practices shall be used:*

- *Pismo Creek will be dewatered upstream of the existing Hyla road crossing in advance of use of this equipment for bridge construction activities.*
- *All refueling, maintenance and repair shall be performed in accordance with California Stormwater Quality Association (CASQA) Standard NS-9.*
- *All work shall conform to the Arroyo Grande Oil Field Spill Prevention, Containment and Countermeasures (SPCC) Plan.*
- *All work shall conform to the Arroyo Grande Production Facilities Emergency Response and Action Plan.*
- *Third party fuel suppliers must have a Spill Contingency Plan, emergency spill kit, and insurance at the time of transfer.*
- *During refueling, maintenance, and repair, drip pans or absorbent mats shall be used to contain potential drips, spills, parts, or debris.*
- *During hours of non-operation, equipment shall be parked with drip pans or absorbent mats. All fuel or maintenance fluid storage containers shall be stored at least 100 feet from the riparian area or water bodies per CASQA Standard WM-1.*
- *Fuel trucks involved in the refueling process shall meet all applicable DOT standards (49 CFR).*
- *Fuel tank vents shall be closed, hoses secured and nozzles protected from drips prior to mobilizing refueling trucks to and from equipment.*
- *Equipment shall be turned off prior to refueling.*
- *Two trained personnel shall oversee all refueling operations and maintain presence at all times during refueling.*
- *Funnels shall be utilized when required.*
- *Refueling operations shall only be performed on level ground.*
- *Topping off shall be strictly prohibited.*
- *Gauges shall be inspected prior to refueling to ensure they are properly working.*
- *Capacity of tank shall be known prior to filling.*

- *A "dip-stick" will be used to confirm the approximate volume of fuel to be transferred.*

- *Hoses, fittings, and drip pans shall be inspected and maintained or repaired as necessary prior to each refueling operation.*

- *Nozzles shall be operated by hand and not locked open and they will be hung and stored facing up.*

- *Nozzle contact shall be maintained with fill pipe at all times when refueling operations are occurring.*

- *Nozzles shall be drip-dried before being removed from a tank and nozzles will be held upright to prevent fuel from dripping out of the nozzle.*

- *Sufficient time shall be allotted for refueling operations.*

- *Absorbent pad material shall be stored onsite for use in the event of an accidental spill.*

- *Should a refueling spill or leak occur below the top of creek bank, the County shall be notified immediately. In addition, work shall stop in this area until it has been cleaned up and the County concludes it poses no significant threat to the environment or groundwater table. As applicable, other permitting agencies shall also be notified immediately.*

- *Applicant shall review 7-day weather forecasts daily. Should the forecast identify a high probability of a large event, adequate precautions shall be taken, including the potential temporary removal of all equipment within the top of creek banks, to ensure project elements will not contaminate the creek from surface runoff and elevated creek flows.*

Construction staging and vehicle refueling areas shall be clearly marked on project plans. The County-approved qualified biologist shall ensure contamination of habitat does not occur during such operations through regular vehicle and equipment checks for leaks and spills, development of appropriate secondary containment devices in areas where leaks or spills are likely to occur, and implementation of the Arroyo Grande Oil Field Spill Prevention Control and Countermeasure Plan (refer to HAZ/mm-1). The biologist shall be present for all refueling of the crane, the pile driving hammer's power pack, and two compressors. Prior to commencement of work, the County Department of Planning and Building shall ensure that an adequate plan is in place for prompt and effective response to any accidental spills (refer to HAZ/mm-1). Prior to grading and construction, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. County Environmental Monitor shall regularly provide field inspections while any immobile equipment is within the top of creek banks. The County monitor shall be present daily should any work be done during the rainy season, or immediately before and after any rain event outside of the rainy season to verify BMPs are in good working order and compliance with this condition is met.

BIO/mm-23 *Slope Restoration. Topographic contours shall be restored to blend with or match the adjacent contours at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the*

USFWS and County determine that it is not feasible or modification of contours would benefit sensitive species, including CRLF.

BIO/mm-24 *Pile Driving. At the commencement of pile driving activities, the applicant shall measure underwater sound levels at locations immediately upstream of the upstream block net and immediately downstream of the downstream block net. Measurements will be taken by a hydrophone or other appropriate instrument approved by NOAA Fisheries. In the event measured sound levels exceed threshold levels utilized by NOAA Fisheries (206 dB peak and 150 dB effective quiet), pile driving activities shall be immediately stopped and NOAA Fisheries and the County Department of Planning and Building consulted. At such time, the project applicant may be required to implement additional hydroacoustic impact minimization measures, as directed by NOAA Fisheries, including use of alternative methods of pile installation, limiting the daily duration of pile driving activities, situating the blocking nets farther from the pile driving locations in areas where measured sound levels are confirmed to be within acceptable levels, and other techniques as may be recommended by the County or NOAA Fisheries. Pile driving activities shall not be permitted to continue unless measured sound levels in adjacent creek areas accessible to steelhead and other aquatic species confirm hydroacoustic sound levels are within the acceptable range.*

BIO/mm-25 *Agency Permits. Prior to issuance of the grading permit, the applicant shall provide copies of all required regulatory approvals and permits to the County, such as a Section 404 permit from USACE, Section 401 Water Quality Certification from the RWQCB, and Section 1600 Streambed Alteration Agreement from CDFW.*

See also N/mm-1 for limited construction hours.

Cultural Resources

CR/mm-1 *Cultural Resources – Monitoring Plan. Prior to issuance of a grading permit, the applicant shall submit an 'Archaeological Resources Monitoring Plan', prepared by a qualified archaeologist, for review and approval by the County Department of Planning and Building. The intent of this plan is to monitor all earth-disturbing activities in areas identified as potentially sensitive for cultural resources, per the approved monitoring plan. The Plan shall describe the methods and procedures to be utilized during all earth-disturbing activities associated with the Hyla Crossing Replacement Project. The monitoring plan shall include at a minimum:*

- *list of personnel involved in the monitoring activities;*
- *inclusion of involvement of the Native American community, as appropriate;*
- *description of how the monitoring shall occur;*
- *description of frequency of monitoring (e.g., full-time, part time, spot checking);*
- *recommended excavation and vegetation clearing methods to be utilized;*
- *description of what resources are expected to be encountered;*
- *description of circumstances that would result in the halting of work at the project site (e.g., What is considered "significant" archaeological resources?);*

- *description of procedures for halting work on the site and notification procedures;*
- *provisions defining education of the construction crew;*
- *protocol for treating unanticipated finds; and,*
- *description of monitoring reporting procedures.*

As applicable, all recommendations shall be put on applicable construction drawings and implemented during construction.

CR/mm-2 *Cultural Resources – Construction Monitoring. During all initial ground disturbing construction activities, the applicant shall retain a county-qualified archaeologist to monitor all earth disturbing activities, per the approved Archaeological Resources Monitoring Plan. The archaeologist shall recommend methods of initial excavation and vegetation clearing, which shall be implemented by the applicant. Upon the conclusion of vegetation removal, the exposed ground surface shall be surveyed for potentially intact archaeological resources by the archaeologist. Surface inspection shall be augmented with shovel test pits or similar techniques as determined necessary by the archaeologist. The timing and duration of the monitoring may be adjusted during project implementation by the archaeologist, in consultation with the County Department of Planning and Building.*

CR/mm-3 *Worker Training. Prior to ground disturbance and construction activities, the designated archaeologist shall provide cultural resources awareness training to all field crews and field supervisors. This training will include a description of the types of resources that may be found in the project area, the protocols to be used in the event of an unanticipated discovery, the importance of cultural resources to the Native American community, and the laws protecting significant archaeological and historical sites. In addition, the applicant shall provide all field supervisors with maps showing those areas sensitive for potential buried resources.*

CR/mm-4 *Cultural Resource – Monitoring Report. During construction, the qualified archaeologist shall prepare monthly progress reports to be filed with the applicant and the County of San Luis Obispo. Upon completion of all monitoring/mitigation activities, and prior to final inspection, the designated archaeologist shall submit a report to the Environmental Coordinator summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been met.*

CR/mm-5 *Human Remains – Discovery. Prior to issuance of a grading permit, the requirements of California Health and Safety Code Section 7050.5, regarding the discovery of human remains, shall be noted on project plans. Prior to construction activities, the requirements of California Health and Safety Code Section 7050.5 shall be reviewed during cultural resources awareness training as described in CR/mm-3. Should human remains be encountered, work shall stop in the vicinity until the issue has been resolved per this Code.*

CR/mm-6 *Paleontological Monitoring and Treatment Plan. Prior to issuance of a grading permit, the applicant shall retain a County-approved paleontologist to prepare a Paleontological Monitoring and Treatment Plan (Plan), and submit the Plan to the County for review and approval. The Plan shall be based on 'Society of Vertebrate Paleontology (SVP) guidelines' and meet all regulatory requirements. The County-approved paleontologist shall have a Master's Degree or Ph.D. in paleontology, shall*

have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering potential paleontological resources and the shallowest depths at which those resources may be encountered. The Plan shall detail the criteria to be used to determine whether an encountered resource is significant, and if it should be avoided or recovered for its data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting.

The Plan shall outline a coordination strategy to ensure that a County-approved paleontological monitor will conduct full-time monitoring of all grading activities in the "deeper" sediments determined to have a moderate to high sensitivity. For sediments of low or undetermined sensitivity, the Plan shall determine what level of monitoring is necessary. Sediments with no sensitivity will not require paleontological monitoring.

The Plan shall define specific conditions in which monitoring of earthwork activities could be reduced and/or depth criteria established to trigger monitoring. These factors shall be defined by the project paleontological resource specialist, following examination of sufficient, representative excavations. As specified in the Plan, approved measures shall be implemented during construction.

CR/mm-7 *Paleontology Construction Monitoring. During construction, based on the Mitigation Measure CR/mm-6 (Paleontological Monitoring and Treatment Plan), the applicant shall conduct construction monitoring by a County-approved paleontological monitor as specified in the Plan. This shall include monitoring during rough grading and trenching in areas determined to have moderate to high paleontological sensitivity and which have the potential to be shallow enough to be adversely affected by such earthwork. Sediments of low, marginal undetermined sensitivity shall be monitored by a County-approved paleontological monitor on a part-time basis (as determined by the County-approved paleontologist).*

CR/mm-8 *Paleontological Data Recovery. Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the County-approved paleontologist. Prior to final inspection, if avoidance of significant paleontological resources is not feasible during grading, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the applicant, in accordance with the approved Paleontological Monitoring and Treatment Plan per Mitigation Measure CR/mm-6 (Paleontological Monitoring and Treatment Plan), which shall at minimum include the following:*

If the discovery meets the criteria for a fossil locality, formal locality documentation activities will be performed.

If microfossil localities are discovered, locality documentation activities shall include the collection of matrix material for processing. These activities may include use of equipment to excavate fossil-containing soils, and establishment of stockpiles away from the construction area. Testing of stockpiles shall consist of screen washing small samples (200 pounds) to determine if fossils are present. Productive tests shall result in screen washing of additional matrix from the stockpiles to a maximum of 6000 pounds per locality.

Fossils recovered shall be prepared, identified and cataloged, and donated to an accredited repository approved by the County of San Luis Obispo. Any resources

determined not to meet significance criteria shall be offered to local schools for use in educational programs.

CR/mm-9 *Paleontological Construction Personnel Training. Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction grading. The County-approved paleontologist shall complete training for all applicable personnel. Training shall inform all applicable personnel of the procedures to be followed upon the discovery of paleontological materials.*

All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or offsite by the applicant, its representatives, or employees will not be allowed. Violators shall be subject to prosecution under the appropriate State and federal laws. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

All construction contracts shall include clauses that require grading personnel to attend training so that they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.

A County-approved paleontologist shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential paleontological resources, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.

Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted until cleared by the project paleontologist. Once the find has been inspected and a preliminary assessment made by the paleontologist, the County will be notified. The applicant shall then proceed with data recovery in accordance with the approved Treatment Plan and approval of the Environmental Coordinator.

CR/mm-10 *Paleontological Resources – Monitoring Report. During construction, the qualified paleontologist shall prepare monthly progress reports to be filed with the applicant and the County of San Luis Obispo. Upon completion of all monitoring/mitigation activities, and prior to final inspection, the designated paleontologist shall submit the final report which shall include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and shall include all specialist's reports as appendices. It will also summarize all monitoring/ mitigation activities and confirming that all recommended mitigation measures have been met.*

Geology and Soils

GEO/mm-1 *Geotechnical Report. Prior to issuance of a grading permit, the applicant shall submit a design-level geotechnical report to the County Department of Planning and Building for review and approval. The geotechnical report shall be prepared by a qualified,*

registered civil engineer or other qualified professional licensed by the state to perform such work. The plan shall incorporate and conform to all applicable requirements of the latest edition of the California Building Code and American Association of State Highway and Transportation Officials (AASHTO) requirements, including applicable AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications, Caltrans Load Factor Design (LFD) Bridge Design Specifications, and Caltrans Seismic Design Criteria (SDC). During construction, the applicant shall incorporate all design and engineering recommendations within the geotechnical report to meet or exceed current engineering standards.

GEO/mm-2 *Grading Plan. Prior to issuance of a grading permit, the applicant shall provide a grading plan that meets the requirements of Section 22.52.100 of the San Luis Obispo County Land Use Ordinance. The grading plan shall be prepared by a qualified, registered civil engineer or other qualified professional licensed by the state to perform such work, and shall be subject to review and approval by the County Department of Planning and Building, in consultation with the County Public Works Department. Construction and grading work shall be completed according to the approved grading plan.*

GEO/mm-3 *Drainage Plan. Prior to issuance of a grading permit, the applicant shall provide a drainage plan that meets the requirements of Section 22.52.110 of the San Luis Obispo County Land Use Ordinance. The drainage plan shall be prepared by a registered civil engineer and subject to review and approval by the County Department of Planning and Building, in consultation with the County Public Works Department. Construction and grading work shall be completed according to the approved drainage plan.*

GEO/mm-4 *Erosion and Sedimentation Control Plan. Prior to issuance of a grading permit, the applicant shall provide an erosion and sedimentation control plan that meets the requirements of Section 22.52.120 of the San Luis Obispo County Land Use Ordinance. The erosion and sedimentation control plan shall identify how disturbed soils will be stabilized to prevent wind and water erosion during construction and immediately after construction until the revegetation activities are commenced. The plan shall include temporary best management practices (BMPs) to be installed during the rainy season that may include, but are not limited to, use of mulch, soil stabilizers, or other recognized surface stabilization measures determined to be compatible with project area sensitive species. The plan shall include standard provisions for dust control by water truck (LUO Sec. 22.52.160 - Construction Procedures) or periodic application of soil stabilizers during construction. Construction and grading work shall be completed according to the approved sedimentation and erosion control plan.*

GEO/mm-5 *Stormwater Pollution Prevention Plan. Prior to issuance of a grading permit, the applicant shall provide the County evidence that a stormwater pollution prevention plan has been prepared (or modified) meeting RWQCB standards and prior to construction, implemented on site. The SWPPP shall be retained on-site during construction.*

GEO/mm-6 *Rainy Season. All reasonable efforts will be made to conduct all construction activities within the dry season (April 15 through October 15). If construction activities outside of the dry season are necessary, implementation of Best Management Practices (BMPs) per the approved erosion and sedimentation control plan is required prior to the start of the rainy season or ground clearing activities. In addition, the applicant must demonstrate that no additional biological resource impacts would result (see BIO/mm-3).*

GEO/mm-7 *Naturally Occurring Asbestos. Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the California Air Resources Board (ARB). Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, prior to any grading activities a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the APCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD.*

Hazards and Hazardous Materials

HAZ/mm-1 *Emergency Response and Fire Safety Plans. Prior to issuance of a grading permit, the applicant shall review, modify as appropriate, and submit emergency response and fire safety plans for review and approval by the County Department of Planning and Building (in consultation with other County departments with jurisdiction), including the following:*

- *Arroyo Grande Production Facility Emergency Response Action Plan;*
- *Hazardous Materials Business Plan;*
- *Spill Prevention Control and Countermeasure Plan; and*
- *Arroyo Grande Production Facility Fire Safety Plan.*

If any of the materials proposed for use during project construction is not already addressed in the facility's existing plans, the applicant would be required to amend the plan(s) subject to approval by the County Department of Planning and Building, Cal Fire, and the County Environmental Health Division prior to the issuance of a grading permit. The applicant would then be required to follow such plans throughout project construction activities.

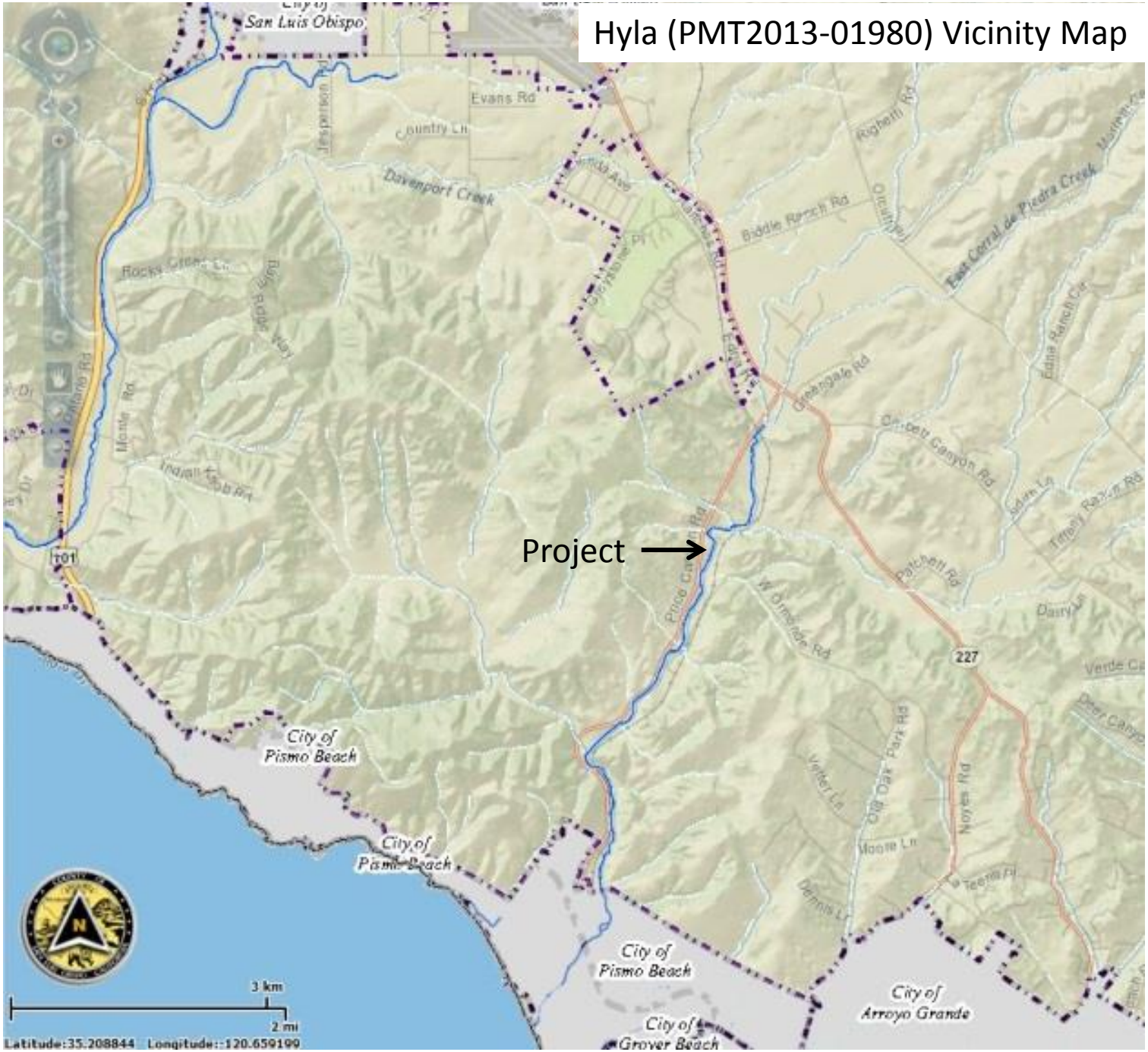
Noise

N/mm-1 *Construction Hours. The Applicant shall conduct all noisy construction activities within the following timeframes:*

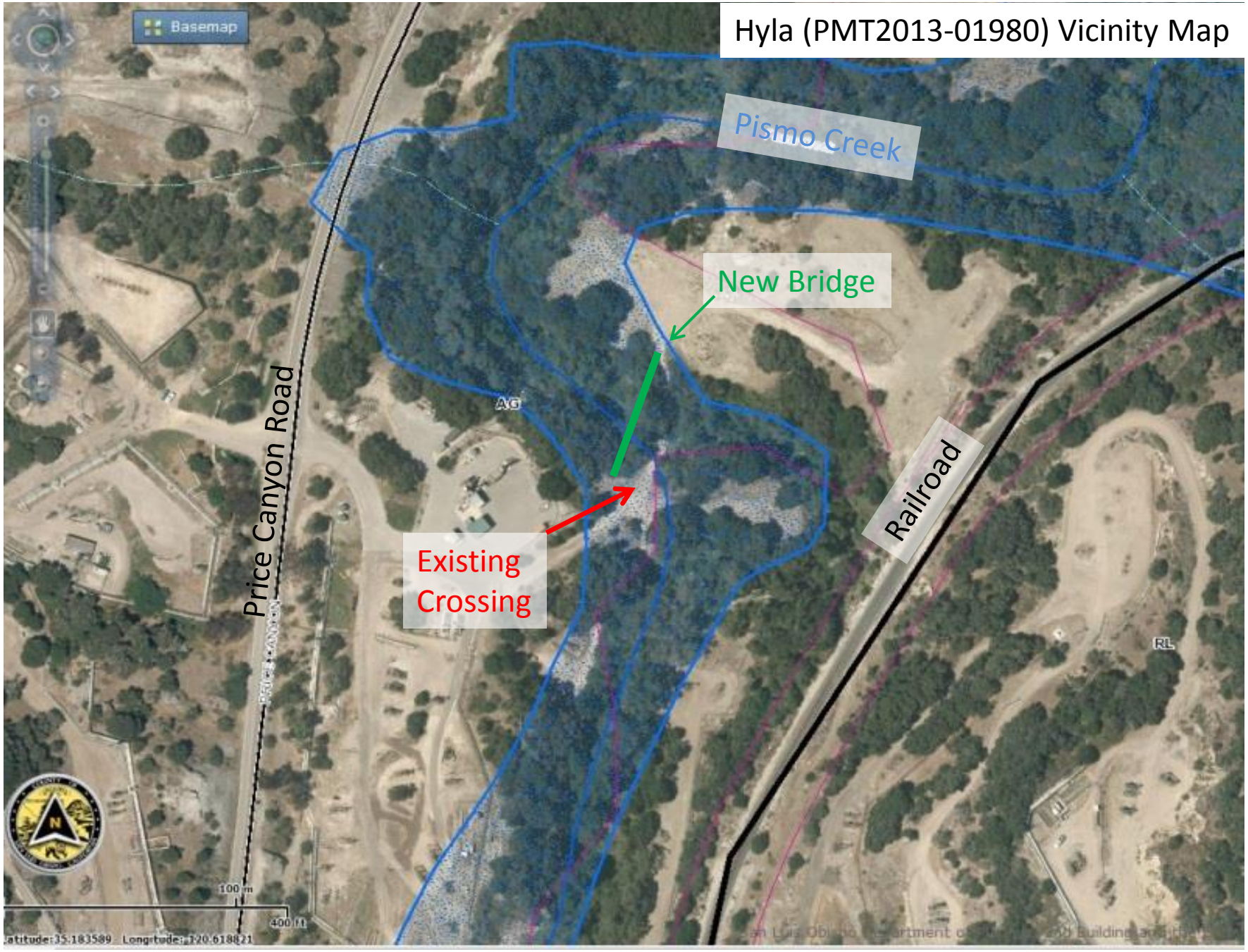
Between 7:00 a.m. and 9 p.m. on Mondays through Fridays, and

Between 8:00 a.m. and 5 p.m. on Saturdays and Sundays.

Hyla (PMT2013-01980) Vicinity Map



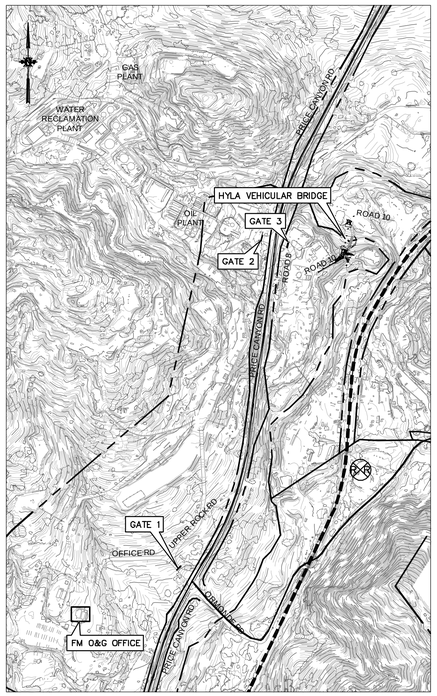
Hyla (PMT2013-01980) Vicinity Map



HYLA CROSSING PROJECT
PERMITTING EXHIBITS

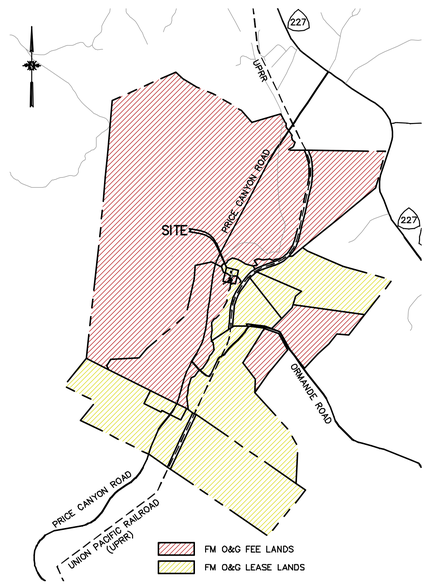
FREEPORT-MCMORAN OIL & GAS

1821 PRICE CANYON ROAD, SAN LUIS OBISPO COUNTY, CA 93401



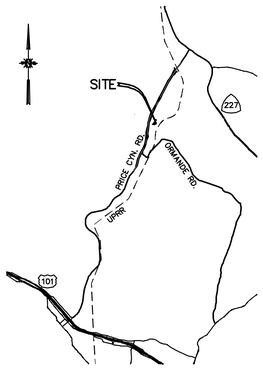
SITE MAP

SCALE 1"=500'



UNIT FEE/LEASE MAP

SCALE 1"=2000'



VICINITY MAP

SCALE 1"=5000'

CONSTRUCTION DESCRIPTION

THE WORK FOR THIS PROJECT IN THESE PLANS INCLUDES:

- REPAIR OF AN EXISTING ARIZONA CROSSING OF PISMO CREEK INCLUDING THE REMOVAL OF SEDIMENT AND UNPLUGGING OF (2) EXISTING CORRUGATED METAL PIPE STORM DRAIN CULVERTS
- TREE REMOVAL AND PRUNING IN VICINITY OF NEW CROSSING
- DEWATERING OF PISMO CREEK IN THE CONSTRUCTION AREA VIA A TEMPORARY DAM AND DIVERSION PIPE
- REPLACEMENT OF THE EXISTING CROSSING WITH A 4-SPAN COMPOSITE BRIDGE ABOVE THE 100-YEAR FLOOD ELEVATION AND A PILE FOUNDATION
- INSTALLATION OF ROAD AND DRAINAGE IMPROVEMENTS TO THE NEW BRIDGE ABUTMENTS
- REMOVAL OF THE EXISTING ARIZONA CROSSING OF PISMO CREEK
- RESTORATION OF PISMO CREEK IN THE CONSTRUCTION AREA WITH (4) STEP-POOL CROSS-VANES

SHEET INDEX

SHEET NO.	REV. NO.	TITLE
1	B	TITLE SHEET
2	B	SITE PLAN
3	B	CROSSING REPAIR PLAN
4	B	STREAM BYPASS PLAN
5	B	BRIDGE PLAN & ELEVATIONS
6	B	STREAM RESTORATION PLAN
7	B	NOTES SHEET

SITE PROTOCOL

ACCESS OUTSIDE THE IMMEDIATE OFFICE AREA IS CONTROLLED THROUGH THE OWNER'S REPRESENTATIVE. MINIMUM PERSONAL PROTECTIVE EQUIPMENT FOR ACCESS TO THE SITE IS FIRE RETARDANT CLOTHING, FIRE RETARDANT SAFETY VEST, HARD HAT, SAFETY GLASSES, AND STEEL-TOE BOOTS. INDIVIDUALS MUST CARRY OR BE ESCORTED BY AN INDIVIDUAL WITH A PERSONAL HYDROGEN SULFIDE MONITOR WHENEVER ON SITE. FURTHER SITE ACCESS CONTROLS WILL BE IMPLEMENTED AS CONSTRUCTION CONDITIONS WARRANT. SAFETY AND ENVIRONMENTAL CONDITIONS AWARENESS TRAINING CONDUCTED BY THE OWNER'S REPRESENTATIVE FOR THIS SITE IS REQUIRED PRIOR TO ACCESS TO THE PROJECT AREA.

CODE COMPLIANCE

2010 CALIFORNIA BUILDING CODE VOLS. 1 & 2 (2009 IBC).
SECTIONS 4 TO 22 OF THE CALTRANS STANDARDS SPECIFICATIONS.
SAN LUIS OBISPO COUNTY ORDINANCE(S) TITLE 19, 22, 23

CONTACT INFORMATION

OWNER: FREEPORT-MCMORAN OIL & GAS
1821 PRICE CANYON RD.
SAN LUIS OBISPO, CA 93401
T: (805) 547-8969 X 4911

OWNER'S REPRESENTATIVE: PAUL DELORENZO
FREEPORT-MCMORAN OIL & GAS
1821 PRICE CANYON RD.
SAN LUIS OBISPO, CA 93401
T: (805) 547-8969 X4911

OWNER'S PROJECT MGR: MICHELLE GIBBS
FREEPORT-MCMORAN OIL & GAS
201 S. BROADWAY
ORCUTT, CA 93455
T: (805) 934-8210

ENGINEER OF RECORD: JOHN W. EVANS, SR., PE
CANNON
1050 SOUTHWOOD DR.
SAN LUIS OBISPO, CA 93401
T: (805) 544-7407

GEOTECHNICAL ENGINEER: JUDD KING, GE
EARTH SYSTEMS PACIFIC
4378 OLD SANTA FE ROAD
SAN LUIS OBISPO CA 93401
T: (805) 544-3276

PROJECT SURVEYOR: STUART SOLES, PLS
SOLES SURVEYING
442 ORCAS ST.
MORRO BAY, CA. 93442
T: (805) 771-8915

PLANNING CONSULTANT: ROBERT RAY
URS CORPORATION
130 ROBIN HILL RD. SUITE 100
SANTA BARBARA, CA 93117

SITE INFORMATION

BENCHMARK:

TOPOGRAPHIC SURVEY BY EDA ON 06-25-2007
CP-111, N 624016.346, E 1216627.42, EL 264.97,
SCRIBED X

BASIS OF BEARING:

CONTROL POINTS

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
112,	624463.18,	1216714.56,	308.24,	PK/TIN
113,	624056.46,	1216233.42,	287.86,	3/8 RB

SITE DESCRIPTION

THE SITE, 1821 PRICE CANYON ROAD, IS THE "PISMO CANYON UNIT" OF THE ARROYO GRANDE OILFIELD OPERATED IN WHOLE BY FREEPORT-MCMORAN OIL & GAS UNDER A "UNIT AGREEMENT" DATED JULY 23, 1986, (SLO CO. OR VOL 2861 PGS 382-442).

NUMBER	REFERENCE DRAWINGS/DOCUMENT	REV. NO.	DATE	REVISION	REV. BY	CKD. BY	APP'D
		B	11/6/13	ISSUED FOR PERMITTING	PM	JME	
		A	11/5/13	PROGRESS PLOT - ISSUED FOR REVIEW	PM	JME	

REV. NO.	DATE	REVISION	REV. BY	CKD. BY	APP'D

REGISTERED PROFESSIONAL ENGINEER JOHN W. EVANS III CIVIL STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

Cannon
1050 Southwood Drive
San Luis Obispo, CA 93401
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DRAWN BY: LM	DATE: 11/6/13	HYLA CROSSING PROJECT ARROYO GRANDE FIELD TITLE SHEET PERMITTING EXHIBITS	
DESIGN: PM	DATE: 11/6/13	Freeport-McMoRan OIL & GAS CALIFORNIA ONSHORE	
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ENGINEER:	DATE:		
APPROVED:	DATE:		
APPROVED:	DATE:		
APPROVED:	DATE:		

DWG NO:	SHT:	REV. NO.	SCALE:
CE130129AA0101	1	B	VARIES

ARCH D (36"x24")

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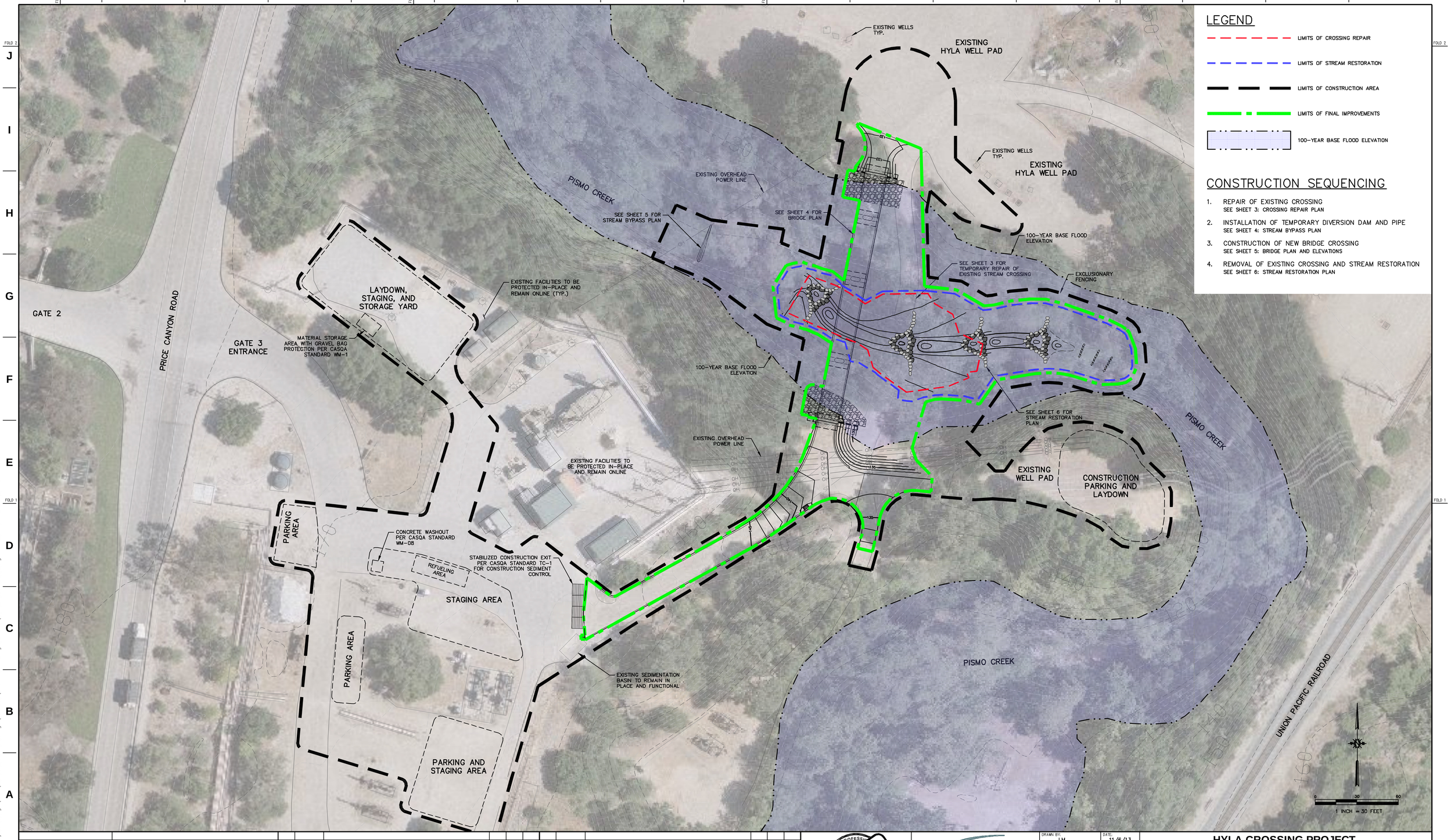

LEGEND

- LIMITS OF CROSSING REPAIR
- LIMITS OF STREAM RESTORATION
- LIMITS OF CONSTRUCTION AREA
- LIMITS OF FINAL IMPROVEMENTS
- 100-YEAR BASE FLOOD ELEVATION

CONSTRUCTION SEQUENCING

1. REPAIR OF EXISTING CROSSING
   SEE SHEET 3: CROSSING REPAIR PLAN
2. INSTALLATION OF TEMPORARY DIVERSION DAM AND PIPE
   SEE SHEET 4: STREAM BYPASS PLAN
3. CONSTRUCTION OF NEW BRIDGE CROSSING
   SEE SHEET 5: BRIDGE PLAN AND ELEVATIONS
4. REMOVAL OF EXISTING CROSSING AND STREAM RESTORATION
   SEE SHEET 6: STREAM RESTORATION PLAN

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		A	11/5/13	PROGRESS PLOT – ISSUED FOR REVIEW	PM	JME	

REV. NO.	DATE	REVISION	REV. BY	CKD. BY	APP'D

REGISTERED PROFESSIONAL ENGINEER CHRIS EVANS CIVIL STATE OF CALIFORNIA
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ENGINEER:		DATE:	
APPROVED:		DATE:	
APPROVED:		DATE:	
APPROVED:		DATE:	

HYLA CROSSING PROJECT
ARROYO GRANDE FIELD
SITE PLAN
PERMITTING EXHIBITS

Freeport-McMoRan OIL & GAS
CALIFORNIA ONSHORE

DWG NO:	SHT:	REV. NO.	SCALE:
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BIOLOGICAL MONITORING

1. A BIOLOGICAL MONITOR SHALL BE PRESENT DURING ALL WORK SHOWN ON THIS PLAN.

DEWATERING

1. WORK SHALL BE PERFORMED DURING THE DRY SEASON WHEN PISMO CREEK IS AT ITS LOW FLOW PERIOD.
2. DEWATERING OF THE STREAM SHALL NOT BE PERFORMED FOR THE WORK SHOWN ON THIS PLAN.
3. WORK SHALL BE PERFORMED AT A TIME AND IN A MANNER THAT MINIMIZES ADVERSE IMPACTS AND PROVIDES FOR THE PROTECTION AND CONTINUANCE OF THE FISH AND WILDLIFE RESOURCE.
4. WORK SHALL BE PERFORMED AND MEASURES IMPLEMENTED FOR THE PREVENTION OF SEDIMENTATION AND TURBIDITY.

SAW-CUTTING

1. SAW CUTTING SHALL NOT CREATE ANY DUST.
2. CONCRETE TAILINGS OR CUTTING SLURRY SHALL NOT ENTER THE STREAM.
3. ALL TAILINGS OR CUTTING SLURRY SHALL BE REMOVED FROM THE SITE.
4. TAILINGS AND CUTTING SLURRY SHALL BE CONTROLLED DURING CUTTING.

LEGEND:

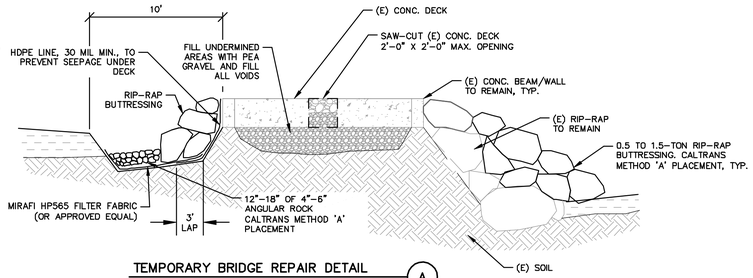
- EXISTING BASE/ASPHALT PAVING
- EXISTING CONCRETE
- EXISTING SEDIMENT
- REMOVAL OF EXISTING CONCRETE BRIDGE DECK
- REMOVAL OF SEDIMENT
- EXCLUSIONARY FENCE

SEQUENCE OF CROSSING REPAIR

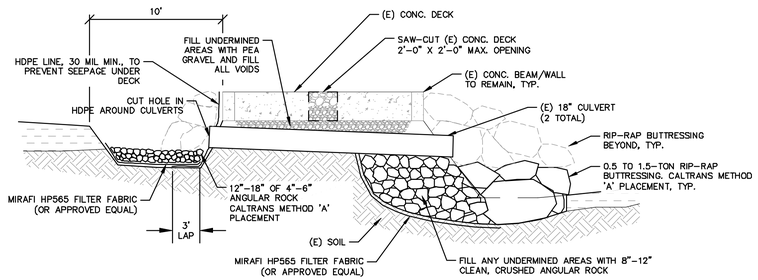
1. BIOLOGICAL AND ENVIRONMENTAL TASKS
2. INSTALL TEMPORARY GRAVEL BAG CHECK DAMS (SEE DETAIL C, THIS SHEET) AND EXCLUSIONARY FENCING.
3. RELEASE OF PONDED WATER UPSTREAM AND DOWNSTREAM OF CROSSING VIA SIPHON.
4. REMOVAL OF UPSTREAM SEDIMENT AND DEBRIS WITH VACUUM TRUCK, EXCAVATOR, AND SKID STEER. DISPOSE OFF-SITE.
5. UNPLUG AND CLEAR SEDIMENT AND DEBRIS FROM THE CULVERTS, BEGINNING AT THE END OF THE OUTLETS.
6. REPAIR CROSSING PER DETAILS A AND B, THIS SHEET.
7. REMOVE GRAVEL BAG CHECK DAMS AND EXCLUSIONARY FENCING.

CONSTRUCTION NOTES

1. EXTENT OF UPSTREAM SEDIMENT REMOVAL (DENOTED BY HATCH).
2. APPROXIMATE BOUNDARY OF SEDIMENTED AREA, TYP.
3. EXCLUSIONARY FENCING PER CASQA STANDARD EC-2. EXACT LOCATION TO BE DETERMINED BY COUNTY APPROVED BIOLOGIST.
4. BOUNDARY OF AREA DISTURBED.
5. TEMPORARY GRAVEL BAG CHECK DAMS PER CASQA STD. SE-4 AND DETAIL C, THIS SHEET, TO PREVENT TURBIDITY AND SEDIMENTATION.
6. EXISTING 18" CORRUGATED METAL PIPE CULVERTS (2 TOTAL).
7. EXISTING CONCRETE DECK TO BE REMOVED. 2'-0" x 2'-0" MAX. OPENING. LOCATE WHERE REQUIRED TO ACCESS UNDERMINED AREAS BELOW CONCRETE DECK.
8. SAW-CUT LINE.
9. EXISTING CONCRETE BEAM/WALL TO BE PROTECTED IN-PLACE, TYP.
10. EXISTING CONCRETE BRIDGE DECK SURFACE TO REMAIN, UNLESS NOTED OTHERWISE.
11. REMOVE EXISTING RIP-RAP AND EXISTING CONCRETE AS NECESSARY FOR REPAIR OF CROSSING.
12. RIP-RAP BUTTRESSING.
13. EXISTING RIP-RAP TO REMAIN.
14. EXISTING DIRT/GRAVEL ROAD WITH PARTIAL PAVING.
15. EXISTING DIRT/GRAVEL ROAD.
16. REMOVE EXISTING TREE TO GROUND LEVEL. STUMP AND ROOTS TO REMAIN IN-PLACE.
17. INLETS AND OUTLETS OF CULVERTS SHALL REMAIN CLEAR AND UNOBSTRUCTED.



TEMPORARY BRIDGE REPAIR DETAIL (A)
N.T.S.



TEMPORARY BRIDGE REPAIR DETAIL (B)
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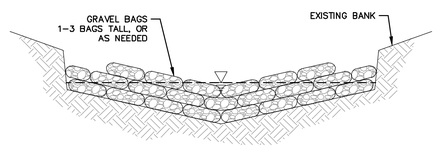


GRAVEL CHECK DAM DETAIL (C)
N.T.S.

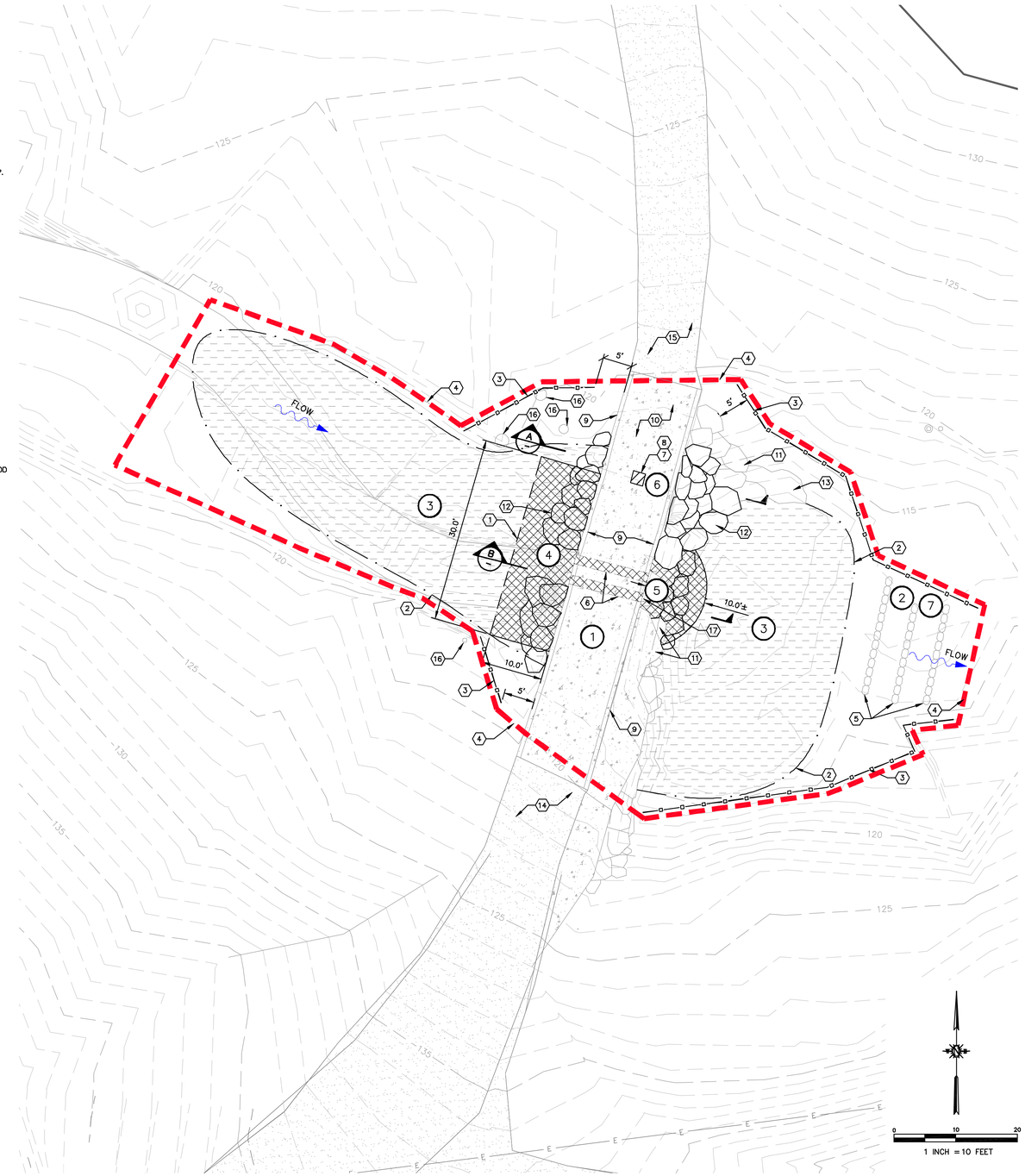
EARTHWORK VOLUMES

CROSSING REPAIR*
CUT: 70 CY
FILL: 70 CY
TOTAL: 140 CY

BRIDGE PROJECT & STREAM RESTORATION*
CUT: 570 CY
FILL: 1150 CY
TOTAL: 1720 CY

TOTAL*
CUT: 640 CY
FILL: 1220 CY
TOTAL: 1860 CY

*NOTE: THE QUANTITIES SHOWN ARE FOR PERMITTING USE ONLY. THE VOLUMES ARE THE DIFFERENCE BETWEEN EXISTING GRADE AND PROPOSED FINISHED GRADE. THESE QUANTITIES DO NOT INCLUDE ALLOWANCES FOR SHRINKAGE, CONSOLIDATION, LOSSES DUE TO CLEARING OPERATIONS, FINISHED SURFACE/GRADE HOLD DOWNS, OVER-EXCAVATION, OR FACTORS FOR GRADING MEANS AND METHODS. A SEPARATE GRADING PERMIT IS REQUIRED FOR ANY EXPORT RECEIVING SITE.



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REGISTERED PROFESSIONAL ENGINEER — NOT FOR CONSTRUCTION — CIVIL — STATE OF CALIFORNIA

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APPROVED:	DATE:	APPROVED:	DATE:
APPROVED:	DATE:		

HYLA CROSSING PROJECT
ARROYO GRANDE FIELD
CROSSING REPAIR PLAN
PERMITTING EXHIBITS

Freeport-McMoRan OIL & GAS
CALIFORNIA ONSHORE

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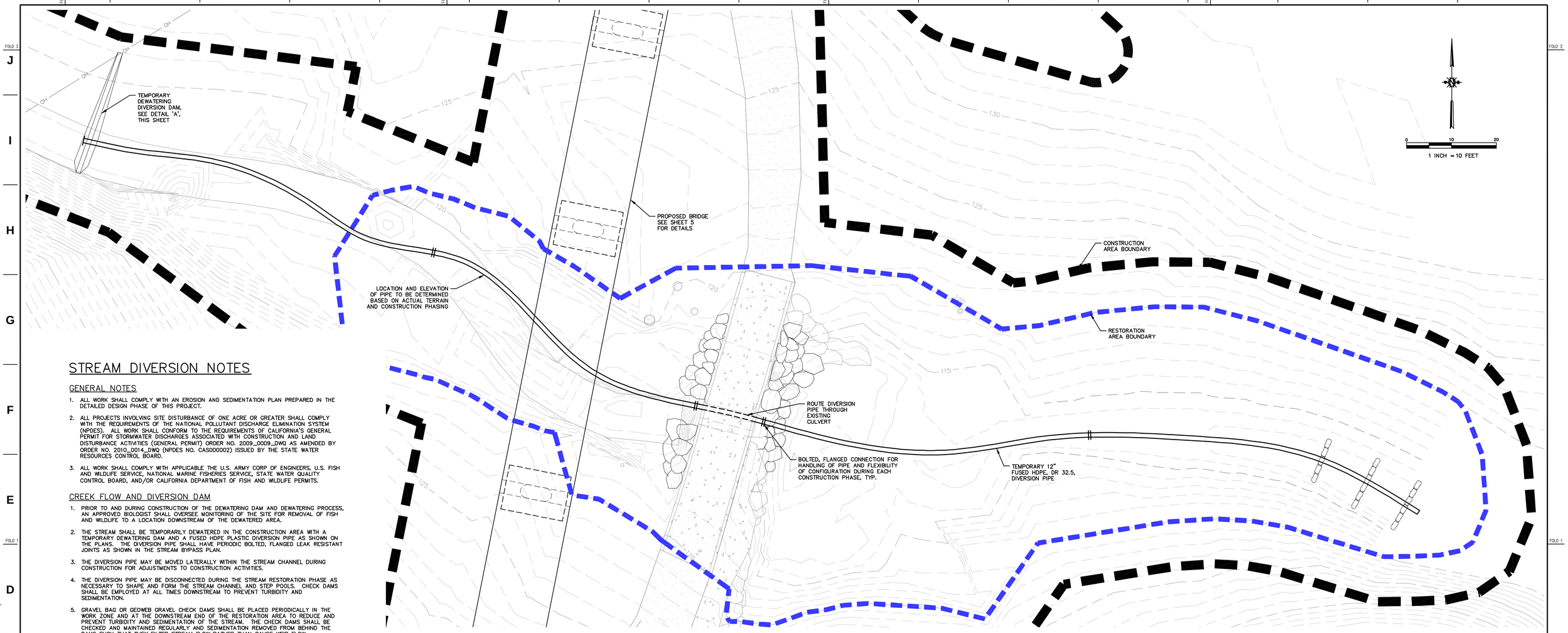


PLAN

STREAM DIVERSION NOTES

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH AN EROSION AND SEDIMENTATION PLAN PREPARED IN THE DETAILED DESIGN PHASE OF THIS PROJECT.
2. ALL PROJECTS INVOLVING SITE DISTURBANCE OF ONE ACRE OR GREATER SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF CALIFORNIA'S GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION AND LAND DISTURBANCE ACTIVITIES (GENERAL PERMIT) ORDER NO. 2009_0009_DWQ AS AMENDED BY ORDER NO. 2010_0014_DWQ (NPDES NO. CAS000002) ISSUED BY THE STATE WATER RESOURCES CONTROL BOARD.
3. ALL WORK SHALL COMPLY WITH APPLICABLE THE U.S. ARMY CORP OF ENGINEERS, U.S. FISH AND WILDLIFE SERVICE, NATIONAL MARINE FISHERIES SERVICE, STATE WATER QUALITY CONTROL BOARD, AND/OR CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE PERMITS.

CREEK FLOW AND DIVERSION DAM

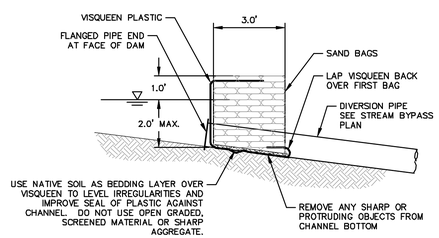
1. PRIOR TO AND DURING CONSTRUCTION OF THE DEWATERING DAM AND DEWATERING PROCESS, AN APPROVED BIOLOGIST SHALL OVERSEE MONITORING OF THE SITE FOR REMOVAL OF FISH AND WILDLIFE TO A LOCATION DOWNSTREAM OF THE DEWATERED AREA.
2. THE STREAM SHALL BE TEMPORARILY DEWATERED IN THE CONSTRUCTION AREA WITH A TEMPORARY DEWATERING DAM AND A FUSED HDPE PLASTIC DIVERSION PIPE AS SHOWN ON THE PLANS. THE DIVERSION PIPE SHALL HAVE PERIODIC BOLTED, FLANGED LEAK RESISTANT JOINTS AS SHOWN IN THE STREAM BYPASS PLAN.
3. THE DIVERSION PIPE MAY BE MOVED LATERALLY WITHIN THE STREAM CHANNEL DURING CONSTRUCTION FOR ADJUSTMENTS TO CONSTRUCTION ACTIVITIES.
4. THE DIVERSION PIPE MAY BE DISCONNECTED DURING THE STREAM RESTORATION PHASE AS NECESSARY TO SHAPE AND FORM THE STREAM CHANNEL AND STEP POOLS. CHECK DAMS SHALL BE EMPLOYED AT ALL TIMES DOWNSTREAM TO PREVENT TURBIDITY AND SEDIMENTATION.
5. GRAVEL BAG OR GEOWEB GRAVEL CHECK DAMS SHALL BE PLACED PERIODICALLY IN THE WORK ZONE AND AT THE DOWNSTREAM END OF THE RESTORATION AREA TO REDUCE AND PREVENT TURBIDITY AND SEDIMENTATION OF THE STREAM. THE CHECK DAMS SHALL BE CHECKED AND MAINTAINED REGULARLY AND SEDIMENTATION REMOVED FROM BEHIND THE DAMS SUCH THAT THEY FILTER STREAM FLOW RATHER THAN CAUSE WEIR FLOW.
6. GRAVEL USED FOR CHECK DAMS SHALL BE CLEAN AND FREE FROM CONTAMINATES.

DIVERSION INTAKE REMOVAL PLAN

1. CONTRACTOR SHALL REMOVE ANY BUILDUP OF BEDLOAD IN FRONT OF THE DIVERSION DAM AND CHECK DAMS PRIOR TO REMOVAL.
2. THE DIVERSION DAM SHALL BE REMOVED FOLLOWING CONSTRUCTION. THE CONTRACTOR SHALL EMPLOY MEANS AND METHODS SUITABLE FOR REDUCING SEDIMENTATION OF WATER.

DEWATERING/DIVERSION MONITORING

1. AT THE END OF CONSTRUCTION, THE PERMITTEE SHALL SUBMIT A MONITORING AND MAINTENANCE REPORT. THE REPORT MUST INCLUDE:
   - 1.1. TIME, DATE AND LOCATION OF DEWATERING/DIVERSION AND LOCATION OF DISCHARGE(S);
   - 1.2. SUMMARY OF DAILY VISUAL MONITORING AND SETTLEABLE SOLIDS OR TURBIDITY MONITORING DATA;
   - 1.3. ESTIMATED VOLUME OF FLOW AND ANY INCREASE IN FLOW;
   - 1.4. PHOTOGRAPHS;
   - 1.5. MAPS;
   - 1.6. IF MONITORING RESULTS INDICATE NONCOMPLIANCE WITH CRITERIA DESCRIBED BELOW, THEN FOLLOW-UP SAMPLING OF RECEIVING WATER MUST BE IMPLEMENTED AND REPORTS SHALL INCLUDE CORRECTIVE ACTIONS TO PREVENT EROSION AND SEDIMENT RUNOFF AND CORRESPONDING SCHEDULE FOR IMPLEMENTATION.
2. CONDUCT DAILY MONITORING AND RECORD KEEPING DOCUMENTATION OF THE DEWATERING/DIVERSION ACTIVITIES AND CONTROL MEASURES USED IN THE PROCESS.
   - 2.1. THE MONITORING MUST DOCUMENT ANY OBSERVED INCREASE IN CHANNEL FLOW, THE ESTIMATED FLOW QUANTITY, AND THE VISIBLE WATER CHARACTERISTICS (e.g., VISIBLE TURBIDITY, SEDIMENTATION, AND/OR EROSION) DURING ACTIVE CONSTRUCTION.
   - 2.2. IF MONITORING RESULTS INDICATE FURTHER RUN-OFF OR EROSION OF SEDIMENTS, SITE PERSONNEL SHALL TAKE IMMEDIATE ACTION TO PREVENT ADVERSE IMPACTS TO THE WATER BODY AND NOTIFY THE WATER BOARD BY TELEPHONE/FAX AS SOON AS PRACTICAL, BUT NO LATER THAN WITHIN 24 HOURS.
3. PRIOR TO IMPLEMENTING THE DEWATERING/DIVERSION PLAN, THE MONITOR SHALL TAKE 3 SAMPLES FOR TURBIDITY THROUGHOUT THE DAY AND AVERAGE THE RESULTS.
4. A SECOND TURBIDITY SAMPLE SHALL BE TAKEN MIDWAY THROUGH ACTIVE CONSTRUCTION AT



DIVERSION DAM DETAIL (A)
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CERTIFIED PROFESSIONAL ENGINEER JOHN W. EDWARDS CIVIL STATE OF CALIFORNIA
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HYLA CROSSING PROJECT
ARROYO GRANDE FIELD
STREAM BYPASS PLAN
PERMITTING EXHIBITS

Freeport-McMoRan OIL & GAS
CALIFORNIA ONSHORE

DWG NO:	SHT:	REV. NO.	SCALE:
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ARCH D (36"x24")

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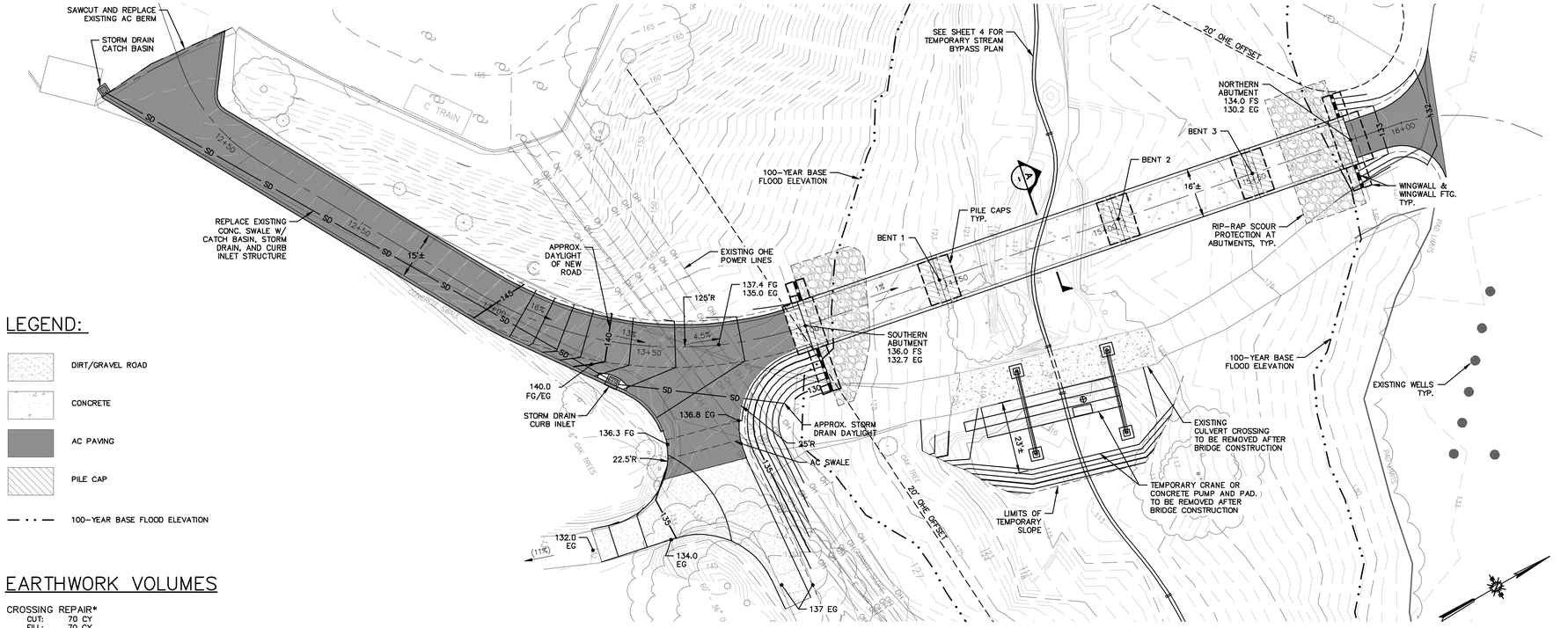

HYLA BRIDGE – PLAN VIEW

LEGEND:

- DIRT/GRAVEL ROAD
- CONCRETE
- AC PAVING
- PILE CAP
- 100-YEAR BASE FLOOD ELEVATION

EARTHWORK VOLUMES

CROSSING REPAIR*
CUT: 70 CY
FILL: 70 CY
TOTAL: 140 CY

BRIDGE PROJECT & STREAM RESTORATION*
CUT: 570 CY
FILL: 1150 CY
TOTAL: 1720 CY

TOTAL*
CUT: 640 CY
FILL: 1220 CY
TOTAL: 1860 CY

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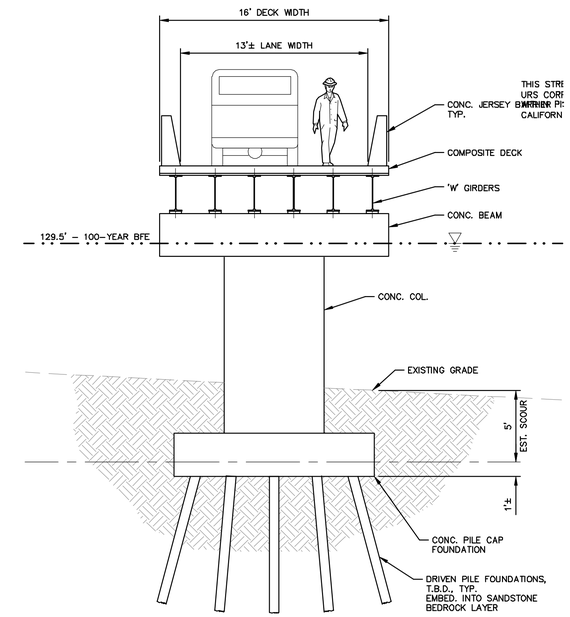
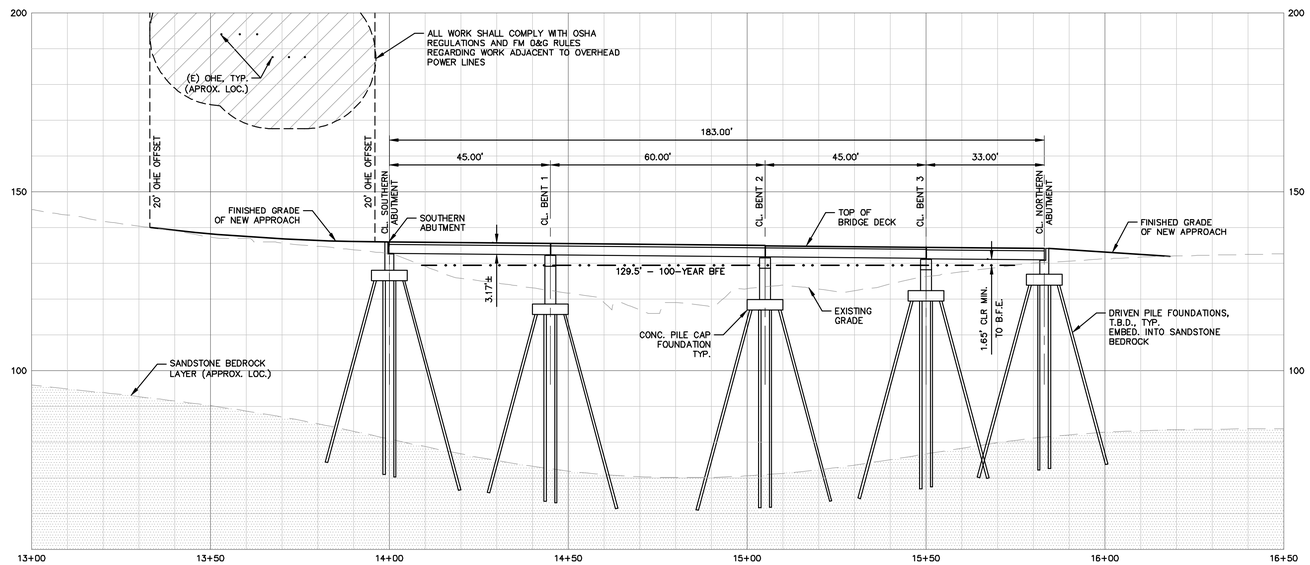


TYPICAL BRIDGE SECTION (A)
N.T.S.



HYLA BRIDGE – PROFILE VIEW

SCALE HORIZ 1"=20'; VERT 1"=20'

NUMBER	REFERENCE DRAWINGS/DOCUMENT	REV. NO.	DATE	REVISION	REV. BY	CKD. BY	APP'D	REV. NO.	DATE	REVISION	REV. BY	CKD. BY	APP'D
		B	11/6/13	ISSUED FOR PERMITTING	PM	JME							
		A	11/5/13	PROGRESS PLOT – ISSUED FOR REVIEW	PM	JME							

REGISTERED PROFESSIONAL ENGINEER JOHN W. EDWARDS NO. 71811 CIVIL STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

Cannon
1050 Southwood Drive
San Luis Obispo, CA 93401
P 805.544.7407 F 805.544.3863

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APPROVED:	DATE:		

HYLA CROSSING PROJECT
ARROYO GRANDE FIELD
BRIDGE PLAN & ELEVATIONS
PERMITTING EXHIBITS

Freeport-McMoRan OIL & GAS
CALIFORNIA ONSHORE

DWG NO:	SHT:	REV. NO.	SCALE:
CE130129BP0104	5	B	VARIES

ARCH D (36"x24")

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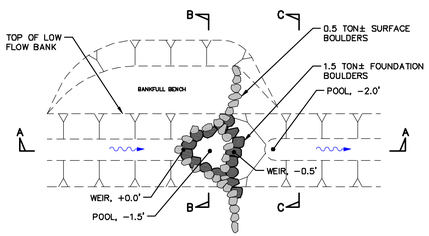
CONSTRUCTION NOTES

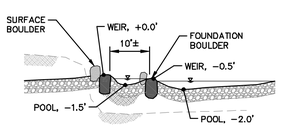
1. SEE DETAIL A, THIS SHEET, FOR TYPICAL CROSS-VANE STEP-POOL STRUCTURE (TYP. 4).
2. REMOVE EXISTING PAVING AND DISPOSE OFF-SITE.
3. STUMPS TO REMAIN AS DETERMINED BY BIOLOGIST AT TIME OF RESTORATION WORK (TYP. 3).
4. INSTALL BANKFULL BENCH PER DETAIL A, THIS SHEET.
5. APPROXIMATE LIMITS OF STREAM RESTORATION.
6. REMOVE EXISTING ARIZONA CROSSING CONCRETE AND CULVERTS.
7. REMOVE EXISTING RIP-RAP, TYP. REUSE ROCK AS DIRECTED BY BIOLOGIST.
8. STOCKPILE CUT STREAMBED AND STREAMBANK SOIL SEPARATELY FOR REUSE AS SUBGRADE FILL MATERIAL.
9. REUSE LARGE ROCK USED FOR TEMPORARY CROSSING REPAIR FOR CONSTRUCTION OF CROSS-VANE STEP POOLS.
10. SEE SHEET 4 FOR BRIDGE PLAN.
11. LIMITS OF CONSTRUCTION. SEE SITE PLAN ON SHEET 2 FOR FULL EXTENTS. EXCLUSIONARY CONSTRUCTION FENCE TO BE INSTALLED ALONG THIS BOUNDARY.
12. PILE CAP TO BE BURIED BELOW GRADE FOR SCOUR PROTECTION. MATCH EXISTING GRADE.
13. PLANTINGS WITHIN STREAM RESTORATION AREA PER OTHERS.
14. INSTALL A SERIES OF GRAVEL BAG CHECK DAMS PER CASQA STANDARD SE-4 TO PREVENT SEDIMENTATION OF DOWNSTREAM WATERS. HEIGHT AND SPACING TO BE DETERMINED IN FIELD BASED ON TERRAIN AND FLOW LEVEL OF STREAM.

GENERAL NOTES

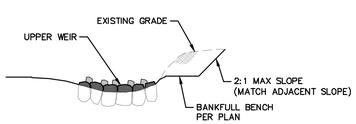
THIS STREAM RESTORATION PLAN IS BASED ON THE TECHNICAL MEMORANDUM BY URS CORPORATION ENTITLED, "CONCEPTUAL DESIGN FOR CHANNEL RESTORATION WITHIN PISMO CREEK AT THE HYLA CROSSING, SAN LUIS OBISPO COUNTY, CALIFORNIA," DATED JUNE 24, 2013.



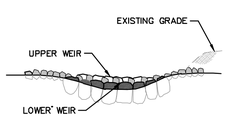
PLAN VIEW



SECTION A – PROFILE VIEW



SECTION B – UPPER POOL



SECTION C – LOWER POOL

CROSS VANE STEP-POOL DETAIL (A)

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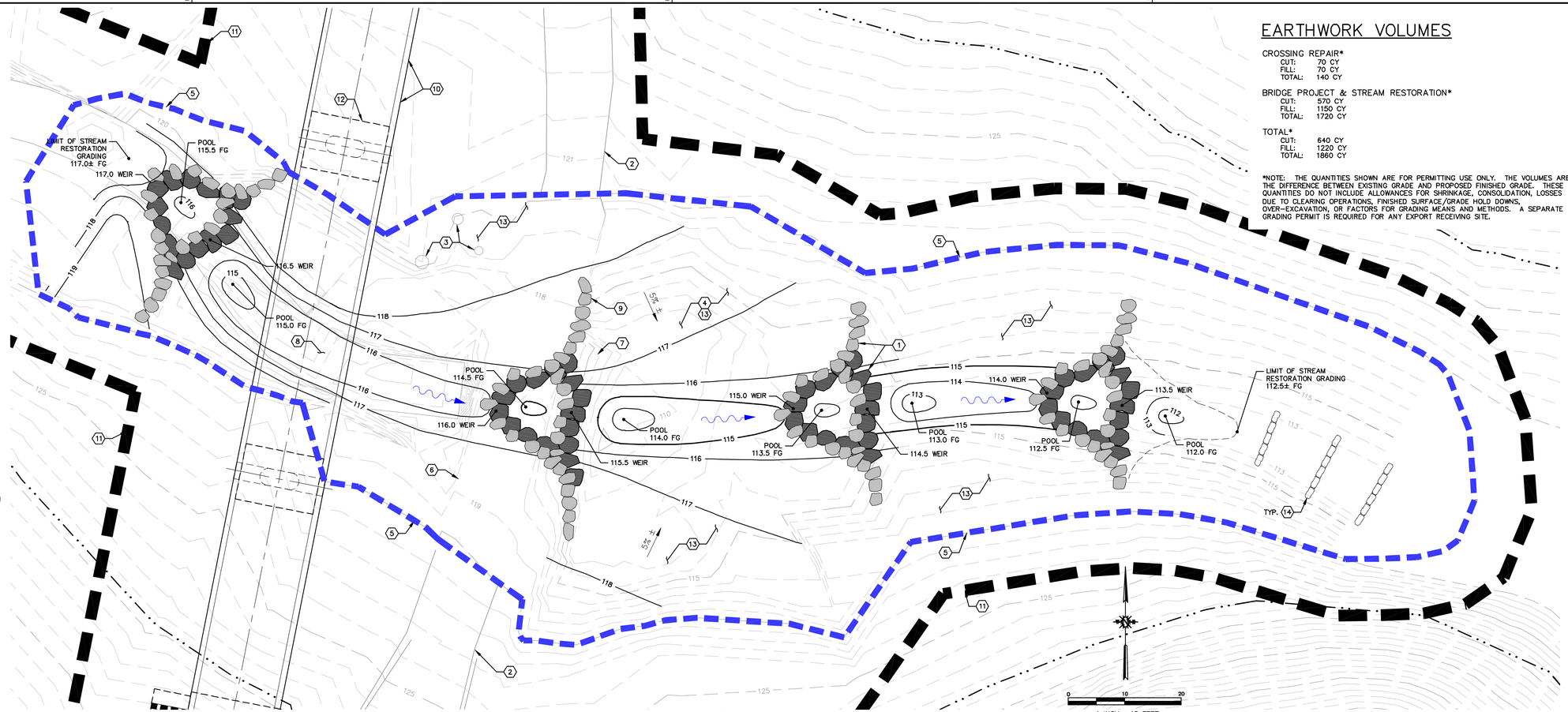
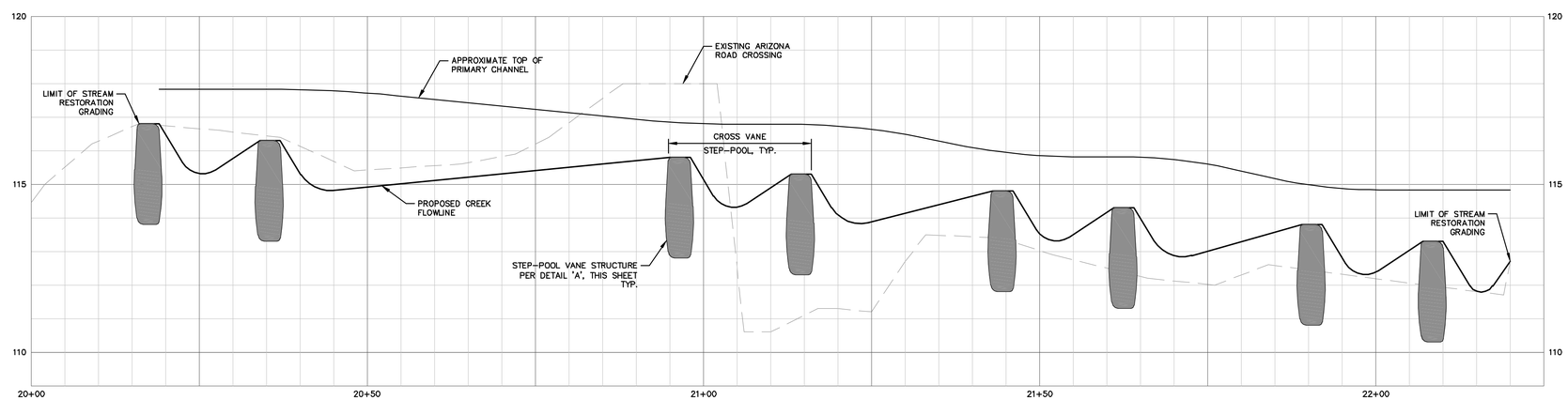


PLAN



PROFILE VIEW

SCALE HORIZ 1"=10'; VERT 1"=5'

EARTHWORK VOLUMES

CROSSING REPAIR*
CUT: 70 CY
FILL: 70 CY
TOTAL: 140 CY

BRIDGE PROJECT & STREAM RESTORATION*
CUT: 570 CY
FILL: 1150 CY
TOTAL: 1720 CY

TOTAL*
CUT: 640 CY
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TOTAL: 1860 CY

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HYLA CROSSING PROJECT
ARROYO GRANDE FIELD
STREAM RESTORATION PLAN
PERMITTING EXHIBITS

Freeport-McMoRan OIL & GAS
CALIFORNIA ONSHORE

DWG NO:	SHT:	REV. NO.	SCALE:
CE130129SR0106	6	B	VARIES

ARCH D (36"x24")

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GRADING SPECIFICATIONS

1. A SOILS INVESTIGATION HAS BEEN PERFORMED FOR THIS SITE, AND A FEASIBILITY REPORT AS BEEN WRITTEN ENTITLED, "GEOTECHNICAL ENGINEERING FEASIBILITY REPORT, FREEPORT-MCMORAN OIL & GAS, HYLA VEHICULAR BRIDGE OVER PISMO CREEK, 1821 PRICE CANYON ROAD, SAN LUIS OBISPO COUNTY, CA," DATED OCTOBER 31, 2013 BY EARTH SYSTEMS PACIFIC. A SOILS REPORT IS NOT YET AVAILABLE. ALL GRADING SHALL CONFORM TO THE 2013 CALIFORNIA BUILDING CODE AND THE SAN LUIS OBISPO COUNTY LAND USE ORDINANCE. FINAL PLANS SHALL BE BASED ON THE RECOMMENDATIONS OF AND BE REVIEWED BY THE GEOTECHNICAL ENGINEER. THE PROJECT SOILS REPORT SHALL BE SUBMITTED FOR REVIEW AND ACCEPTANCE WITH THE CONSTRUCTION PERMIT PLANS.

2. THIS PROJECT IS LOCATED IN AN AREA KNOWN FOR SHALLOW GROUNDWATER AND SOFT, YIELDING SOIL CONDITIONS REQUIRING SUBSURFACE STABILIZATION. IF THESE CONDITIONS ARE ENCOUNTERED DURING GRADING, THE CONTRACTOR SHALL CONTACT THE GEOTECHNICAL ENGINEER.

3. AREAS TO BE GRADED SHALL BE CLEARED OF ALL VEGETATION, INCLUDING ROOTS, OVERSIZED ROCKS, PAVEMENT, AND OTHER OBJECTIONABLE MATERIAL UNSUITABLE FOR STRUCTURAL FILL.

4. ALL UNSUITABLE SOIL MATERIAL, RUBBISH, AND DEBRIS RESULTING FROM GRADING OPERATIONS SHALL BE REMOVED FROM THE JOB SITE AND DISPOSED.

5. PRIOR TO PLACEMENT OF FILL MATERIAL, THE PREPARED AREA SHALL BE INSPECTED AND APPROVED BY THE ENGINEER OF RECORD AND THE GEOTECHNICAL ENGINEER.

6. OVEREXCAVATION AND RECOMPACTION SHALL BE PERFORMED UNDER THE OBSERVATION OF THE GEOTECHNICAL ENGINEER.

7. SURFACE DRAINAGE SHALL NOT BE LESS THAN 2% FOR NON-PAVED SURFACES UNLESS OTHERWISE NOTED ON THE PLANS. POSTIVE DRAINAGE SHALL BE MAINTAINED AWAY FROM ALL STRUCTURES AND SLOPES.

8. FOR FILL MATERIAL PLACED ON SLOPES STEEPER THAN 5H:1V, THE FILL SHALL BE KEYED AND BENCHED INTO THE SLOPE. THE BENCH KEY SHALL BE CENTERED ON THE TOE OF SLOPE AND EXTEND A MINIMUM OF 2 FEET BELOW EXISTING GROUND SURFACE OR FINISHED GRADE, WHICHEVER IS DEEPER, OR INTO RELATIVELY FIRM MATERIAL AS APPROVED BY THE GEOTECHNICAL ENGINEER. THE BENCH KEY SHALL BE AT LEAST 10 FEET WIDE AND SLOPED AT 2 PERCENT INTO THE HILLSIDE. THE KEYING AND BENCHING SHALL REMOVE THE UPPER 2 FEET OF THE EXISTING SOILS OR EXTEND INTO FIRM BEDROCK. THE SLOPES BETWEEN BENCHES SHALL NOT EXCEED 1.5(H):1(V). FILL SHALL NOT BE PLACED ON EXISTING SLOPES STEEPER THAN 2H:1V.

9. OVER-EXCAVATION AND RECOMPACTION SHALL BE PERFORMED UNDER THE OBSERVATION OF THE GEOTECHNICAL ENGINEER.

10. THE GEOTECHNICAL ENGINEER SHALL REVIEW THE BOTTOM OF EXCAVATIONS PRIOR TO PLACING FILL MATERIALS TO EVALUATE WHETHER OR NOT UNSUITABLE MATERIAL, EXISTING FILL, AND LOOSE DEPOSITS HAVE BEEN REMOVED AND THAT THE BASE OF THE EXCAVATION IS SUITABLE FOR PLACING COMPACTED FILL. THE GEOTECHNICAL ENGINEER MAY REQUIRE THE EXCAVATION TO BE DEEPENED IF LOOSE OR UNSUITABLE MATERIALS ARE ENCOUNTERED.

11. COMPACTION OF FILLS SHALL BE TESTED ACCORDING TO THE LATEST APPROVED EDITION OF ASTM TEST METHOD D 1557. ALL TESTS MUST BE MADE WITHIN 15 DAYS OF THE PLACING OF MATERIAL. THE TESTS SHALL CLEARLY INDICATE THE LOCATION AND SOURCE OF THE MATERIAL.

12. COMPACTION TESTS SHALL BE MADE ON SUBGRADE MATERIAL AND MATERIAL AS SPECIFIED BY THE ENGINEER. TESTS SHALL BE MADE AND PASSED PRIOR TO THE PLACING OF THE NEXT MATERIAL FILLLIFT.

13. FILL SHALL BE PLACED WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT OF THE SOIL. EACH LIFT SHALL BE SPREAD EVENLY AND BLADE-MIXED TO PROVIDE UNIFORMITY OF THE FILL MATERIAL. MATERIAL PLACED OUTSIDE OF THIS RANGE SHALL BE RE-MOISTENED AND BLADED AND MIXED OR AERATED UNTIL THE MOISTURE CONTENT IS WITHIN THE SPECIFIED RANGE. SOFT OR YIELDING MATERIALS SHALL BE REMOVED AND REPLACED WITH PROPERLY COMPACTED FILL MATERIAL PRIOR TO PLACING THE NEXT LIFT. PONDING OR JETTING IS NOT PERMITTED. FILL MATERIALS SHALL BE MECHANICALLY COMPACTED.

14. ANY ROCKS OR DEBRIS LARGER THAN 3 INCHES IN DIAMETER SHALL BE REMOVED FROM THE FILL MATERIAL.

15. FILL SHALL BE PLACED IN LIFTS NO GREATER THAN APPROXIMATELY 8 INCHES IN UNCOMPACTED THICKNESS. MATERIAL SHALL BE PLACED IN THINNER LIFTS AS NECESSARY TO ACHIEVE THE SPECIFIED RELATIVE COMPACTION WITH THE EQUIPMENT BEING USED.

16. FINISHED CUT AND FILL SLOPES SHALL BE GRADED AT INCLINATIONS NO GREATER THAN 2H:1V UNLESS NOTED OTHERWISE.

17. IF AREAS OF WET OR YIELDING SOIL ARE ENCOUNTERED THAT PREVENT COMPACTION OF THE SUBGRADE, THE AREA SHALL BE STABILIZED WITH GRAVEL PRIOR TO PLACING COMPACTED FILL. PRIOR TO PLACING FILL OVER A WET SUBGRADE, THE BASE OF THE EXCAVATION SHALL BE COVERED WITH A LAYER OF FILTER FABRIC AND AT LEAST 1 FOOT OF GRAVEL. THE GRAVEL FOR SUBGRADE STABILIZATION SHALL CONSIST OF OPEN-GRADED MATERIAL CONFORMING TO THE SPECIFICATIONS HEREIN AND BE FULLY ENCASED IN A FILTER FABRIC. THE ENGINEER MAY REQUIRE THAT THE GRAVEL BE TIED INTO A DRAIN SYSTEM. COMPACTED FILL CAN THEN BE PLACED TO FINISHED GRADE ACCORDING TO THE SPECIFICATIONS. APPLICATION OF THIS REQUIREMENT IS SUBJECT TO REVIEW AND APPROVAL OF THE GEOTECHNICAL ENGINEER.

18. ANY AREA THAT WILL RECEIVE FILL SHALL BE REMOVED TO A DEPTH OF 1 FOOT, SCARIFIED TO A DEPTH OF 9 INCHES, MOISTURE CONDITIONED AS NECESSARY, AND COMPACTED IN-PLACE TO AT LEAST 90% RELATIVE COMPACTION. COMPACTED FILL MAY THEN BE PLACED TO FINISHED GRADE ACCORDING TO THE SPECIFICATIONS.

19. SLOPE CONSTRUCTION REQUIREMENTS, INCLUDING BENCHING, SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION OF GRADED SLOPES.

20. ALL CUT AND FILL SLOPES SHALL BE HYDROSEEDED UPON COMPLETION OF GRADING. SLOPES WITHIN THE STREAM RESTORATION AREA SHALL BE PLANTED PER PLANS BY OTHERS. IRRIGATION MAY BE NECESSARY TO ACHIEVE DENSE AND GROWING VEGETATION PRIOR TO FINAL INSPECTION. A BOND MAY BE REQUIRED IF THE WEATHER IS INAPPROPRIATE FOR HYDROSEEDING. ALL SLOPES OVER 3 FEET TALL SHALL BE PLANTED WITH PERENNIAL VEGETATION APPROVED BY THE COUNTY AND SHALL BE DENSE AND GROWING PRIOR TO FINAL INSPECTION.

21. THE CONTRACTOR SHALL EMPLOY ALL LABOR, EQUIPMENT, AND METHODS REQUIRED TO PREVENT HIS OPERATIONS FROM PRODUCING DUST DAMAGING TO PROPERTY, CULTIVATED VEGETATION, DOMESTIC ANIMALS, OR CAUSING A NUISANCE TO PERSONS IN THE VICINITY OF THE JOB SITE. THE GRADING PERMIT HOLDER AND THE OWNER SHALL COMPLY WITH THE DUST CONTROL MEASURES REQUIRED BY THE AIR POLLUTION CONTROL DISTRICT (APCD) AND THE BUILDING OFFICIAL. DUST ABATEMENT MEASURES SHALL BE CONTINUED UNTIL PERMISSION TO CEASE SUCH MEASURES IS GRANTED BY THE GRADING INSPECTOR.

22. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR PROTECTION OF PUBLIC AND PRIVATE PROPERTY ADJACENT TO THE SITE FROM HIS OPERATIONS AND SHALL, AT HIS EXPENSE, REPAIR OR REPLACE, TO ORIGINAL CONDITION, ALL PROPERTY WITHIN OR NEAR THE JOB SITE WHICH IS NOT DESIGNATED FOR REMOVAL, BUT WHICH IS DAMAGED OR REMOVED AS A RESULT OF HIS OPERATIONS.

23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MARKERS DURING CONSTRUCTION. ALL SUCH MONUMENTS OR MARKERS DISTURBED SHALL BE RESET AT THE CONTRACTOR'S EXPENSE.

24. ANY TEMPORARY STOCKPILES OF EARTH SHALL BE APPROVED BY THE COUNTY, SHALL BE COVERED AND BERMED, SHALL NOT OBSTRUCT DRAINAGE OR CREATE BLOWING DUST, AND SHALL BE INCLUDED IN THE PROJECT SWPPP.

25. NO OFFSITE GRADING OR OTHER CONSTRUCTION WORK IS INCLUDED WITH THESE PLANS.

EARTHWORK VOLUMES

CROSSING REPAIR*
- CUT: 70 CY
- FILL: 70 CY
- TOTAL: 140 CY

BRIDGE PROJECT & STREAM RESTORATION*
- CUT: 570 CY
- FILL: 1150 CY
- TOTAL: 1720 CY

TOTAL*
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IMPROVEMENT NOTES

1. NO CONSTRUCTION SHALL BE STARTED WITHOUT PLANS APPROVED BY THE COUNTY. THE COUNTY SHALL BE NOTIFIED AT LEAST 24 HOURS PRIOR TO STARTING OF CONSTRUCTION AND OF THE TIME AND LOCATION OF THE PRE-CONSTRUCTION MEETING. ANY CONSTRUCTION DONE WITHOUT APPROVED PLANS OR PRIOR TO NOTIFICATION TO THE COUNTY WILL BE REJECTED AND WILL BE AT THE CONTRACTOR'S AND/OR OWNER'S RISK.

2. A LICENSED CIVIL ENGINEER MUST CERTIFY THAT THE IMPROVEMENTS, WHEN COMPLETED, ARE IN ACCORDANCE WITH THE PLANS PRIOR TO THE REQUEST FOR A FINAL INSPECTION. AS-BUILT PLANS ARE TO BE PREPARED AFTER CONSTRUCTION IS COMPLETED. THE CIVIL ENGINEER CERTIFYING THE IMPROVEMENTS AND PREPARING AS-BUILT PLANS WILL BE PRESENT WHEN THE FINAL INSPECTION IS MADE.

3. AN INSPECTION AGREEMENT IS REQUIRED PRIOR TO THE START OF CONSTRUCTION.

4. ALL UTILITY COMPANIES MUST BE NOTIFIED PRIOR TO THE START OF CONSTRUCTION.

5. A COUNTY ENCROACHMENT PERMIT IS REQUIRED FOR ANY WORK DONE WITHIN THE COUNTY ROAD EASEMENT. THE ENCROACHMENT PERMIT MAY ESTABLISH ADDITIONAL TRAFFIC CONTROL REQUIREMENTS.

6. THE COUNTY INSPECTOR MAY REQUIRE REVISIONS IN THE PLANS TO SOLVE UNFORESEEN PROBLEMS THAT MAY ARISE IN THE FIELD. ALL REVISIONS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

7. IF ENVIRONMENTAL PERMITS FROM THE U.S. ARMY CORPS OF ENGINEERS, THE CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD/STATE WATER RESOURCES CONTROL BOARD, OR THE CALIFORNIA DEPARTMENT OF FISH & WILDLIFE ARE REQUIRED, THE OWNER SHALL:
   A. SUBMIT A COPY OF ALL SUCH COMPLETED PERMITS TO THE DEPARTMENT OF PLANNING AND BUILDING OR
   B. DOCUMENT THAT THE REGULATORY AGENCIES DETERMINED THAT THE SUCH PERMITS ARE NOT REQUIRED;
   ANY MITIGATION MONITORING REQUIRED BY SUCH PERMITS WILL REMAIN THE RESPONSIBILITY OF THE OWNER.

8. APPROXIMATE AREA OF DISTURBANCE = 0.8 ACRES

9. ALL PROJECTS INVOLVING SITE DISTURBANCE OF ONE ACRE OR GREATER SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). THE OWNER SHALL SUBMIT A NOTICE OF INTENT (NOI) TO COMPLY WITH THE GENERAL PERMIT FOR CONSTRUCTION ACTIVITY WITH THE REGIONAL WATER QUALITY CONTROL BOARD (RWQCB). THE OWNER SHALL PROVIDE THE COUNTY WITH THE WASTE DISCHARGE IDENTIFICATION NUMBER (WDID #) OR WITH VERIFICATION THAT AN EXEMPTION HAS BEEN GRANTED BY THE RWQCB.

   WDID#: TBD

10. PERSON TO CONTACT 24 HOURS A DAY IN THE EVENT THERE IS AN EROSION CONTROL/SEDIMENTATION PROBLEM (STORM WATER COMPLIANCE OFFICER)
    NAME: RUTH JURIS
    PHONE NUMBER: (805) 934-8215

UTILITY NOTES

1. MATERIAL REQUIREMENTS FOR BEDDING MATERIAL, PIPE ZONE MATERIAL AND TRENCH BACKFILL SHALL BE ACCORDING THE SPECIFICATIONS IN THESE PLANS.

2. BEDDING, PIPE ZONE, AND TRENCH BACKFILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION UNLESS A HIGHER DEGREE OF COMPACTION IS REQUIRED FOR THE AREA WHERE THE MATERIAL IS BEING PLACED. WHERE THE PIPES OR UTILITIES ARE TO BE CONSTRUCTED BELOW STRUCTURES OR WITHIN BUILDING AREAS, THE BEDDING, PIPE ZONE, AND TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.

3. UTILITY PIPES SHALL BE PLACED ON PROPERLY PREPARED BEDDING, BEDDING IS SELECT FILL MATERIAL PLACED BETWEEN THE TRENCH SUBGRADE AND THE BOTTOM OF THE PIPE. WHERE SOILS EXPOSED AT THE BOTTOM OF THE UTILITY TRENCHES ARE SOFT AND YIELDING, THE FOUNDATION SHALL BE STABILIZED OR BE REMOVED AND REPLACED WITH PROPERLY COMPACTED SOIL PRIOR TO PLACING THE PIPE. GRAVEL BEDDING CAN BE USED IN LIEU OF SAND BEDDING TO ASSIST IN STABILIZING THE SUBGRADE, IF NEEDED. AT LEAST 4 INCHES OF BEDDING MATERIAL SHALL BE PROVIDED BELOW THE PIPE. OPEN GRADED MATERIALS, SUCH AS PEA GRAVEL, SHALL BE ENCASED IN FILTER FABRIC.

4. UNDERGROUND UTILITIES ON THESE PLANS SHOULD NOT ENCOUNTER WET OR YIELDING CONDITIONS. IF THE CONTRACTOR ENCOUNTERS THESE CONDITIONS, THE BOTTOM OF TRENCH SHALL BE STABILIZED WITH AT LEAST 12 INCHES OF GRAVEL ENCASED IN FILTER FABRIC BELOW THE PIPE. THE ACTUAL LIMITS AND NEED FOR SUBGRADE STABILIZATION SHALL BE EVALUATED BASED ON THE CONDITIONS ENCOUNTERED DURING CONSTRUCTION. THE THICKNESS AND EXTENTS OF GRAVEL STABILIZATION MAY BE VARIED OR OMITTED AT THE CONSULTATION OF THE GEOTECHNICAL ENGINEER.

5. PIPE ZONE MATERIAL IS SELECT FILL MATERIAL PLACED BETWEEN THE TOP OF THE BEDDING AND AT LEAST 6 INCHES ABOVE THE TOP OF THE PIPE AND TO AT LEAST 9 INCHES BEYOND THE SPRINGLINE OF THE PIPE. COMPACTION WITHIN THE PIPE ZONE SHALL BE PERFORMED SUCH THAT THE PIPE IS FULLY SUPPORTED DURING COMPACTION, AND SUCH THAT EXCESSIVE DEFORMATION TO THE PIPE OR PIPE JOINT OR DAMAGE TO THE PIPE DOES NOT OCCUR. COMPACTION ABOVE THE SPRINGLINE OR TOP OF PIPE SHALL NOT BE PERFORMED UNTIL THE FILL PLACED BELOW THAT ELEVATION HAS BEEN PROPERLY COMPACTED.

6. TRENCH BACKFILL IS SELECT FILL MATERIAL PLACED ABOVE THE PIPE ZONE AND FINISHED GRADE OR THE BASE OF OTHER SPECIFIED BACKFILL MATERIALS (SUCH AS PAVEMENT STRUCTURAL SECTIONS). TRENCH BACKFILL CAN CONSIST OF EITHER ON-SITE OR IMPORTED FILL MATERIAL THAT COMPLIES WITH THE SPECIFICATIONS OF THESE PLANS.

7. EXISTING UTILITIES ARE PRESENT WITHIN THE PLANNED IMPROVEMENT AREAS. EXISTING UTILITIES IN BUILDING OR STRUCTURE AREAS SHOULD BE REMOVED, RELOCATED, AND/OR ABANDONED AS PART OF OR PRIOR TO SITE CLEARING AND GRUBBING. UTILITIES PRESENT BELOW THE EXCAVATION FOR BUILDINGS OR STRUCTURES SHOULD BE REMOVED AND REPLACED WITH COMPACTED FILL. IF A UTILITY IS NOT ENTIRELY REMOVED, IT SHALL BE FILLED WITH EITHER SAND-CEMENT SLURRY OR CONCRETE AND BACKFILLED AS ABOVE.

8. IF ANY PROVISION OF PIPE MANUFACTURER'S INSTALLATION INSTRUCTIONS VARY FROM THESE SPECIFICATIONS, THE MOST RESTRICTIVE REQUIREMENT SHALL APPLY.

MATERIAL SPECIFICATIONS

ALL MATERIAL CUT FROM THE STREAM CHANNEL SHALL BE STOCKPILED SEPARATELY FOR USE IN BACKFILL WITHIN THE STREAM CHANNEL, STREAM RESTORATION FILL, AND CHANNEL LINING.

2.1 AGGREGATE BASE SHALL CONSIST OF IMPORTED MATERIAL CONFORMING TO CALTRANS STANDARD SPECIFICATIONS FOR CLASS 2 AGGREGATE BASE, SECTION 26-1.02A. CLASS 3 MATERIAL THAT INCORPORATES RECLAIMED OR RECYCLED MATERIALS CAN ALSO BE USED AS AGGREGATE BASE PROVIDED THE CLASS 3 MATERIAL COMPLIES WITH THE GRADATION AND QUALITY REQUIREMENTS FOR CLASS 2 MATERIAL. AGGREGATE BASE MAY NOT BE PLACED IN THE STREAM CHANNEL WITHOUT APPROVAL OF THE PROJECT BIOLOGIST.

2.2 COMPACTED FILL MATERIAL SHALL CONSIST OF ON-SITE OR IMPORTED MATERIALS THAT ARE FREE OF ORGANICS, ROCKS GREATER THAN 3 INCHES, TRASH, DEBRIS, CORROSIVE AND OTHER DELETERIOUS MATERIAL. IMPORTED FILL SHALL BE REVIEWED BY THE GEOTECHNICAL ENGINEER PRIOR TO BEING BROUGHT TO THE SITE; HOWEVER, IMPORTED FILL MATERIALS SHALL COMPLY WITH ALL SPECIFICATIONS FOR MATERIAL PLACED AT THE SITE. ON-SITE SOIL OR IMPORTED MATERIALS TO BE USED AS THE COMPACTED FILL SHALL HAVE AT LEAST 75 PERCENT MATERIAL PASSING THE U.S. STANDARD NO. 4 SIEVE AND AN EXPANSION INDEX OF NO MORE THAN 20 AS DETERMINED BY ASTM D2428. COMPACTED FILL TO BE PLACED WITHIN 3 FEET OF THE GRADING PLANE (BOTTOM OF THE PAVEMENT STRUCTURAL SECTION) SHALL HAVE AN R-VALUE OF AT LEAST 50 AS DETERMINED BY ASTM D2844.

2.3 FILTER FABRIC SHALL CONSIST OF NON-WOVEN GEOTEXTILE THAT CONFORMS TO THE REQUIREMENTS OUTLINED IN THE CALTRANS STANDARD SPECIFICATIONS FOR FILTER FABRIC-UNDERDRAINS, SECTION 88-1.03. FILTER FABRIC SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.

2.4 PIPE BEDDING MATERIAL SHALL CONSIST OF SAND OR GRAVEL BEDDING AND SHALL BE CONSTRUCTED WHERE SHOWN OR SPECIFIED, IN ACCORDANCE WITH THE DETAILS SHOWN ON THE PLANS AND THESE SPECIFICATIONS.

SAND BEDDING SHALL BE IMPORTED MATERIAL FREE FROM CLAY OR ORGANIC MATERIAL, SUITABLE FOR THE PURPOSE INTENDED, AND SHALL HAVE A SAND EQUIVALENT OF AT LEAST 30 AND BE OF SUCH SIZE THAT 90 TO 100 PERCENT WILL PASS A NO. 4 SIEVE AND NOT MORE THAN 5 PERCENT WILL PASS A NO. 200 SIEVE.

2.5 PIPE ZONE MATERIAL SHALL CONSIST OF IMPORTED FREE DRAINING GRANULAR MATERIAL HAVING A SAND EQUIVALENT OF AT LEAST 30, AT LEAST 90 TO 100 PERCENT OF THE MATERIAL PASSING THE U.S. STANDARD NO. 4 SIEVE, AND NOT MORE THAN 5 PERCENT OF THE MATERIAL PASSING THE NO. 200 SIEVE.

2.6 SUBGRADE STABILIZATION MATERIAL (GRAVEL) FOR SUB-GRADE STABILIZATION SHALL CONSIST OF HARD, DURABLE, CRUSHED STONE, AND SHALL BE FREE FROM ORGANIC MATERIAL, CLAY BALLS OR OTHER DELETERIOUS SUBSTANCES. AGGREGATE SHALL HAVE 100 PERCENT FRACTURED FACES, CONFORM TO THE GRADATION REQUIREMENTS FOR CALTRANS SECTION 90-3.02, 1-1/2 INCH BY 3/4 INCH COARSE AGGREGATE GRADING, AND HAVE A DURABILITY INDEX OF NOT LESS THAN 40. SUBGRADE STABILIZATION MATERIAL SHALL BE FULLY ENCASED IN A GEOTEXTILE FOR STABILIZATION TO SEPARATE THE MATERIAL FROM THE NATIVE MATERIALS AND ANY SUBSEQUENT FILL MATERIAL.

2.7 TRENCH BACKFILL SHALL CONSIST OF IMPORTED OR ON-SITE MATERIAL THAT IS FREE OF ORGANICS, DEBRIS, ROCKS GREATER THAN 3 INCHES, AND OTHER DELETERIOUS MATERIAL. TRENCH BACKFILL MATERIAL SHALL HAVE AT LEAST 85 PERCENT OF THE MATERIAL PASSING THE U.S. STANDARD NO. 4 SIEVE, AND/OR COMPLY WITH THE APPLICABLE REQUIREMENTS FOR THE AREA WHERE THE TRENCH BACKFILL IS BEING PLACED (SUCH AS THE PAVEMENT STRUCTURAL SECTION, OR SAND PLACED BELOW FLOOR SLABS.

2.8 STREAM CHANNEL FLOODPLAIN ALLUVIAL MATERIAL SHALL CONSIST OF SAND, GRAVEL, AND COBBLE. WHEN POSSIBLE, THIS MATERIAL SHALL COME FROM STREAM CHANNEL CUT AND EXISTING STREAM CHANNEL MATERIAL STOCKPILED PRIOR TO EACH PHASE OF STREAM RESTORATION. ALL IMPORT MATERIAL SHALL BE APPROVED BY THE PROJECT BIOLOGIST PRIOR TO PLACEMENT.

2.9 STREAM CHANNEL SUBGRADE MATERIAL SHALL CONSIST OF SOIL CUT FROM EXISTING ADJACENT TERRACE DEPOSITS EXCAVATED FOR BANKFULL BENCHES, OR SOURCED FROM SIMILAR MATERIAL CONSISTENT WITH SUBGRADE OF THE STREAM CHANNEL. IMPORT MATERIAL SHALL NOT BE USED UNLESS APPROVED BY THE PROJECT BIOLOGIST.

ENVIRONMENTALLY SENSITIVE AREAS (ESAs)

MUCH OF THE WORK SHOWN IN THESE PLANS OCCURS WITHIN ENVIRONMENTALLY SENSITIVE AREAS (ESA) WHICH ARE MARKED ON THESE PLANS, IN THE FIELD, AND PROJECT BIOLOGICAL REPORTS. NO WORK SHALL OCCUR IN THESE AREAS UNLESS A MITIGATION PLAN HAS BEEN CREATED, SUBMITTED, APPROVED AND SUBSTANTIALLY IMPLEMENTED. THE OWNER'S ENVIRONMENTAL REPRESENTATIVE SHALL VERIFY THAT THE MITIGATION FOR ANY GIVEN AREA HAS BEEN SUFFICIENTLY PERFORMED PRIOR TO COMMENCEMENT OF WORK IN THAT AREA. WORK IN THESE AREAS SHALL BE MONITORED BY AN APPROVED BIOLOGIST AS REQUIRED BY THE PERMITS.

PERMITS TO PERFORM THIS WORK SHALL BE OBTAINED FROM THE AGENCIES WHICH HAVE JURISDICTION, SUCH AS BUT NOT LIMITED TO:

- UNITED STATES ARMY CORPS OF ENGINEERS
- UNITED STATES FISH AND WILDLIFE SERVICE
- NATIONAL MARINE FISHERIES SERVICE
- CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE
- REGIONAL WATER QUALITY CONTROL BOARD

CONSTRUCTION WATER SUPPLY

THERE IS SUFFICIENT WATER FOR COMPLETION OF THIS WORK AVAILABLE FROM ON-SITE SOURCES CONTROLLED BY THE OWNER. THE ON-SITE WATER SYSTEM IS NON-POTABLE AND USED FOR NON-CONTACT PURPOSES ONLY. ALL POTABLE SUPPLIES TO BE PROVIDED BY OFF-SITE BOTTLE WATER.

WATER USED FOR CONSTRUCTION SHALL NOT BE ALLOWED TO RUN INTO THE STREAM CHANNEL OR CREATE RUNOFF, EROSION, OR TURBIDITY.

EMERGENCY AND FIRE RESPONSE ACTION PLAN

THE "ARROYO GRANDE PRODUCTION FACILITIES EMERGENCY RESPONSE ACTION PLAN" IS MAINTAINED IN THE OPERATIONS OFFICE AT THE PROJECT SITE. THIS PLAN IS TO BE CONSIDERED A PART OF THESE PLANS AS THE MINIMUM RESPONSE CRITERIA FOR COORDINATION BY THE CONTRACTOR WITH THE SITE OPERATIONS MANAGER FOR JOB SPECIFIC SAFETY PLANNING. COORDINATION OF CONTRACTOR'S SAFETY PLAN WITH THE SITE OPERATIONS AND SAFETY REQUIREMENTS SHALL BE COMPLETED PRIOR TO AND REPORTED AT THE PRE-CONSTRUCTION MEETING. PARTICIPATION OF THE CONTRACTOR AND KEY SUB-CONTRACTOR REPRESENTATIVES AT A DAILY SIMULTANEOUS OPERATIONS MEETING IS REQUIRED. CONSTRUCTION OPERATIONS SHALL BE COORDINATED WITH SITE OPERATIONS TO MINIMIZE CONFLICTING USES TO THE MAXIMUM EXTTENT POSSIBLE.

CONTAMINATED SOIL

IF ANY CONTAMINATED SOIL IS ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE HANDLED, TESTED, REMOVED, STORED, REUSED, AND/OR DISPOSED OF IN ACCORDANCE WITH THE CONTAMINATED SOIL CONTINGENCY PLAN (CSCP) ENTITLED, "CONTAMINATED SOIL CONTINGENCY PLAN, PXP PRODUCED WATER TREATMENT FACILITY, CONDITIONAL USE PERMIT DRC2005-00252, CONDITIONS OF APPROVAL 26A AND B, (EIR CONDITION HAZ-2A AND 2B) DATED FEB. 26, 2009." THIS PLAN HAS BEEN WRITTEN TO COMPLY WITH THE PROJECT ENVIRONMENTAL IMPACT REPORT AND IS ON FILE AND AVAILABLE AT THE COUNTY OF SAN LUIS OBISPO PLANNING DEPARTMENT.

REGISTERED DESIGN PROFESSIONAL

AS THE OWNER OF RECORD, I DESIGNATE TO THE FOLLOWING PERSON AS MY REGISTERED DESIGN PROFESSIONAL (RDP) FOR THE PROJECT NOTED. I UNDERSTAND THAT THE ARCHITECT/ENGINEER DESIGNATED SHALL BE RESPONSIBLE FOR REVIEWING AND COORDINATING ALL SUBMITTAL DOCUMENTS PREPARED BY OTHERS FOR THE DURATION OF THE PROJECT. I ALSO UNDERSTAND THAT I MUST PROVIDE WRITTEN NOTIFICATIONS TO THE COUNTY OF SAN LUIS OBISPO BUILDING DIVISION IF MY DESIGNEE IS CHANGED

PMT NO.: TBD

PROJECT ADDRESS: 1821 PRICE CANYON RD.

PROJECT/ TENANT NAME: HYLA CROSSING PROJECT
FREEPORT-MCMORAN OIL & GAS

REGISTERED DESIGN PROFESSIONAL NAME: JOHN W. EVANS, SR., PE

ARCHITECTURAL/ENGINEERING FIRM NAME: CANNON

TELEPHONE NUMBER: (805) 544-7407

FAX NUMBER: (805) 544-3863

E-MAIL ADDRESS: JOHNE@CANNONCORP.US

ARCHITECT/ENGINEER'S SIGNATURE: ______________ DATE: ______

OWNER'S NAME: PAUL DELORENZO

TELEPHONE NUMBER: (805) 547-8969 X4911

E-MAIL ADDRESS: PDELORENZO@FMI.COM

FAX NUMBER: (805) 547-8979

OWNER'S SIGNATURE: ________________________ DATE: ______

REPORTING

1. ONGOING SOILS TESTING AND SPECIAL INSPECTION REPORTS SHALL BE PREPARED BY THE GEOTECHNICAL ENGINEER AND SUBMITTED THROUGH THE PROJECT ENGINEER AS RECORD DOCUMENTS.

2. THE ENGINEER OF RECORD SHALL COMPILE IN-PROGRESS REPORTS AND COMPLETE RECORD DOCUMENTS AND SUBMIT TO THE BUILDING OFFICIAL.

3. THE GEOTECHNICAL ENGINEER SHALL CONDUCT AN OBSERVATION AND TESTING PROGRAM TO EVALUATE MASS GRADING PERFORMANCE AND CERTIFY, IN ACCORDANCE WITH THE CALIFORNIA BUSINESS AND PROFESSIONS CODE (BPC) SEC. 6735.5, THAT SAID WORK HAS BEEN COMPLETED IN ACCORDANCE WITH THE SPECIFICATIONS PRIOR TO CONCRETE POUR FOR ALL FOUNDATION ELEMENTS. NON-CONFORMING WORK SHALL BE CORRECTED BY AND AT THE EXPENSE OF THE CONTRACTOR.

TEMPORARY SLOPES & SHORING

DURING CONSTRUCTION, WHEN SHORING, TEMPORARY SLOPES AND/OR UNDERPINNING BECOME NECESSARY, THE CONTRACTOR SHALL DESIGN THE SHORING SYSTEM FOR THE DESIGN SURCHARGE LOAD OR PROVIDE SUPPLEMENTAL FOUNDATION SUPPORT OR UNDERPINNING OF THE ADJACENT STRUCTURES. DESIGN AND INSTALLATION OF TRENCH SHORING MAY BE SUBJECT TO SEPARATE PERMITTING AND INSTALLATION REVIEWS AND ARE THE RESPONSIBILITY OF THE CONTRACTOR. AN UNDERPINNING AND MONITORING PLAN SHALL BE SUBMITTED FOR REVIEW TO THE GEOTECHNICAL ENGINEER PRIOR TO BEGINNING THE EXCAVATION. A PERMIT SHALL BE OBTAINED PRIOR TO COMMENCING WORK REQUIRING INSTALLATION OF SHORING OR UNDERPINNING.

LOOSE SAND IS ANTICIPATED IN EXCAVATIONS. THESE SOILS MAY NOT BE ABLE TO SUPPORT HEAVY EQUIPMENT SUCH AS EXCAVATORS OR TRUCKS. WE ALSO EXPECT THAT SHALLOW OR NEAR SURFACE GROUNDWATER WILL BE ENCOUNTERED. EXCAVATING FOR STRUCTURES MAY REQUIRE THE USE OF BACKHOE-TYPE EQUIPMENT POSITIONED OUTSIDE THE EXCAVATION. GRAVEL MATS AND GEOTEXTILE FABRICS MAY BE NEEDED TO HELP STABILIZE WET SUBGRADE CONDITIONS IN STRUCTURE, PAVEMENT, OR TRENCH SUBGRADE AREAS AND TO ALLOW FOR COMPACTION OF SUBSEQUENT FILL MATERIALS.

TEMPORARY SLOPES SHALL BE BRACED OR SLOPED ACCORDING TO THE REQUIREMENTS OF CAL OSHA. SLOPES ENCOUNTERED IN GRADING OPERATIONS WILL BE LOOSE TO MEDIUM DENSE SAND AND SHOULD NOT BE CONSIDERED CAPABLE OF MAINTAINING A VERTICAL SLOPE. THE ALLUVIUM AND ARTIFICIAL MATERIAL CONSISTS OF LOOSE GRANULAR SOIL, MOSTLY SAND (SP, SM, SP-SM) TYPE C SOIL. THE SANDY SOILS WILL BE PRONE TO CAVING. TEMPORARY CONSTRUCTION SLOPES WILL NEED TO BE EITHER FLATTENED TO A STABLE SLOPE OR SHORED TO ALLOW FOR CONSTRUCTION.

FOR TYPE C SOIL CONDITIONS, CONSTRUCTION SLOPES SHALL BE CONSTRUCTED AT INCLINATIONS OF 1.5H:1V OR FLATTER FOR DEPTHS UP TO 20 FEET. VERTICAL SHORING CONSISTING OF SHEET PILES OR SIMILAR CONSTRUCTION SYSTEMS CAN BE PROVIDED IN LIEU OF FLATTENING SLOPES.

THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL ADJACENT EQUIPMENT, PIPEWAYS, EXISTING UTILITIES, ROADWAYS AND STRUCTURES SUCH THAT THE CONSTRUCTION WILL NOT RESULT IN SETTLEMENT OR INSTABILITY. SURCHARGE LOADS FROM EXISTING STRUCTURES CAN BE NEGLECTED IF THE STRUCTURE IS BEHIND A 1:1 LINE PROJECTED UPWARDS FROM THE NEAREST EDGE OF A SHORED TRENCH EXCAVATION OR IF A BUILDING IS SETBACK AT LEAST 10 FEET hORIZONTALLY FROM PROPERLY SLOPED EXCAVATIONS.

FOUNDATIONS

1. PRELIMINARY ANALYSIS INDICATES THAT THE SOIL UNDERLYING THE BRIDGE IS SUSCEPTIBLE TO LIQUEFACTION AND LATERAL SPREADING.

2. BEDROCK IS APPROXIMATELY 42.5 TO 49 FEET BELOW EXISTING GRADE IN THE BORINGS PERFORMED ON-SITE.

3. GROUNDWATER WAS ENCOUNTERED BETWEEN 7.5 AND 15.0 BELOW EXISTING GRADE AND MAY BE ASSUMED TO BE AT GRADE AS SHALLOW AS AT EXISTING GRADE IN PLACES AT TIMES.

4. ADJACENT OVERHEAD POWER LINES CREATE A CONSTRUCTION CONSTRAINT REDUCING THE FEASIBILITY OF THE USE OF CRANES AND OTHER TALL EQUIPMENT IN THE VICINITY OF THE SOUTHERN BRIDGE ABUTMENT AND NORTHWEST OF THE NORTHERN BRIDGE ABUTMENT.

4. THE PRELIMINARY FOUNDATIONS ARE COMPRISED OF PILES PINNED INTO THE UNDERLYING BEDROCK. THE PILES WILL BE TERMINATED AT A PILE CAP PLACED BELOW THE ESTIMATED SCOUR DEPTH OF THE STREAM CHANNEL AND BURIED BELOW THE STREAM CHANNEL.

STREAM RESTORATION GRADING

1. PRIOR TO THE START OF EACH PHASE OF STREAM RESTORATION, THE EXISTING 1 TO 2 FEET OF STREAM-BED MATERIAL SHALL BE REMOVED AND STOCKPILED SEPARATELY FOR REUSE AS FILL OR FINAL LINING OF THE RESTORED STREAM.
2. ALL SOIL CUT IN THE STREAM CHANNEL SHALL BE MOISTURE CONDITIONED AS NECESSARY PRIOR TO PLACEMENT AS FILL.
3. ALL FILL PLACED FOR THE STREAM RESTORATION SHALL BE PLACED IN LOOSE LIFTS OF A MAXIMUM OF 12 INCHES AND COMPACTED TO AT LEAST 85 PERCENT OF MAXIMUM DRY DENSITY.
4. ALL FILL PLACED WITHIN THE STREAM CHANNEL SHALL BE SUITABLE FOR ITS INTENDED USE INCLUDING FREE FROM CONTAMINATION, CEMETIOUS MATERIALS, ASPHALT, LIME, AND TRASH.
5. NO FILL MAY BE IMPORTED FOR PLACEMENT WITHIN THE STREAM CHANNEL WITHOUT APPROVAL BY THE GEOTECHNICAL ENGINEER AND PROJECT BIOLOGIST.
6. ALL ROCKS AND DEBRIS LARGER THAN 12 INCHES SHALL BE REMOVED FROM THE FILL PRIOR TO PLACEMENT.
7. ALL BOULDERS AND RIP-RAP SHALL BE PLACED BY CALTRANS METHOD A PLACEMENT.
8. ALL FILL MATERIAL, INCLUDING BOULDERS, COBBLE, GRAVEL, AND SAND SHALL COMPLY WITH THE MATERIAL SPECIFICATIONS IN THESE PLANS.
9. ALL STREAM RESTORATION GRADING SHALL BE PERFORMED UNDER THE OBSERVATION OF THE PROJECT BIOLOGIST.

ENVIRONMENTAL COMPLIANCE

1. ALL WORK SHALL COMPLY WITH PERMITS ISSUED FOR THIS WORK BY THE U.S. ARMY CORP OF ENGINEERS, U.S. FISH AND WILDLIFE SERVICE, NATIONAL MARINE FISHERIES SERVICE, AND/OR CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE.
2. ALL CONSTRUCTION PERSONNEL SHALL ATTEND ENVIRONMENTAL TRAINING SESSIONS PRIOR TO WORK ON-SITE.
3. THE WORK AREA SHALL BE CLEARLY DEFINED WITH FLAGGING OR EXLUSIONARY FENCING PRIOR TO AND DURING CONSTRUCTION. ALL CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED WITHIN THE DEFINED WORK ZONE.
4. TREES TO BE REMOVED SHALL BE CLEARLY MARKED PRIOR TO REMOVAL. NO TREES MAY BE REMOVED THAT ARE NOT AUTHORIZED FOR REMOVAL AND MARKED AS SUCH.
5. THE ENVIRONMENTAL MONITOR AND ENGINEER MAY SUSPEND WORK FOR ENVIRONMENTAL CONCERNS.
6. NO HEAVY EQUIPMENT SHALL ENTER FLOWING WATER. WORK IN FLOWING WATER SHALL BE MINIMIZED.
7. WORK SHALL OCCUR DURING LOW-FLOW OF THE CREEK.
8. THE STREAM SHALL BE TEMPORARILY DIVERTED VIA CULVERT SO THAT THE WATER DOES NOT ENTER THE CONSTRUCTION SITE.
9. ALL FUELING AND MAINTENANCE OF VEHICLES AND OTHER EQUIPMENT AND STAGING AREAS SHALL OCCUR AT LEAST 65 FEET FROM REPARIAN HABITAT OR WATER BODY.
10. THE CONTRACTOR SHALL PREPARE A PLAN TO PROMPTLY AND EFFECTIVELY RESPOND TO ACIDENTAL SPILLS. ALL WORKERS SHALL BE INFORMED OF THE IMPORTANCE OF PREVENTING SPILLS AND THE APPROPRIATE MEASURES TO TAKE SHOULD A SPILL OCCUR.
11. ALL STAGING AND MATERIAL STORAGE SHALL OCCUR WITHIN THE AREAS ABOVE THE WORK AREA AS SHOWN ON THE PLANS.
12. THE NUMBER OF ACCESS ROUTES, NUMBER AND SIZE OF STAGING AREAS, AND TOTAL AREA OF ACTIVITY SHALL BE LIMITED TO THE CONSTRUCTION AREAS SHOWN ON THE PLANS AS MINIMIZED AS FEASIBLE.
13. EROSION AND SEDIMENTATION CONTROL BEST MANAGEMENT PRACTICES (BMP'S) SHALL BE IMPLEMENTED THROUGHOUT CONSTRUCTION TO REDUCE SEMIMENTATION AND EROSION OF THE SITE AND TURBIDITY OF PISMO CREEK.
14. SEDIMENTATION, EROSION, AND TURBIDITY OF THE STREAM WATER SHALL BE MINIMIZED.
15. A CONCRETE WASHOUT SHALL BE LOCATED AS SHOWN ON THE PLANS AS SUCH THAT WILL NOT ALLOW CEMENTIOUS MATERIAL TO DRAIN TO THE CREEK.
16. SPILLED CONCRETE SHALL BE IMMEDIATELY CLEANED UP. CONCRETE SHALL BE ALLOWED TO CURE FOR 7 DAYS PRIOR TO THE REMOVAL OF FORMWORK. CONCRETE DEBRIS RESULTING FORM THE CLEANING OF CONCRETE FORMS SHALL BE REMOVED FROM THE STREAM CHANNEL IMMEDIATELY AND NO CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE DEBRIS IS REMOVED.
17. IN THE EVENT THAT CONCRETE OR A CEMENTIOUS PRODUCT INADVERTENTLY ENTERS THE STREAM CHANNEL, ALL CONSTRUCTION ACTIVITY SHALL IMMEDIATELY CEASE AND SHALL NOT RESUME UNTIL THE CONCRETE OR CEMENTIOUS PRODUCT IS COMPLETELY CLEANED UP AND REMOVED.
18. NO PETS SHALL BE ALLOWED ON THE CONSTRUCTION SITE.
19. ALL TRASH SHALL BE PROPERLY CONTAINED AND REMOVED AND DISPOSED OF DAILY. WILDLIFE SHALL NOT BE FED.

SCHEDULE OF TESTING AGENCIES & INSPECTORS

THE FOLLOWING ARE THE TESTING AGENCIES AND SPECIAL INSPECTORS THAT WILL BE RETAINED TO CONDUCT TESTS AND INSPECTION ON THIS PROJECT.

RESPONSIBILITY	FIRM	ADDRESS, TELEPHONE, E-MAIL
2. GEOTECHNICAL TESTING AND INSPECTIONS	EARTH SYSTEMS PACIFIC	4378 OLD SANTA FE ROAD SAN LUIS OBISPO, CA 93401 805-544-3276

NUMBER	REFERENCE DRAWINGS/DOCUMENT	REV. NO.	DATE	REVISION	REV. BY	CKD. BY	APP'D	REV. NO.	DATE	REVISION	REV. BY	CKD. BY	APP'D
		B	11/6/13	ISSUED FOR PERMITTING	PM	JME							
		A	11/5/13	PROGRESS PLOT – ISSUED FOR REVIEW	PM	JME							

REGISTERED PROFESSIONAL ENGINEER JOHN W. EV... CIVIL STATE OF CALIFORNIA
NOT FOR CONSTRUCTION

Cannon
1050 Southwood Drive
San Luis Obispo, CA 93401
P 805.544.7407 F 805.544.3863

DRAWN BY: LM	DATE: 11/6/13
DESIGN: PM	DATE: 11/6/13
CHECK:	DATE:
ENGINEER:	DATE:
APPROVED:	DATE:
APPROVED:	DATE:
APPROVED:	DATE:

HYLA CROSSING PROJECT
ARROYO GRANDE FIELD
NOTES
PERMITTING EXHIBITS

Freeport-McMoRan OIL & GAS
CALIFORNIA ONSHORE

DWG NO:	SHT:	REV. NO.	SCALE:
CE130129NN0107	7	B	VARIES

ARCH D (36"x24")

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DATE: November 17, 2014

DEVELOPER'S STATEMENT & MITIGATION MONITORING/REPORTING PROGRAM FOR FREEPORT-MCMORAN HYLA CROSSING GRADING PERMIT ED14-055 (PMT2012-01980)

The applicant agrees to incorporate the following measures into the project. These measures become a part of the project description and therefore become a part of the record of action upon which the environmental determination is based. All development activity must occur in strict compliance with the following mitigation measures. These measures shall be perpetual and run with the land. These measures are binding on all successors in interest of the subject property.

Per Public Resources Code Section 21081.6 the following measures also constitute the mitigation monitoring and/or reporting program that will reduce potentially significant impacts to less than significant levels. These measures will become conditions of approval (COAs) should the project be approved. The Lead Agency (County) or other Responsible Agencies, as specified in the following measures, is responsible to verify compliance with these COAs.

Furthermore, the Applicant will be required to retain an Environmental Monitor (see Mitigation Measure BIO/mm-1) to provide greater assurance environmental project COAs will be met.

Project Description: The project proposes replacement of the existing structurally deficient Hyla culvert crossing over Pismo Creek with a new bridge crossing at an immediately adjacent location to provide improved access for oil producing activities at the Hyla extension area of the Arroyo Grande Oil Field. Project implementation would include the following the following activities within or adjacent to Pismo Creek:

- Temporary dewatering of Pismo Creek through installation and use of a cofferdam, diversion pipe, and gravel check dams;
- Clearing of riparian vegetation within the banks and channel of the creek for the new bridge;
- Installation of a temporary construction pad within the creek channel just upstream of the existing crossing to provide support for construction equipment, including a pad area of approximately 2,000 square feet within Pismo Creek and the addition of approximately 160 cubic yards of additional large rocks;
- Access road reconfiguration to facilitate bridge access at the approaches on both sides of the bridge;
- Bridge installation;
- Removal of the existing culvert, crossing and abandoned approach roadways; and
- Streambed restoration and enhancement activities.

The Hyla Crossing Replacement Project would result in the total disturbance of approximately 2.51 acres of a 347-acre parcel within the 1,605 acre unitized agreement area for the Arroyo Grande Oil Field. The project is located on the east side of Price Canyon Road, approximately 2.7 miles northeast of the City of Pismo Beach, in the South County planning area (San Luis Bay Inland sub area South).

Note:	The items contained in the boxes labeled "Monitoring" describe the County procedures to be used to ensure compliance with the mitigation measures.

Biological Resources

BIO/mm-1 **County Environmental Monitor. Prior to issuance of a construction/ grading permit**, the applicant shall provide the funding for a County Environmental Monitor to oversee and monitor compliance with County conditions of approval (COAs) and mitigated negative declaration measures. The Environmental Monitor shall assist the County in condition compliance and mitigation monitoring for all applicable construction, operational, and decommissioning stages of the project, as specified in a scope of work, and as approved by the County Department of Planning and Building.

The Environmental Monitor will prepare a working monitoring plan that reflects the County-approved environmental mitigation measures/conditions of approval. This plan will include (1) goals, responsibilities, authorities, and procedures for verifying compliance with environmental mitigation measures; (2) lines of communication and reporting methods; (3) daily and weekly reporting of compliance; (4) authority to stop work; and (5) action to be taken in the event of non-compliance. The Environmental Monitor shall provide a work scope to the County for review and approval. The entire expense of retaining and supervising the Environmental Monitor shall be paid by the applicant.

The applicant shall also be responsible for funding work required by mitigation measures requiring use of individuals with special expertise (e.g., botanist, wildlife biologist). The County's Environmental Monitor will coordinate with these experts to ensure their availability at appropriate times (e.g., prior to issuance of construction permits, during construction or post-approval, etc.).

Monitoring: Compliance will be verified by the County Department of Planning and Building.

BIO/mm-2 **Biologist. Prior to construction**, the applicant shall retain a qualified biologist to monitor construction activities and ensure compliance with measures within the project environmental documents. Monitoring by the qualified biologist shall occur throughout the length of construction or as directed by the County Environmental Monitor and regulatory agencies. Full-time biological monitoring shall occur **during vegetation removal and earthmoving activities**. Monitoring may be reduced to part time once construction activities are underway and the potential for additional impacts are reduced, as determined appropriate by the County.

The qualified biologist shall prepare and submit weekly biological monitoring/progress reports to the County Environmental Monitor to confirm field compliance with all conditions of approval and mitigation requirements.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor and review of weekly biological monitoring reports submitted by the qualified biologist.

BIO/mm-3 **Rainy Season**. Construction activities shall be conducted outside of the rainy season (November 1 through March 31) of any year. This provides a work window from April 1 to October 31 in any given year, or as otherwise directed by regulatory agencies. Deviations from this work window can be made with permission from permitting regulatory agencies if it can be shown that no additional environmental impacts would result.

Monitoring: Compliance will be verified by the County Department of Planning and Building through monitoring of the construction schedule and periodic site inspections by the County Environmental Monitor.

BIO/mm-4 **Sensitive Vegetation Protection**. **Prior to construction permit issuance,** to protect sensitive vegetation, the project plans shall clearly show the placement of sturdy

construction exclusion fencing along project limits where such vegetation exists. The fencing shall be installed immediately **prior to any ground disturbance**. The balance of the project limits will be flagged as off-limit areas. Flagging and fencing shall be kept in good working order **during the entire construction phase**.

> **Monitoring**: Compliance will be verified by the County Department of Planning and Building through review of project plans and site inspections immediately prior to construction and periodically thereafter by the County Environmental Monitor.

BIO/mm-5 Habitat Mitigation and Monitoring Plan. **Prior to construction permit issuance**, the applicant shall prepare a comprehensive Habitat Mitigation and Monitoring Plan (HMMP)for County review and approval to mitigate impacts to jurisdictional areas and sensitive vegetation communities consistent with the following requirements. The final HMMP will include the specific mitigation sites within Pismo Creek area, based on a minimum replacement of 3:1 for permanent impacts and a minimum of 1:1 for temporary impacts, or as otherwise directed by regulatory agencies. Impacted areas of red/arroyo willow thickets shall be restored at a 1:1 ratio. Project areas shall be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Exotic plants shall be controlled to the maximum extent practicable. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the USACE, in consultation with the USFWS and County, determine that it is not feasible or practical. The HMMP shall include ecologically based success criteria consistent with the Final Rule for Compensatory Mitigation for Losses of Aquatic Resources, dated April 10, 2008. The HMMP must be consistent with federal and state regulatory requirements and shall be amended with any regulatory permit conditions, as required. The applicant shall implement the HMMP **during construction and immediately following project completion**.

> **Monitoring**: Compliance will be verified by the County Department of Planning and Building through review and approval of the HMMP, along with periodic site inspections and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-6 Best Management Practices. **During construction**, the applicant shall implement standard Best Management Practices to reduce erosion and sedimentation, including but not limited to the following:

a. Silt fencing, fiber rolls, and barriers (e.g., hay bales) shall be installed between the project site and adjacent sensitive areas and waters.

b. No synthetic plastic mesh products shall be used in any erosion control materials.

c. At a minimum, silt fencing shall be checked and maintained on a daily basis throughout the construction period.

d. The contractor shall also apply adequate dust control techniques, such as site watering, during construction.

> **Monitoring**: Compliance will be verified by the County Department of Planning and Building through site inspections immediately prior to construction and periodically thereafter by the County Environmental Monitor and through review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-7 Invasive Exotic Plants. **During construction**, the biological monitor(s) shall ensure that the spread or introduction of invasive exotic plant species is avoided to the maximum extent possible through the following measures:

a. Review and modification as appropriate of the existing Arroyo Grande Oil Field Weed Control Plan. The Weed Control Plan shall be updated (as necessary) and shall be

implemented throughout the duration of project activities.

b. When practicable, invasive exotic plants in the project site shall be removed and properly disposed.

c. The use of imported soils for fill shall be limited to the extent feasible. Soils currently existing on-site shall be used for fill material to the extent feasible. If the use of imported fill material is necessary, the imported material must be obtained from a source that is known to be free of invasive plant species, or the material must consist of purchased clean material such as crushed aggregate, sorted rock or similar materials.

d. As a post-construction activity, and a part of the annual survey for invasive plants, the project limits will be surveyed. If presence of such species are found, hand removal of all invasive species within the project area shall be conducted within 60 days of identification. Invasive plant removal shall be done for at least two successive years after construction is completed.

Monitoring: Compliance will be verified by the County Department of Planning and Building through review and approval of the Weed Control Plan, periodic site inspections by the County Environmental Monitor, and through review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-8 **Trash**. **During construction**, trash shall be contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas and properly disposed of at a certified landfill. All vegetation removed from the construction site shall be taken to a certified landfill to prevent the spread of invasive species. If soil from weedy areas (such as areas with invasive exotic plant species) must be removed off-site, the top 6 inches (in) (152 millimeters [mm]) containing the seed layer in areas with weedy species shall be disposed of at a certified landfill.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-9 **Pets. During construction**, no pets shall be allowed on the construction site.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-10 **Environmental Awareness Training. Prior to commencing work**, each construction and on-site management personnel shall participate in an environmental awareness training program conducted by the County-approved qualified biologist. The training program must include a description of all sensitive species and sensitive habitats within the project area, including aquatic species such as south-central California coast steelhead, CRLF, and western pond turtle, their ecology, legal status, and the need for species conservation. New or additional construction and on-site management personnel shall participate in subsequent environmental awareness trainings, as necessary, **prior to commencement of work activities**.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County-approved qualified biologist, through training documentation prior to construction and through periodic site inspections by the County Environmental Monitor and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-11 **Steelhead**. **Prior to conducting any in-stream work activities**, the applicant shall retain a qualified biologist with experience in steelhead biology, aquatic habitats,

biological monitoring (including diversion/dewatering), and capturing, handling, and relocating fish species. The biologist shall be approved by the County and NOAA Fisheries.

During in-stream work, the qualified biologist shall monitor placement and removal of any required stream diversions to capture stranded steelhead and other native fish species and relocate them to suitable habitat as appropriate. The biologist shall note the number of native fish observed in the affected area, the number of fish relocated, and the date and time of the collection and relocation and shall submit weekly monitoring reports to the County's Environmental Monitor to ensure compliance with regulatory permits and mitigation requirements.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with NOAA Fisheries, through: 1) pre-construction approval of the qualified steelhead biologist, 2) periodic site inspections by the County Environmental Monitor and 3) review of weekly monitoring reports submitted by the County-approved qualified steelhead biologist.

BIO/mm-12 Dewatering. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 0.2-inch wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin allowing the suspended sediment to settle out prior to re-entering the stream outside of the isolated area. The form and function of all pumps used during the dewatering activities **shall be checked daily**, at a minimum, by the County-approved qualified biologist to ensure a dry work environment and minimize adverse effects to aquatic species and habitats. Effectiveness of this effort shall be incorporated into the biologist's weekly reports and include any remedial efforts determined appropriate to meet the intent of the measure.

Monitoring: Compliance will be verified by the County Department of Planning and Building, through 1) review of project plans, site inspection prior to construction and periodically thereafter by the County Environmental Monitor, and 2) review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-13 Sedimentation and Erosion Control. During construction, the County-approved qualified biologist shall monitor erosion and sediment controls to identify and correct any conditions that could adversely affect sensitive aquatic species or habitats. Should non-compliance become an issue, the biologist shall follow the Monitoring Plan protocol (see Bio/mm-1) to resolve the issue and avoid/minimize significant adverse effects to sensitive species and habitats, which may include the halting of work. As needed, the biologist shall consult with the County's Environmental Monitor.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-14 California Red-legged Frog. Prior to conducting any in-stream work, the applicant shall retain a qualified biologist with experience in CRLF biology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating CRLF and other aquatic species. The qualified biologist shall be approved by the County, in consultation with USFWS.

The qualified biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the CRLF is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work activities begin. The qualified biologist shall relocate CRLF the shortest distance possible to a location that contains suitable habitat and that will

not be affected by activities associated with the project. The qualified biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]). The qualified biologist shall prepare and submit **weekly monitoring reports** to the County Environmental Monitor to ensure compliance with regulatory permit requirements, conditions of approval, and mitigation requirements.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with USFWS, through pre-construction approval of the qualified CRLF biologist, and through periodic site inspections by the County Environmental Monitor and review of weekly monitoring reports submitted by the County-approved qualified CRLF biologist.

BIO/mm-15 Avoid Nesting Season. **Prior to construction**, the applicant shall schedule vegetation removal to occur between September 1 to February 14, outside of the nesting season to the greatest extent possible.

Monitoring: Compliance will be verified by the County Department of Planning and Building through monitoring of the construction schedule and periodic site inspections by the County Environmental Monitor.

BIO/mm-16 Pre-Construction Nesting Survey/Buffers.- **Prior to construction**, if construction activities occur during the typical nesting season (February 15 to August 31), a nesting bird survey shall be conducted by a qualified biologist(s) **immediately prior to commencement of work activities** (but no more than two weeks prior to construction) to determine presence/absence of nesting birds within the project area. Periodic subsequent spot-check surveys shall be completed **throughout the duration of construction activities** in the nesting season to determine if new nests are created within the work area subsequent to commencement of construction activities.

Work activities shall be avoided within 50 feet of active bird nests and 250 feet of active raptor nests until young birds have fledged and left the nest. Readily visible exclusion zones shall be established in areas where nests must be avoided. USFWS and CDFW shall be contacted if any federally or state listed bird species' nests are observed during surveys. Nests, eggs, or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code may not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor can adult birds be killed, injured, or harassed at any time. In the event a variance to these avoidance buffers is necessary, the applicant shall make a request for variance to the County Environmental Monitor. Any variance shall require proof that no additional impact on nesting birds would occur and approval of USFWS and CDFW.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor (and potential consultation with USFWS and/or CDFW) and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-17 Bypass Intake. **Prior to construction and throughout the duration of construction activities**, a 0.2-inch seine, of appropriate height to span from the channel bed to the water surface and sufficient width to span from bank to bank, will be installed on the upstream side of the bypass intake to prevent steelhead and CRLF from entering the site within the Pismo Creek channel. The net will be monitored regularly for integrity and repaired immediately if breaches are detected. Debris shall be removed from the net by the qualified biologist promptly upon detection.

Monitoring: Compliance will be verified by the County Department of Planning and Building through review of project plans, site inspection prior to construction and periodically thereafter by the County Environmental Monitor, and review of weekly

monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-18 Entrapment Avoidance. During construction, any trenches or excavations left open overnight will include an escape route for CRLF and other wildlife, or will be covered at the end of each workday in a manner that prevents entry. Any covered excavations shall be checked regularly for presence of any wildlife. Construction equipment and materials shall be covered (i.e., pipes, tubes, or other small enclosures shall be plugged or covered) to prevent entry and or use by birds or other wildlife.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-19 CRLF Exclusion. During construction, in the event the qualified biologist finds CRLF are entering the worksite despite the upstream block net, lateral blocking structures comprised of silt fencing or plywood may be constructed to further reduce the potential for CRLF entering the site.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-20 Tree Protection/Removal. Prior to construction permit issuance, applicable drawings shall show all oak trees to be removed and impacted. **Prior to any vegetation removal**, all mature trees within the project area shall be clearly marked for removal or protection/ avoidance. At such time, a final tally of oak trees to be removed (up to 18) and oak trees to be impacted/trimmed (up to 20) shall be made and verified by the Environmental Monitor. The final tally shall be used for oak woodland mitigation purposes (see BIO/mm-22). Temporary fencing shall be installed around all trees to remain (wherever feasible, sturdy fencing shall be placed at least 10 feet beyond the tree's canopy edge/dripline), and kept in good working order for the duration of the construction phase.

A certified arborist, approved by the County, shall be retained by the applicant to perform any necessary trimming of tree limbs overhanging into the active construction zone or along access routes between the construction zone and equipment staging areas. Trimming activities by the certified arborist shall occur **prior to access to the work** areas by construction equipment to avoid and minimize the potential for inadvertent damage to oak tree limbs.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County-approved qualified biologist, through review of project plans, site inspection prior to construction and periodically thereafter by the County Environmental Monitor, and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-21 Oak Woodlands. Based on the "final tally" (see BIO/mm-21), and **prior to final inspection**, payment to the State Wildlife Conservation Board will be made at $970 per oak tree that is removed and $485 per oak tree that is encroached upon or trimmed, but not removed, or as otherwise required at project completion by the County.

Monitoring: Compliance will be verified by the County Department of Planning and Building through documentation of payment prior to final inspection.

BIO/mm-22 Riparian – Activities Excluded. During construction, all refueling, maintenance, and cleaning of equipment and vehicles (with the exception of the crane, the pile driving hammer's power pack, and two compressors which are relatively immobile) shall occur at least 100 feet from all on-site riparian habitat or water bodies and not in a location

where a spill would drain directly toward aquatic habitat. For the crane, the pile driving hammer's power pack, and two compressors, which are somewhat immobile, and refueling in place is proposed, the following Best Management Practices shall be used:

- Pismo Creek will be dewatered upstream of the existing Hyla road crossing in advance of use of this equipment for bridge construction activities.
- All refueling, maintenance and repair shall be performed in accordance with California Stormwater Quality Association (CASQA) Standard NS-9.
- All work shall conform to the Arroyo Grande Oil Field Spill Prevention, Containment and Countermeasures (SPCC) Plan.
- All work shall conform to the Arroyo Grande Production Facilities Emergency Response and Action Plan.
- Third party fuel suppliers must have a Spill Contingency Plan, emergency spill kit, and insurance at the time of transfer.
- During refueling, maintenance, and repair, drip pans or absorbent mats shall be used to contain potential drips, spills, parts, or debris.
- During hours of non-operation, equipment shall be parked with drip pans or absorbent mats. All fuel or maintenance fluid storage containers shall be stored at least 100 feet from the riparian area or water bodies per CASQA Standard WM-1.
- Fuel trucks involved in the refueling process shall meet all applicable DOT standards (49 CFR).
- Fuel tank vents shall be closed, hoses secured and nozzles protected from drips prior to mobilizing refueling trucks to and from equipment.
- Equipment shall be turned off prior to refueling.
- Two trained personnel shall oversee all refueling operations and maintain presence at all times during refueling.
- Funnels shall be utilized when required.
- Refueling operations shall only be performed on level ground.
- Topping off shall be strictly prohibited.
- Gauges shall be inspected prior to refueling to ensure they are properly working.
- Capacity of tank shall be known prior to filling.
- A "dip-stick" will be used to confirm the approximate volume of fuel to be transferred.
- Hoses, fittings, and drip pans shall be inspected and maintained or repaired as necessary prior to each refueling operation.
- Nozzles shall be operated by hand and not locked open and they will be hung and stored facing up.
- Nozzle contact shall be maintained with fill pipe at all times when refueling operations are occurring.
- Nozzles shall be drip-dried before being removed from a tank and nozzles will be held upright to prevent fuel from dripping out of the nozzle.
- Sufficient time shall be allotted for refueling operations.
- Absorbent pad material shall be stored onsite for use in the event of an accidental spill.

- Should a refueling spill or leak occur below the top of creek bank, the County shall be notified immediately. In addition, work shall stop in this area until it has been cleaned up and the County concludes it poses no significant threat to the environment or groundwater table. As applicable, other permitting agencies shall also be notified immediately.
- Applicant shall review 7-day weather forecasts daily. Should the forecast identify a high probability of a large event, adequate precautions shall be taken, including the potential temporary removal of all equipment within the top of creek banks, to ensure project elements will not contaminate the creek from surface runoff and elevated creek flows.

Construction staging and vehicle refueling areas shall be clearly marked on project plans. The County-approved qualified biologist shall ensure contamination of habitat does not occur during such operations through regular vehicle and equipment checks for leaks and spills, development of appropriate secondary containment devices in areas where leaks or spills are likely to occur, and implementation of the Arroyo Grande Oil Field Spill Prevention Control and Countermeasure Plan (refer to HAZ/mm-1). The biologist shall be present for all refueling of the crane, the pile driving hammer's power pack, and two compressors. Prior to commencement of work, the County Department of Planning and Building shall ensure that an adequate plan is in place for prompt and effective response to any accidental spills (refer to HAZ/mm-1). **Prior to grading and construction**, all workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur. County Environmental Monitor shall regularly provide field inspections while any immobile equipment is within the top of creek banks. The County monitor shall be present daily should any work be done during the rainy season, or immediately before and after any rain event outside of the rainy season to verify BMPs are in good working order and compliance with this condition is met.

Monitoring: Compliance will be verified by the County Department of Planning and Building, through 1) review of project plans, 2) site inspection prior to construction and periodically thereafter by the County Environmental Monitor, and 3) review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-23 Slope Restoration. Topographic contours shall be restored to blend with or match the adjacent contours at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless the USFWS and County determine that it is not feasible or modification of contours would benefit sensitive species, including CRLF.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County-approved qualified biologist, through review of project plans, periodic and final site inspection by the County Environmental Monitor.

BIO/mm-24 Pile Driving. **At the commencement of pile driving activities**, the applicant shall measure underwater sound levels at locations immediately upstream of the upstream block net and immediately downstream of the downstream block net. Measurements will be taken by a hydrophone or other appropriate instrument approved by NOAA Fisheries. In the event measured sound levels exceed threshold levels utilized by NOAA Fisheries (206 dB peak and 150 dB effective quiet), pile driving activities shall be immediately stopped and NOAA Fisheries and the County Department of Planning and Building consulted. At such time, the project applicant may be required to implement additional hydroacoustic impact minimization measures, as directed by NOAA Fisheries, including use of alternative methods of pile installation, limiting the daily duration of pile driving activities, situating the blocking nets farther from the pile driving locations in areas where measured sound levels are confirmed to be within acceptable levels, and other techniques as may be recommended by the County or NOAA Fisheries. Pile driving activities shall not be permitted to continue

unless measured sound levels in adjacent creek areas accessible to steelhead and other aquatic species confirm hydroacoustic sound levels are within the acceptable range.

Monitoring: Compliance will be verified by the County Department of Planning and Building, and as needed in consultation with NOAA Fisheries, through review of project plans, site inspection prior to construction and periodically thereafter by the County Environmental Monitor, and review of weekly monitoring reports submitted by the County-approved qualified biologist.

BIO/mm-25 Agency Permits. Prior to issuance of the grading permit, the applicant shall provide copies of all required regulatory approvals and permits to the County, such as a Section 404 permit from USACE, Section 401 Water Quality Certification from the RWQCB, and Section 1600 Streambed Alteration Agreement from CDFW.

Monitoring: Compliance will be verified by the County Department of Planning and Building through documentation of regulatory approvals and permit issuance prior to issuance of a grading permit.

See also N/mm-1 for limited construction hours.

Cultural Resources

CR/mm-1 Cultural Resources – Monitoring Plan. Prior to issuance of a grading permit, the applicant shall submit an 'Archaeological Resources Monitoring Plan', prepared by a qualified archaeologist, for review and approval by the County Department of Planning and Building. The intent of this plan is to monitor all earth-disturbing activities in areas identified as potentially sensitive for cultural resources, per the approved monitoring plan. The Plan shall describe the methods and procedures to be utilized during all earth-disturbing activities associated with the Hyla Crossing Replacement Project. The monitoring plan shall include at a minimum:

a. list of personnel involved in the monitoring activities;

b. inclusion of involvement of the Native American community, as appropriate;

c. description of how the monitoring shall occur;

d. description of frequency of monitoring (e.g., full-time, part time, spot checking);

e. recommended excavation and vegetation clearing methods to be utilized;

f. description of what resources are expected to be encountered;

g. description of circumstances that would result in the halting of work at the project site (e.g., What is considered "significant" archaeological resources?);

h. description of procedures for halting work on the site and notification procedures;

i. provisions defining education of the construction crew;

j. protocol for treating unanticipated finds; and,

k. description of monitoring reporting procedures.

As applicable, all recommendations shall be put on applicable construction drawings and implemented **during construction**.

Monitoring: Compliance will be verified by the County Department of Planning and Building through review and approval of the Archaeological Resources Monitoring Plan prior to issuance of a grading permit.

CR/mm-2 Cultural Resources – Construction Monitoring. During all initial ground disturbing construction activities, the applicant shall retain a county-qualified archaeologist to monitor all earth disturbing activities, per the approved Archaeological Resources Monitoring Plan. The archaeologist shall recommend methods of initial excavation and vegetation clearing, which shall be implemented by the applicant. Upon the conclusion of vegetation removal, the exposed ground surface shall be surveyed for potentially intact archaeological resources by the archaeologist. Surface inspection shall be augmented with shovel test pits or similar techniques as determined necessary by the archaeologist. The timing and duration of the monitoring may be adjusted during project implementation by the archaeologist, in consultation with the County Department of Planning and Building.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor.

CR/mm-3 Worker Training. Prior to ground disturbance and construction activities, the designated archaeologist shall provide cultural resources awareness training to all field crews and field supervisors. This training will include a description of the types of resources that may be found in the project area, the protocols to be used in the event of an unanticipated discovery, the importance of cultural resources to the Native American community, and the laws protecting significant archaeological and historical sites. In addition, the applicant shall provide all field supervisors with maps showing those areas sensitive for potential buried resources.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County-approved qualified archaeologist, through training documentation prior to construction and through periodic site inspections by the County Environmental Monitor.

CR/mm-4 Cultural Resource – Monitoring Report. During construction, the qualified archaeologist shall prepare monthly progress reports to be filed with the applicant and the County of San Luis Obispo. Upon completion of all monitoring/mitigation activities, and **prior to final inspection**, the designated archaeologist shall submit a report to the Environmental Coordinator summarizing all monitoring/mitigation activities and confirming that all recommended mitigation measures have been met.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County-approved qualified biologist, through review of monthly and final monitoring reports submitted by the County-approved qualified archaeologist.

CR/mm-5 Human Remains – Discovery. Prior to issuance of a grading permit, the requirements of California Health and Safety Code Section 7050.5, regarding the discovery of human remains, shall be noted on project plans. **Prior to construction activities**, the requirements of California Health and Safety Code Section 7050.5 shall be reviewed during cultural resources awareness training as described in CR/mm-3. Should human remains be encountered, work shall stop in the vicinity until the issue has been resolved per this Code.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County-approved qualified biologist, through review of project plans and documentation of environmental training documentation prior to construction.

CR/mm-6 Paleontological Monitoring and Treatment Plan. Prior to issuance of a grading permit, the applicant shall retain a County-approved paleontologist to prepare a Paleontological Monitoring and Treatment Plan (Plan), and submit the Plan to the County for review and approval. The Plan shall be based on 'Society of Vertebrate Paleontology (SVP)

guidelines' and meet all regulatory requirements. The County-approved paleontologist shall have a Master's Degree or Ph.D. in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques. The Plan shall identify construction impact areas of moderate to high sensitivity for encountering potential paleontological resources and the shallowest depths at which those resources may be encountered. The Plan shall detail the criteria to be used to determine whether an encountered resource is significant, and if it should be avoided or recovered for its data potential. The Plan shall also detail methods of recovery, preparation and analysis of specimens, final curation of specimens at a federally accredited repository, data analysis, and reporting.

The Plan shall outline a coordination strategy to ensure that a County-approved paleontological monitor will conduct full-time monitoring of all grading activities in the "deeper" sediments determined to have a moderate to high sensitivity. For sediments of low or undetermined sensitivity, the Plan shall determine what level of monitoring is necessary. Sediments with no sensitivity will not require paleontological monitoring.

The Plan shall define specific conditions in which monitoring of earthwork activities could be reduced and/or depth criteria established to trigger monitoring. These factors shall be defined by the project paleontological resource specialist, following examination of sufficient, representative excavations. As specified in the Plan, approved measures shall be implemented **during construction**.

Monitoring: Compliance will be verified by the County Department of Planning and Building through review and approval of the Paleontological Monitoring and Treatment Plan prior to issuance of a grading permit and through periodic site inspections throughout construction and review of progress and final reports submitted by the qualified paleontologist.

CR/mm-7 **Paleontology Construction Monitoring**. **During construction**, based on the Mitigation Measure CR/mm-6 (Paleontological Monitoring and Treatment Plan), the applicant shall conduct construction monitoring by a County-approved paleontological monitor as specified in the Plan. This shall include monitoring during rough grading and trenching in areas determined to have moderate to high paleontological sensitivity and which have the potential to be shallow enough to be adversely affected by such earthwork. Sediments of low, marginal undetermined sensitivity shall be monitored by a County-approved paleontological monitor on a part-time basis (as determined by the County-approved paleontologist).

Monitoring: Compliance will be verified by the County Department of Planning and Building through approval of the qualified paleontologist prior to construction and throughout construction activities through periodic site inspections by the County Environmental Monitor and review of summary reports submitted by the qualified paleontologist.

CR/mm-8 **Paleontological Data Recovery**. Construction activities shall be diverted when data recovery of significant fossils is warranted, as determined by the County-approved paleontologist. **Prior to final inspection**, if avoidance of significant paleontological resources is not feasible during grading, treatment (including recovery, specimen preparation, data analysis, curation, and reporting) shall be carried out by the applicant, in accordance with the approved Paleontological Monitoring and Treatment Plan per Mitigation Measure CR/mm-6 (Paleontological Monitoring and Treatment Plan), which shall at minimum include the following:

a. If the discovery meets the criteria for a fossil locality, formal locality documentation activities will be performed.

b. If microfossil localities are discovered, locality documentation activities shall include the collection of matrix material for processing. These activities may include use of equipment to excavate fossil-containing soils, and establishment of stockpiles away from the construction area. Testing of stockpiles shall consist of screen washing small samples (200 pounds) to determine if fossils are present. Productive tests shall result in screen washing of additional matrix from the stockpiles to a maximum of 6000 pounds per locality.

c. Fossils recovered shall be prepared, identified and cataloged, and donated to an accredited repository approved by the County of San Luis Obispo. Any resources determined not to meet significance criteria shall be offered to local schools for use in educational programs.

Monitoring: Compliance will be verified by the County Department of Planning and Building through periodic site inspections by the County Environmental Monitor and review of monthly summary and final reports submitted by the qualified paleontologist.

CR/mm-9 Paleontological Construction Personnel Training. **Prior to the initiation of construction or ground-disturbing activities**, all construction personnel shall be trained regarding the recognition of possible subsurface paleontological resources and protection of all paleontological resources during construction grading. The County-approved paleontologist shall complete training for all applicable personnel. Training shall inform all applicable personnel of the procedures to be followed upon the discovery of paleontological materials.

All personnel shall be instructed that unauthorized collection or disturbance of protected fossils on or offsite by the applicant, its representatives, or employees will not be allowed. Violators shall be subject to prosecution under the appropriate State and federal laws. Unauthorized resource collection or disturbance may constitute grounds for the issuance of a stop work order. The following issues shall be addressed in training or in preparation for construction:

a. All construction contracts shall include clauses that require grading personnel to attend training so that they are aware of the potential for inadvertently exposing subsurface paleontological resources, their responsibility to avoid and protect all such resources, and the penalties for collection, vandalism, or inadvertent destruction of paleontological resources.

b. A County-approved paleontologist shall provide a background briefing for supervisory personnel describing the potential for exposing paleontological resources, the location of any potential paleontological resources, and procedures and notifications required in the event of discoveries by project personnel or paleontological monitors. Supervisory personnel shall enforce restrictions on collection or disturbance of fossils.

c. Upon discovery of paleontological resources by paleontologists or construction personnel, work in the immediate area of the find shall be diverted until cleared by the project paleontologist. Once the find has been inspected and a preliminary assessment made by the paleontologist, the County will be notified. The applicant shall then proceed with data recovery in accordance with the approved Treatment Plan and approval of the Environmental Coordinator.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County-approved qualified paleontologist, through training documentation prior to construction and through periodic site inspections by the County Environmental Monitor and review of monthly summary and final reports submitted by the County-approved qualified paleontologist.

CR/mm-10 Paleontological Resources – Monitoring Report. **During construction**, the

qualified paleontologist shall prepare monthly progress reports to be filed with the applicant and the County of San Luis Obispo. Upon completion of all monitoring/mitigation activities, and **prior to final inspection**, the designated paleontologist shall submit the final report which shall include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and shall include all specialist's reports as appendices. It will also summarize all monitoring/ mitigation activities and confirming that all recommended mitigation measures have been met.

Monitoring: Compliance will be verified by the County Department of Planning and Building through review of monthly summary and final reports submitted by the County-approved qualified paleontologist.

Geology and Soils

GEO/mm-1 Geotechnical Report. Prior to issuance of a grading permit, the applicant shall submit a design-level geotechnical report to the County Department of Planning and Building for review and approval. The geotechnical report shall be prepared by a qualified, registered civil engineer or other qualified professional licensed by the state to perform such work. The plan shall incorporate and conform to all applicable requirements of the latest edition of the California Building Code and American Association of State Highway and Transportation Officials (AASHTO) requirements, including applicable AASHTO Load and Resistance Factor Design (LRFD) Bridge Design Specifications, Caltrans Load Factor Design (LFD) Bridge Design Specifications, and Caltrans Seismic Design Criteria (SDC). **During construction**, the applicant shall incorporate all design and engineering recommendations within the geotechnical report to meet or exceed current engineering standards.

Monitoring: Compliance will be verified by the County Department of Planning and Building through review and approval of the design-level geotechnical report and project plans prior to issuance of a grading permit.

GEO/mm-2 Grading Plan. Prior to issuance of a grading permit, the applicant shall provide a grading plan that meets the requirements of Section 22.52.100 of the San Luis Obispo County Land Use Ordinance. The grading plan shall be prepared by a qualified, registered civil engineer or other qualified professional licensed by the state to perform such work, and shall be subject to review and approval by the County Department of Planning and Building, in consultation with the County Public Works Department. Construction and grading work shall be completed according to the approved grading plan.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County Public Works Department, through review and approval of the grading plan prior to issuance of a grading permit.

GEO/mm-3 Drainage Plan. Prior to issuance of a grading permit, the applicant shall provide a drainage plan that meets the requirements of Section 22.52.110 of the San Luis Obispo County Land Use Ordinance. The drainage plan shall be prepared by a registered civil engineer and subject to review and approval by the County Department of Planning and Building, in consultation with the County Public Works Department. Construction and grading work shall be completed according to the approved drainage plan.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County Public Works Department, through review and approval of the drainage plan prior to issuance of a grading permit.

GEO/mm-4 Erosion and Sedimentation Control Plan. Prior to issuance of a grading permit, the applicant shall provide an erosion and sedimentation control plan that meets the requirements of Section 22.52.120 of the San Luis Obispo County Land Use Ordinance. The

erosion and sedimentation control plan shall identify how disturbed soils will be stabilized to prevent wind and water erosion during construction and immediately after construction until the revegetation activities are commenced. The plan shall include temporary best management practices (BMPs) to be installed during the rainy season that may include, but are not limited to, use of mulch, soil stabilizers, or other recognized surface stabilization measures determined to be compatible with project area sensitive species. The plan shall include standard provisions for dust control by water truck (LUO Sec. 22.52.160 - Construction Procedures) or periodic application of soil stabilizers during construction. Construction and grading work shall be completed according to the approved sedimentation and erosion control plan.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with the County Public Works Department, through review and approval of the erosion and sedimentation control plan prior to issuance of a grading permit.

GEO/mm-5 Stormwater Pollution Prevention Plan. Prior to issuance of a grading permit, the applicant shall provide the County evidence that a stormwater pollution prevention plan has been prepared (or modified) meeting RWQCB standards and **prior to construction**, implemented on site. The SWPPP shall be retained on-site during construction.

Monitoring: Compliance will be verified by the County Department of Planning and Building through documentation of an RWQCB-approved SWPPP prior to issuance of a grading permit.

GEO/mm-6 Rainy Season. All reasonable efforts will be made to conduct all construction activities within the dry season (April 15 through October 15). If construction activities outside of the dry season are necessary, implementation of Best Management Practices (BMPs) per the approved erosion and sedimentation control plan is required prior to the start of the rainy season or ground clearing activities. In addition, the applicant must demonstrate that no additional biological resource impacts would result (see BIO/mm-3).

Monitoring: Compliance will be verified by the County Department of Planning and Building through monitoring of the construction schedule and periodic site inspections by the County Environmental Monitor.

GEO/mm-7 Naturally Occurring Asbestos. Naturally Occurring Asbestos (NOA) has been identified as a toxic air contaminant by the California Air Resources Board (ARB). Under the ARB Air Toxics Control Measure (ATCM) for Construction, Grading, Quarrying, and Surface Mining Operations, **prior to any grading activities** a geologic evaluation should be conducted to determine if NOA is present within the area that will be disturbed. If NOA is not present, an exemption request must be filed with the APCD. If NOA is found at the site, the applicant must comply with all requirements outlined in the Asbestos ATCM. This may include development of an Asbestos Dust Mitigation Plan and an Asbestos Health and Safety Program for approval by the APCD.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with APCD, through documentation of compliance with the asbestos ATCM prior to issuance of a grading permit.

Hazards and Hazardous Materials

HAZ/mm-1 Emergency Response and Fire Safety Plans. Prior to issuance of a grading permit, the applicant shall review, modify as appropriate, and submit emergency response and fire safety plans for review and approval by the County Department of Planning and Building (in consultation with other County departments with jurisdiction), including the

following:

- Arroyo Grande Production Facility Emergency Response Action Plan;
- Hazardous Materials Business Plan;
- Spill Prevention Control and Countermeasure Plan; and
- Arroyo Grande Production Facility Fire Safety Plan.

If any of the materials proposed for use during project construction is not already addressed in the facility's existing plans, the applicant would be required to amend the plan(s) subject to approval by the County Department of Planning and Building, Cal Fire, and the County Environmental Health Division **prior to the issuance of a grading permit**. The applicant would then be required to follow such plans throughout project construction activities.

Monitoring: Compliance will be verified by the County Department of Planning and Building, in consultation with other County departments, through review and approval of the listed plans prior to issuance of a grading permit.

Noise

N/mm-1 **Construction Hours**. The Applicant shall conduct all noisy construction activities within the following timeframes:

- Between 7:00 a.m. and 9 p.m. on Mondays through Fridays, and
- Between 8:00 a.m. and 5 p.m. on Saturdays and Sundays.

Monitoring: Compliance will be verified by the County Department of Planning and Building and through periodic site inspections by the County Environmental Monitor.

The applicant understands that any changes made to the project description subsequent to this environmental determination must be reviewed by the Environmental Coordinator and may require a new environmental determination for the project. By signing this agreement, the owner(s) agrees to and accepts the incorporation of the above measures into the proposed project description.

Michelle Gibbs Michelle Gibbs 11/24/14

Signature of Owner(s) **Name (Print)** **Date**