

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
CENTRAL VALLEY REGION

RESOLUTION NO. R5-2008-0048

CONDITIONAL WAIVER OF WASTE DISCHARGE REQUIREMENTS  
FOR  
CONTRA COSTA WATER DISTRICT AND VICTORIA ISLAND, LP  
ALTERNATIVE INTAKE PROJECT  
DEWATERING DISCHARGE TO LAND  
SAN JOAQUIN AND CONTRA COSTA COUNTIES

WHEREAS, Water Code Section 13260(a) requires that any person discharging wastes or proposing to discharge wastes within the region that could affect the quality of waters of the State shall file a Report of Waste Discharge (RWD); and

WHEREAS, on 21 November 2007, Contra Costa Water District and Victoria Island, LP (hereafter referred to as "Dischargers"), submitted a RWD for the discharge of extracted groundwater to support construction of the Alternative Intake Project; and

WHEREAS, on 15 November 2006, the Contra Costa Water District Board of Directors approved a Final Environmental Impact Report (FEIR) for the project. Compliance with Regional Water Board requirements to protect water quality and preparation/implementation of a Storm Water Pollution Prevention Plan were the only mitigation measures related to water quality included in the FEIR; and

WHEREAS, the project will include construction of: a) a new screened water intake and pump station on Victoria Island (in San Joaquin County); b) levee improvements on Victoria Island to accommodate the intake and pump station; and c) a 12,000- to 14,000-foot long buried 6-foot diameter pipeline to convey raw water from the new intake across Victoria Island and under Old River to the existing Old River conveyance system on Byron Tract (in Contra Costa County); and

WHEREAS, the entire project site encompasses unsectioned portions of T1N, R4E and T1S, R4E MDB&M, and is depicted on Attachment A, which forms part of this resolution by reference; and

WHEREAS, construction of the project requires dewatering to facilitate construction of the setback levee, the intake and pump station, the pipeline across Victoria Island, and the Old River pipeline crossing; and

WHEREAS, the primary dewatering discharge site for the project is owned by Victoria Island, LP and comprises approximately 550 acres in the southwestern portion of Victoria Island (Assessors Parcel Numbers 129-190-030 and 129-190-024), as shown on Attachment B, which forms part of this resolution by reference; and

WHEREAS, groundwater extracted during construction on Byron Tract (less than 2,500 gallons per day) will be used for dust control in construction areas on Byron Tract; and

WHEREAS, shallow groundwater will be extracted through a series of shallow wells at 30- to 50-foot intervals at the alternative intake and tunnel shaft sites, and along the pipeline.

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Extracted groundwater will be discharged to the designated discharge area and allowed to percolate and evaporate; and

WHEREAS, dewatering wells will typically be 40 feet deep and 8 inches in diameter. Shallow trench drains with submersible pumps may be used in some dewatering areas; and

WHEREAS, dewatering well permits will be obtained from the Contra Costa and San Joaquin County Environmental Health Departments, as appropriate; and

WHEREAS, the project will likely be completed by February 2010, and expected dewatering discharge rates will vary as summarized in the table below; and

<u>Approximate Dewatering Period</u>	<u>Construction Activity</u>	<u>Estimated Discharge Rate (gpd)</u>	<u>Equivalent Monthly Application Depth (inches)<sup>1</sup></u>
April-July 2008	Setback Levee	4,500	<0.1
August-September 2008	Setback Levee Intake/Pump Station	4,500	<0.1
October-December 2008	Setback Levee Intake/Pump Station River Crossing	4,500 to 5,500	<0.1
January-April 2009	Intake/Pump Station River Crossing	300,000 to 500,000	0.7 to 1.1
May-September 2009	Intake/Pump Station River Crossing Pipeline	1,400,000 (2,700,000 peak day)	3.1 to 6.0 <sup>2</sup>
October 2009-February 2010	Intake/Pump Station	300,000 to 500,000	0.7 to 1.1

<sup>1</sup> Based on a net discharge area of 500 acres for 30 consecutive days.

<sup>2</sup> The higher value is based on an extraction rate of 2,700,000 gpd for 30 consecutive days, which is unlikely to occur.

WHEREAS, extracted groundwater will be conveyed by temporary pipelines to the designated discharge area and will be land applied using flood irrigation methods at a hydraulic rate that does not exceed the long-term evaporation and percolation ability of the soil. The designated discharge area consists of several discrete fields separated by drainage ditches that are protected by soil berms. The discharge system includes isolation valves. Some temporary ponding will likely occur, and the existing berms surrounding the fields and management of discharge rates and schedules will be used to contain the water at all times; and

WHEREAS, shallow groundwater is typically encountered at less than one to ten feet below the surrounding grade along the entire pipeline alignment. Victoria Island is below sea

level and is continuously dewatered via a series of reclamation ditches that discharge to Old River; and

WHEREAS, the discharger installed five piezometers on Victoria Island and Byron Tract to assess groundwater depth and quality, as shown on Attachment B, which forms part of this resolution by reference; and

WHEREAS, based on analysis of shallow groundwater samples from the piezometers in September 2006 and July 2007, the quality of shallow groundwater to be extracted on Victoria Island is characterized as follows:

<u>Parameter</u>	<u>Range of Results</u>
Specific Conductance	858 to 4,608 umhos/cm
Total Dissolved Solids	558 to 2,740 mg/L
pH	7.5 to 7.8
Chloride	148 to 1132 mg/L
Nitrate Nitrogen	<0.5 mg/L <sup>1</sup>

<sup>1</sup> Based on a single sample obtained from two piezometers in September 2006.

Two shallow groundwater samples obtained from a single piezometer on Byron Tract were significantly more saline than the Victoria Island samples with a specific conductance value of 6,780 umhos/cm; and

WHEREAS, the quality of shallow groundwater beneath the designated discharge area is characterized as follows; and

<u>Parameter</u>	<u>Range of Results</u>
Specific Conductance	3,570 to 4,520 umhos/cm
Total Dissolved Solids	2,313 to 2,740 mg/L
pH	7.6 to 7.8
Chloride	580 to 611 mg/L
Nitrate Nitrogen	<0.5 mg/L <sup>1</sup>

<sup>1</sup> Based on a single sample obtained in September 2006.

WHEREAS, the RWD included an adequate operation and maintenance plan that included best management practices to prevent discharges to surface water; and

WHEREAS, the RWD included a water balance that demonstrates that the designated discharge area provides significantly more disposal capacity than that required for the anticipated discharge rates using a reasonably conservative numerical model; and

WHEREAS, surface water drainage from the project site is to the Sacramento San Joaquin River Delta; and

WHEREAS, the designated beneficial uses of the of the Sacramento San Joaquin River Delta are municipal and domestic supply; agricultural supply; industrial process and service supply; water contact recreation; non-contact water recreation; warm and cold freshwater habitat; migration of aquatic organisms; spawning, reproduction, and/or early development; wildlife habitat, and navigation; and

WHEREAS, the designated beneficial uses of the groundwater are municipal and domestic supply, agricultural supply, and industrial service supply; and

WHEREAS, the Regional Water Quality Control Board, Central Valley Region has a statutory obligation to prescribe waste discharge requirements except where a waiver is not against the public interest; and

WHEREAS, the Regional Water Board has determined that due to the fact that shallow groundwater will be extracted from, and discharged back into, the same aquifer with little potential for evapoconcentration in or near the same area from which it was extracted, the discharge poses little or no threat to water quality if the water is discharged under conditions that prevent discharge to surface water; and

WHEREAS, the Regional Board held a hearing on 14 March 2008 in Rancho Cordova, California and considered all evidence concerning this matter:

RESOLVED, that the California Regional Water Quality Control Board, Central Valley Region waives waste discharge requirements for the Alternative Intake Project dewatering discharge, subject to the following conditions:

**Discharge Prohibitions**

1. Discharge of extracted groundwater to surface waters or surface water drainage courses is prohibited.
2. Discharge of waste classified as “hazardous” as defined in 27 CCR Section 20164 is prohibited.
3. Bypass or overflow of extracted groundwater from the designated discharge area shown on Attachment B is prohibited.

**Discharge Specifications:**

1. The discharge flow rate shall not exceed the percolative and evaporative capacity of the designated discharge area.

2. Extracted groundwater used for dust control shall be managed to prevent overspray or runoff that discharges to surface waters.
3. The discharge shall not cause a condition of pollution or nuisance as defined by the California Water Code, Section 13050.
4. Objectionable odor originating at the designated discharge area shall not be perceivable beyond the limits of that area.
5. The Dischargers shall operate all systems and equipment to optimize the quality of the discharge.
6. Storm water best management practices, as described in the Storm Water Pollution Prevention Plan, shall be implemented at all times.
7. This waiver expires on **31 December 2012**. The Dischargers must submit a RWD at least 120 days before the expiration date to obtain a new waiver if they wish to continue the discharge after the expiration date.

### Provisions

1. The Dischargers shall comply with the monitoring and reporting requirements prescribed in Monitoring and Reporting Program No. R5-2008-0048. In so doing, the Discharger shall comply with the "Standard Provisions and Reporting Requirements for Waste Discharge Requirements," dated 1 March 1991, which are attached hereto and made part of this Order by reference.
2. Contra Costa Water District will generate the waste subject to the terms and conditions of this waiver and will maintain exclusive control over the discharge. Victoria Island, LP is named as a co-discharger because this entity owns the land where the discharge will occur. As such, Contra Costa Water District is primarily responsible for compliance with the conditions of this Resolution.

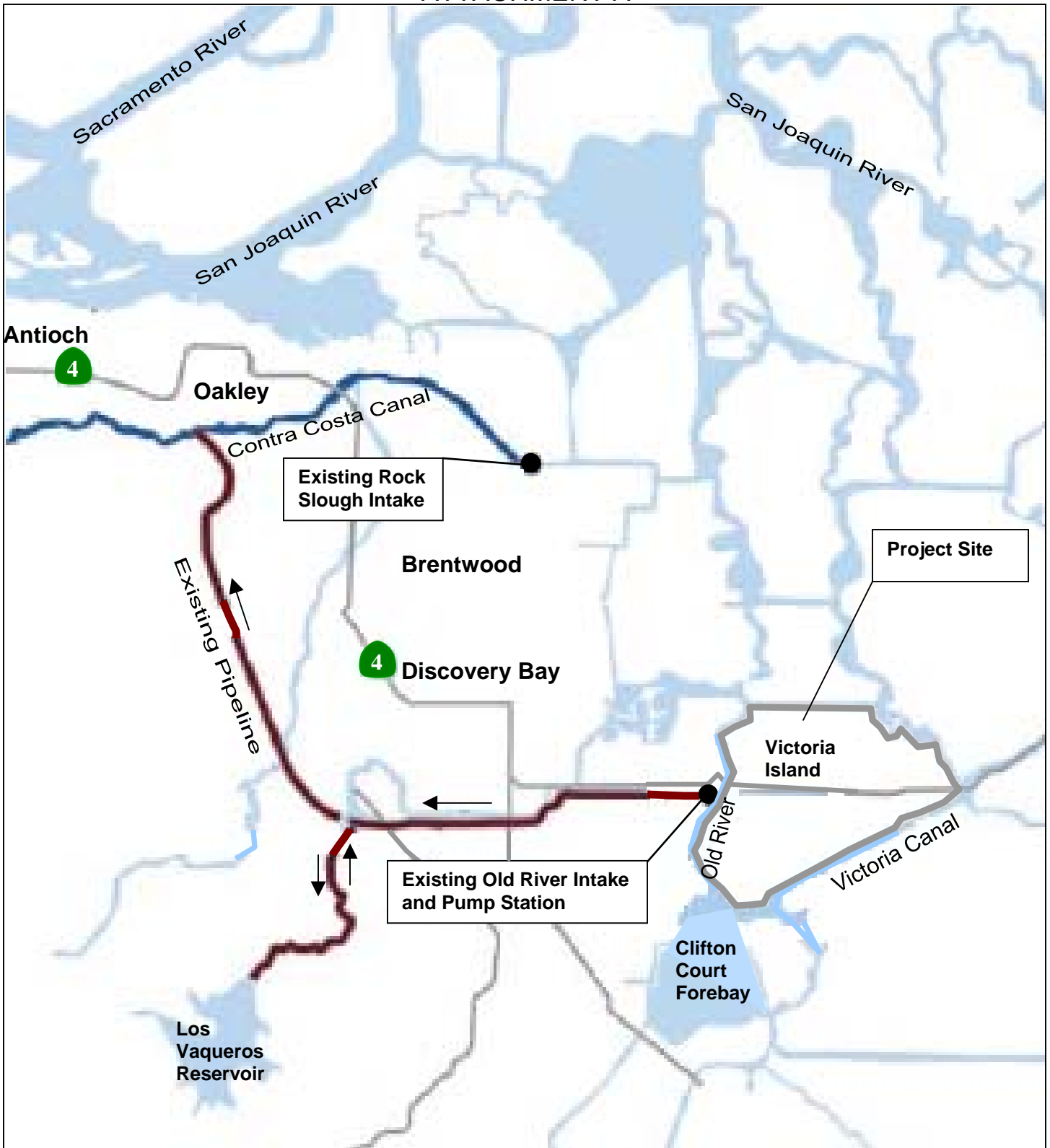
RESOLVED, that this action waving waste discharge requirements is conditional and may be terminated at any time prior to 31 December 2012.

I, PAMELA C. CREEDON, Executive Officer, do hereby certify the foregoing is a true, full, and correct copy of a resolution adopted by the California Regional Water Quality Control Board, Central Valley Region, on 14 March 2008.

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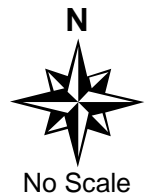
PAMELA C. CREEDON, Executive Officer

ATTACHMENT A

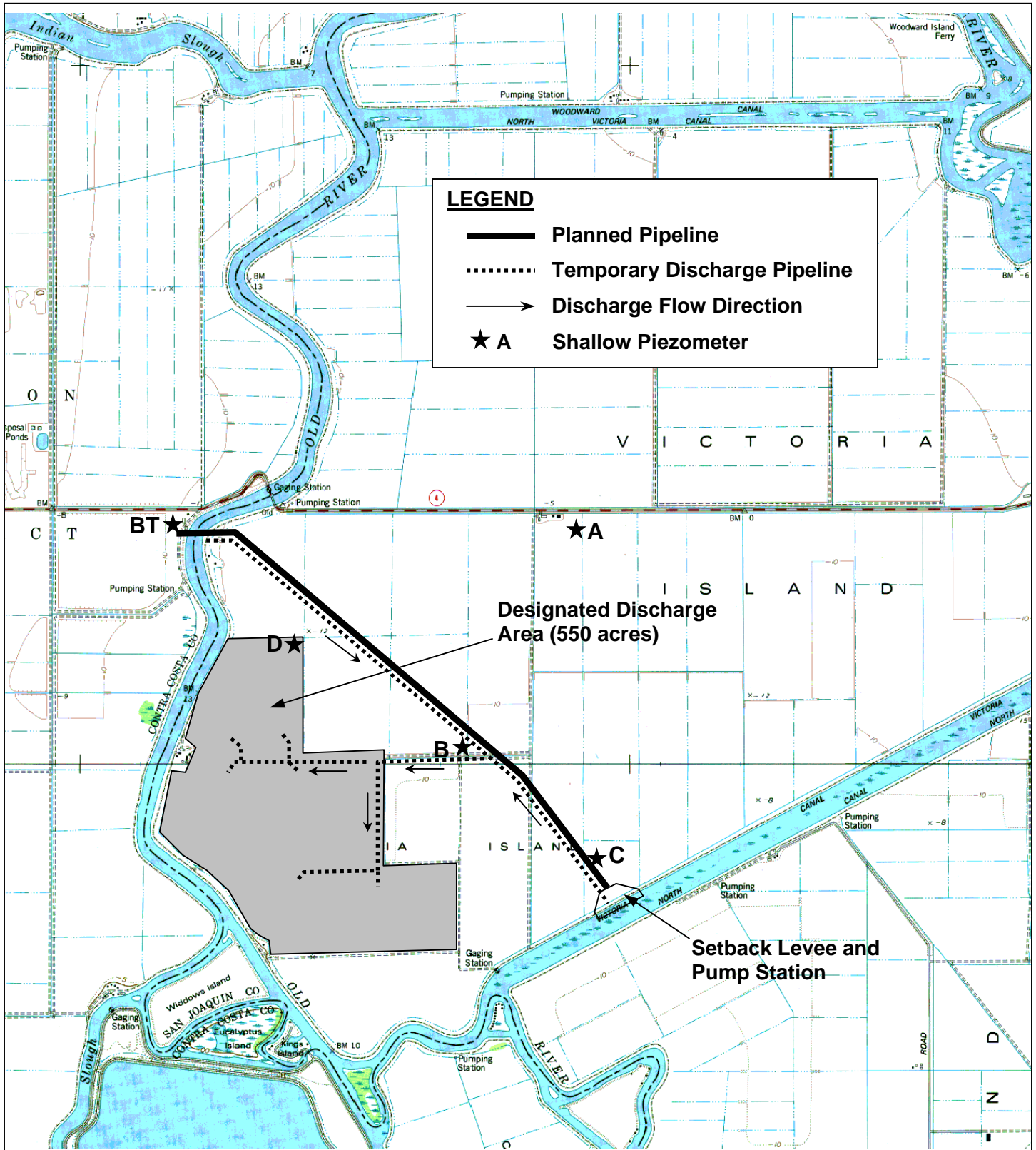


Drawing Reference:  
Alternative Intake Project  
Fact Sheet, Contra Costa  
Water District, December  
2006





**LOCATION MAP**  
CONTRA COSTA WATER DISTRICT  
ALTERNATIVE INTAKE PROJECT  
SAN JOAQUIN AND CONTRA COSTA COUNTIES  
  
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# ATTACHMENT B



**LEGEND**

-  **Planned Pipeline**
-  **Temporary Discharge Pipeline**
-  **Discharge Flow Direction**
-  **A** **Shallow Piezometer**

Drawing Reference:  
 Alternative Intake Project  
 Report of Waste  
 Discharge, Contra Costa  
 Water District, November  
 2007, Attachment 3.

**SITE PLAN**  
 CONTRA COSTA WATER DISTRICT  
 ALTERNATIVE INTAKE PROJECT  
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Approx. scale:  
 1" = 3,100'

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
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MONITORING AND REPORTING PROGRAM NO. R5-2008-0048  
FOR  
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This Monitoring and Reporting Program (MRP) describes requirements for monitoring reclaimed water and reclaimed water reuse areas. This MRP is issued pursuant to Water Code Section 13267. The Dischargers shall not implement any changes to this MRP unless and until a revised MRP is issued by the Executive Officer.

**DEWATERING DISCHARGE AREA MONITORING**

The Dischargers shall monitor the dewatering discharge area in accordance with the following. Monitoring shall be performed at least weekly and the results shall be included in the monthly monitoring report. Erosion, ground saturation, the effectiveness of containment berms and levees, and nuisance conditions shall be evaluated weekly and discussed in the report. The discharge shall also be monitored to estimate hydraulic loading rates.

<u>Parameter</u>	<u>Units</u>	<u>Type of Sample</u>	<u>Monitoring Frequency</u>	<u>Reporting Frequency</u>
Flow from extraction wells to each discharge area <sup>1</sup> a) Designated Discharge Area b) Dust Control	Gallons and inches	Estimation	Weekly	Monthly
Rainfall	inches	Measurement	Weekly	Monthly
Net acreage receiving the discharge <sup>1</sup>	acres	Estimation	Weekly	Monthly

<sup>1</sup> Specific discharge areas shall be identified on a scaled map.

**REPORTING**

In reporting monitoring data, the Dischargers shall arrange the data in tabular form so that the date and monitoring results are readily discernible. The data shall be summarized in such a manner to clearly illustrate compliance with the conditions of Resolution No. R5-2008-0048. The results of any monitoring done more frequently than required at the locations specified in the Monitoring and Reporting Program shall be reported to the Regional Water Board.



### A. Monthly Monitoring Reports

Monthly reports shall be submitted to the Regional Water Board on the **1<sup>st</sup> day of the second month following monitoring** (i.e. the January Report is due by 1 March). At a minimum, the monthly monitoring reports shall include the results of dewatering discharge area monitoring, as specified above.

### B. Annual Report

An Annual Report shall be prepared annually and after completion of the project. The Annual Report shall include all monitoring data required in the monthly schedule, and shall be submitted to the Regional Water Board by **1 February each year**. In addition to the data normally presented, the Annual Report shall include the following:

1. Tabular and graphical summaries of all data collected during the year.
2. An evaluation of the discharge areas and discussion of any structural or operational improvements needed for future use of these areas.
3. A discussion of compliance and the corrective action taken.
4. A discussion of any data gaps and potential deficiencies/redundancies in the monitoring system or reporting program.

A letter transmitting the self-monitoring reports shall accompany each report. The letter shall include a discussion of all problems found during the reporting period, and actions taken or planned for correcting them, such as operation or facility modifications. If the Dischargers have previously submitted a report describing corrective actions and/or a time schedule for implementing the corrective actions, reference to the previous correspondence will be satisfactory. The transmittal letter shall contain the penalty of perjury statement by the Dischargers, or the Dischargers' authorized agents, as described in the Standard Provisions General Reporting Requirements Section B.3.

The Discharger shall implement the above monitoring program as of the date of this Resolution.

Ordered by: \_\_\_\_\_  
PAMELA C. CREEDON, Executive Officer

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(Date)