

**Preliminary Draft**

**Storm Water and Erosion/Sediment Control Plan**

**For the**

**Palomar Energy Project**

April 2002

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## 1.0 OVERVIEW

### 1.1 Introduction

This Stormwater and Erosion/Sediment Control Plan (SESCP) has been prepared to comply with California's General Permit for Storm Water Discharges Associated with Construction Activities [Construction General Permit (NPDES)] for Palomar Energy. This identified measures appropriate to minimize potential for erosion, limit transport of sediment, and minimize generation of pollutants and other adverse effects of stormwater runoff.

The Palomar Energy Project consists of a proposed natural gas-fired combined cycle power plant and associated reclaimed water supply and brine return pipelines. The project will have an electrical output of 550 MW, and commercial operation is planned for the spring of 2004. The project will be fueled with natural gas delivered via the San Diego Gas and Electric Company (SDG&E) gas system, and an existing SDG&E natural gas pipeline with sufficient capacity to serve the project is located immediately adjacent to the project site. The project includes a new 230 kV switchyard connecting with an existing SDG&E electric transmission line also located immediately adjacent to the project site. Reclaimed water for the project will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1 mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from the project will be returned to the HARRF via a new 1.1 mile, 8-inch return pipeline routed alongside the reclaimed water supply pipeline.

The project owner and Applicant submitting this Application for Certification (AFC) is Palomar Energy, LLC, a Delaware limited liability company, the sole member of which is a subsidiary of Sempra Energy Resources (SER)

The power plant is proposed to be located on a .20-acre site within a planned 186-acre industrial park in the City of Escondido, California. Figure 2.2-1 illustrates the location of the project site, the route of the reclaimed water supply and brine return pipelines, and the location of a SDG&E gas system upgrade associated with the project. Figure 2.2-2 illustrates a planned 186-acre industrial park within which the 20-acre project site is located. Development of the industrial park will result in eight Planning Areas, each comprising a graded pad. The 20-acre project site subsumes a 14.1-acre pad designated as Planning Area 1.

The project site is located west of Interstate 15 and south of State Highway 78, about 600 feet southwest of the intersection of Vineyard Avenue and Enterprise Street. Access to the site is provided from State Highway 78 by traveling south on Nordahl Road, which becomes Vineyard Avenue. Figure 2.2-1 illustrates nearby roads in relation to the site.

The legal description of the project site is as follows: a portion of the northwest quarter of Section 20, Township 12 South, Range 2 West, San Diego County. The site consists of majority portions of the current Assessor Parcel Numbers 232-051-02 and 232-051-03. A new parcel that corresponds with the 20-acre project site is being created along with all of the other new parcels within the industrial park.

The industrial park project is known as the Escondido Research and Technology Center (ERTC). The ERTC project and a draft Specific Plan for the industrial park project area are currently undergoing a comprehensive California Environmental Quality Act (CEQA) review, with the City of Escondido as Lead Agency. Under the draft Specific Plan, two alternative land uses are allowable in Planning Area 1, either light manufacturing or a power plant use. The ERTC project is obtaining its development permits and approvals through the City of Escondido's established permitting and approval processes.

Balanced cut-and fill grading of the 186-acre ERTC project site, including Planning Area 1, will be completed prior to initiation of any onsite work on the Palomar Energy Project. The net excavated materials from Planning Area 1 will be used as fill in other Planning Areas of the industrial park. These prior landform modifications resulting from grading of the ERTC project are being addressed in the CEQA document being prepared by the City of Escondido.

## **2.0 COMPLIANCE WITH APPLICABLE LORS**

To be determined.

### 3.0 MEASURES TO BE IMPLEMENTED AT THE PLANT SITE

#### 3.1 Construction Best Management Practices (BMP)

Standard construction BMPs to be implemented on this project are described in the California Storm Water Best Management Practice Handbook (1993) and the Blueprint for a Clean Ocean: Best Management Practices to Prevent Storm Water Pollution from Construction Activities (1995). These resource handbooks provide descriptions of BMPs that can significantly reduce soil erosion and pollutant discharges from construction sites. The BMPs in the following section are designated by a code and number. The code and number reference the same BMPs described in the handbooks. The BMPs starting with the prefix “ESC” or “CA” correspond to the California Storm Water Best Management Practice Handbook. Copies of selected BMPs from this Handbook to be implemented for this project are provided in Appendix A.

**BMPs that Reduce Erosion and Sediment-Laden Stormwater Runoff.** Whenever possible, the primary protection measures at the site will be erosion control BMPs, with sediment control BMPs used as a backup measure.

Erosion BMPs to be implemented will include:

- **Site planning considerations**, including scheduling of work during dry weather periods (ESC1) and preservation of existing vegetation, whenever possible (ESC2).
- **Physical stabilization**, including use of geotextiles and mats (ESC20), dust control (ESC21), construction road stabilization (ESC23), and stabilized construction entrance (ESC24).

Sediment control BMPs to be implemented will include.

- **Diversion of site runoff**, including earth dike (ESC30), temporary drains and berms (ESC31), and slope drains (ESC32).
- **Velocity reduction**, including outlet protection (ESC40), check dams (ESC41), and slope roughening/terracing (ESC42).
- **Sediment trapping and filtering**, including silt fences (ESC50), straw hay bales (ESC51), sand bag barriers (ESC52), storm drain inlet protection (ESC54), sediment trap (ESC55), and sediment basin (ESC56).

**BMPs to Prevent Stormwater Contamination.** These BMPs minimize the potential for discharge of pollutants related to construction activities. Appropriate BMPs that will be implemented for the EHPP include:

- **Control of construction practices**, including paving operations (CA2) and structure construction and painting (CA3).
- **Control of materials management**, material delivery and storage (CA10), material use (CA11), and spill prevention and control (CA12).
- **Waste Management**, including solid waste management (CA20), hazardous waste management (CA21), contaminated soil management (CA22), concrete waste management (CA23), and sanitary/septic waste management (CA24).
- **Contractor training**, including employee and subcontractor training (CA40)

### **3.2 Mitigation Measures for the Plant Site**

#### **3.2.1 Construction**

To be determined

#### **3.2.2 Dust Control**

Wind blown dust will be controlled by frequent application of water to freshly disturbed soil areas. Water trucks will be used continually during excavation, loading, and grading operations to minimize the effects of windblown dust (ESC21). Water will be applied several times each day. The project will comply with all air quality rules and regulations of the SCAPCD.

#### **3.2.3 Personnel Training**

Construction workers, subcontractors, and plant employees will receive proper training of the best management practices contained in this document (CA40). The construction contractor and subcontractor personnel will be trained in stormwater pollution prevention, including implementation, inspection, and maintenance of best management practices. They also will be trained in the components and goals of the SWPPP, the Chemical Spill Contingency Plan (CSCP), and the Hazardous Waste Management Plan (HWMP). Contractors will be required to maintain records of employee training. The documents will include a list of all contractors or subcontractors responsible for implementing the requirements of each document. Each contractor will be required to certify that they understand the requirements of the documents prior to working on the site.

#### **3.2.4 Operation**

To be determined

**3.3 Mitigation Measures for the Linear Facility**

Construction activities along the linear features will involve soil disturbances for placement of new reclaimed water supply and brine return pipelines, and natural gas pipeline upgrade.

**3.3.1 Reclaimed Water Supply Pipeline**

To be determined

**3.3.2 Brine Return Pipeline**

To be determined

**3.3.3 Natural Gas System/Pipeline Upgrade**

To be determined

## **4.0 MAINTENANCE AND MONITORING**

Maintenance and monitoring of erosion, sediment control, and stormwater quality will also conform to BMPs. The following sections describe the routine monitoring and maintenance practices that will be performed for the Palomar Energy Project.

### **4.1 During Construction**

The construction contractor will be responsible for the preparation, installation and removal of temporary erosion control measures described in this document. Contractor erosion control responsibilities will include:

- Initial inspection of erosion control measures as they are completed to ensure they will function as desired.
- Inspections following each rainstorm to ensure replacement of damaged or missing structures and materials.
- Notifying project construction crew when to implement adequate precautions in anticipation of rainy weather conditions.
- Defining a schedule for watering the access roads and other disturbed areas for dust suppression.
- Developing additional remedial erosion and sediment controls for problem areas, if any.
- Complying with the SWPPP, CSCP, HWCP, and applicable LORS.

A designated site representative will monitor and record the contractor and subcontractor's performance with respect to erosion/sedimentation control measures and management of construction materials, wastes, hazardous materials, and equipment. This representative will also inspect the site prior to anticipated storm events and after such events in accordance with the Construction General Permit requirements. Records of these inspections will be kept for a period of 3 years after completion of final site stabilization.

Routine maintenance measures to be implemented include:

- The temporary sedimentation basin (ESC56) at the plant site will be monitored following each major rainstorm for accumulation of sediment. Sediment will be removed in order to maintain adequate capacity (minimum of 3 feet settling depth).
- Silt fences will be inspected and replaced/repared as needed. Accumulated sediment will be removed when it reaches a depth of 6 inches.

- Sandbags placed along slopes and the pipeline corridors will be inspected after each rain storm. Sediment will be removed and deposited in a stable area not subject to erosion.
- If sediment accumulates over 1 foot behind the (sandbag) barrier, the contractor will remove or regrade the sediment.
- If the sand bags are washed away as a result of storm runoff, the damaged sand bag area will be replaced by a silt fence or hay bale barrier. Special attention to these areas will be maintained until erosion is adequately controlled.
- Mulching will be examined for damage or deterioration and reapplied as necessary.
- Protected storage areas for stockpiled soils or other materials will be inspected. Tarps or other coverings will be replaced as secured.
- Soil stabilization and revegetation success will be monitored by a qualified botanist by periodic inspection of the disturbed areas for degree of plant coverage.

#### **4.2 During Operation**

To be determined.