

NOTICE OF EXEMPTION

To: Office of Planning and Research
State Clearinghouse
P.O. Box 3044, 1400 Tenth Street, Room 212
Sacramento, CA 95812-3044

From: Department Of Toxic Substances Control
Geology, Permitting & Corrective Action Branch
5796 Corporate Ave
Cypress, CA 90630

Project Title: PG&E TOPOCK COMPRESSOR STATION SITE:
Pore Water and Seepage Study Work Plan

Project Location – Specific: Approximately 15 miles southeast of Needles, California

Project Location – City: Unincorporated

Project Location – County: San Bernardino

RECEIVED

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STATE CLEARING HOUSE

Description Of Project:

Pursuant to Chapter 6.5 of the California Health & Safety Code, the Department of Toxic Substances Control (DTSC) has approved the Revised Pore Water and Seepage Study Work Plan^{1,2} submitted by the Pacific Gas and Electric Company (PG&E) that describes activities to be conducted as part of a Seepage Evaluation and Pore Water Sampling Survey (PWSS). The purpose of the survey is to obtain pore water and sediment samples underneath the Colorado River in order to more accurately understand the dynamic interaction of surface water and groundwater at the river/aquifer interface. The primary objectives of the survey are to:

- Assess chromium concentrations in pore water at multiple locations within the zone that has been historically down-gradient of the existing chromium plume observed in the floodplain, during the next seasonal low river stand.
- Assess chromium concentrations in pore water at multiple locations that are historically up-gradient of Bat Cave Wash, during the next seasonal low river stand.
- Assess whether geochemical conditions in shallow sediments below the Colorado River favor chromium reduction.

The general location of the study area and the initial locations of transects along which samples will be collected are provided in Figures 1, 2, 3 and 4. Duration of the project is approximately 10 days for an initial pilot study, 10 days for pore water sampling, and 5 days for river sediment sampling.

Project Activities:

The following is a summary of activities which are described in more detail in the Work Plan and are proposed to be undertaken as part of the Seepage Evaluation and Pore Water Sampling Survey:

- Pilot Study

TidbiT® temperature sensors will be deployed at approximately 10 locations within the areas shown on Figure 2 for an initial temperature survey during the pilot study. The TidbiT® is a self-contained unit approximately 1.5 inches in diameter. A metal pipe 0.75 to 1.5 inches in diameter, deployed from a stationary boat, will be used to install 4 TidbiT™ sensors at each location in the river bottom to a depth of approximately 6 feet by 'jetting'. River water will be pumped down the pipe and out a nozzle at the end. The water jet emanating from the nozzle of the pipe will loosen and temporarily displace the sediments in the immediate vicinity, allowing advancement of the pipe into the river bottom. Depending on the characteristics of the sediment, temporary increases in river turbidity may occur near the river bottom in the immediate vicinity of the pipe during the jetting process. Each hole is expected to take approximately 10 minutes to complete.

A TidbiT® sensor will be attached to the jet pipe as it advances, and will be released when the jet pipe is pulled back. Alternatively, a TidbiT® sensor may be inserted through the center of the jetting pipe after it has been inserted into the river bottom. The TidbiT® sensors will be left behind in the river bottom as the pipe is extracted. The surrounding sediments are expected to collapse around the sensor upon removal of the jet pipe. Each TidbiT® will be attached to a stainless steel wire or small diameter cable that extends to the river bottom surface and is marked with brightly-colored

¹ CH2M-HILL; Revised Pore Water and Seepage Study Work Plan, October 31, 2005

² DTSC; Conditional Approval of Pore Water and Seepage Study Work Plan, November 14, 2005

nylon rope. The rope will be weighted so that it does not float up off the river bottom and into the path of passing boats.

Global Positioning System (GPS) coordinates will be logged to enable recovery. After approximately 1 week, a crew in a boat will use a winch to retrieve the TidbiT® sensors.

- Sediment Sampling

Sediment cores will be collected at approximately 10 locations shown on Figure 3 from depths up to 30 inches deep. The exact penetration depth will depend upon the grain size and degree of consolidation of bottom material. Sediment cores will be collected using the GeoProbe® Macro-Core® drive point system. The Macro-Core® consists of a 1.5-inch diameter piston operated sampler with a PVC liner. It can be advanced by hand or with a manual or vibrating power hammer. An O-ring on the top ensures that the sampler remains sealed until the desired sampling depth is reached. Once the top of the sampling interval is reached, the stop-pin and piston rod are pulled up and the sampler is driven to collect the sediment sample at the desired depth interval. In the event that the 1.5-inch diameter core samplers are not successful in recovering river sediments, smaller (1-inch diameter) or larger (4-inch diameter) core samplers may be used. After obtaining the sediment core, the sampling device will be pulled back to the surface and the hole will collapse behind it. Nothing will be left on the river bottom.

- Pore Water Sampling

Approximately 64 pore water samples will be obtained from 3 to 5 locations along each of the 16 transects shown on Figure 4. The pore water sampling method (Harpoon™ or drive-point piezometer) will be determined by the outcome of the pilot test and with regulatory approval. A drive-point sampler will be driven by hand or a power hammer to the desired sampling depth. Once the sampling depth has been reached, pore water will be pumped to the surface through a 3/8" diameter polyethylene or Tygon® tube. Pumped water will be diverted to a flow-through cell that measures basic water quality parameters (temperature, specific conductance, dissolved oxygen, salinity, oxidation-reduction potential, etc.). Approximately three sampler volumes will be pumped to purge the drive-point sampler and a water sample will be collected. No more than 10 liters of water will be pumped from each sample location. Pumped water will be collected on the boat and stored in ice coolers. The sampling device will be pulled back to the surface and the hole will collapse behind it. Nothing will be left on the river bottom. Very little sediment disturbance is anticipated with this method. At the end of the day, or when water storage on the boat reaches capacity, the purge water will be transferred to the investigation derived waste (IDW) tank on the Topock site. This tank is used to store all purge water from groundwater sampling at the site. A PG&E subcontractor is responsible for analyzing and disposing of the water in the IDW tank.

- Health and Safety

The *Topock Health and Safety Plan* (Revision 8) covers the work described in this Work Plan. The reach of Colorado River near the Topock site is subject to a significant amount of boat traffic. The sampling procedures must address the health and safety of personnel during sampling, potential hazards to navigation or recreational users, and the security of any dedicated equipment deployed on the river bottom. In the past year, boat collisions have resulted in fatalities near Topock. All of the proposed methods will require boats to be anchored in the river channel, which would be much a greater navigation hazard at night when anchor cables would not be visible. To minimize the risk to sampling personnel and the boating public, all parts of the study will be conducted during daylight hours when visibility on the water is greatest.

Name of Public Agency Approving Project: Department of Toxic Substances Control
Standardized Permitting & Corrective Action Branch
5796 Corporate Avenue
Cypress, CA 90630

Name of Person or Agency Carrying Out Project: Pacific Gas and Electric Company
4325 South Higuera Street
San Luis Obispo, CA 93401

Exempt Status:

- Ministerial [PRC, Sec. 21080(b)(1); CCR, Sec. 15268]
 Declared Emergency [PRC, Sec. 21080(b)(3); CCR, Sec. 15269(A)]
 Emergency Project [PRC, Sec. 21080(b)(4); CCR, Sec. 15269(b)(c)]

- Categorical Exemption. State type and section number: _____
- Statutory Exemptions. State code number: _____
- General Rule [CCR, Sec. 15061(b)(3)] _____

Exemption Title: _____

Reasons Why Project is Exempt:

Activities associated with approval of the Pore Water and Seepage Study Work Plan will result in minor disturbances to environmental resources within and underneath the Colorado River. However, DTSC finds that there is no possibility that approval of these disturbances would have a significant effect on the environment.

Norman Shopay, Sr. Engineering Geologist

DTSC Contact Person

(510) 540-3943

Phone #

Karen Baker

DTSC Branch Chief Signature

11/15/05

Date

Karen Baker, CHG, CEG

DTSC Branch Chief Name

Chief, Geology, Permitting & Corrective Action
Branch

DTSC Branch Chief Title

TO BE COMPLETED BY OPR ONLY

Date Received For Filing and Posting at OPR: _____

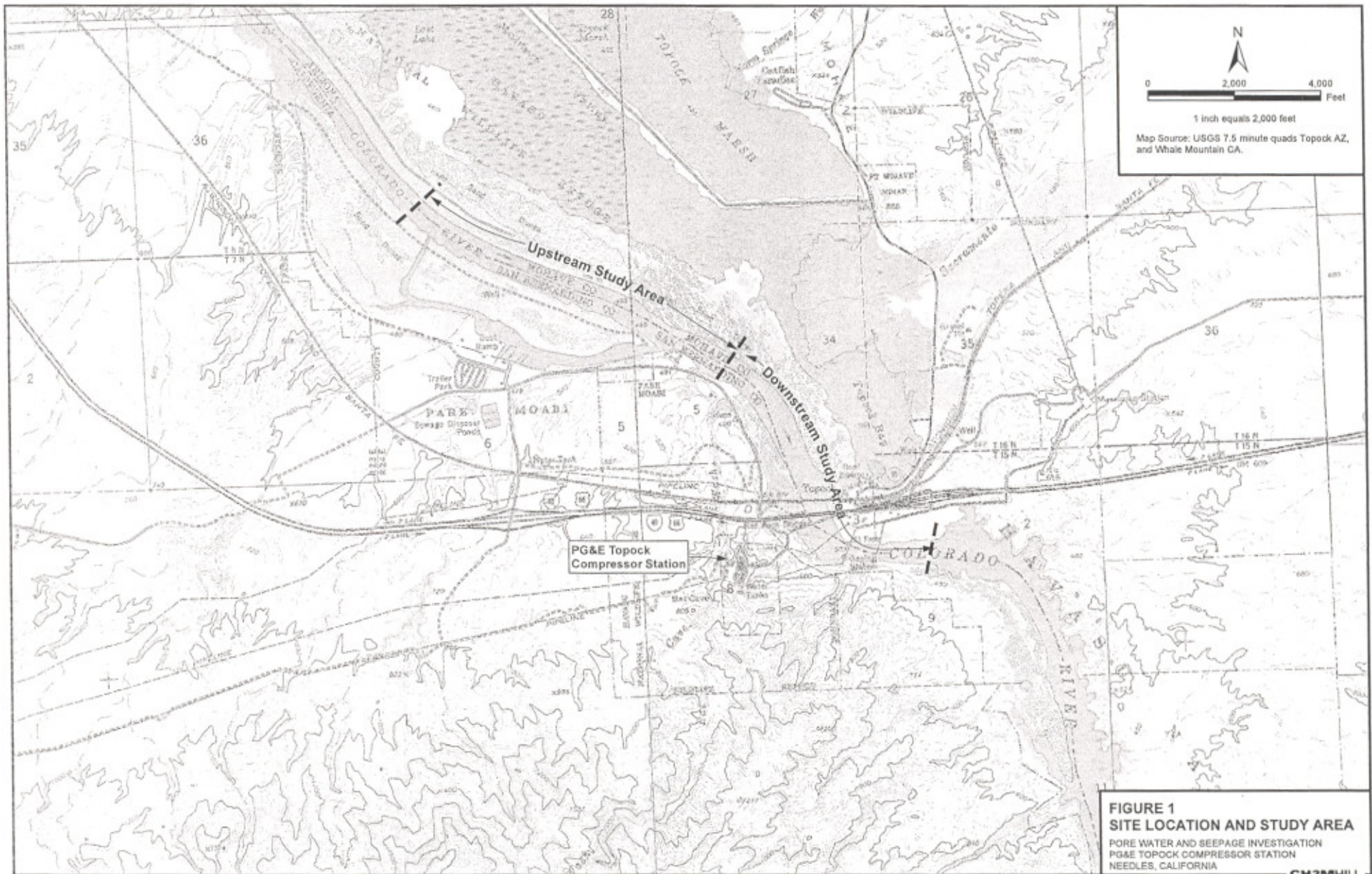
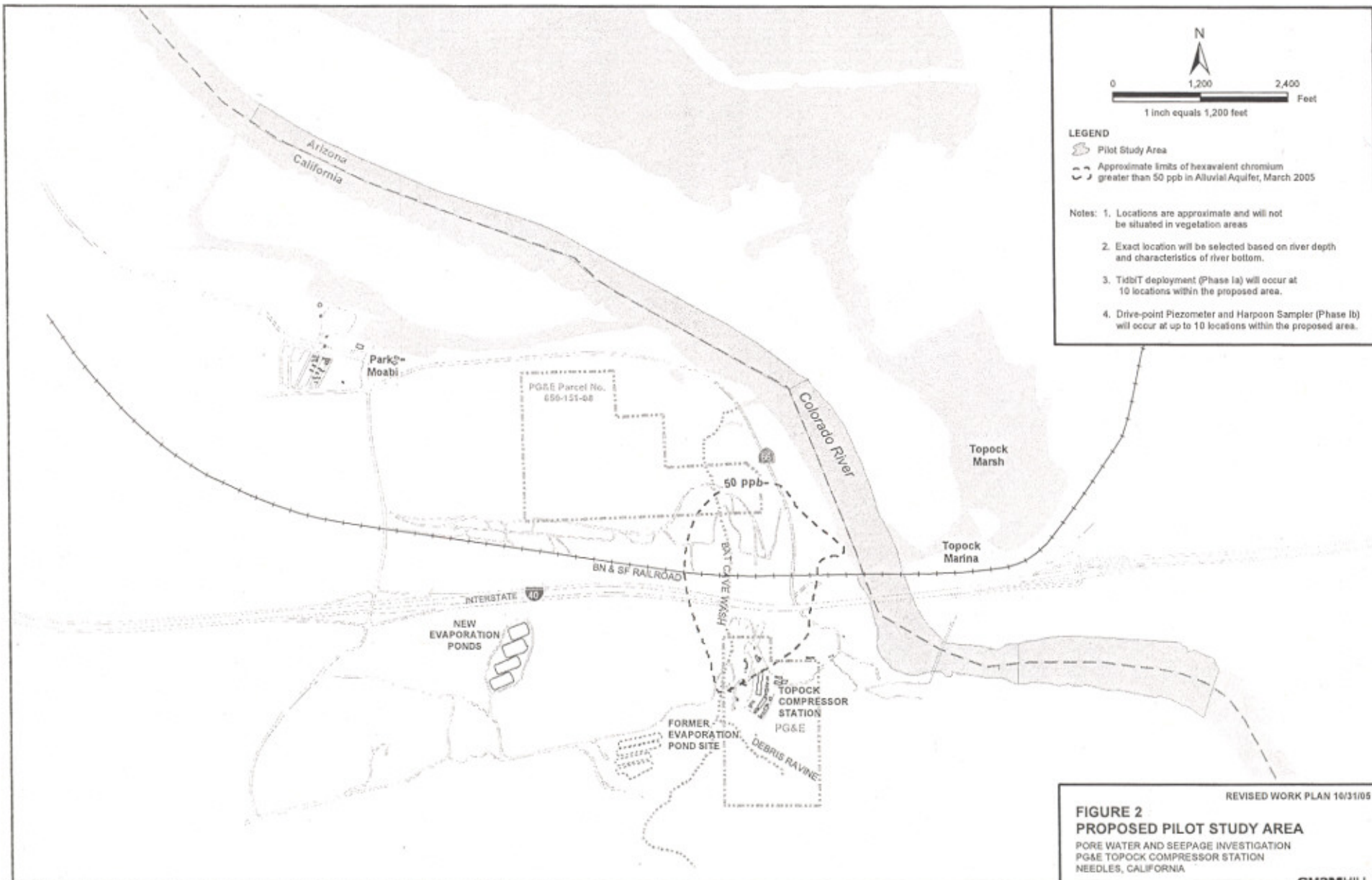


FIGURE 1
SITE LOCATION AND STUDY AREA
 PORE WATER AND SEEPAGE INVESTIGATION
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA



LEGEND

Pilot Study Area

Approximate limits of hexavalent chromium greater than 50 ppb in Alluvial Aquifer, March 2005

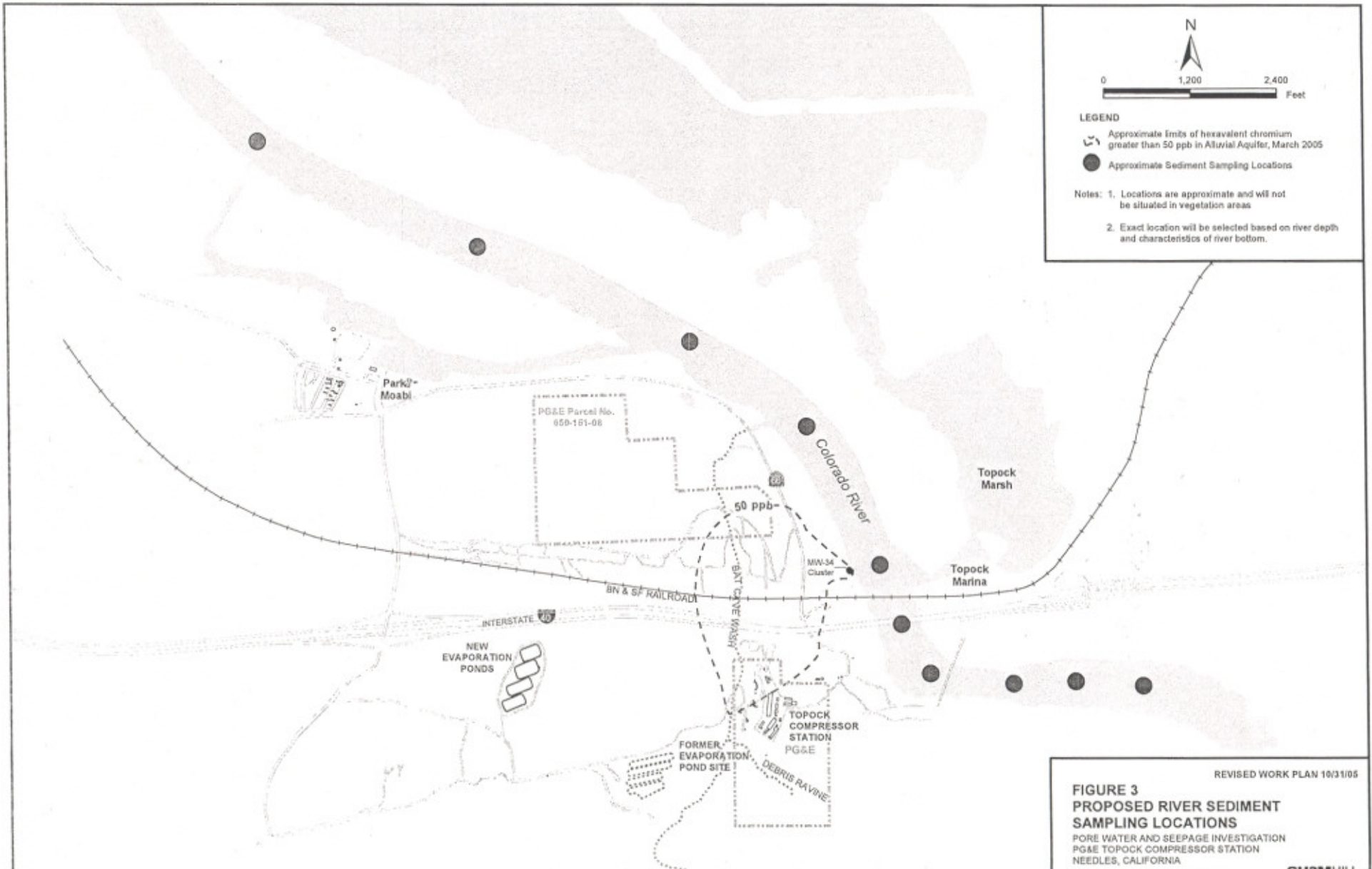
Notes:

1. Locations are approximate and will not be situated in vegetation areas
2. Exact location will be selected based on river depth and characteristics of river bottom.
3. Tidbit deployment (Phase Ia) will occur at 10 locations within the proposed area.
4. Drive-point Piezometer and Harpoon Sampler (Phase Ib) will occur at up to 10 locations within the proposed area.

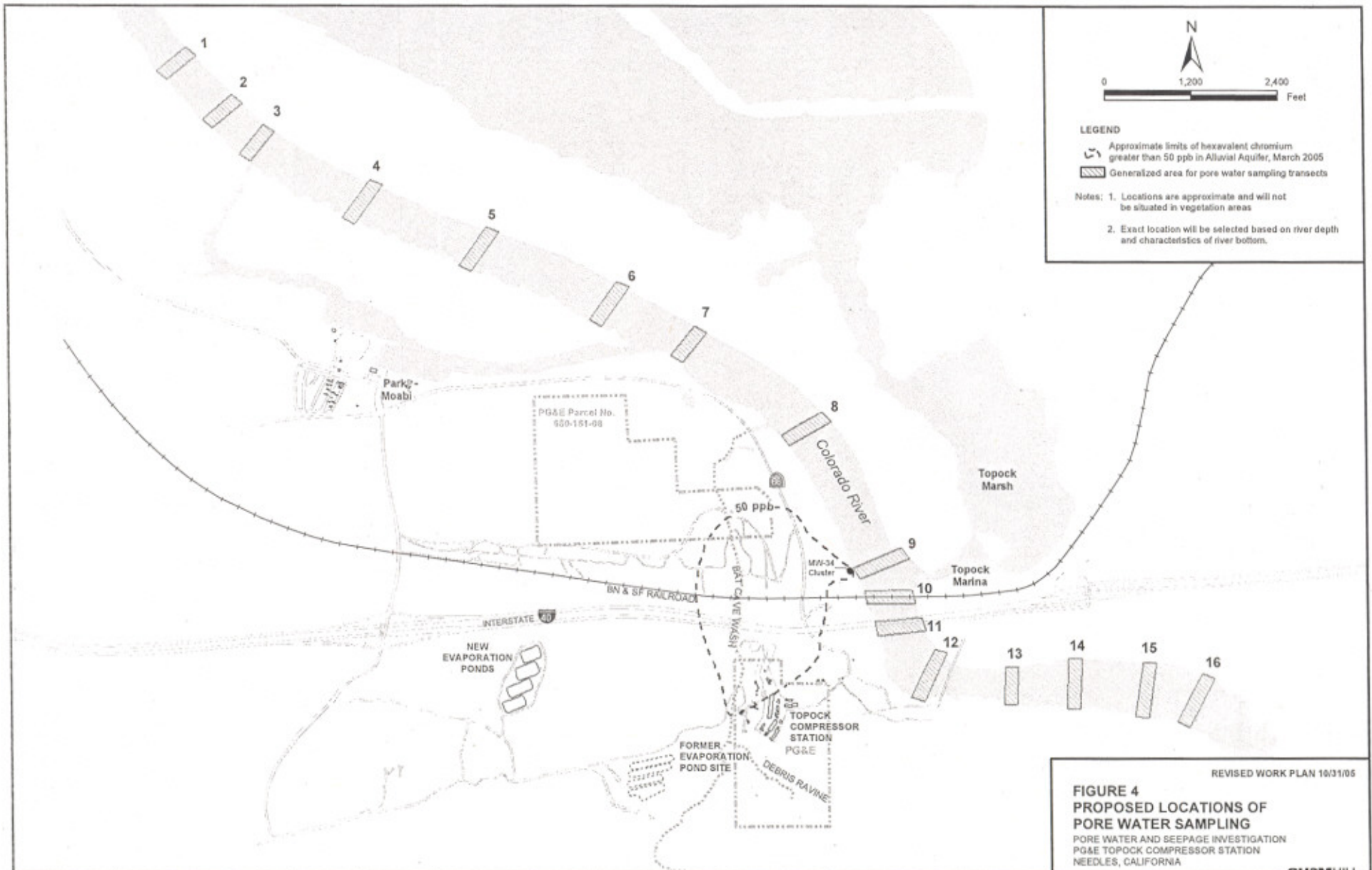
REVISED WORK PLAN 16/31/05

**FIGURE 2
PROPOSED PILOT STUDY AREA**

PORE WATER AND SEEPAGE INVESTIGATION
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA



REVISED WORK PLAN 10/31/05



N

0 1,200 2,400
Feet

LEGEND

Approximate limits of hexavalent chromium greater than 50 ppb in Alluvial Aquifer, March 2005

Generalized area for pore water sampling transects

Notes:

1. Locations are approximate and will not be situated in vegetation areas
2. Exact location will be selected based on river depth and characteristics of river bottom.

REVISED WORK PLAN 10/31/05

FIGURE 4
PROPOSED LOCATIONS OF
PORE WATER SAMPLING
 PORE WATER AND SEEPAGE INVESTIGATION
 PG&E TOPOCK COMPRESSOR STATION
 NEEDLES, CALIFORNIA