

# PXP

## Water Management Plan Inglewood Oil Field

Baldwin Hills CSD Conditions

E.18 and L.12

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**WORKING DRAFT SUBJECT TO CHANGE BASED  
ON COUNTY REVIEW AND ACCEPTANCE**

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## **1.0 INTRODUCTION**

Plains Exploration & Production (PXP) operates the Inglewood Oil Field in the Baldwin Hills zoned District of Los Angeles County. The Inglewood Oil Field covers approximately 1,000 acres and is surrounded by single and multiple family dwellings as well as recreational, institutional, commercial, and industrial uses. To address issues of land use compatibility with surrounding land uses, the Los Angeles County Board of Supervisors recently adopted the Baldwin Hills Community Standards District (CSD) to provide a means of implementing regulations, safeguards, and controls for activities related to drilling for and producing oil and gas within the Inglewood Oil Field.

This water management plan has been prepared for the Plains Exploration & Production (PXP) Inglewood Oil Field to comply with Conditions E.18 and L.12 of the Baldwin Hills Community Standards District (CSD).

The purpose of this plan is to present the water conservation goals and objectives for the Inglewood Oil Field. The plan includes an employee education program and water management goals and objectives for the field.

The remainder of this plan is organized as follows:

- Section 2.0 provides the CSD ordinance conditions that require the preparation of a water management plan;
- Section 3.0 discusses the employee education program; and,
- Section 4.0 presents the water management goals and objectives for the field.

## **2.0 BALDWIN HILLS CSD REQUIREMENTS**

The CSD Ordinance requirements regarding the water management plan are as follows:

- CSD Ordinance Condition E.18: *Water Management Plan* – the operator shall comply with all provisions of a water management plan that has been approved by the director and the director of public works. The plan shall include best management practices, water conservation measures, the use of a drip irrigation system, and shall include provisions for the use of surface water runoff in the retention basins for dust suppression and landscaping. The plan shall also address the availability of reclaimed water for use at the oil field. The water management plan shall be reviewed by the operator every three years to determine if modifications to the plan are required. The operator shall make changes to the plan if requested by the director or director of public works. Any modifications to the water management plan shall be submitted to the director and the director of the public works for review and approval. The water management plan shall include elements requested by the director or the director of public works. In addition, the operator shall comply with the water conservation measures and reporting requirements specified in Sections 20.09.020 – 20.09.080, Title 20 of the County Code (Utilities).
- CSD Ordinance Condition L.12 : *Water Management Plan* – within 180 days following the effective date, or at such later date as may be approved by the director after consultation with the director of public works for good cause shown, the operator shall develop and submit to the director and the director of public works for review and approval a water management plan as required by subsection E.18. The operator shall take such actions as may be necessary for the water management plan to be approved by the director and the director of public works.

### **3.0 EMPLOYEE EDUCATION PROGRAM**

The following presents the goals and primary components of the employee education program:

- **Goal 1: Institute an employee education program for all current and new employees.**
  - Develop and implement a brief educational session for current employees introducing the water management plan goals and policies;
  - Conduct ongoing education about water conservation; and,
  - Add water conservation practices to the new employee orientation curriculum.
- **Goal 2: Develop a program and encourage employees to conserve water.**
  - Install signage at water using fixtures in communal areas such as the kitchen and restrooms to increase employee awareness and encourage water-conscious behavior; and,
  - Use newsletters and other communication tools to increase employee water conservation awareness.

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## 4.0 WATER MANAGEMENT PLAN

This section presents the goals and components of the water management plan to reduce office, landscaping, and operations and maintenance water use at the Inglewood Oil Field.

### 4.1 OFFICE WATER CONSERVATION MEASURES

The goal of this component of plan is to encourage water conservation in office areas by implementing the following:

- Install flow control valves in taps/basins, where feasible;
- Install waterless urinals, where feasible;
- Retrofit toilets to low-flow or dual-flush, where feasible;
- Install water efficient showerheads, where feasible; and,
- As water using appliances need upgrading, replace with water efficient appliances.

### 4.2 LANDSCAPE WATER CONSERVATION MEASURES

The goal of this component of plan is to encourage water conservation for landscaping by implementing the following:

- **Landscape Design**
  - Plant in hydrozones, where feasible, to group plants with similar water requirements together to reduce water waste; and,
  - Plant drought-resistant species, where feasible, to reduce the water required for irrigation.
- **Irrigation System Design**
  - Install drip irrigation systems that avoid surface runoff, low-head drainage, overspray, or other similar conditions where water flows onto adjacent areas that are not part of the irrigated area;
  - Irrigation zones should be within one hydrozone to provide the most efficient water use;
  - Design flows for irrigation systems shall meet peak irrigation requirements of the plant material;
  - Design irrigation systems such that water is applied uniformly over the irrigated area;
  - Whenever possible, schedule irrigation at night to reduce evaporative losses;
  - Maintain the irrigation system for optimum performance; and,
  - Install features to efficiently manage and control irrigation such as anti-drain valves to prevent low-head drainage and rain-sensing override devices.

### **4.3 OPERATIONS AND MAINTENANCE WATER CONSERVATION**

The goal of this component of plan is to encourage water conservation during operations and maintenance activities by implementing the following:

- For dust control, continue to use the water that is retained in the catch-basins across the field rather than potable water;
- For the Land Treatment Units (LTUs), continue to operate the irrigation systems on a timer to maximize water efficiency and continue monthly inspections to ensure optimum performance; and,
- In regards to reclaimed water, continue to evaluate the potential for tying into reclaimed water sources for use as reinjection “make-up” water, landscape irrigation, and dust control. In 2008, PXP investigated reclaimed water sources for the Inglewood Oil Field. The investigation identified two potential purveyors: 1) the City of Los Angeles Hyperion Treatment Plant (City of Los Angeles); and, 2) the West Basin Municipal Water District (WBMWD). The City of Los Angeles has available reclaimed water, but does not have a reclaimed water supply pipeline in the vicinity of the field. Presently, the nearest point of connection to the City of Los Angeles reclaimed water supply is the Hyperion Treatment Plant which is located approximately 8.3 miles from the field. The WBMWD currently delivers recycled water to a park (Rogers Park) that is located approximately 2 miles from the field. However, based on the results of a preliminary feasibility analysis, the WBMWD indicated that there currently was not sufficient demand for reclaimed water at the field or in the vicinity of the field to justify incurring the entire cost of construction of a new reclaimed water line to the area. As part of this plan, PXP will continue to evaluate the feasibility of connecting to these reclaimed water sources and will investigate other potential alternatives.

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