FACT SHEET

1. BACKGROUND

On March 26, 1979, the Regional Board adopted Order No. 79-23 Waste Discharge Requirements for the discharge of treated effluent from the Meadowlark Water Reclamation Plant (MWRP). In 1987, Order No. 79-23 was superseded by Order No. 87-81, which established new requirements for disposal of up to 2.0 million gallons per day (MGD) of tertiary treated wastewater. Subsequently, Order No. 87-81was replaced by Order 93-23, which addressed State Water Resources Control Board procedures, but no changes were made to operations or flow levels. In November 1996, Addendum No. 1 to Order No. 93-23 was later adopted to increase the flow capacity of MWRP to 2.25 MGD.

On January 18, 2005, the Vallecitos Water District (hereafter Discharger) submitted a Report of Waste Discharge (ROWD) to upgrade the existing system and increase the plants flow capacity to 5.0 MGD. An amended September 2005 ROWD, was supplemented with an additional technical report dated May 6, 2006, which completed the ROWD.

2. FACILITY DESCRIPTION

The MWRP at 7941 Cornita Street in Carlsbad treats mainly residential wastewater utilizing Rotating Biological Contactor (RBCs) tertiary treatment system. The treatment plant produces disinfected tertiary effluent in compliance with Title 22 of the California Code of Regulations for purveyance of recycled water by the Carlsbad and Olivenhain Water Districts under their master reclamation permits. Recycled water is either delivered directly to the water districts or stored in the Discharger's 54 million gallon capacity Mahr Storage Reservoir.

The Discharger is part of the Encina Wastewater Authority, which operates the Encina Water Pollution Control Facility (EWPCF). The EWPCF discharges up to 43.3 MGD of secondary treated effluent to an ocean outfall regulated by Order No. R9-2005-0219, NPDES No. CA 0107395. Order No. R9-2005-0219 authorizes the MWRP to discharge up to 5.0 MGD of secondary treated wastewater Encina's ocean outfall, if needed. Therefore, no 84-day wet weather storage capacity is needed at the facility since it has the ability to discharge directly an NPDES permitted ocean outfall via a pipeline.

Order No. R9-2005-0219 also authorizes the discharge of solids from MWRP to the via a land outfall. Up to 0.5 MGD of solids is mixed with raw wastewater in the land outfall and discharged to the headworks at EWPCF for treatment. Since solids are returned to the EWPCF, establishing biosolids specifications and

biosolids monitoring in Tentative Order No. R9-2007-0018 (Tentative Order) are not necessary.

3. PROPOSED IMPROVEMENTS

The RBC system will be replaced with activated sludge treatment system consisting of upgraded headworks, primary sedimentation tanks, aeration basins, secondary clarifiers, and new media roughing filters [1]. The RBCs will not be used in the new system and will be abandoned in place.

4. LEGAL AUTHORITIES

The Tentative Order serves as Waste Discharge Requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the California Water Code (commencing with Section 13260). The Regional Boards prescribes the WDRs under Section 13263 and the Monitoring and Reporting Program under Section 13267.

5. HISTORICAL MONITORING DATA

Table 1 & 2 summarizes the effluent quality from 2006:

TABLE 1

CONSTITUENT	Units	**MONTHLY AVERAGE**	**Daily Maximum**
Biochemical Oxygen Demand ($CBOD_5$ @ 20°C)	mg/L	13.1	34.8
Total Suspended Solids	mg/L	2.1	4.9
pH (within limits shown at all times)	pH units	6.50	

[1] Kennedy/Jenks Consultants, 2006. Report of Waste Discharge for Meadowlark Water Reclamation Facility

TABLE 2

CONSTITUENT	Units	12-MONTH AVERAGE	DAILY MAXIMUM
Total Dissolved Solids (TDS)	mg/L	969	1069
Chloride (Cl)	mg/L	240	257
Manganese (Mn)	mg/L	0.031	0.046
Iron	mg/L	0.04	0.065
Boron (B)	mg/L	0.38	0.4

TABLE 3

CONSTITUENT	Units	DAILY MINIMUM	DAILY MAXIMUM
Aluminum	mg/L	0.055	0.089
Arsenic	mg/L	ND	ND
Barium	mg/L	0.042	0.077
Cadmium	mg/L	ND	0.005
Chromium	mg/L	ND	0.005
Copper	mg/L	0.017	0.030
Lead	mg/L	ND	0.005
Mercury	mg/L	ND	0.0002
Selenium	mg/L	ND	ND
Silver	mg/L	ND	ND
Zinc	mg/L	0.029	0.044

Table 3 lists the range of metals concentrations in effluent monitoring data form 2004-2006. The data indicates that concentrations are below Basin Plan standards and have not varied significantly over the last 3 years.

6. WATER QUALITY CONTROL PLAN STANDARDS

This Regional Board, acting in accordance with section 13244 of the California Water Code, adopted the Water Quality Control Plan for the San Diego Basin (9),

(hereinafter Basin Plan) on September 8, 1994. The Basin Plan was subsequently approved by the State Water Resources Control Board (SWRCB) on December 13, 1994. Subsequent revisions to the Basin Plan have also been adopted by the Board and approved by the SWRCB.

The Basin Plan establishes the following existing and potential beneficial uses of the ground waters following Hydrologic Areas:

HYDROLOGIC AREA	Municipal	Agricultural	Industrial Supply
4.21 El Salto[1]	Existing	Existing	Potential
4.31 Los Monos[1]	Existing	Existing	Existing
4.31 Los Monos[2]	Potential	Potential	Potential
4.31 Los Monos[3]	Potential	Existing	Potential
4.51 Batiquitos[1,4]	Existing	Existing	Existing
4.51 Batiquitos[5]	Potential	Potential	Potential
4.52 Richland[1,4]	Existing	Existing	Existing
4.61 San Elijo[1]	Potential	Existing	Existing
4.40 Encinas	6		

1 These beneficial uses do not apply westerly of the easterly boundary of the right-of-way of Interstate 5 and this area is excepted from the sources of drinking water policy. The beneficial uses for the remainder of the hydrologic area as shown.

2 These beneficial use designations apply to the portion of HSA 4.31 bounded on the west by the easterly boundary of Interstate 5 right-of-way; on the east by the easterly boundary of El Camino Real; and on the north by line extending along the southerly edge of Aqua Hedionda Lagoon to the easterly end of the lagoon, thence in an easterly direction to Evans Point, thence easterly to El Camino Real along the ridge lines separating Letterbox Canyon and the area draining to the Marcario Canyon.

3 These beneficial use designations apply to the portion of HAS 4.31 tributary to Aqua Hedionda Creek downstream from the El Camino Real crossing, except lands tributary to Marcario Canyon (located directly southerly of Evans Point), land directly south of Aqua Hedionda Lagoon, and areas west of Interstate 5.

4 These beneficial uses do not apply to HSA 4.51 and HSA 4.52 between Highway 78 and El Camino Real and to all lands which drain to Moonlight Creek and to Encinitas Creek and this area is excepted from the sources of drinking water policy. The beneficial uses for the remainder of the hydrologic area as shown.

5 These beneficial use designations apply to the portion of HAS 4.51 bounded on the south by the north shore of Batiquitos Lagoon, on the west by the easterly boundary of the Interstate Highway 5 right-of-way, on the north by the subarea boundary and on the east by the easterly boundary of El Camino Real.

6 Excepted from Municipal Beneficial Uses

The Basin Plan also states that waters designated for use as domestic or municipal supply shall not contain concentrations of chemical constituents in excess of the maximum contaminant levels (MCL) specified in the California Code of Regulations, Title 22, Table 64431-A of Section 64431 (Primary MCL, Inorganic Chemicals), Table 64431-B of Section 64431 (Primary MCL, Fluoride), Table 64444-A of Section 64444 (Primary MCL, Organic Chemicals), and Table 64449-A of Section 64449 (Secondary Maximum Contaminant Levels, Consumer Acceptance Limits), incorporated by reference, including future changes to the incorporated provisions as the changes take effect. The Basin Plan [2] establishes the following ground water quality objectives for the following Hydrologic Areas:

BASIN PLAN GROUNDWATER WATER QUALITY OBJECTIVES (mg/L or as noted)													
(Concentrations not to be exceeded more than 10% of the time during any one year period)													
HYDROLOGIC AREA	**TDS**	**Cl**	**SO_4**	**% Na**	**NO_3**	**Fe**	**Mn**	**MBAS**	**B**	**ODOR**	**TURB**	**COLOR (UNITS)**	**F**
4.21, 4.31, 4.40, 4.51	**3500**	**800**	**500**	**60**	**45**	**0.3**	**0.05**	**0.5**	**2**	**None**	**5**	**15**	**1**
4.61	**2800**	**700**	**600**	**60**	**45**	**0.3**	**0.05**	**0.5**	**1.0**	**None**	**5**	**15**	**1**

7. RATIONALE FOR DISCHARGE SPECIFICATIONS

The Discharger has not proposed any changes to the effluent limits in the Tentative Order since the quality of the effluent from the new treatment system will be similar and reuse areas for the recycled water has not changed. [3] The new treatment system proposed by the Discharger will meet federal secondary treatment standards for Biological Oxygen Demand (BOD), Total Suspended Solids, and pH.[4] The new treatment will also produce effluent quality with total dissolved solids, chloride, manganese, iron, and boron below groundwater water

[2] SDRWQCB, 1994. Basin Plan. Table 3-3.
[3] Kennedy/Jenks Consultants, 2006. Report of Waste Discharge for Meadowlark Water Reclamation Facility. Pages 3-1 & 5-1.
[4] 40 CFR 133

quality objectives in the Basin Plan (Listed on Table 2).[5] Some of the effluent limits in the Tentative Order are lower than those allowed by the Basin Plan, but are consistent with the Basin Plan requirements for reclaimed water. [6] The Discharger's self monitoring reports from 2005-2006 indicate that the previous effluent limits have not been exceeded and quality of the discharge will not change. [7] Therefore, no additional constituents have been added as effluent limits to the Tentative Order.

Effluent from MWRP discharged for recycled water use shall be treated to the most restrictive level in conformance with all applicable provisions of California Code of Regulations, Title 22, Division 4, Chapter 3 (Water Recycling Criteria) for the appropriate type of recycled water use (currently Sections 60303 through 60307, 60320, and 60320.5). The effluent limits for coliform, turbidity, and Chlorine Contact Time (CT) in the Tentative Order are based on requirements for disinfected tertiary effluent in compliance with these Title 22 regulations.

8. MONITORING AND REPORTING PROGRAM

Monitoring And Reporting Program (MRP) in the Tentative Order includes, continuous, weekly, monthly, and every 5 years sampling for constituents. The proposed frequencies are adequate since the wastewater is from mainly residential sources and not expected to be variable.

The sampling for metals has been changed form annually to once every 5 years since the metals effluent monitoring data from 2004-2006 indicates that concentrations are below Basin Plan limits and have not varied significantly. CT and total chlorine residual have added to the MRP to ensure effluent quality meets all Title 22 tertiary requirements. The Discharger's self monitoring reports from 2005-2006 indicate that effluent limits have not been exceeded, and the quality of the discharge will not change. [8] Therefore, no other additional constituents have been added to the MRP of the Tentative Order.

The Potable Supply Waters monitoring section has been removed since the 13 years of data from the previous Order No. R9-1993-0023 is adequate to characterize the quality of the supply water.

[5] Ibid. Page 5-1.
[6] SDRWQCB, 1994. Basin Plan. Page 4-38. Implementation of Ground Water Objectives for Reclaimed Discharges.
[7] Vallecitos Water District, 2005-06, Self Monitoring Reports for Order No. R9-1993-0023
[8] Vallecitos Water District, 2005-06, Self Monitoring Reports for Order No. R9-1993-0023