Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

Carbon Canyon Water Recycling Facility

Title 22 Engineering Report

DDB

ENGINEERING, INC.

April 2014

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1 INTRODUCTION

The purpose of this engineering report is to evaluate the design and reliability features of the Carbon Canyon Water Recycling Facility (CCWRF) operated by Inland Empire Utilities Agency (IEUA) and demonstrate its compliance with water recycling criteria set forth in Title 22 of the California Code of Regulations. This section describes the background of the facility and the objective of this document.

1.1 BACKGROUND

IEUA owns and operates the CCWRF, located at the southwest corner of the intersection of Chino Hills Parkway and Telephone Avenue in San Bernardino County. Located at 14950 Telephone Avenue in the City of Chino, the CCWRF serves the cities of Chino, Chino Hills, Montclair, and Upland. The CCWRF began operation in 1992. IEUA has constructed subsequent modifications to its wastewater collection system and treatment facilities to serve the needs of these communities. For example, wastewater flows from Montclair can be diverted to IEUA's Regional Plant No. 1 (RP-1) in Ontario if necessary. Similarly, a portion of wastewater flows from Upland, Chino, or Chino Hills can be diverted to IEUA's Regional Plant No. 5 (RP-5).

The CCWRF is operated under Regional Water Quality Control Board, Santa Ana Region (RWQCB) Order No. R8-2009-0021 and National Pollutant Discharge Elimination System (NPDES) Permit No. CA8000409 (RWQCB, 2009). A copy of this permit is included in Appendix A. The CCWRF discharges treated effluent to Chino Creek and a portion of the effluent is reused. Solids are pumped to and treated at IEUA's Regional Plant No. 2 (RP-2). According to its permit, the CCWRF is designed to treat an annual average flow of 11.4 million gallons per day (mgd). The permit does not limit the annual average flow at CCWRF, but rather specifies an agency-wide allowable combined flow of 84.4 mgd from all IEUA plants (RP-1, RP-4, RP-5, and CCWRF).

1.2 OBJECTIVE

The objective of this report is to demonstrate CCWRF compliance with California Code of Regulations (CCR) Title 22, Division 4, Chapter 3, entitled Water Recycling Criteria (CCR, 2001). Section 60323, Article 7 of these Criteria requires submittal of an engineering report to the RWQCB and California Department of Public Health (CDPH).

IEUA submitted a Title 22 Engineering Report for CCWRF that was approved by CDPH in 2005 (CDPH, 2005). Since that time several modifications of the CCWRF facilities have been made.

The influent diversion structure was upgraded to provide enhanced flow controls by automatically diverting peak flows to RP-5 and enabling CCWRF to operate as a skimming plant. Demonstration testing of the continuous automatic backwash filters was approved by CDPH and the RWQCB to allow CCWRF to operate at a higher filtration rate (4.0 gallons per minute per square foot (gpm/sq ft)) than generally allowed by Title 22 for that type of tertiary filter (2 gpm/sq ft) (CDPH, 2010 and RWQCB, 2010). New recycled water pumps have been installed to increase the capacity of pumping to the regional recycled water distribution system. Other improvements have also been completed at CCWRF.

This engineering report documents how the CCWRF complies with Title 22 Water Recycling Criteria.

2 REGULATORY REQUIREMENTS

Wastewater treatment, disposal, and reuse are regulated by local, State, and Federal requirements primarily to protect public health, safety, and general welfare. In California, water recycling has received support from the U. S. Environmental Protection Agency (EPA), State Water Resources Control Board (SWRCB), and CDPH as a means of effluent reuse and disposal. This section describes the types of reuse and regulatory requirements that pertain to the CCWRF.

2.1 TYPES OF REUSE

IEUA discharges treated effluent from the CCWRF via Discharge Point 004 (DP-004) Outfall to Reach 2 of Chino Creek, which is a tributary of the Santa Ana River. A portion of the effluent is reclaimed for landscape irrigation, industrial uses, and in-plant utility water needs. Further description of recycled water uses is given in Section 8.

2.2 WATER RECYCLING CRITERIA

Water recycling criteria are specified in the California Code of Regulations, Title 22, Division 4, Chapter 3. Water recycling requirements are established by CDPH. Enforcement of these criteria is the role of the SWRCB and its nine Regional Water Quality Control Boards. The CCWRF is under the jurisdiction of Regional Board No. 8, the Santa Ana River Basin RWQCB.

Commonly referred to as Title 22 Criteria, the treatment and effluent quality requirements are dependent upon the proposed type of water reuse. In addition to these requirements, Title 22 specifies reliability criteria to ensure protection of public health.

Effluent from CCWRF must comply with the highest categories of reuse, spray irrigation and non-restricted recreational and landscape impoundments. Under Title 22, wastewater is required to be oxidized, coagulated (as needed for turbidity reduction – see Section 3), filtered, and disinfected, or treated by a sequence of unit processes assuring an equivalent degree of treatment and reliability. Title 22 specifies that recycled water for the highest level of reuse be disinfected tertiary effluent.

With regard to filtration, the Title 22 Water Recycling Criteria specify a maximum filtration rate and effluent turbidity requirements. For traveling bridge automatic backwash filters like those at CCWRF, Title 22 typically limits the maximum filtration rate to 2 gpm/sq ft of surface area; however, upon successful completion of documentation testing, IEUA received approval from CDPH and the RWQCB to operate the CCWRF traveling bridge automatic backwash filters up to

a maximum filtration rate of 4.0 gpm/sq ft (CDPH, 2010 and RWQCB, 2010). An automatic coagulant feed system must be activated when the filter influent turbidity exceed 5 Nephelometric Turbidity Units (NTU) for 15 minutes. The CCWRF coagulant feed pumps are automatically started whenever the filter influent turbidity exceeds 0.5 NTU and stopped when it falls below 0.2 NTU. Typically, a low dose of alum is used for coagulation at all times to enhance filter performance and recycled water production for cooling tower use. Under Title 22, the turbidity of the filtered wastewater (filter effluent) may not exceed any of the following:

(1) an average of 2 NTU within a 24-hour period;

(2) 5 NTU more than 5 percent of the time within a 24-hour period; and

(3) 10 NTU at any time.

RWQCB Order No. R8-2009-0021 specifies these same turbidity requirements for the CCWRF filtered wastewater.

Permissible coliform bacteria levels are used as an indicator of effluent quality. For water reuse for spray irrigation and non-restricted recreational and landscape impoundments, the median number of coliform organisms must not exceed a most probable number (MPN) of:

(1) 2.2 per 100 milliliter (mL) sample of effluent for the last seven days for which bacteriological analyses have been completed;

(2) 23 per 100 mL sample of effluent in more than one sample within any 30-day period; and

(3) 240 total coliform bacteria per 100 mL in any sample.

If a chlorination disinfection process is used, such as that at CCWRF, Title 22 specifies that a concentration time (CT) value of at least 450 milligram-minutes per liter be provided with a modal contact time of at least 90 minutes based on peak dry weather design flow.

In addition to treatment and effluent quality, Title 22 sets forth general reliability requirements. The facilities must be designed for flexibility so that a high degree of treatment can be achieved under varying conditions. Components of a flexible design include multiple or standby treatment units or pieces of equipment. In addition, alarms are required to alert plant operators of power supply failure or failure of any treatment plant unit processes. In the event of a power supply failure, Title 22 requires the plant to provide either a standby power source or automatically actuated short-term or long-term storage or disposal provisions.

In order to assure that water recycling facilities comply with the regulations, Title 22 requires that an engineering report describing the proposed recycling system and the means for the system complying with listed requirements be prepared and submitted to the RWQCB and CDPH for approval.

2.3 CREEK DISCHARGE REQUIREMENTS

Product water that is not delivered for reuse is discharged into Reach 2 of Chino Creek. The IEUA agency-wide NPDES permit requires that CCWRF discharges to the creek be disinfected tertiary effluent suitable for non-restricted recreational impoundments as required under Title 22, except when the creek provides at least 20:1 dilution. When at least 20:1 dilution of the wastewater effluent can be provided by the natural flow of the creek at the point of discharge, the discharge may be disinfected secondary effluent.

During the dry season when the natural flow in the creek provides less than 20:1 dilution, the CCWRF discharge to the creek must comply with the same criteria as those specified for recycled water production, except that the modal contact time requirement for chlorination does not apply to the creek discharge. Disinfected tertiary effluent that has received less than 90 minutes of modal contact time in the chlorine contact tank may be discharged to Chino Creek if the natural flow in the creek provides at least a 1:1 dilution. In other words, the creek discharge must be fully disinfected tertiary treated effluent for periods without sufficient dilution.

3 WASTEWATER FLOW AND QUALITY

This section describes wastewater flow and quality characteristics, as well as treated effluent quality limitations for the CCWRF.

3.1 WASTEWATER FLOW CHARACTERISTICS

Influent and effluent flows are monitored continuously at CCWRF. Table 3-1 summarizes the 2011-12 flow data.

Table 3-1. 2011-12 Average Influent and Effluent Flows[1]

Flow Stream	Minimum Month[2] (mgd)	Average Month (mgd)	Maximum Month[3] (mgd)
Raw Influent Flow	6.4	7.3	7.9
Effluent Flow	1.5	4.7	7.7

[1]Source: Monthly average flow data for 2011-12 (IEUA, 2011-12 and IEUA, 2014).
[2]Minimum monthly average raw influent flow occurred in June 2011. Minimum monthly average effluent flow occurred in September 2012.
[3]Maximum monthly average raw influent flow occurred in four months: November 2011, January 2012, April 2012, and May 2012. Maximum monthly average effluent flow occurred in March 2011.

3.2 INFLUENT QUALITY CHARACTERISTICS

The chemical composition of raw wastewater influent to the CCWRF based on 2012 data is summarized in Table 3-2.

3.3 SOURCE CONTROL

The purpose of the industrial pretreatment and source control program is to prevent waste discharges into the collection and treatment works that may create hazardous conditions, damage the treatment facilities, endanger workers, or adversely affect the ability of the treatment facilities to meet their discharge permit and recycled water requirements.

IEUA administers a pretreatment control program to satisfy the U.S. Environmental Protection Agency (EPA) pretreatment regulations. EPA delegated responsibility to oversee the pretreatment program to the California State Water Resources Control Board (SWRCB) and the nine RWQCBs. The NPDES permits issued by the RWQCBs contain specific pretreatment program monitoring and reporting requirements. The pretreatment program is implemented in accordance with the industrial pretreatment regulations in the Code of Federal Regulations,

Table 3-2. Typical Influent Wastewater Characteristics[1]

Constituent	Units	Minimum	Average	Maximum
Specific Conductance	µmhos/cm	903	1,048	1,184
pH	units	6.9	7.1	7.2
Total Organic Carbon (TOC)	mg/L	166	246	334
Biochemical Oxygen Demand (BOD)	mg/L	308	451	627
Total Suspended Solids (TSS)	mg/L	228	390	730
Total Dissolved Solids (TDS)	mg/L	509	538	559
Ammonia-Nitrogen (NH_3-N)	mg/L	29.2	34.1	45.8
Total Inorganic Nitrogen (TIN)	mg/L	29.7	31.7	33.1
Total Nitrogen (TN)	mg/L	46.0	53.3	59.6
Boron	mg/L	0.2	0.3	0.3
Chloride	mg/L	100	116	132
Fluoride	mg/L	0.2	0.2	0.3
Sulfate	mg/L	35	45	53
Total Hardness, as $CaCO_3$	mg/L	169	198	250
Arsenic, Total Recoverable	µg/L	<10	<10	<10
Cadmium, Total Recoverable	µg/L	<10	<10	<10
Chromium, Total Recoverable	µg/L	<10	<10	<10
Copper, Total Recoverable	µg/L	40	63	80
Lead, Total Recoverable	µg/L	<20	<20	<20
Mercury, Total Recoverable	µg/L	<0.5	<0.5	<0.5
Nickel, Total Recoverable	µg/L	<10	<10	<10
Selenium, Total Recoverable	µg/L	<20	<20	<20
Silver, Total Recoverable	µg/L	<10	<10	<10
Zinc, Total Recoverable	µg/L	120	195	280
Free Cyanide (Aquatic)	µg/L	<2	<3	4
Bis (2-ethylhexyl) phthalate	µg/L	12	12	13

[1] Source: IEUA, 2011-12, from 2012 data (IEUA, 2011-12 and IEUA, 2014).

Section 40, Part 403 (40 CFR 403) to effectively control the types of wastes discharged into the sewer system. IEUA and the contracting member agencies serve as the administrator for all permit activities, including categorical, significant standards and the permitting process for all industrial and other discharges into their regional sewer system. In that administrative role, IEUA and the contracting member agencies establish regulations and discharge limits, and

conduct flow monitoring and sampling programs and inspections of each industry's pretreatment and monitoring systems.IEUA operates a separate Non-Reclaimable Wastewater (NRW) System that provides a disposal point for industries that produce brine wastes that would otherwise adversely affect the treated effluent quality if discharged to the regional wastewater collection system. The NRW System collects these brackish wastes and conveys them to either the Los Angeles County Sanitation Districts or Orange County Sanitation District for treatment and disposal to the ocean. The NRW System is a key element in IEUA's pretreatment and salinity management programs. In this manner, the CCWRF effluent quality is protected from harmful constituents.

3.4 EFFLUENT QUALITY LIMITS

Effluent discharge limits are established for CCWRF in RWQCB Order No. R8-2009-0021, NPDES No. CA8000409, which was adopted on July 20, 2009. RWQCB Order No. R8-2009-0021 is an agency-wide permit regulating four IEUA water recycling plants:

- Regional Plant No. 1 (RP-1);
- Regional Plant No. 4 (RP-4);
- Regional Plant No. 5 (RP-5); and
- Carbon Canyon Water Recycling Facility (CCWRF).

The IEUA permit covers eight effluent discharge points (DP) and two stormwater discharge points for the above plants. Two of these discharge points are for CCWRF:

- DP-004 CCWRF tertiary effluent discharge to Reach 2 of Chino Creek, which is a tributary to Reach 3 of the Santa Ana River; and
- DP-008 CCWRF recycled water to use areas overlying the Chino North "Max Benefit" Groundwater Management Zone (GMZ) or Chino 1, 2, and 3 "Antidegradation" GMZs.

The RWQCB issues discharge limits based on the beneficial uses and water quality objectives established in the updated and amended "Santa Ana River Basin Water Quality Control Plan" (RWQCB, 2011), commonly referred to as the "Basin Plan", and recommendations from other regulatory agencies, such as CDPH. The CCWRF is a tertiary treatment plant that discharges effluent to Reach 2 of Chino Creek and produces recycled water for landscape irrigation, industrial use, and on-site utility uses. Reach 2 of Chino Creek is a tributary to Reach 3 of the Santa Ana River. Solids from CCWRF are pumped to and treated at IEUA's RP-2, which is operated as a regional solids treatment facility. Liquid recycle streams from RP-2 are returned to RP-5 for treatment. Consequently, CCWRF functions as a scalping plant in IEUA's regional wastewater system. Specific effluent quality requirements for the CCWRF are discussed below.

3.4.1 BIOCHEMICAL OXYGEN DEMAND AND SUSPENDED SOLIDS LIMITS

Table 3-3 lists biochemical oxygen demand (BOD) and total suspended solids (TSS) limits for CCWRF from the IEUA discharge permit. These values are achievable with tertiary treatment and are intended to ensure that only adequately oxidized wastewater is discharged. The permit also requires that the monthly average effluent BOD and TSS concentrations be no greater than 15 percent of the monthly average influent BOD and TSS concentrations.

Table 3-3. Effluent BOD and TSS Limitations for Discharges to Reach 2 of Chino Creek[1]

Constituent	Average Weekly Concentration (mg/L)	Average Monthly Concentration (mg/L)
For Discharges Without 20:1 Dilution		
BOD	30	20
TSS	30	20
For Discharges With 20:1 Dilution		
BOD	45	30
TSS	45	30

[1] Source: RWQCB, 2009.

3.4.2 AMMONIA-NITROGEN AND CHLORINE RESIDUAL LIMITS

Table 3-4 lists the ammonia-nitrogen and total chlorine residual concentration limits for protection of receiving waters. Compliance determinations for total chlorine residual are based on 99 percent compliance with the following conditions:

- The total time during which the total chlorine residual values are above 0.1 mg/L (instantaneous maximum value) shall not exceed 7 hours and 26 minutes in any calendar month;
- No individual excursion from 0.1 mg/L value shall exceed 5 minutes; and
- No individual excursion shall exceed 5.0 mg/L.

Table 3-4. Effluent Ammonia-Nitrogen and Chlorine Residual Limitations[1]

Constituent	Instantaneous Maximum (mg/L)	Average Monthly (mg/L)
Ammonia-Nitrogen	---	4.5
Total Chlorine Residual	0.1	---

[1] Source: RWQCB, 2009.

3.4.3 TOTAL DISSOLVED SOLIDS AND TOTAL INORGANIC NITROGEN LIMITS

Restrictions are imposed for effluent salinity and Total Inorganic Nitrogen (TIN). Total Dissolved Solids (TDS – a measure of salinity) and TIN limits are summarized in Table 3-5.

Table 3-5. Effluent TDS and TIN Limitations[1]

Constituent	12-Month Average[2] (mg/L)	12-Month Average Emission Rate[3] (lbs/day)
TDS	550[4]	366,960
TIN	8	5,338

[1] Source: RWQCB, 2009.

[2] If the TDS or TIN limits are exceeded at CCWRF, compliance may be achieved by removal of an equivalent amount of TDS or TIN under a TDS and nitrogen offset program from RP-1, RP-4, and/or RP-5. TDS and TIN limits are agency-wide and are applicable to all four IEUA plants collectively.

[3] Mass emission rate is based on 80 mgd.

[4] The 12-month average limit for TDS cannot exceed 550 mg/L or the 12-month average TDS in the water supply by more than 250 mg/L. Compliance is based on the lower of the two limits, either 550 mg/L or 250 mg/L above the average water supply TDS in the IEUA service area. For compliance with maximum benefit provisions, the TDS of the recycled water produced collectively at the four IEUA plants may not exceed 550 mg/L. If maximum benefit provisions are not met, then antidegradation provisions must be met, which for CCWRF, would limit recycled water TDS to no more than 280 mg/L for uses overlying Chino 1 GMZ, 250 mg/L for uses overlying Chino 2 GMZ, and 260 mg/L for uses overlying Chino 3 GMZ.

The permit recognizes that effluent TDS is based on the TDS of the water supply sources utilized in the IEUA service area, yet it encourages the use of lower salinity water supplies by establishing a maximum effluent TDS limit. Compliance with the TDS requirements is based on the lower of either 550 mg/L or the area-wide water supply TDS plus 250 mg/L as a reasonable use increment. The permit imposes an agency-wide maximum wasteload allocation for TDS based on 550 mg/L and a total average flow of 80 mgd (RWQCB, 2009). Compliance with the

TDS limit is based on a 12-month flow-weighted running average of RP-1, RP-4, RP-5, and CCWRF.

For compliance with the TDS wasteload allocations specified in the Basin Plan, the "maximum benefit" commitments, to which IEUA has agreed, allow recycled water produced by IEUA's plants to have a maximum TDS of 550 mg/L throughout the Chino North "Max Benefit" Groundwater Management Zone (GMZ). The permit specifies that if the maximum benefit commitments are not met, then the TDS of the recycled water must comply with the more restrictive "antidegradation" limits for the three "Antidegradation" GMZs where the recycled water is used: (1) 280 mg/L in Chino 1 GMZ, (2) 250 mg/L in Chino 2 GMZ, and (3) 260 mg/L in Chino 3 GMZ. One of the goals of the maximum benefit commitments is salinity management through implementation of region-wide strategies.

TIN is the sum of nitrate, nitrite, and ammonia, measured as nitrogen. The TIN limit is based on an agency-wide effluent TIN requirement of 8 mg/L (volume-weighted basis) set forth in the IEUA permit, which implemented the updated and amended RWQCB Basin Plan (RWQCB, 2011). The agency-wide permit allows IEUA to offset nitrogen discharges in excess of the TIN limits provided that an equivalent amount of nitrogen is removed at one of IEUA's other wastewater treatment plants. In other words, the permit specifies that if the TIN limit is exceeded at one plant, compliance can be achieved by removal of an equivalent amount of TIN such that the total TIN from all four plants complies with the TIN requirement of 8 mg/L. The mass emission limit is based on 8 mg/L and 80 mgd.

3.4.4 MINERAL/INORGANIC EFFLUENT LIMITATIONS

The RWQCB imposes restrictions on effluent inorganics to meet surface water quality objectives established to protect beneficial uses designated in the Basin Plan. Typically regulated constituents include boron, chloride, fluoride, sodium, sulfate, and total hardness. Based on its review of historic effluent data, the RWQCB determined that the IEUA discharges were unlikely to cause or contribute to violations of water quality objectives for these mineral constituents. Consequently, the permit contains no effluent limitations, although monitoring is still required for these mineral constituents.

3.4.5 TRACE CONSTITUENT EFFLUENT LIMITATIONS

The IEUA NPDES permit specifies maximum concentrations for trace constituents in the CCWRF effluent as summarized in Table 3-6. These trace constituent limitations are specifically for CCWRF.

Table 3-6. Effluent Trace Constituent Limitations[1]

Constituent	Maximum Daily Concentration (µg/L)	Average Monthly Concentration (µg/L)
Free Cyanide	8.5	4.3
Bis (2-ethylhexyl) phthalate	11.9	5.9

[1] Source: RWQCB, 2009.

3.4.6 OTHER EFFLUENT LIMITATIONS

Treatment requirements specified in CCWRF's NPDES permit are dependent upon the flow in the receiving waters and the amount of effluent dilution that will be provided.

If the flow in Chino Creek is less than that required for a 20:1 (ratio of receiving water flow to wastewater flow) dilution at the point of discharge, the discharge must be tertiary effluent that has been adequately oxidized, coagulated, filtered, and disinfected. The discharge is considered adequately filtered if the turbidity does not exceed:

(1) an average of 2 Nephlometric Turbidity Units (NTU) within a 24-hour period;

(2) 5 NTU more than 5 percent of the time during any 24-hour period; and

(3) 10 NTU at any time.

The discharge is considered adequately disinfected if the number of coliform organisms does not exceed a:

(1) median most probable number (MPN) of 2.2 per 100 mL over the last seven days;

(2) MPN of 23 per 100 mL in more than one sample within any 30-day period; and

(3) MPN of 240 per 100 mL in any sample.

In order to comply with Title 22 requirements for spray irrigation, non-restricted recreational landscape impoundments, and industrial uses, recycled water must be tertiary effluent that has been adequately disinfected, oxidized, coagulated (as needed for turbidity reduction), and filtered. Typically, a low dose of coagulant is used for coagulation at CCWRF at all times to enhance filter performance and recycled water production for cooling tower use. The same

turbidity and disinfection requirements apply for recycled water production as for surface water discharges with less than 20:1 dilution.

For recycled water and creek discharges with less than a 20:1 dilution, the maximum filtration rate for the CCWRF continuous backwash filters is set at 4.0 gpm/sq ft based on peak dry weather design flow (CDPH, 2010). (Peak dry weather design flow is defined in the permit as "the arithmetic mean of the maximum peak flow rates sustained over some period of time (for example three hours) during the maximum 24-hour dry weather period. Dry weather period is defined as a period of little or no rainfall.") Title 22 Water Recycling Criteria (CCR, 2001) limit the filter loading rate of traveling bridge automatic backwash filters to 2 gpm/sq ft; however, IEUA submitted test results demonstrating that the CCWRF filters were able to achieve effluent complying with Title 22 turbidity requirements at the higher filtration rate of 4.0 gpm/sq ft without the addition of coagulant. For CCWRF, CDPH approved and recommended to the RWQCB:

- Maximum filtration rate of 4.0 gpm/sq ft at all times; and
- Automatic coagulant addition when the filter influent turbidity exceeds 5 NTU for 15 minutes.

The permit also specifies the same CT (the product of total chlorine residual and modal contact time measured at the same point), and modal contact time requirements for recycled water use as for creek discharges. For these same conditions, the permit requires a minimum CT of 450 milligram-minutes per liter (mg-min/L) at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.

If the flow in Chino Creek is more than that required for a 20:1 dilution at the point of discharge, the discharge must be at least secondary effluent that has been adequately oxidized and disinfected. The discharge is considered adequately disinfected if the median number of coliform organisms does not exceed an MPN of 23 per 100 mL over the last seven days.

The CCWRF NPDES permit includes other general effluent limitations that restrict toxicity, oil and grease, and pH for all discharges. Discharge of any substances in toxic concentrations is prohibited. Visible oil and grease in the effluent is not permissible, and the effluent pH must be within 6.5 and 8.5 units. Compliance determinations for pH require compliance with the following conditions:

- The total time during which the pH values are outside the required range of 6.5 to 8.5 units shall not exceed 7 hours and 26 minutes in any calendar month; and
- No individual excursion from the range of 6.5 to 8.5 pH units shall exceed 60 minutes.

3.5 EFFLUENT QUALITY CHARACTERISTICS

IEUA submits monitoring reports to the RWQCB in accordance with the NPDES permit. Table 3-7 summarizes 2012 recycled water quality data for some of the major regulated parameters. Complete monitoring and reporting records are available from IEUA or the RWQCB.

Table 3-7. Typical Effluent Quality[1]

Constituent	Units	Minimum	Average	Maximum
Specific Conductance	µmhos/cm	842	882	904
pH	units	7.0	7.1	7.2
Turbidity	NTU	0.3	0.6	0.8
Total Organic Carbon (TOC)	mg/L	4.1	4.7	5.3
Biochemical Oxygen Demand (BOD)	mg/L	<2	<2	<2
Total Suspended Solids (TSS)	mg/L	<2	<2	<2
Total Dissolved Solids (TDS)	mg/L	491	505	517
Ammonia-Nitrogen (NH_3-N)	mg/L	<0.1	<0.1	<0.2
Total Inorganic Nitrogen (TIN)	mg/L	3.9	4.7	6.3
Total Nitrogen (TN)	mg/L	4.1	5.6	7.3
Boron	mg/L	0.2	0.3	0.3
Calcium	mg/L	45	49	54
Chloride	mg/L	115	140	154
Fluoride	mg/L	0.1	0.2	0.4
Magnesium	mg/L	11	12	13
Sodium	mg/L	90	106	117
Sulfate	mg/L	51	64	73
Total Hardness, as $CaCO_3$	mg/L	159	173	189
Carbonate Alkalinity, as $CaCO_3$	mg/L	0	0	0
Bicarbonate Alkalinity, as $CaCO_3$	mg/L	117	136	152
Aluminum, Total Recoverable	µg/L	30	53	84
Antimony, Total Recoverable	µg/L	<1	<1	1
Arsenic, Total Recoverable	µg/L	<2	<2	<2
Barium, Total Recoverable	µg/L	10	15	23
Cadmium, Total Recoverable	µg/L	<0.25	<0.25	<0.25
Chromium, Total Recoverable	µg/L	0.8	1.0	1.3
Cobalt, Total Recoverable	µg/L	<1	<1	<1

Constituent	Units	Minimum	Average	Maximum
Copper, Total Recoverable	µg/L	4	6	9
Lead, Total Recoverable	µg/L	<0.5	<0.5	<0.5
Mercury, Total Recoverable	µg/L	<0.05	<0.05	<0.05
Nickel, Total Recoverable	µg/L	2	3	7
Selenium, Total Recoverable	µg/L	<2	<2	<2
Silver, Total Recoverable	µg/L	<0.25	<0.25	<0.25
Zinc, Total Recoverable	µg/L	35	43	68
Free Cyanide (Aquatic)	µg/L	<2	<2	3
Bis (2-ethylhexyl) phthalate	µg/L	<2	<2	2

[1] Source: IEUA, 2011-12 from 2012 data (IEUA, 2011-12 and IEUA 2014).

4 PLANT FACILITIES

IEUA's CCWRF provides wastewater treatment that conforms to the highest level of California water reclamation criteria. This section describes the facilities and presents the basis for compliance with the treatment, recycled water quality, and reliability requirements set forth in Title 22.

4.1 GENERAL DESCRIPTION OF FACILITIES

The CCWRF provides preliminary, primary, secondary, and tertiary treatment and solids pumping facilities. The plant is designed to treat an annual average flowrate of 11.4 mgd (RWQCB, 2009). Figure 4-1 presents the process flow schematic and Figure 4-2 shows the site plan for the CCWRF.

Raw wastewater enters an influent diversion structure that splits the flow, sending part of the flow to the CCWRF and diverting the remainder to RP-5. Preliminary treatment consists of flow measurement and removal of coarse solids and grit from the influent raw wastewater flow stream. Primary treatment is a physical process that involves sedimentation to remove settleable material and scum from the surface of wastewater.

Secondary treatment consists primarily of the nitrification/denitrification process including clarification. This biological treatment process uses both aerobic (oxic) and anoxic bacteria and other microorganisms to breakdown organic matter and to remove nitrogen found in the wastewater.

Tertiary treatment consists of coagulation (low dose or as-needed), filtration, and disinfection to produce high quality recycled water. Filtered effluent is disinfected using sodium hypochlorite. Recycled water is stored in an on-site reservoir and pumped to users. Disinfected effluent is also used for plant utility water. Effluent flows that exceed recycled water demands are dechlorinated prior to discharge to Chino Creek.

Solids are pumped from CCWRF to RP-2 for treatment. Solids treatment at RP-2 consists of gravity and dissolved air flotation (DAF) thickening, anaerobic digestion, digester gas utilization, and dewatering by belt presses and centrifuges. Dewatered sludge is hauled away for off-site disposal. Return liquids removed from the RP-2 processes are pumped to RP-5 for treatment. The RP-2 solids treatment facilities are regulated under the agency-wide waste discharge requirements for IEUA's wastewater treatment and water recycling facilities (RWQCB, 2009).

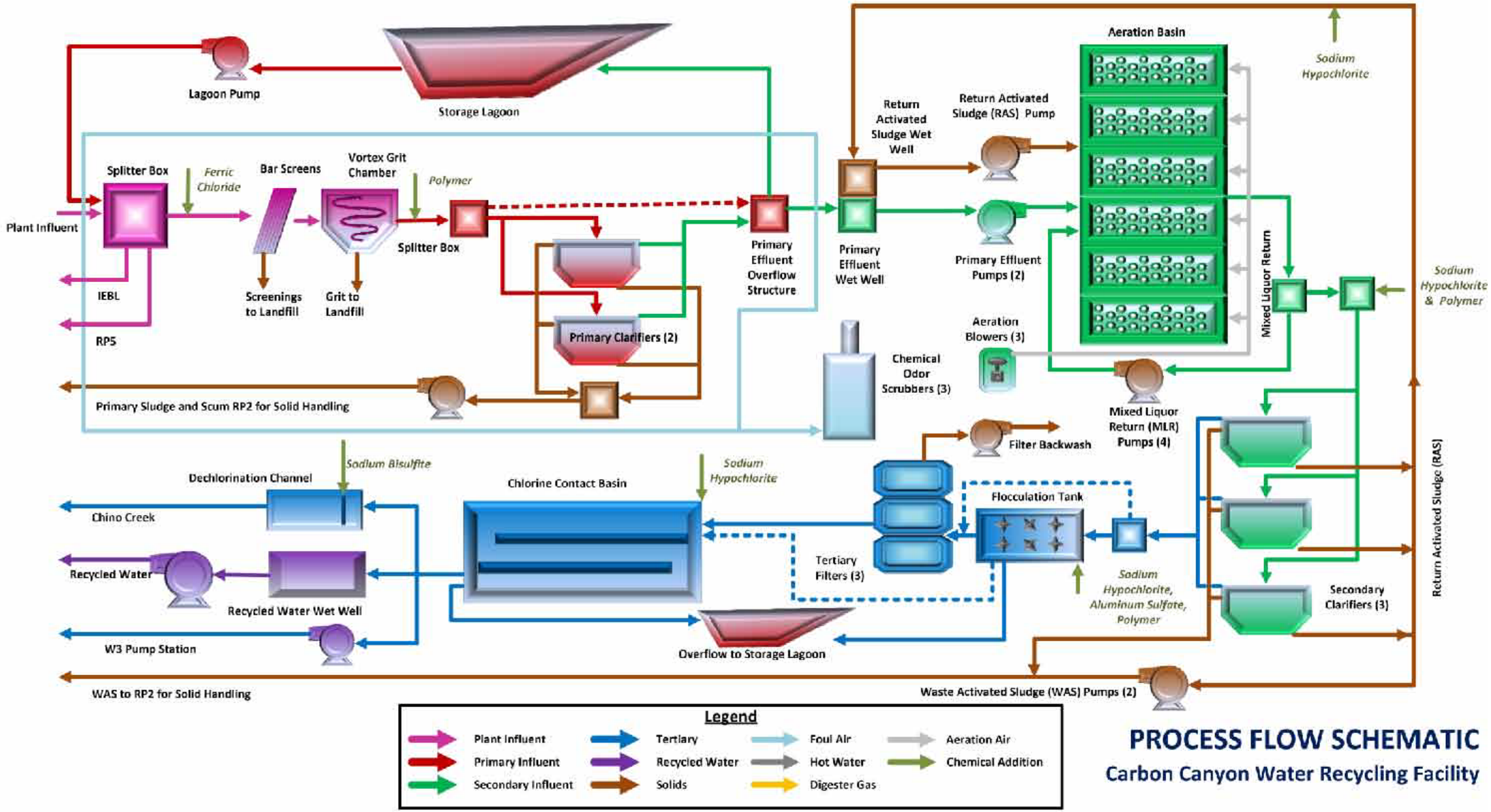

Figure 4-1. CCWRF Process Flow Schematic

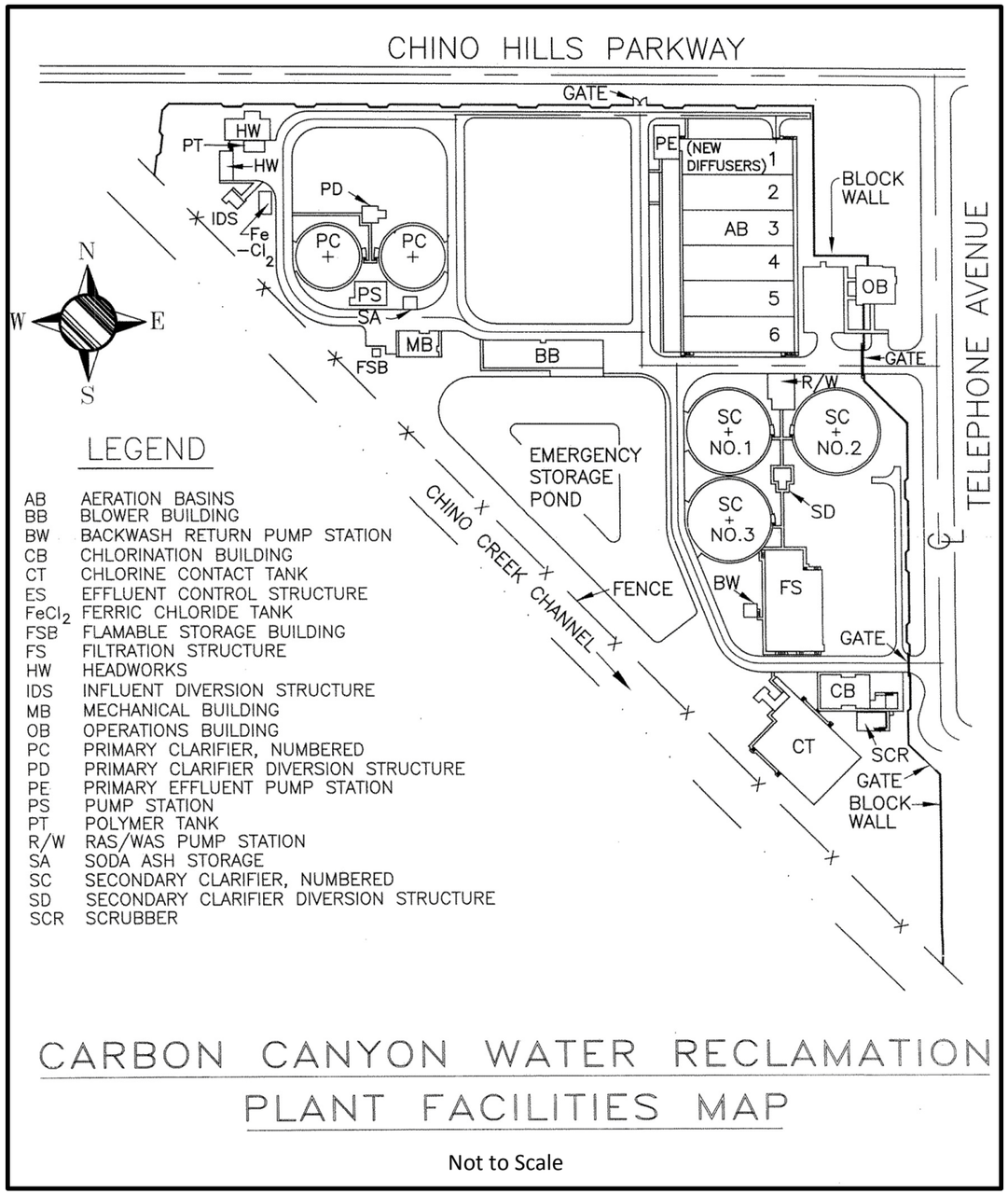

Figure 4-2. CCWRF Site Layout

The following sections describe the basis of design for each of the treatment processes in detail and demonstrate how Title 22 compliance is achieved. Capacities of each unit process are determined for operation as defined under the following conditions:

- Peak Capacity – total peak flow capacity with all units in service.
- Annual Average Capacity Without Redundancy – annual average capacity with all units in service.
- Title 22 Reliable Annual Average Capacity – annual average capacity conforming to the reliability requirements set forth in Title 22.

Reliability may be provided by redundant, standby, or alternative equipment or processes. Typically, the Title 22 Reliable Annual Average Capacity for each treatment process is determined with the largest unit out of service. In other cases, alternative means of reliability is provided by storage or another treatment process. The specific means of establishing reliability is described for each treatment process.

4.2 DESIGN FLOWRATES

The annual average rated design capacity of the CCWRF is 11.4 mgd according to its current discharge permit (RWQCB, 2009). Because it regulates all IEUA plants on an agency-wide basis, the permit does not limit the flow from any single facility. Instead, it specifies a total permitted flow of 84.4 mgd from all plants.

Two process flow streams are removed from the overall CCWRF treatment flow stream: solids and plant utility water. The total solids flow pumped from CCWRF to RP-2 for treatment is about 0.3 mgd and is comprised of primary sludge and waste activated sludge (WAS). Approximately 1 mgd of chlorinated effluent is typically withdrawn at the midpoint of the chlorine contact tank for use within the plant as utility water.

CCWRF operates as a scalping plant, typically handling a fairly constant flow rate with moderate diurnal peaks. Influent wastewater flows above an adjustable setpoint are diverted to RP-5. The influent diversion structure automatically divides the raw wastewater between the CCWRF and RP-5, maintaining a fairly steady flow to CCWRF and sending all flows above the setpoint to RP-5. Influent flow rates to CCWRF are restricted by the influent diversion structure weir positions, which are controlled by level sensors and flow meters. Thus, the hourly peak dry weather flow (PDWF) and hourly peak wet weather flow (PWWF) peaking factors for CCWRF are managed, with the adjustable weir setting at the diversion structure establishing the designated range of influent flow.

Based on monthly flow data collected at CCWRF from January 2011 through December 2012 (IEUA, 2011-12), the annual average raw influent flow (AAF) was 7.3 mgd. During the period between January 2011 and December 2012, the hourly PDWF was 13.92 mgd (November 28, 2011), and the hourly PWWF was 14.09 mgd (January 16, 2012). These flow rates yield a PDWF peaking factor of 1.9 (13.92/7.3) and a PWWF peaking factor of 1.9 (14.09/7.3).

Since the modal contact time test was completed on June 9, 2004, the influent diversion structure has been set so that flows are bypassed to RP-5 that would cause the CCWRF to exceed the Title 22 filter loading and chlorine contact time requirements. The modal contact time test established a maximum flow rate of 15.4 mgd, as described in more detail later in this section.

Based on these peaking factors, the design flows that can be expected for CCWRF are summarized in Table 4-1. At a design raw wastewater AAF of 11.4 mgd entering CCWRF, the hourly PDWF is 21.7 mgd (11.4 x 1.9), and the hourly PWWF is 21.7 mgd (11.4 x 1.9).

Because RP-2 return liquids are sent to RP-5, the CCWRF influent diversion structure can receive an annual average raw wastewater flowrate up to 11.4 mgd, in keeping with its designated design capacity. This same average flow and associated peak flows would continue through the preliminary, primary, and secondary processes. The flow to the tertiary filters and chlorine contact tanks would be reduced by the amount of primary and waste activated solids discharged to RP-2, approximately 0.3 mgd. The tertiary and disinfection processes would treat average flows of 11.1 mgd with the same peaking factors. About 1 mgd is withdrawn from the midpoint of the chlorine contact tank for in-plant uses. However, evaluation of the chlorination process should be based on the worst case assumption that the utility water is not withdrawn at all times.

Besides normal flow diversions to RP-5, wastewater can also be bypassed to the Inland Empire Brine Line (IEBL, aka “Brine Line”, and formerly called the Santa Ana River Interceptor [SARI]) in the event of an extreme emergency.

Table 4-1. Summary of CCWRF Design Flowrates and Existing Peak Flowrates for Title 22 Compliance

(CCWRF operating as a scalping plant with peak flows controlled by the influent diversion structure)[1]

Parameter	Flowrate (mgd)
Raw Influent Flow	
AAF [2]	11.4
PDWF [3]	21.7 [6]
PWWF [4]	21.7
Secondary Influent Flow	
AAF [2]	11.4
PDWF [3]	21.7 [6]
PWWF [4]	21.7
Tertiary Filtration and Chlorination Flow [5]	
AAF [2]	11.1
PDWF [3]	21.1 [6]
PWWF [4]	21.1

[1] Peak influent flows above the designated setpoint are diverted to RP-5 for treatment. RP-2 return flow is sent to RP-5 for treatment.

[2] AAF = Annual Average Flow

[3] PDWF = Hourly Peak Dry Weather Flow

[4] PWWF = Hourly Peak Wet Weather Flow

[5] Solids flows discharged from CCWRF to RP-2 are estimated at 0.3 mgd. These flows do not enter the filtration and chlorination processes.

[6] Design PDWF is shown. The influent diversion structure setting limits peak flows to 15.4 mgd for tertiary process compliance.

4.3 DESIGN WASTEWATER CHARACTERISTICS

The typical chemical composition of the raw influent wastewater to the CCWRF based on 2012 data is summarized in Table 4-2.

Table 4-2. Raw Wastewater Characteristics

Parameter	Units	Value	Reference
Annual Average Raw Influent Quality			
BOD-5 day	mg/L	451	IEUA, 2011-12
TSS	mg/L	390	IEUA, 2011-12
TOC	mg/L	246	IEUA, 2011-12
Ammonia-Nitrogen	mg/L	34.1	IEUA, 2011-12
TIN	mg/L	31.7	IEUA, 2011-12
Total Nitrogen	mg/L	53.3	IEUA, 2011-12
pH	units	7.1	IEUA, 2011-12
Winter temperature	degrees C	20	IEUA, 2011-12
Summer temperature	degrees C	25	IEUA, 2011-12
TDS	mg/L	538	IEUA, 2011-12
Annual Average Raw Influent Loadings			
BOD-5 day	lbs/day	42,879	calculated [1]
TSS	lbs/day	37,080	calculated [1]
Peak Month Average Raw Influent Quality			
BOD	mg/L	627	IEUA, 2011-12
TSS	mg/L	730	IEUA, 2011-12
TOC	mg/L	334	IEUA, 2011-12
Ammonia-Nitrogen	mg/L	45.8	IEUA, 2011-12
TIN	mg/L	33.1	IEUA, 2011-12
Total Nitrogen	mg/L	59.6	IEUA, 2011-12
pH	units	7.2	IEUA, 2011-12
TDS	mg/L	559	IEUA, 2011-12
Peak Month Average Raw Influent Loadings			
BOD-5 day	lbs/day	59,613	calculated [1]
TSS	lbs/day	69,405	calculated [1]

[1] For more information on calculated values, see Appendix B.

4.4 PRELIMINARY TREATMENT

The preliminary treatment process at the CCWRF consists of two mechanical bar screens, one manual bar screen, a vortex-type grit chamber, and a Parshall flume. Tables 4-3, 4-4, and 4-5 present design criteria for the preliminary treatment facilities.

Table 4-3. Screening Facilities Design Data

Parameter	Units	Value	Reference
Mechanical Bar Screens			
Number	units	2	CH2M-Hill, 1988
Channel width	feet	4.0	CH2M-Hill, 1988
Channel depth	feet	13.7	CH2M-Hill, 1988
Bar spacing	inches	0.5	CH2M-Hill, 1988
Peak flow capacity	mgd, each	20	CH2M-Hill, 1988
Total peak flow capacity	mgd	40	calculated [1]
Manual Bar Screen			
Number	units	1	CH2M-Hill, 1988
Channel width	feet	4.0	CH2M-Hill, 1988
Channel depth	feet	5.2	CH2M-Hill, 1988
Bar spacing	inches	1	CH2M-Hill, 1988
Peak flow capacity	mgd	40	CH2M-Hill, 1988

[1] For more information on calculated values, see Appendix B.

Table 4-4. Grit Removal Design Data

Parameter	Units	Value	Reference
Grit Chamber			
Number	units	1	CH2M-Hill, 1988
Type	type	vortex	CH2M-Hill, 1988
Diameter	feet	16	CH2M-Hill, 1988
Detention time at PWWF	minutes	0.5	Parsons, 2003
Rated design capacity	mgd	20.3	CH2M-Hill, 1987
Grit Pumps			
Number	units	2	CH2M-Hill, 1988
Type	type	Recessed impeller, centrifugal	CH2M-Hill, 1988
Capacity, each	gpm	220	CH2M-Hill, 1988
Grit Dewatering Equipment			
Number of cyclones	units	2	CH2M-Hill, 1988
Number of classifiers	units	2	CH2M-Hill, 1988

Table 4-5. Flow Measurement Design Data

Parameter	Units	Value	Reference
Influent Parshall Flume			
Number	units	1	CH2M-Hill, 1988
Throat size	inches	48	IEUA, 2014
Maximum capacity	mgd	43.9	calculated [1]
Ultrasonic level sensor	units	1	HDR, 2005
Motor-operated Weir Gates	units	2	HDR, 2005
Ultrasonic Level Indicators on the Influent Diversion Structure	units	2	HDR, 2005

[1] For more information on calculated values, see Appendix B.

Raw influent flow enters the plant through the influent diversion structure. The influent diversion structure was modified in 2007 to install motor operated flow control weir gates and ultrasonic level sensors to automatically restrict the raw wastewater entering the CCWRF to a setpoint range and divert flows above the setpoint maximum to RP-5. The flow split depends on the designated setpoint range. A Parshall flume with an ultrasonic level sensor provides flow data to automatically adjust the setting of the motor-operated flow control weir gates that split the flow between CCWRF and RP-5. This enables the CCWRF to operate as a partial skimming plant at a controlled flowrate range.

From the influent diversion structure, the flow enters the headworks where it splits into two screening channels. The maximum capacity of the mechanical bar screens is 40 mgd. A manual bar screen is available to provide standby capacity for the mechanical units. With one mechanical screen out of service and the manual screen in service, the peak flow capacity of the screening process is 60 mgd, which is equivalent to an annual average flow of about 31.6 mgd (60/1.9).

Following screening, flow is directed to the grit chamber. The design capacity of the grit basin is 20.3 mgd. At peak flows, the detention time in the grit chamber would be reduced and its performance would be somewhat impaired. It should be noted that optimum grit removal is not essential to the plant's overall treatment ability. Operating with the grit chamber out of service, grit would be removed in the primary clarifiers along with the primary solids. This flexibility allows the grit removal process to comply with Title 22 by relying on primary sedimentation as an alternative process.

After grit removal, the flow is metered by a Parshall flume designed for a maximum flow capacity of 43.9 mgd. This is equivalent to an annual average flow capacity of 23.1 mgd

(43.9/1.9). While higher flowrates will pass through the influent channel, the accuracy of the Parshall flume operating under submerged conditions would be impaired during extended wet weather periods. This operating condition would not, however, restrict the reliable treatment capacity of CCWRF under Title 22 regulations. From the Parshall flume, flow is then directed to primary treatment.

Based on these criteria, the capacity of each unit process, as defined in Section 4.1, is summarized in Table 4-6.

Table 4-6. Preliminary Treatment Capacity

Process	Peak Capacity (mgd)	Annual Average Capacity Without Redundancy (mgd)	Title 22 Reliable Annual Average Capacity (mgd)
Bar screens	80	42.1 [1]	21.0 [2]
Grit chamber	38.6 [3]	20.3	20.3 [4]
Parshall flume	43.9	23.1 [5]	23.1 [4,5]

[1] Peak Capacity/Peaking Factor = 80/1.9 = 42.1
[2] Peak Capacity with the manual screen out of service/Peaking Factor = (80-40)/1.9 = 21.0
[3] Peak Capacity = Annual Average Capacity * Peaking Factor = 20.3 * 1.9 = 38.6
[4] See discussion above regarding reliable capacity of these processes
[5] Peak Capacity/Peaking Factor = 43.9/1.9 = 23.1

In summary, the preliminary treatment facilities comply with Title 22 requirements by providing standby units and back-up treatment capacity. The preliminary treatment processes can effectively handle an annual average flow of 20.3 mgd.

4.5 PRIMARY TREATMENT

Primary treatment consists of two circular clarifiers. From the headworks, wastewater flows by gravity to a primary splitter box that regulates the flow to the clarifiers. Ferric chloride is added upstream of the headworks at the influent diversion structure to enhance settling performance in the primary clarifiers. Polymer feed facilities exist, but typically, they are not needed for effective treatment. Primary solids are pumped to RP-2 for treatment.

Table 4-7 presents design criteria for the existing primary treatment facilities. Annual average capacity of the clarifiers is determined based on the peak overflow rate and overall hydraulic peaking factor for the primary treatment process. Table 4-8 presents design criteria for the chemical storage and feed facilities serving primary treatment.

Table 4-7. Primary Treatment Design Data

Parameter	Units	Value	Reference
Primary Clarifiers			
Number	units	2	CH2M-Hill, 1988
Diameter	feet	95	CH2M-Hill, 1988
Side water depth	feet	12	CH2M-Hill, 1988
Total volume	cu ft	170,117	calculated [1]
Surface area per clarifier	sq ft	7,088	calculated [1]
Total surface area, all units in service	sq ft	14,176	calculated [1]
Peak overflow rate, all units in service	gpd/sq ft	1,760	CH2M-Hill, 1988
Peak capacity per clarifier	mgd	12.5	calculated [1]
Total peak flow capacity, all units in service	mgd	25.0	calculated [1]
Total annual average flow capacity, all units in service	mgd	13.2	calculated [1]
Total annual average flow capacity, one unit out of service	mgd	6.6 [2]	calculated [1]
Detention Time at annual average flow, all units in service	hours	2.7	calculated [1]
BOD Removal	percent	30	CH2M-Hill, 1987
TSS Removal	percent	60	CH2M-Hill, 1987

[1] For more information on calculated values, see Appendix B.

[2] See Table 4-10 and discussion below regarding reliable capacity.

Table 4-8. Chemical Facilities Serving Primary Treatment Design Data

Parameter	Units	Value	Reference
Ferric Chloride Storage and Feed Facilities			
Storage Tanks			
Number	units	1	IEUA, 2014
Total storage volume	gal	7,000	IEUA, 2014
Feed Pumps			
Number	units	2	IEUA, 2014
Ferric chloride dosage	mg/L	15	IEUA, 2014
Total ferric chloride use	lbs/day	1,426	calculated [1]
Polymer Storage and Feed Facilities (typically not used)			

[1] For more information on calculated values, see Appendix B.

From the clarifiers, primary effluent is pumped to secondary treatment along with Return Activated Sludge (RAS) from the secondary clarifiers. Table 4-9 presents design criteria for the primary effluent/RAS pumping station.

Table 4-9. Primary Effluent & RAS Pumping Design Data

Parameter	Units	Value	Reference
Primary Effluent Pumping			
Number of pumps	units	2	CH2M-Hill, 1988, Parsons Engineering Science, 1999, Brown and Caldwell, 1996
Type of pumps	type	Vertical turbine, solids handling	Parsons Engineering Science, 1999, Brown and Caldwell, 1996
Capacity per pump	mgd	17.6	CH2M-Hill, 1988
Return Activated Sludge (RAS) Pumping			
Number of pumps	units	1	CH2M-Hill, 1988, Parsons Engineering Science, 1999, Brown and Caldwell, 1996
Type of pumps	type	Vertical turbine, solids handling	Parsons Engineering Science, 1999, Brown and Caldwell, 1996
Capacity per pump	mgd	17.6	CH2M-Hill, 1988

Based on these criteria, the capacity of the primary treatment process, as defined in Section 4.1, is summarized in Table 4-10.

Table 4-10. Primary Treatment Capacity

Process	Peak Capacity (mgd)	Annual Average Capacity Without Redundancy (mgd)	Title 22 Reliable Annual Average Capacity (mgd)
Primary Clarifiers	25.0	13.2 [1]	13.2 [2]
Primary Effluent & RAS Pumping	35.2	35.2	17.6

[1] Peak Capacity/Peaking Factor = 25.0/1.9 = 13.2

[2] See discussion below regarding reliable capacity.

With both primary clarifiers in service, the annual average capacity of the primary treatment process is 13.2 mgd, based on a peak overflow rate of 1,760 gpd/sq ft and a peaking factor of 1.9. With one clarifier out of service, and based on this same design overflow rate, the annual average capacity would be reduced to 6.6 mgd. The overflow rate would increase to 3,344 gpd/sq ft, under the projected peak wet weather flow condition, if one clarifier was out of service. At this overflow rate, the performance of the primary treatment process would be diminished, and increased loads would be imposed on downstream processes. However, it is highly unlikely that a primary clarifier would be out of service for any significant length of time and maintenance would be done during the dry season. In addition, primary effluent could be stored in the short-term storage basin, if necessary, until the clarifiers were back on-line. Details of the short-term storage basin are discussed later in this section. Another option for the CCWRF would be to temporarily divert more flow to RP-5 if one of the primary clarifiers was out of service. Therefore, the rated reliable capacity of the CCWRF primary treatment process can be based on utilizing both of the clarifiers because of the reliability provided by short-term emergency storage and the aeration process as alternative processes or diversion of influent flow to RP-5 as alternative treatment facilities under Title 22.

4.6 SHORT-TERM EMERGENCY STORAGE

The CCWRF features an on-site, short-term storage basin and pumping facilities. Table 4-11 presents design criteria for the emergency storage basin and return pump station.

The on-site short-term storage basin can be used to store primary effluent during emergency conditions. Stored primary effluent is pumped back to the influent diversion structure to be treated during low flow conditions. The short-term storage basin can be used to provide standby capacity for other processes. For example, if one of the primary clarifiers is out of service during a wet weather event, primary effluent could be stored and then treated later. Similarly, if it is necessary to take an aeration basin or filter out of service in an emergency, then primary effluent could be stored and then retreated. At an annual average design flow of 11.4

mgd, the short-term storage basin provides up to 19 hours of emergency on-site holding capacity. During regularly scheduled (non-emergency) maintenance on the aeration basins and filters, raw wastewater can be temporarily diverted from CCWRF to RP-5 for treatment.

Table 4-11. Short-Term Emergency Storage & Pumping Design Criteria

Parameter	Units	Value	Reference
Emergency Storage			
Number of basins	units	1	CH2M-Hill, 1988
Volume	mil gal	9	CH2M-Hill 1987
Volume as a percent of annual average daily flow	percent	79	calculated[1]
Retention time at annual average flow	hours	19	calculated[1]
Emergency Storage Return Pumping			
Number of pumps	units	1	IEUA, 2014
Type of pumps	type	Submersible	IEUA, 2014
Capacity per pump	mgd	2.2	IEUA, 2014

[1] For more information on calculated values, see Appendix B.

4.7 SECONDARY TREATMENT

The secondary facilities consist of an activated sludge suspended growth system followed by secondary clarifiers with associated mixed liquor and biosolids pumping facilities. Tables 4-12 through 4-15 present operational parameters and design criteria for the secondary treatment facilities.

Table 4-12. Secondary Treatment Design Criteria

Parameter	Units	Value	Reference
Influent Annual Average Flow	mgd	11.4	CH2M-Hill, 1988
Average influent BOD	mg/L	316	calculated [2]
Average influent TSS	mg/L	156	calculated [2]
Average influent Total Nitrogen	mg/L	43	calculated[2,3]
Peak month influent BOD	mg/L	439	calculated [2]
Peak month influent TSS	mg/L	292	calculated [2]
Peak month influent TKN	mg/L	48	calculated[2,3]

Parameter	Units	Value	Reference
Aeration Basin No. 1 [1]			
Anoxic zone			
Number of basins	units	1	IEUA, 2014
Length, each	feet	55	IEUA, 2014
Width, each	feet	50	CH2M-Hill, 1988
Side water depth	feet	21	CH2M-Hill, 1988
Total volume	mil gal	0.43	calculated [2]
Oxic zone			
Number of basins	units	1	IEUA, 2014
Length, each	feet	135	IEUA, 2014
Width, each	feet	50	CH2M-Hill, 1988
Side water depth	feet	21	CH2M-Hill, 1988
Total volume	mil gal	1.06	calculated [2]
Average mixed liquor suspended solids	mg/L	3,800	IEUA, 2014
Aeration type	type	Flexible sheath	CBMWD, 1994
Aeration Basin Nos. 2 through 6			
Anoxic zone			
Number of basins	units	5	IEUA, 2014
Length, each	feet	77	IEUA, 2014
Width, each	feet	50	CH2M-Hill, 1988
Side water depth	feet	21	CH2M-Hill
Total volume	mil gal	3.02	calculated [2]
Number of anoxic mixers per basin	units	4	IEUA, 2014
Hydraulic retention time in anoxic zone at annual average flow	hours	6.4	calculated [2]
Oxic (aeration) zone			
Number of basins	units	5	IEUA, 2014
Length, each	feet	113	IEUA, 2014
Width, each	feet	50	CH2M-Hill, 1988
Side water depth	feet	21	CH2M-Hill, 1988
Total volume	mil gal	4.44	calculated [2]
Average mixed liquor suspended solids	mg/L	3,800	IEUA, 2014

Parameter	Units	Value	Reference
Dissolved oxygen level	mg/L	2.0	IEUA, 2014
Aeration type	type	Flexible sheath	CBMWD, 1994
Hydraulic retention time in oxic zone at annual average flow	hours	9.3	calculated [2]
Mixed Liquor Return Pumping			
Number of pumps	units	4	IEUA, 2014
Type	type	Low-head submersible, propeller	CH2M-Hill, 1987
Capacity, each	mgd	10.7	IEUA, 2014

[1] Aeration Basin No. 1 anoxic and oxic zone lengths are variable.
[2] For more information on calculated values, see Appendix B.
[3] Assume 20% total nitrogen removal by primary treatment.

Table 4-13. Secondary Clarifier Design Criteria

Parameter	Units	Value	Reference
Number	units	3	CH2M-Hill, 1988
Diameter, each	feet	120	CH2M-Hill, 1988
Side water depth	feet	15	CH2M-Hill, 1988
Surface area per clarifier	sq ft	11,310	calculated[1]
Total surface area	sq ft	33,929	calculated[1]
Volume per clarifier	gallons	1,269,100	calculated[1]
Total volume	gallons	3,807,400	calculated[1]
Average overflow rate, all units in service	gpd/sq ft	360	CH2M-Hill, 1988
Peak month overflow rate, all units in service	gpd/sq ft	460	CH2M-Hill, 1988
Detention time at Annual Average Flow, all units in service	hours	8.0	calculated[1]
Average solids loading rate	lbs/day/sq ft	11	CH2M-Hill, 1988
Peak month solids loading rate	lbs/day/sq ft	14	CH2M-Hill, 1988
Return Activated Sludge	mg/L	8,000	CH2M-Hill, 1987
Annual average flow capacity, all units in service, 2014 re-rated capacity	mgd	14	CH2M-Hill, 2014
Annual average flow capacity, one unit out of service, 2014 re-rated capacity	mgd	12	CH2M-Hill, 2014

Parameter	Units	Value	Reference
Average overflow rate, all units in service, 2014 re-rated capacity	gpd/sq ft	413	calculated[1]
Average overflow rate, one unit out of service, 2014 re-rerated capacity	gpd/sq ft	530	calculated[1]
Peak overflow rate, all units in service, 2014 re-rated capacity	gpd/sq ft	784	calculated[1]

[1] For more information on calculated values, see Appendix B.

Table 4-14. Secondary Treatment Aeration System

Parameter	Units	Value	Reference
Blowers for Diffused Aeration in Oxic Zones			
Number	units	4	IEUA, 2014
Type	type	Centrifugal	IEUA, 2014
Capacity, each	standard cu ft / minute (scfm)	3 @ 6,000 1 @ 6,400	IEUA, 2014

Table 4-15. Waste Activated Sludge & Secondary Scum Pumping Design Criteria

Parameter	Units	Value	Reference
Waste Activated Sludge (WAS) Pumps			
Number	units	2	CH2M-Hill, 1988
Type	type	Horizontal, centrifugal	CH2M-Hill, 1988
Capacity range per pump	gpm	0 – 350	CH2M-Hill, 1988
Secondary Scum Pumps			
Number	units	3	CH2M-Hill, 1988
Type	type	Submersible, centrifugal	CH2M-Hill, 1988
Capacity range per pump	gpm	0 - 450	CH2M-Hill, 1988

The suspended growth process features a two-stage, single-sludge, biological nutrient removal (BNR) configuration, consisting of an anoxic zone followed by an oxic (aerobic) zone to provide nitrification/denitrification for nitrogen removal. Primary effluent is pumped to the anoxic zone, which is mixed, but not aerated. In this denitrification zone, nitrates are biologically

converted to nitrogen and released as nitrogen gas using the influent carbon source as food. Flow then continues to the oxic zone, which is mixed and aerated. In this nitrification zone, ammonia is biologically converted to nitrates. A portion of the nitrified mixed liquor from the oxic zone is returned to the anoxic zone where the nitrates are destroyed and released to the atmosphere as nitrogen gas.

Aeration Basin No. 1 is slightly different from the other basins. The aerated zone is longer in Basin No. 1 and the anoxic zone is shorter. With no separation wall, its oxic/anoxic zones are more flexible, depending upon the extent of aeration. Waste filter backwash water can be treated by either Aeration Basin No. 1 or 2 based on the secondary process design.

Four large capacity blowers supply air to diffused aeration flexible sheaths (wyss tube diffusers) in the oxic zones. In 2012 IEUA replaced portions of the low pressure air supply pipelines and valves to reduce leakage and improve the efficiency of the CCWRF aeration process.

Mixed liquor from the anoxic/oxic basins is sent to three circular secondary clarifiers. Return activated sludge (RAS) is pumped to the aeration/RAS distribution channel that conveys it equally to all of the aeration basins. Waste activated sludge (WAS) is pumped to RP-2 for treatment. Clarified secondary effluent is sent to the tertiary treatment facilities for further turbidity reduction and disinfection.

Based on these criteria, the capacity for the CCWRF secondary treatment process, as defined in Section 4.1, is summarized in Table 4-16. The capacity of the secondary treatment process is dependent on the effluent requirements, and in particular TIN. The existing CCWRF was initially designed to comply with effluent limits with an average flowrate of 12.07 mgd, with an allowance for peak flows and TIN levels (CH2M-Hill, 1987). Under the original design, the TIN limit was 10 mg/L. The plant was designed to produce a maximum TIN of 10 mg/L at a peak week flowrate of 18.31 mgd (CH2M-Hill, 1987) to comply with the original permit.

The current permit sets a maximum TIN limit of 8 mg/L on a 12-month average, agency-wide basis. Since the original design, the wastewater characteristics have changed at CCWRF; water conservation has increased the BOD, TSS, and nitrogen concentrations in the raw influent wastewater. Recent evaluation of the secondary treatment process indicates that CCWRF should be able to reliably meet the 8 mg/L TIN limit under present wastewater loadings at a annual average capacity of is 12 mgd (CH2M-Hill, 2014). For purposes of this report, the existing facilities, wastewater characteristics, and current permit TIN limit of 8 mg/L will be the basis for establishing the capacity of the secondary treatment process for Title 22 compliance at the values shown in Table 4-16.

Table 4-16. Secondary Treatment Capacity

Process	Peak Capacity (mgd)	Annual Average Capacity Without Redundancy (mgd)	Title 22 Reliable Annual Average Capacity (mgd)
Anoxic/oxic basins & secondary clarifiers	23.0 [1]	14.0 [2,3]	12.0 [2,4]

[1] Peak Capacity = Annual Average Capacity * Peaking Factor = 12.0*1.9 = 23.0

[2] From CH2M-Hill, 2014.

[3] Annual average capacity with all units in service.

[4] Reliable annual average capacity with one secondary clarifier out of service. See also discussion below regarding reliable capacity.

Under emergency conditions, IEUA proposes to utilize the short-term storage basin, as discussed above, for primary effluent storage and Title 22 redundancy for the secondary treatment process. Primary effluent, secondary effluent, and/or tertiary effluent can be sent to the short-term storage basin. On-site storage would provide an alternative means of standby capacity or redundancy in compliance with Title 22's allowance for short-term retention provisions for biological treatment processes. If necessary, CCWRF could temporarily increase the raw wastewater sent to RP-5 from the influent diversion structure to provide flow relief until its secondary treatment process was back in full operation.

4.8 COAGULATION / FLOCCULATION

Secondary effluent from the final clarifiers flows via gravity to a coagulation/flocculation basin, immediately upstream of the filters. The hydraulic flocculation basin is baffled in a serpentine flow pattern and is preceded by a rapid mix tank. Secondary effluent normally passes through this basin with mixing, coagulation, or flocculation on its way to the tertiary filters. Typically, a low dose, approximately 1 mg/L, of alum is used. Polymer feed facilities exist, but typically are not used. IEUA has found that adding higher doses of filter-aid coagulants has not been necessary for compliance with CCWRF's discharge limits.

Table 4-17 summarizes design criteria for the coagulation/flocculation facilities.

Table 4-17. Coagulation / Flocculation Design Data

Parameter	Units	Value	Reference
Rapid Mix Chamber			
Number	units	1	CH2M-Hill, 1988
Length	feet	17.5	CH2M-Hill, 1988
Width	feet	9	CH2M-Hill, 1988

Parameter	Units	Value	Reference
Side water depth	feet	11.6	CH2M-Hill, 1988
Total volume	cu ft	1,833	calculated [1]
Detention Time at annual average flow	minutes	2	calculated [1]
Coagulation / Flocculation Basin			
Number	units	1	CH2M-Hill, 1988
Length	feet	49	CH2M-Hill, 1988
Width	feet	18	CH2M-Hill, 1988
Side water depth	feet	7.6	CH2M-Hill, 1988
Total volume	cu ft	6,686	calculated [1]
Detention Time at annual average flow	minutes	6	calculated [1]
Filter-Aid Coagulant System			
Type	---	Aluminum sulfate and/or polymer	IEUA, 2014
Use	---	Low dose as-needed	IEUA, 2014
Feedpoint	---	Rapid mix chamber to flocculation	IEUA, 2014
Alum pumps	units	2	IUEA, 2014
Alum storage tank	number	1	IEUA, 2014
Polymer pumps	units	2	IEUA, 2014
Polymer storage tanks	number	2	IEUA, 2014

[1] For more information on calculated values, see Appendix B.

4.9 FILTRATION

In 2010, the CCWRF continuous backwash filters were approved by CDPH at a maximum hydraulic loading rate of 4.0 gpm/sq ft (CDPH, 2010) based on IEUA's successful completion of demonstration testing at the higher filtration rate. Prior to 2010, IEUA operated the CCWRF filters in compliance with the Title 22 Water Recycling Criteria (CCR, 2001), which require that "filtered wastewater" be an oxidized wastewater that has passed through a bed of filter media at a rate that does not exceed 2 gpm/sq ft of surface area in continuous backwash filters. IEUA was able to successfully demonstrate equivalent performance at the higher filtration rate, achieving turbidity of the filtered wastewater not exceeding Title 22 standards: (a) an average of 2 NTU within a 24-hour period, (b) 5 NTU more than 5 percent of the time within a 24-hour period, and (c) 10 NTU at any time.

Table 4-18 presents design criteria for the CCWRF tertiary filtration facilities, which features direct filtration of secondary effluent using three continuous backwash (shallow bed, traveling bridge, automatic backwash) filters. Filter media is sand. Each filter provides 1,600 sq ft of surface area.

Table 4-18. Tertiary Filtration Design Criteria

Parameter	Units	Value	Reference
Total number of filters	units	3	CH2M-Hill, 1988
Type	type	Shallow bed, continuous backwash	CH2M-Hill, 1988
Media	type	sand	CH2M-Hill, 1988
Depth	inches	16	CH2M-Hill, 1988
Length per filter	feet	100	CH2M-Hill, 1988
Width per filter	feet	16	CH2M-Hill, 1988
Surface area per filter	sq ft	1,600	calculated[1]
Total surface area, all filters in service	sq ft	4,800	calculated[1]
Firm surface area, one filter out for maintenance	sq ft	3,200	calculated[1]
Maximum filtration rate	gpm/sq ft	4.0	CDPH, 2010; RWQCB, 2010
Maximum capacity at the maximum filtration rate, all filters in service [2]	mgd	27.6	calculated[1]
Filter backwash rate	gpm/sq ft	15	CH2M-Hill, 1988
Waste backwash pumping			
Number of pumps	units	3	CH2M-Hill, 1988
Type	type	Submersible, centrifugal	CH2M-Hill, 1988
Capacity per pump	gpm	950	CH2M-Hill, 1988
Total capacity	gpm	2,850	calculated[1]

[1] For more information on calculated values, see Appendix B.

[2] See discussion below regarding reliable capacity.

With all three filters in service, the filter loading rate is 1.65 gpm/sq ft at an average flow rate of 11.4 mgd. At a maximum filter loading rate of 4.0 gpm/sq ft, the PDWF limit would be 27.6 mgd based on all three filters in operation.

From a reliability standpoint, Title 22 requires the reliable filtration capacity to be based on one of five alternative reliability features: (1) the flow that can be treated with one filter out of service; (2) alarm and short-term storage or disposal provisions and standby equipment; (3) alarm and long-term storage or disposal provisions; (4) automatically actuated long-term storage or disposal provisions; or (5) standby filtration process. Among the latter alternatives is the ability to discharge flow to another facility, such as RP-5.

With all three filters on-line, the CCWRF can treat peak flows up to 27.6 mgd in compliance with the CDPH-approved filter loading limit of 4.0 gpm/sq ft. With only two filters in operation (one filter off-line), the reliable peak flow limit would be reduced to only 18.4 mgd (2/3 of 27.6 mgd) for Title 22 compliance without an alternative reliability feature. However, the CCWRF does have about 9 million gallons of on-site, short-term storage available for reliability. In addition, standby replacement equipment components for the filters are either stored in the warehouse or available from local suppliers. The ability to divert flow to short-term storage coupled with availability of replacement equipment provides an alternative reliability measure for compliance with Title 22. CCWRF operates as a partial skimming plant, controlling raw influent flow entering the plant and diverting flows above that setpoint to RP-5, which also has emergency storage facilities. Because the setpoint flow is adjustable, CCWRF influent flow could also be reduced and more could be diverted to RP-5 while the filter was being repaired.

For Title 22 compliance under this reliability alternative, the CCWRF has alarms and automatic controls to utilize the emergency storage volume based on the failure of one filter or on detection of tertiary flows exceeding the filtration rate. It is likely that the failure of a filter would occur over time, rather than instantaneously, giving the operators ample time to take that filter out of service temporarily for repairs. During that time, the CCWRF could utilize its emergency storage or the operators could divert more flow to RP-5 in order to maintain compliance with the Title 22 filtration rate for the other two filters. Besides the influent flowmeter, the CCWRF features another flowmeter that monitors flow rate through the tertiary processes (filtration and chlorination). If it senses that the flow rate is too high (above a setpoint), causing the maximum filtration rate to be exceeded (above 4.0 gpm/sq ft), then the flowmeter automatically closes the valve on the pipeline conveying recycled water to the storage reservoir. When this valve closes, all effluent is discharged to the emergency storage pond during dry weather or to Chino Creek during wet weather.

On the basis of the approved 4.0 gpm/sq ft filtration rate and having reliability features that include short-term, on-site emergency storage with standby equipment and the ability to control the influent flow and divert flow to RP-5, the reliable annual average capacity of the CCWRF filtration facility is 27.6 mgd for Title 22 compliance. Table 4-19 summarizes the capacity of the filtration process.

Table 4-19. Filtration Capacity

Process	Peak Capacity (mgd)	Annual Average Capacity Without Redundancy (mgd)	Title 22 Reliable Annual Average Capacity (mgd)
Filters	27.6	27.6[1]	27.6[1]

[1] See discussion above regarding reliable capacity. Filtration reliable capacity is based on the use of on-site short-term storage and diversion to RP-5 as necessary to not exceed a filtration rate of 4.0 gpm/sq ft.

4.10 CHLORINATION / DECHLORINATION

Tertiary effluent is disinfected using sodium hypochlorite. Sodium hypochlorite is added to either or both the filter influent and effluent. Table 4-20 summarizes the design criteria for the sodium hypochlorite system. Recent modifications to the sodium hypochlorite system included relocating the storage tanks from a temporary location to the existing chlorination building, improvements to that building, and installing enhanced monitoring, alarms, and controls to integrate the sodium hypochlorite system controls into the existing plant control system.

Table 4-20. Sodium Hypochlorite System Design Criteria

Parameter	Units	Value	Reference
Sodium hypochlorite concentration	percent	12.5	IEUA, 2014
Maximum dose @ average flow	mg/L	20	Parsons, 2003, IEUA, 2014
Days of storage	days	3	IEUA, 2014
Bulk Storage System			
Number of tanks	units	2	IEUA, 2014
Volume per tank	gallons	10,000	IEUA, 2014
Total volume	gallons	20,000	calculated[1]
Feed System			
Number of metering pumps	units	4	IEUA, 2014
Capacity per pump	gph	77	IEUA, 2014

(Continued)

Parameter	Units	Value	Reference
Capacity			
Peak capacity at 10 mg/L feedrate, all units in service	mgd	88.6	calculated[1]
Annual average capacity at 15 mg/L feedrate, all units in service	mgd	59.1	calculated[1]
Annual average capacity at 15 mg/L feedrate, one pump out of service	mgd	44.3	calculated[1]

[1] For more information on calculated values, see Appendix B.

The chlorine contact tank operates as a single tank with eight passes. An inlet chamber with 3,933 cubic feet of water volume downstream of the point of sodium hypochlorite addition provides contact time that is included in the total contact volume. The final 5,137 cubic feet of the last pass is used for dechlorination. Excess effluent that is not reused is dechlorinated near the end of the chlorine contact tank using sodium bisulfite and discharged to Reach 2 of Chino Creek at a point adjacent to the plant site. Table 4-21 summarizes the operating parameters for the chlorine contact tank.

Table 4-21. Chlorine Contact Tank Operating Parameters

Parameter	Units	Value	Reference
Number of tanks	units	1	CH2M-Hill, 1988
Length (per channel) (8 channels)	feet	115	CH2M-Hill, 1988, IEUA, 2014, CBMWD, 1998
Width per tank (8 channels)	feet	92.7	IEUA, 2014
Average side water depth	feet	13.25	IEUA, 2014
Total contact volume[1]	gallons	1,047,560	calculated[2]
Channel width	feet	11.6	IEUA, 2014
Effective length	feet	911.2	calculated[2]
Length : width	ratio	78 : 1	calculated[2]
Length : depth	ratio	69 : 1	calculated[2]
Required modal contact time	minutes	90	CCR, 2001
Required CT	mg-min/L	450	CCR, 2001
Peak capacity, at 89 minutes modal contact time, all units in service	mgd	15.61	SFE Global, 2004

Parameter	Units	Value	Reference
PDWF capacity, at 90 minutes modal contact time, all units in service	mgd	15.4 [3]	calculated[2]

[1] Total volume of tank plus inlet chamber, less dechlorination chamber.

[2] For more information on calculated values, see Appendix B.

[3] See discussion below regarding reliable capacity.

The Title 22 reliability requirements for the chlorine contact tank are similar to those for filtration and can be based on one of the following alternatives: (1) alarm and short-term storage or disposal provisions and standby replacement equipment; (2) alarm and long-term storage or disposal provisions; and (3) automatically actuated long-term storage or disposal provisions.

IEUA completed testing at the chlorine contact tank in June 2004 that demonstrated that the modal contact time was 89 minutes at 15.61 mgd (SFE Global, 2004). Prorating the test results to the required 90 minutes of modal contact time required by Title 22 yields a peak capacity for the chlorine contact tank of 15.4 mgd ((89/90)*15.61). Thus, for the same PDWF capacity, 15.4 mgd, the annual average capacity of the existing chlorine contact tank would be 8.1 mgd (15.4/1.9), without use of the short-term emergency storage basin. With the ability to automatically control the flow to the chlorine contact tank, limiting the flow to a maximum of 15.4 mgd, effectively increases the annual average capacity of the chlorine contact tank to be equal to the PDWF.

Filter effluent flow is metered by a Parshall flume immediately upstream of the chlorine contact tank. The level sensors at this tertiary Parshall flume control the flow entering the chlorine contact tank, restricting the maximum flow to 15.4 mgd. If the flowrate exceeds the 15.4 mgd set point, the Parshall flume level sensors signals the automatic gate at the influent side of the filters to close. Closing the filter influent gate automatically diverts flow into the emergency storage lagoon. In this way, the reliable annual average flow rating is increased to the PDWF capacity rating of the chlorine contact tank.

Flows can be diverted to the on-site emergency storage pond and then later returned to the secondary treatment process. Temporary storage in this manner would increase the annual average capacity of the chlorine contact tank up to 15.4 mgd.

Under these PDWF conditions, to reach the minimum CT of 450 mg-min/L, the required chlorine residual would be 5 mg/L (90 minutes modal contact time times 5 mg/L chlorine residual = 450 mg-min/L). The existing sodium hypochlorite system has sufficient feed capacity, standby equipment, and alarms, as described above, to maintain this chlorine residual and comply with the CT requirement. The modal contact time requirement is applicable only to

production of recycled water and not to discharges to the creek. Disinfected tertiary effluent may be discharged to the creek provided that the natural creek flow provides at least a 1:1 dilution of the effluent.

In addition, the influent diversion structure restricts flows above the setpoint designated by the IEUA operations staff, which is lower than 15.4 mgd, from entering the plant. An alarm signals the operator if this flow rate is exceeded. As a partial skimming plant, the flowrate through the plant is maintained at or below a designated setpoint. Although annual average flows could be higher, the peak flow capacity of the chlorine contact basin would still be 15.4 mgd.

With regard to reliability for the chlorine contact tank, it is highly unlikely that the tank would ever be out of service because it has no mechanical equipment to malfunction. Thus, it is reasonable to use the capacity of the single chlorine contact tank as the reliable capacity for Title 22 compliance.

In 2010, IEUA conducted bench-scale demonstration tests to seek regulatory approval to operate at a chlorine contact basin at a disinfection CT of 300 min-mg/L and a modal contact time of 45 minutes. Upon review of the test results, CDPH concluded that insufficient data were available to allow CCWRF to operate at the reduced disinfection parameters (CDPH, 2010). CDPH advised IEUA to develop a more robust disinfection test protocol in the future if modifying the chlorine contact basins operating criteria remained a goal. As of the date of this report, IEUA has not pursued further chlorine contact demonstration testing.

Utility water is supplied to in-plant uses via an existing W3 pump station that draws chlorinated filter effluent that flows over a weir located at the side of the chlorine contact tank about mid-way through its serpentine flow pattern. Approximately 1 mgd of plant utility water is used. Thus, plant utility water is chlorinated, but does not receive the full 90-minute modal contact time when the W3 pump station withdraws water from mid-way through the contact tank. This is acceptable under Title 22 for in-plant effluent use, provided that the utility water coliform level does not exceed 240 MPN per 100 mL for two consecutive days, and that the 7-day median does not exceed 23 MPN per 100 mL for two days. As an option, utility water can also be supplied from the recycled water storage reservoir, in which case it would receive the full 90-minute modal contact time. The W3 plant utility water pump station characteristics are summarized in Table 4-22.

Table 4-22. Plant Utility Water (W3) Pump Station Design Criteria

Parameter	Units	Value	Reference
Number of large pumps	units	2	IEUA, 2014
Capacity of large pumps, each	gpm	780	IEUA, 2014
Number of small pumps	units	2	IEUA, 2014
Capacity of small pumps, each	gpm	270	IEUA, 2014

Near the end of the chlorine contact tank, recycled water is diverted to a storage reservoir before being pumped to the distribution system. Excess effluent is dechlorinated using sodium bisulfite and discharged to Chino Creek. Table 4-23 presents design criteria for the dechlorination facilities. Five sodium bisulfite feed pumps with varying capacities maintain the capacity to dechlorinate a wide range of flow to the creek without causing any negative impacts of toxicity of low pH.

Table 4-23. Dechlorination Design Criteria

Parameter	Units	Value	Reference
Average Sodium Bisulfite Dose	mg/L	7	Parsons, 2003
Average Sodium Bisulfite Feed Rate	lbs/day	648	calculated[1]
Average Sodium Bisulfite Use	gpd	155	calculated[1]
Maximum Sodium Bisulfite Dose	mg/L	20	IEUA, 2014
Maximum Sodium Bisulfite Feed Rate	lbs/day	1,851	calculated[1]
Maximum Sodium Bisulfite Use	gpd	443	calculated[1]
Sodium Bisulfite Storage			
Number of tanks	units	2	Lee & Ro, 2004
Volume per tank	gallons	5,500	IEUA, 2014
Total volume	gallons	11,000	IEUA, 2014
Sodium Bisulfite Feed Pumps			
Type	---	Diaphragm metering	Stantec, 2012
Total number of pumps	units	5	Stantec, 2012
Number of skid pumps	units	2	Stantec, 2012
Capacity per skid pump	gph	5.2	IEUA, 2014
Number of stand-alone pumps	units	2	Stantec, 2012
Capacity per stand-alone pump	gph	20.2	Stantec, 2012
Number of large pumps	units	1	Stantec, 2012
Capacity per large pump	gph	52	IEUA, 2014

Parameter	Units	Value	Reference
Capacity			
Feed rate	gpd	2,467	calculated[1]
Peak capacity at 20 mg/L feedrate, all units in service	mgd	62.1	calculated[1]
Annual average capacity, all units in service	mgd	32.7	calculated[1]
Annual average capacity, largest pump out of service	mgd	16.2	calculated[1]

[1] For more information on calculated values, see Appendix B.

Table 4-24 summarizes the capacity of the chlorination/dechlorination facilities.

Table 4-24. Chlorination/Dechlorination Capacity

Process	Peak Capacity (mgd)	Annual Average Capacity Without Redundancy (mgd)	Title 22 Reliable Annual Average Capacity (mgd)
Sodium Hypochlorite	88.6	59.1	44.3
Chlorine Contact Tank	15.4	15.4 [1]	15.4 [1]
Dechlorination	62.1	32.7	16.2

[1] Redundancy provided by on-site short-term storage. Automatic diversion of flows greater than 15.4 mgd to on-site short-term storage allows the annual average capacity to be equal to the peak capacity.

4.11 RECYCLED WATER STORAGE RESERVOIR & PUMP STATION

Recycled water flows from the far end of the chlorine contact tank to an on-site, below grade storage reservoir with a usable volume of about 0.75 million gallons before being pumped to Zone 930 of IEUA's distribution system. Recycled water use is described in Section 8. If needed, a potable water connection via an air gap can be used as a supplemental supply. The recycled water pump station has five existing pumps. Table 4-25 summarizes design criteria for the recycled water reservoir and pumping station.

Table 4-25. Recycled Water Storage & Pumping Design Criteria

Parameter	Units	Value	Reference
Recycled Water Storage Reservoir			
Usable Volume	gallons	750,000	IEUA, 2014
Recycled Water Pumps			
Number	units	5	Stantec, 2012
Type	---	Vertical turbine	Stantec, 2012
Capacity per pump	gpm	2,585	Stantec, 2012
Horsepower per pump	Hp	300	Stantec, 2012

4.12 SOLIDS HANDLING

The CCWRF does not have any on-site solids treatment facilities. All primary sludge and scum and secondary waste activated sludge (WAS) are pumped from the CCWRF to the nearby RP-2 regional solids treatment facility. RP-2 also treats primary solids and WAS from RP-5. RP-2 features gravity thickeners, dissolved air flotation thickeners, anaerobic digestion, digester gas utilization, and belt press and centrifuge dewatering. Dewatered sludge is hauled to off-site composting and disposal. Liquid return flows are sent to RP-5 for treatment.

4.13 POWER SUPPLY

The primary source of power to CCWRF is from Southern California Edison.

CCWRF also has a solar power system with a capacity of 625 kW-AC, which consists of 3,047 Sunpower Type T-10 panels on 1.3 acres. About 15% of the annual energy consumed at CCWRF is generated from solar power.

The emergency source of power to CCWRF is from a 1,500 kW diesel-fueled standby engine generator. This unit is fully automated and sized to provide ample power for full plant operation during a utility power failure.

Because the diesel engine generator is sized for full plant operation, the CCWRF fully complies with the power supply reliability requirements of Title 22.

4.14 MONITORING AND ALARMS

Title 22 also requires that alarm devices be provided for (1) loss of power from the normal supply, (2) failure of the biological treatment process, (3) failure of the disinfection process, (4) failure of the coagulation process, and (5) failure of the filtration process. Operation of these systems is constantly monitored and alarms are provided. The CCWRF has a state-of-the-art distributive control system (DCS) that monitors all vital functions of the plant and assists operations staff. The control system records data on process operation and for permit compliance and provides information on the status of equipment and plant operation. The CCWRF control system also provides a communication link to other IEUA treatment facilities.

The CCWRF alarm devices monitor the following functions:

- Loss of normal power;
- Failure of the biological treatment process;
- Failure of the coagulation process (as needed);
- Failure of the filtration process;
- Failure of the disinfection process; and
- Peak flow.

Plant alarms are automatically powered by the diesel-fueled, emergency (standby) generator if the primary utility power supply is interrupted. While it is not staffed continuously, the CCWRF operation is monitored remotely by an assigned operator via a cell phone pager through the DCS. Alarms that occur during any unmanned periods are annunciated through the DCS. A paging system is used to notify the lead operator of any alarms, if the plant operation is not being actively monitored. A summary of key alarms is presented in Table 4-26. A detailed list of the CCWRF alarms is included in Appendix C.

Table 4-26. Summary of Principal Alarms

System Component	Parameter/Equipment	Alarm Conditions
Power	Primary electrical service	Failure
	Standby generator	On, off, and failure
Influent Flow	Weir gate	High level
	Weir gates	Motor failure
	Parshall flume	High flow
Primary Effluent Pumps	Pumps	On, off, and failure
Biological	Dissolved oxygen level	High and low
	Blowers	On, off, and failure
RAS Pumps	Pumps	On, off, and failure

System Component	Parameter/Equipment	Alarm Conditions
Coagulation (as needed)	Chemical feed pumps	On, off, and failure
	Turbidity	High
Filtration	Valves	Open, closed, and failure
	Effluent turbidity	High
	Water level	High
Tertiary Flow	Parshall flume	High flow
Chlorination	Chemical feed pumps	On, off, and failure
Dechlorination	Chemical feed pumps	On, off, and failure
	Chlorine residual	High

Power supply reliability is discussed in the preceding section. The CCWRF has three electrical power sources: Southern California Edison, a solar power system, and a diesel-fueled standby generator. Solar power supplies about 15% of the energy demands at the plant. The standby generator is automatically started by a utility power failure and provides full plant operation and alarms.

Alarms at the influent diversion structure signal peak flow conditions exceeding the designated setpoint. The weir gates controlling flow have alarms indicating high water levels (and high flows) over the gates. The weir gates are motor-operated and have alarms to indicate failure of the motors. Downstream of the weir gates and headworks/barscreens, the Parshall flume monitors flow to the CCWRF and has a high level alarm.

Alarms for biological treatment breakdown exist on all electrical/mechanical equipment serving the treatment process. Alarms signal low oxygen levels in the aeration (oxic) basins, or the failure of any blower. Failure of the RAS pumps or high torque on the clarifier scraper arms are also signaled by alarms. These alarms provide assurance that a biological system failure is not equipment related, and ensure the reliability of the anoxic/oxic treatment process.

As described earlier, flow to the filtration and chlorination processes is metered and if too high (above a setpoint), the valve on the recycled water pipeline to the storage reservoir is automatically closed and flow is diverted to the short-term emergency storage basin (in dry weather) or to Chino Creek when the natural flow in the creek provides at least a 1:1 dilution of the effluent (in wet weather). This ensures that the filtration rate and modal contact time requirements are met for production of high quality recycled water. In addition, if the water level is high in any of the tertiary filters, an alarm is activated to alert the operators.

In general, poor effluent quality can also signal alarms. For example, high effluent turbidity alerts the operators to a problem at the filters. Secondary clarifier effluent turbidity is monitored, and if it becomes too high, the polymer feed system can be actuated and controlled

based on the turbidity reading to provide coagulation upstream of the filters in compliance with Title 22.

Multiple alarms and backup equipment ensure the reliability and safety of the disinfection system. Multiple bulk storage tanks and metering pumps provide duplicate equipment for the sodium hypochlorite system. The standby metering pump is started automatically if the duty pump fails.

Chlorine residual of the recycled water is closely monitored and can activate an alarm if it is too high or too low. Chlorine residual is also monitored for discharges to Chino Creek. The effluent gate to the creek is automatically closed by the DCS and an alarm is actuated if the chlorine residual is too high, indicating a failure of the dechlorination system.

4.15 EMERGENCY STORAGE AND EFFLUENT DISPOSAL

The CCWRF has a short-term storage basin for emergency conditions. As described in Section 4.6, this on-site basin has a volume of approximately 9 million gallons. Improvements have been completed that enable it to provide emergency storage and standby capacity for the primary and secondary treatment processes, plus the filtration and disinfection processes.

In the event of an extended power outage or mechanical problem, primary effluent will flow by gravity into the storage basin. Under conditions that would exceed Title 22 filtration and disinfection criteria, the valve to the recycled water storage reservoir will be automatically closed, the outfall gate to the creek will automatically shut, and the primary effluent pumps will automatically shut off. This will cause primary effluent flow to be diverted to the on-site emergency storage basin.

In addition, filter influent (secondary effluent) can be bypassed to the emergency storage basin in the event of an upset of the secondary treatment process or if the flow rate to the chlorine contact tank exceeds its rated set point.

Tertiary effluent can be bypassed and stored in the emergency storage basin if necessary. As an additional emergency relief measure, influent wastewater can be diverted from the CCWRF to RP-5.

5 MONITORING PROGRAM

This section demonstrates how the CCWRF monitoring program complies with Title 22 Water Recycling Criteria.

The following monitoring program summaries are included in this section:

- Influent Monitoring;
- Tertiary Effluent Monitoring to Surface Water;
- Secondary Effluent Monitoring to Surface Water with 20:1 Dilution; and
- Reclamation Monitoring.

5.1 SAMPLING AND ANALYSIS

Water quality monitoring is required under Title 22 Water Recycling Criteria and IEUA's Regional Water Recycling Facilities Permit, which includes CCWRF's discharge permit. The permit requires that effluent samples be taken at least daily for total suspended solids and coliform bacteria. Continuous turbidity monitoring and recording is required.

Specific guidelines and parameters are established in RWQCB Order No. R8-2009-0021 (NPDES CA8000409) for sampling and analysis of the influent and effluent streams. Depending on the constituent, sampling is required to be a continuous, 24-hour composite, or grab specimen taken on regularly scheduled intervals (daily, weekly, monthly, quarterly, or annually).

5.2 MONITORING PROGRAM

The performance of each of the treatment processes is closely monitored at the CCWRF. Influent and effluent flow is measured continuously. Similarly, recycled water turbidity is monitored continuously by a recording turbidimeter. Chlorine residual is another parameter that is measured on a continuous basis. Other constituents that are monitored and the frequency of the sampling and analyses are listed in Tables 5-1, 5-2, 5-3 and 5-4. In conformance with the permit, IEUA prepares an annual water quality report summarizing all monitoring data and relating any operational incidents.

Table 5-1. Influent Monitoring Program Summary[1]

Constituent	Type of Sample	Minimum Frequency of Sampling & Analysis
Flow	Recorder/totalizer	Continuous
pH	Recorder	Continuous
Specific conductance	Recorder	Continuous
TOC	24-hr composite	Weekly
BOD_5[2]	24-hr composite	Weekly
TSS	24-hr composite	Weekly
TDS	24-hr composite	Weekly
Ammonia-Nitrogen	Grab	Weekly
Total Nitrogen	24-hr composite	Weekly
TIN	24-hr composite	Weekly
Cyanide (Free)	Grab	Monthly
Total Hardness	24-hr composite	Quarterly
Boron	24-hr composite	Quarterly
Chloride	24-hr composite	Quarterly
Fluoride	24-hr composite	Quarterly
Sodium	24-hr composite	Quarterly
Sulfate	24-hr composite	Quarterly
Arsenic	24-hr composite	Quarterly
Cadmium	24-hr composite	Quarterly
Chromium VI or Total Chromium	24-hr composite	Quarterly
Total Recoverable Copper	24-hr composite	Quarterly
Total Recoverable Lead	24-hr composite	Quarterly
Total Recoverable Mercury	24-hr composite	Quarterly
Total Recoverable Nickel	24-hr composite	Quarterly
Selenium	24-hr composite	Quarterly
Total Recoverable Silver	24-hr composite	Quarterly
Total Recoverable Zinc	24-hr composite	Quarterly
Bis (2-ethylhexyl) phthalate	Grab	Quarterly
2,3,7,8-TCDD (Dioxin)	24-hr composite	Semi-Annually
Volatile organic portion of remaining EPA Priority Pollutants[2]	Grab	Annually
Remaining EPA Priority Pollutants[2]	24-hr composite	Annually

[1] Source: RWQCB, 2009.
[2] See waste discharge permit (Order No. R8-2009-0021) (RWQCB, 2009) for complete list or description.

Table 5-2. Effluent Monitoring Program Summary for Recycled Water [1] (Tertiary Treated Wastewater Without 20:1 Dilution)

Constituent	Type of Sample	Minimum Frequency of Sampling & Analysis
Flow	Recorder/totalizer	Continuous
Specific conductance	Recorder	Continuous
pH	Recorder	Continuous
Turbidity[2]	Recorder	Continuous
Total Chlorine Residual	Recorder	Continuous
Coliform Organisms	Grab	Daily
CT[2]	Recorder	Continuous
TOC	24-hr composite	Daily
BOD_5[2]	24-hr composite	Daily
TSS	24-hr composite	Daily
Ammonia-Nitrogen	Grab	Weekly
Temperature	Grab	Weekly
TDS	24-hr composite	Monthly
TIN	24-hr composite	Monthly
Total Nitrogen	24-hr composite	Monthly
Cyanide (free)	Grab	Monthly
Total Recoverable Copper	24-hr composite	Monthly
Toxicity[2]	24-hr composite	Monthly
Total Hardness	24-hr composite	Monthly
Bicarbonate	24-hr composite	Monthly
Boron	24-hr composite	Monthly
Calcium	24-hr composite	Monthly
Carbonate	24-hr composite	Monthly
Chloride	24-hr composite	Monthly
Fluoride	24-hr composite	Monthly
Magnesium	24-hr composite	Monthly
Sodium	24-hr composite	Monthly
Sulfate	24-hr composite	Monthly
Total Recoverable Cadmium	24-hr composite	Monthly
Chromium (VI) or Total Chromium	24-hr composite	Monthly
Total Recoverable Lead	24-hr composite	Monthly
Total Recoverable Mercury	24-hr composite	Monthly
Total Recoverable Selenium	24-hr composite	Monthly
Total Recoverable Silver	24-hr composite	Monthly

Constituent	Type of Sample	Minimum Frequency of Sampling & Analysis
Total Recoverable Zinc	24-hr composite	Monthly
Bis-(2-ethylhexyl) phthalate	Grab	Monthly
Aluminum	24-hr composite	Quarterly
Antimony	24-hr composite	Quarterly
Arsenic	24-hr composite	Quarterly
Barium	24-hr composite	Quarterly
Cobalt	24-hr composite	Quarterly
Total Recoverable Nickel	24-hr composite	Quarterly
Volatile organic portion of remaining EPA Priority Pollutants[2]	Grab	Annually
Remaining EPA Priority Pollutants[2]	24-hr composite	Annually

[1] Source: RWQCB, 2009.
[2] See waste discharge permit (Order No. R8-2009-0021) (RWQCB, 2009) for complete list or description.

Table 5-3. Effluent Monitoring Program Summary for Diluted Discharges[1] (Disinfected Secondary Treated Wastewater With 20:1 Dilution in the Receiving Water)

Constituent	Type of Sample	Minimum Frequency of Sampling & Analysis
Flow	Grab	Daily (when discharging)
pH	Recorder	Continuous
Total Chlorine Residual	Recorder	Continuous
BOD_5	Grab	Daily (when discharging)
TDS	Grab	When discharging
Coliform Organisms	Grab	Daily (when discharging)
Suspended Solids	Grab	Daily (when discharging)
Total Hardness	Grab	When discharging
EPA Priority Pollutants[2]	Grab	Annually

[1] Source: RWQCB, 2009.
[2] See waste discharge permit (Order No. R8-2009-0021) (RWQCB, 2009) for complete list or description.

Table 5-4 Reclamation Monitoring Program Summary[1]

Constituent	Type of Sample	Minimum Frequency of Sampling & Analysis
Flow	Recorder/Totalizer	Continuous
pH	Recorder/Totalizer	Continuous
Turbidity	Recorder	Continuous
CT[2]	Recorder	Continuous
Coliform Organisms	Grab	Daily
BOD_5	24-hr composite	Daily
TSS	24-hr composite	Daily
TDS	24-hr composite	Monthly

[1] Source: RWQCB, 2009.
[2] See waste discharge permit (Order No. R8-2009-0021) (RWQCB, 2009) for description.

6 CONTINGENCY PLAN

IEUA's contingency plan to maintain continuous, high-level treatment at the CCWRF is described in this section.

6.1 CONTINGENCY PLAN

The basis for the CCWRF contingency plan relies on the use of multiple treatment units and standby equipment, storage, and the ability to divert flow to RP-5. As described for each process in Sections 4 and 9 of this report, the CCWRF has capacity to treat flows averaging up to 12 mgd, as limited by the secondary treatment process. Reliability is provided by one of the following:

- standby treatment units and equipment;
- reliance on downstream treatment processes;
- standby engine generator for emergency power;
- on-site, short-term emergency storage;
- diversion of flow to RP-5; and
- diversion of flow to the IEBL.

For pumping stations and similar mechanical facilities, standby units are available in the event that duty units are out of service. For major processes, such as primary sedimentation or biological treatment, short-term storage is available for that portion of the primary or secondary process that is taken out of service. Besides solar power, a diesel-fueled standby engine generator is capable of supplying ample power for full plant operation during a utility power outage.

The existing influent diversion structure allows the CCWRF to divert raw wastewater to RP-5 or to the IEBL. The influent diversion structure enables the CCWRF to operate as a scalping plant, and provide more operational control and enhance the performance of the treatment processes. The operators establish a setpoint for influent flow to the CCWRF and motor-operated weir gates controlled by flow meters automatically divert flows above that level to RP-5. This allows the CCWRF to operate at a fairly constant flowrate with limited peaks. In the event of an emergency, manual gates at the influent diversion structure can send flow to the IEBL.

Another important part of the CCWRF contingency plan involves IEUA's preventive maintenance program. Described in Section 7, this program ensures that all mechanical

equipment is kept in reliable working order. The CCWRF has an excellent operating and monitoring record which also helps to avert problems before they become serious concerns.

7 OPERATION AND MAINTENANCE PLAN

Operation and maintenance of the CCWRF are described in this section. IEUA's plans for staffing the facility and performing preventive maintenance are discussed.

7.1 STAFFING

The CCWRF is fully staffed with operation and maintenance personnel. Operators are physically working at the plant or specifically assigned to be on-call 24 hours per day, 7 days per week. Certified operators at the plant are listed in Table 7-1. In addition to these personnel, IEUA has a Manager of Operations for the CCWRF, RP-2 and R-5, who is a Grade V wastewater operator. IEUA has an Executive Manager of Operations, who is a Grade V operator and is in charge of wastewater administration for the entire IEUA service area.

Table 7-1. Operations Staff

Operator Grade[1]	Position	Number of Persons[2]
V	Deputy Manager	1
V	Operations Supervisor	1
V	Senior Operator	1
III	Senior Operator	1
IV	Operator	2
III	Operator	3
II	Operator	2
V	Operations Assistant	1[3]
III	Operations Assistant	1[3]

[1] State Wastewater Certification

[2] Source: IEUA, 2014

[3] Operations assistant is shared by CCWRF, RP-2, RP-5 and Chino Desalter.

Mechanical, electrical, and instrumentation maintenance personnel are also on duty as required. Table 7-2 lists the maintenance staff available at the CCWRF, RP-2, RP-5 and related IEUA facilities.

Table 7-2. Plant Maintenance Staff

Certification[1]	Position	Number of Persons[2]
III	Deputy Manager of Maintenance	1
II	Electrical/Instrumentation Maintenance Supervisor	1
I	Senior Electrical Technician	1
II	Senior Instrumentation Technician	1
II	Electrical Technician II	2
II	Instrumentation Technician II	2
I	Senior Mechanic	1
III	Senior Plant Maintenance Technician	1
---	Mechanic II	2
I	Plant Maintenance Technician II	3

[1] California Water Environment Association Certification

[2] Source: IEUA, 2014

7.2 PREVENTIVE MAINTENANCE PROGRAM

Under IEUA's preventive maintenance program, inspections, lubrications, and operational rotation and repair of all mechanical, electrical, and support equipment are regularly scheduled. In addition to retaining manufacturers' maintenance manuals, files are kept for all major equipment. Routine or regularly scheduled maintenance activities are carried out with the aid of detailed checklists to ensure that important checks and servicing are not overlooked and that complete records are kept for all major equipment components. An organized system based on work orders and priority determined on a "need" basis coordinates the operation and maintenance personnel at the plant. The maintenance department normally keeps lists of replacement parts necessary for specific equipment, and in many cases, stocks the replacement parts at the plant site.

8 RECYCLED WATER USE

This section of the report describes the recycled water users, demands, distribution system, and on-site user facilities.

8.1 USERS AND DEMANDS

Over 9,000 acre-feet per year (afy) of recycled water from the CCWRF is currently served to irrigation, manufacturing, and construction customers. The Cities of Chino and Chino Hills act as recycled water purveyors for these users. Recycled water use in these two cities from September 2012 to September 2013 is summarized in Table 8-1. Current recycled water users and their individual demands are listed in Appendix D.

Water reclamation has been practiced at the CCWRF for some time and is specified in the plant's waste discharge permit, which notes that treated effluent is recycled for landscape irrigation, dust control, and industrial uses. Besides these uses, treated effluent is used as utility water for in-plant needs.

Table 8-1 Summary of Recycled Water Usage by Purveyor[1]

Purveyor	Annual Demand (afy)[1]
City of Chino	7,547
City of Chino Hills	1,643
2012-13 CCWRF TOTAL	**9,190**

[1] September 2012 – September 2013 (rounded). Source: IEUA, 2013.

8.2 DISTRIBUTION SYSTEM

Recycled water is pumped from the CCWRF to distribution systems serving the Cities of Chino and Chino Hills. As purveyors, these two cities are responsible for storage and conveyance of recycled water to customers within their jurisdictional areas. Figure 8-1 shows a map of IEUA's entire recycled water system. The CCWRF serves customers in the southwest area of the IEUA's service area.

A reservoir project for recycled water storage is under construction and scheduled for completion in 2014. The 930 Reservoir has a (1) design capacity of 5 million gallons (MG), (2) diameter of 170 feet, (3) maximum water surface elevation of 30 feet, (4) 30-inch bi-directional flow meter, and (5) level transmitter. The reservoir is located north of Galloping Hills Road in

the City of Chino Hills. Approximately 18,000 linear feet of 30-inch diameter pipeline connects the CCWRF System Pipeline to the new 930 Reservoir.

8.3 RECYCLED WATER USER FACILITIES

IEUA Ordinance No. 69 (IEUA, 2000), adopted by the IEUA Board of Directors in May, 2000, establishes rules, requirements, and responsibilities, under which, recycled water service is provided to customers. Applicants for recycled water service agree to comply with the terms of their Recycled Water Use Permit, as well as applicable Federal, State and Local statutes, to protect public health. The on-site operational controls must be appropriate for the beneficial use approved in the Recycled Water Use Permit for the safe and reliable delivery of recycled water. Specific identification, signage, and cross-connection prevention requirements include the following measures:

- All recycled water valves, outlets, quick couplers, and sprinkler heads shall be of a type, or secured in a manner that only permits operation by personnel authorized by the customer.

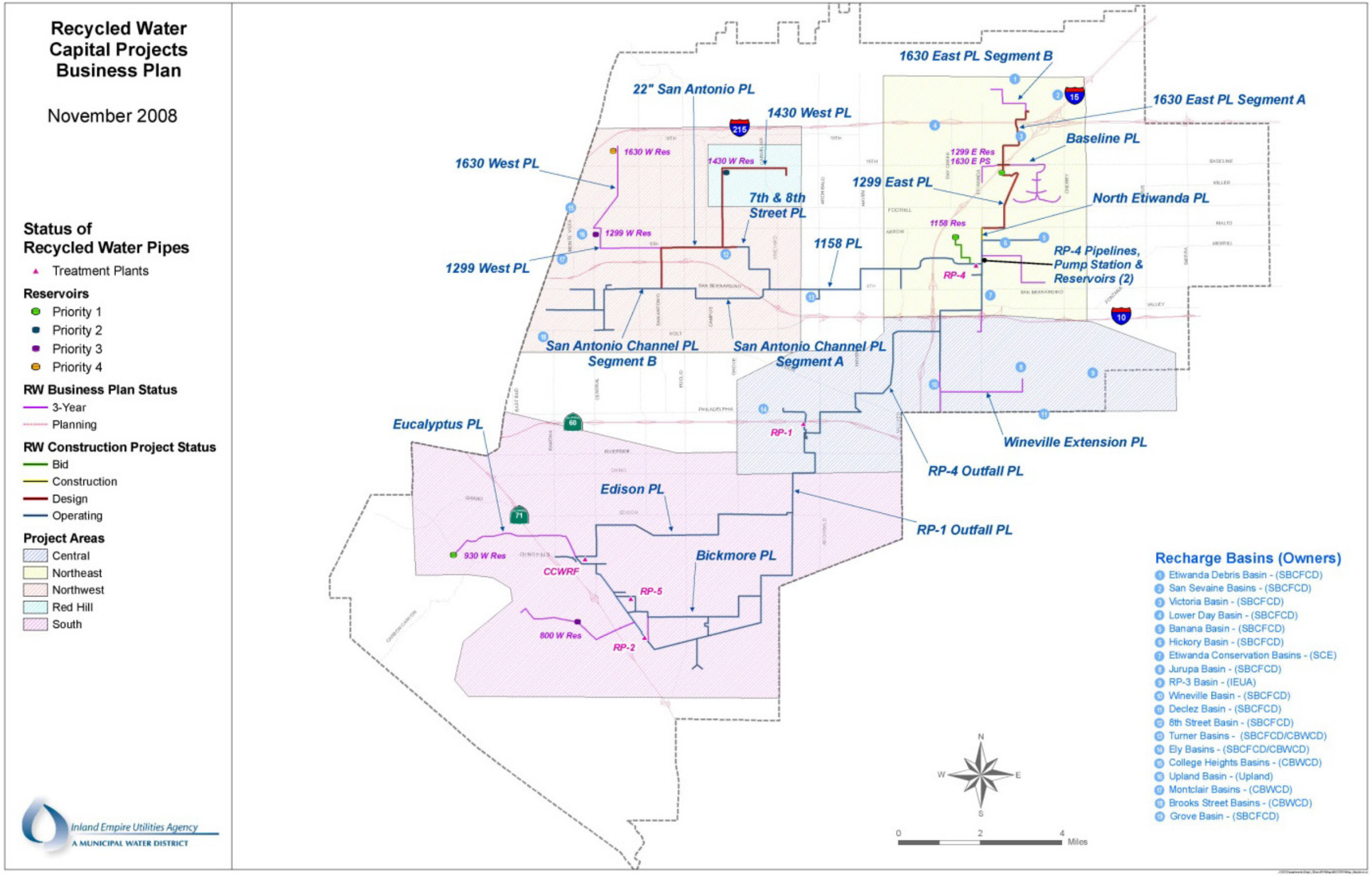

Figure 8-1. IEUA Recycled Water System Map

Source: IEUA, 2008.

- All recycled water valves and outlets shall be appropriately tagged to warn the public and employees that the water is not intended nor allowed for drinking.
- All piping, valves and outlets shall be color-coded (purple) or otherwise marked to differentiate recycled water from non-recycled water facilities.
- Hose bibs shall not be used in the recycled water system; quick couplers or comparable connection devices shall be used instead.
- Adequate means of notification shall be provided to inform the public, employees and others that recycled water is being used. Such notification shall include the posting of conspicuous recycled water information signage with proper wording in both English and Spanish of sufficient size to be clearly read, which shall be posted at adequate intervals around the use area. Signage shall be in conformance with CDPH Title 22 regulations.
- Cross-connection prevention measures, such as backflow preventers or reduced pressure principle devices, shall be installed and maintained to comply with requirements of CDPH and local potable water purveyors.

Recycled water customers are served by the City of Chino and City of Chino Hills. These purveyors have recycled water use regulations that require recycled water users to complete Title 22 Engineering Reports and obtain use permits from the cities.

IEUA encourages the maximum use of recycled water for beneficial purposes. As part of this effort, IEUA maintains guidance to educate and support local member agencies and recycled water customers in the proper design, installation, operation, and maintenance of their on-site recycled water systems.

IEUA maintains an employee training program that covers procedures used when working with recycled water, rules and regulations associated with recycled water use, hazards of working with recycled water, and basic cross-connection and backflow principles and procedures.

9 CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the findings of the evaluation of the CCWRF for compliance with Title 22 Water Recycling Criteria. Conclusions and recommendations are presented.

9.1 CONCLUSIONS

This Title 22 Engineering Report demonstrates how IEUA's CCWRF provides reliable treatment capacity in compliance with Title 22 Water Recycling Criteria. The maximum Title 22 capacity of each treatment process is summarized in Table 9-1. Described in detail in Section 4, capacity is based on the following criteria:

- Design criteria and actual operating parameters;
- Provision for redundant, standby, or alternative equipment or treatment processes; and
- Flow diversion to RP-5.

With the installation of motorized weir gates and flow meters at the influent diversion structure in 2007, the CCWRF operates as a scalping plant, automatically diverting wastewater flows in excess of a designated setpoint to the RP-5. Operating as a partial skimming plant allows improved flow control and prevents process overloads.

The reliable annual average design capacity of the secondary treatment process is 12 mgd based on an effluent TIN limit of 8 mg/L in accordance with the current permit (RWQCB, 2009).

In 2010, the maximum rated capacity of the tertiary filters was increased to 27.6 mgd based on CDPH's approval of the maximum hydraulic loading rate of 4.0 gpm/sq ft. The maximum Title 22 capacity of the chlorination process is 15.4 mgd in order to comply with the 90-minute modal contact time requirement, according to the test performed in June 2004.

Overall, the existing CCWRF complies with Title 22 Water Recycling Criteria at an annual average capacity up to 12 mgd.

9.2 RECOMMENDATIONS

As concluded above, the CCWRF currently complies with Title 22 Water Recycling Criteria at an annual average capacity up to 12 mgd.

Completion of the modifications to the influent diversion structure in 2007 has allowed automatic control of the influent flow entering the CCWRF, restricting peak flows to less than a

Table 9-1 CCWRF Process Capacity Summary

Process	Peak Capacity[1] (mgd)		Annual Average Capacity Without Reliability[2] (mgd)		Title 22 Reliable Annual Average Capacity[3] (mgd)	
	Existing		Existing		Existing	
	By Unit Process	Overall	By Unit Process	Overall	By Unit Process	Overall
Preliminary Treatment						
Barscreens	80.0		42.1		21.0	
Grit Chamber	38.6	38.6	20.3	20.3	20.3	20.3
Parshall Flume	43.9		23.1		23.1	
Primary Treatment						
Clarifiers [4]	25.0	25.0	13.2	13.2	13.2	13.2
Primary Effluent & RAS Pumping	35.2		35.2		17.6	
Secondary Treatment						
Secondary Treatment	23.0	23.0	14.0	14.0	12.0	12.0
Tertiary Treatment						
Filtration [5]	27.6	27.6	27.6	27.6	27.6	27.6
Disinfection						
Sodium Hypochlorite	88.6		59.1		44.3	
Contact Tank [6]	15.4	15.4	15.4	15.4	15.4	15.4
Dechlorination						
Dechlorination	62.1	62.1	32.7	32.7	16.2	16.2

[1] Peak Capacity = total peak flow capacity with all units in service.

[2] Annual Average Capacity = annual average flow capacity with all units in service.

[3] Title 22 Reliable Annual Capacity = annual average flow capacity conforming to the reliability requirements set forth in Title 22. Reliability may be provided by redundant, standby, or alternative equipment or processes. Alternatively, reliability may be provided by diverting flow to RP-5. The specific means of establishing reliability is described in Section 4 for each treatment process.

[4] Primary treatment reliable capacity based on use of on-site short-term storage, increased secondary treatment process load, and influent diversion to RP-5.

[5] Filtration reliable capacity based on use of on-site short-term storage and diversion to RP-5 as necessary to not exceed a filtration rate of 4.0 gpm/sq ft.

[6] Chlorine contact tank peak flow capacity is 15.4 mgd based on the modal contact time test conducted on June 9, 2004. Automatic diversion of flows greater than 15.4 mgd to on-site short-term storage with subsequent return to the secondary treatment facilities allows the annual average capacity to equal the peak capacity of 15.4 mgd.

designated adjustable setpoint. This enhances the performance of all downstream treatment processes by delivering a controlled flowrate within the designated range.

IEUA successfully demonstrated the performance of the continuous backwash filters at a filtration rate up to 4.0 gpm/sq ft. CDPH approved this higher filter loading rate, which increased the rated capacity of the tertiary filters without having to construct new facilities.

IEUA also tested the performance of the CCWRF chlorination process at a reduced CT and modal contact time. CDPH found that the test results were inconclusive and suggested that IEUA develop a more robust disinfection test protocol if rerating the chlorine contact basin's capacity remains an objective in the future. It is recommended that IEUA investigate further demonstration testing of the chlorine contact basins.

When construction is complete, improvements will provide the ability to automatically divert primary effluent, secondary effluent/filter influent, or tertiary effluent to on-site emergency storage, thereby enhancing CCWRF's overall reliability.

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RWQCB, 2010. Letter sent to Mr. Thomas Love, IEUA, entitled "Effluent Monitoring Point and Filter Loading Rate Approval – Waste Discharge and Producer/User Reclamation Requirements Order No. R8-2009-0021 for the Inland Empire Utilities Agency", July 30, 2010.

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Stantec, 2012. "IEUA, Carbon Canyon Water Recycling Facility, Recycled Water Pump Station Expansion", January 2012.

Appendix A

Waste Discharge and Producer/User Reclamation Requirements for the Inland Empire Utilities Agency's Regional Water Recycling Facilities, Surface Discharges and Recycled Water Use

RWQCB Order No. R8-2009-0021 and NPDES Permit No. CA8000409

California Regional Water Quality Control Board
Santa Ana Region

July 20, 2009

ITEM: ***7**

SUBJECT: Issuance of Waste Discharge and Producer/User Reclamation Requirements for the Inland Empire Utilities Agency's Regional Water Recycling Facilities, Surface Water Discharges and Recycled Water Use, Order No. R8-2009-0021, NPDES No. CA8000409, San Bernardino County

DISCUSSION:

See attached Fact Sheet

RECOMMENDATIONS:

Adopt Order No. R8-2009-0021, NPDES No. CA8000409 as presented.

COMMENT SOLICITATION:

Comments were solicited from the discharger and the following agencies:

U.S. Environmental Protection Agency, Permits Issuance Section (WTR-5) – Doug Eberhardt
U.S. Army District, Los Angeles, Corps of Engineers - Regulatory Branch
U.S. Fish and Wildlife Service, Carlsbad – Christine Medak
State Water Resources Control Board, Office of the Chief Counsel – David Rice
State Department of Fish and Game, Los Alamitos - Ms. Latonio
California Department of Public Health, San Bernardino – Sean McCarthy
California Department of Public Health, Carpenteria - Jeff Stone
State Department of Water Resources, Glendale – Charles Keene
Santa Ana Watershed Project Authority – Celeste Cantu
Santa Ana River Dischargers Association – Ed Filadelfia
Orange County Water District - Nira Yamachika
San Bernardino County Transportation/Flood Control District – Naresh Varma
San Bernardino County Environmental Health Services – Daniel Avera
City of Chino, Public Works Department – Jose Alire
City of Chino Hills - Public Works Department
City of Fontana – Chuck Hays, chays@fontana.org
City of Montclair - Nicole Greene
City of Ontario – Mohamed El-Amamy
City of Upland – Maria Linzay
Cucamonga Valley Water District -
Inland Empire Waterkeeper – Autumn DeWoody
Orange County Coastkeeper - Garry Brown
Lawyers for Clean Water C/c San Francisco Baykeeper
Natural Resources Defense Council – David Beckman
Inland Empire Utilities Agency - Patrick Sheilds

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

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ORDER NO. R8-2009- 0021
NPDES NO. CA8000409

WASTE DISCHARGE AND PRODUCER/USER RECLAMATION REQUIREMENTS FOR INLAND EMPIRE UTILITIES AGENCY REGIONAL WATER RECYCLING FACILITIES SURFACE WATER DISCHARGES AND RECYCLED WATER USE

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 1. Discharger Information

Discharger/ Operator	Inland Empire Utilities Agency			
Name of Facility	Regional Water Recycling Plant No. 1 (RP-1)	Regional Water Recycling Plant No. 4 (RP-4)	Regional Water Recycling Plant No. 5 (RP-5)	Carbon Canyon Water Reclamation Facility (CCWRF)
Facility Address	2450 East Philadelphia Street	12811 Sixth Street	6068 Kimball Ave, Building "C".	14950 Telephone Avenue
	Ontario, CA 91761	Rancho Cucamonga, CA 91729	Chino, CA 91708	Chino, CA 91710
	San Bernardino County			
The U.S. Environmental Protection Agency (USEPA) and the Regional Water Quality Control Board have classified this discharge as a major discharge.				

The discharge by Inland Empire Utilities Agency (IEUA) from the discharge points identified below is subject to waste discharge requirements as set forth in this Order:

Table 2. Discharge Locations

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
001	Tertiary treated effluent from RP-1	N33°56'39"	W117°38'34"	Prado Park Lake, overflow from the lake to an unnamed creek, then to Reach 1A of Chino Creek, a tributary to Reach 3 of Santa Ana River in Prado Basin
002	Tertiary treated effluent from RP-1&RP-4	N34°01'31"	W117°33'56"	Reach 1 of Cucamonga Creek, then to Mill Creek, then to Reach 1A of Chino Creek, a tributary to Reach 3 of Santa Ana River in Prado Basin
003	Tertiary treated effluent from RP-5	N33°57'44"	W117°40'41"	Reach 1B of Chino Creek, a tributary to Reach 3 of Santa Ana River
004	Tertiary treated effluent from CCWRF	N33°58'56	W117°41'48"	Reach 2 of Chino Creek, a tributary to Reach 3 of Santa Ana River
005	Recycled water from RP-1	N34°01'29"	W117°35'57"	Use area overlying Chino North "Max Benefit" GMZ (or Chino 1, 2, and 3 "Antidegradation" GMZs – see Fact Sheet)
006	Recycled water from RP-4	N34°04'59"	W117°31'35"	
007	Recycled water from RP-5	N33°57'51"	W117°40'24"	
008	Recycled water from CCWRF	N33°58'47"	W117°41'37"	
S-001	Stormwater from RP-1	N34°01'36"	W117°35'59"	Stormwater runoff to Reach 1 of Cucamonga Creek
S-002	Stormwater from RP-1	N34°01'28"	W117°35'58"	Stormwater runoff to Reach 1 of Cucamonga Creek

Table 3. Administrative Information

This Order was adopted by the Regional Water Quality Control Board on:	July 20, 2009
This Order shall become effective on:	July 20, 2009
This Order shall expire on:	July 1, 2014
The Discharger shall file a Report of Waste Discharge in accordance with title 23, California Code of Regulations, as application for issuance of new waste discharge requirements no later than:	January 2, 2014

I, Gerard J. Thibeault, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Santa Ana Region, on July 20, 2009.

Gerard J. Thibeault, Executive Officer

Table of Contents

List of Tables

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I. FACILITY INFORMATION

The following Discharger is subject to waste discharge requirements as set forth in this Order:

Table 4. Facility Information

Discharger/Operator	Inland Empire Utilities Agency			
Name of Facility (RWRF)	RP-1	RP-4	RP-5	CCWRF
Address	2450 East Philadelphia Street	12811 Sixth Street	6068 Kimball Avenue Building "C"	14950 Telephone Avenue
	Ontario, CA 91761	Rancho Cucamonga, CA 91729	Chino, CA 91708	Chino, CA 91710
	San Bernardino County			
Facility Contact, Title and Phone	Patrick O. Sheilds, Executive Manager of Operations, (909) 993-1806			
Authorized Person to Sign and Submit Reports	Patrick O. Sheilds, Executive Manager of Operations, (909) 993-1806			
Address	6075 Kimball Avenue, Chino, CA 91708			
Mailing/Billing Address	P.O. Box 9020, Chino Hills, CA 91709			
Type of Facility	POTW			
Facilities Permitted Flow	84.4 million gallons per day (mgd)			
Facility Design Flow	44 mgd	14 mgd	15 mgd (and 1.3 mgd RP-2 sludge treatment system wastewater flows)	11.4 mgd

II. FINDINGS

The California Regional Water Quality Control Board, Santa Ana Region (hereinafter Regional Water Board), finds:

A. Background. The Inland Empire Utilities Agency (hereinafter Discharger, or IEUA) owns and operates a regional wastewater collection system and four regional water recycling facilities (hereinafter, Facilities), including Regional Water Recycling Plants Nos. 1, 4, and 5 and the Carbon Canyon Water Reclamation Facility (CCWRF). The Discharger is currently discharging from these Facilities pursuant to the following waste discharge and producer/user water reclamation requirements:

1. Order No. R8-2006-0010, National Pollutant Discharge Elimination System (NPDES) Permit No. CA0105279, as amended by Orders No. R8-2007-0045 and No. R8-2007-0078, for treated wastewater discharges from Regional Water Recycling Plant No. 1 (RP-1) and Regional Water Recycling Plant No. 4 (RP-4);

2. Order No. R8-2008-0028, NPDES No. CA8000402 for treated wastewater discharges from Regional Water Recycling Plant No. 5 (RP-5); and

3. Order No. R8-2004-0020, NPDES No. CA8000073, as amended by Orders No. R8-2006-0038 and No. R8-2007-0078, for treated wastewater discharges from Carbon Canyon Water Reclamation Facility (CCWRF).

The Discharger submitted a Report of Waste Discharge (ROWD), dated January 27, 2009, and applied for a NPDES permit to consolidate the three waste discharge and producer/user water reclamation requirements identified above into one permit to regulate a total discharge of up to 84.4 million gallons per day (mgd) of tertiary treated wastewater from RP-1, RP-4, RP-5, and CCWRF.

For the purposes of this Order, references to the “discharger” or “permittee” in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. Facility Description. IEUA owns and operates a regional wastewater collection system and four water recycling plants. Wastewater can be diverted to different plants via available routing options built into the regional system (see Figure 1 of Attachment C for further detail). After treatment, effluent/recycled water can be discharged to nearby outfall(s) or it can be recycled for industrial uses, irrigation and groundwater recharge. The wastewater treatment systems consist of primary, secondary, and tertiary treatment. Treated wastewater is discharged from various discharge points either to Prado Park Lake, Reach 1 of Cucamonga Creek, or Chino Creek. The lake and the creeks are tributaries to Reach 3 of the Santa Ana River within the Prado Basin Management Zone. Recycled water is used in areas overlying the Chino North “Maximum Benefit” Groundwater Management Zone (GMZ) (or Chino 1, 2, and 3 “Antidegradation” GMZs). Groundwater recharge of recycled water is regulated under separate waste discharge requirements. Attachment B provides maps of the area

around these Facilities. Attachment C provides flow schematics at each Facility, the IEUA System-Wide influent flow interrelationship diagram, and a schematic of the IEUA System-Wide Water Recycling Distribution System.

C. Legal Authorities. This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). It shall serve as an NPDES permit for point source discharges from this Facility to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, chapter 4, Division 7 of the Water Code (commencing with section 13260).

D. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. Attachments A through E and G through K are also incorporated into this Order.

E. California Environmental Quality Act (CEQA). Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code section 21000 et seq. (*County of Los Angeles v. California State Water Resources Control Board* (2006) 143 Cal.App.4th 985, mod. (Nov. 6, 2006, B184034) 50 Cal.Rptr.3d 619, 632-636). This action also involves the re-issuance of waste discharge requirements for an existing facility that discharges treated wastewater to land and as such, is exempt from the provisions of California Environmental Quality Act (commencing with Section 21100) in that the activity is exempt pursuant to Title 14 of the California Code of Regulations Section 15301.

F. Technology-based Effluent Limitations. Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations[1], require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at Part 133 and/or Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3. A detailed discussion of the technology-based effluent limitations development is included in the Fact Sheet (Attachment F).

[1] *All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.*

G. Water Quality-Based Effluent Limitations. Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards. This Order contains requirements, expressed as a technology equivalence requirement, more stringent than secondary treatment requirements. These requirements are necessary to meet applicable water quality standards.

The rationale for these requirements, which consist of tertiary or equivalent treatment requirements and other provisions, is discussed in the Fact Sheet.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

H. Water Quality Control Plans. The Regional Water Board adopted a revised Water Quality Control Plan for the Santa Ana Region (hereinafter Basin Plan) that became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Santa Ana Region addressed through the plan. More recently, the Basin Plan was amended significantly to incorporate revised boundaries for groundwater subbasins, now termed "management zones", new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters.

This Basin Plan Amendment was adopted by the Regional Water Board on January 22, 2004. The State Water Resources Control Board (State Water Board) and Office of Administrative Law (OAL) approved the Amendment on September 30, 2004 and December 23, 2004, respectively. EPA approved the surface water standards components of the N/TDS Amendment on June 20, 2007.

In addition, the Basin Plan implements State Water Resources Control Board (State Water Board) Resolution No. 88-63, which established State policy that all waters, with certain exceptions, should be considered suitable or potentially suitable for municipal or domestic supply. Based on the criteria specified in the State Water Board Resolution, the Basin Plan specifies that Reaches 1A, 1B, and 2 of Chino Creek, Reach 1 of Cucamonga Creek and Reach 5 of the Santa Ana River, beginning at the intersection of Orange Avenue in the City of Redlands, and downstream reaches are excepted from the municipal and domestic supply beneficial use.

As discussed in detail in the Fact Sheet (Attachment F), beneficial uses applicable to the Prado Basin Management Zone, Reach 1 of Cucamonga Creek, Reaches 1A, 1B, and 2 of Chino Creek, and Reach 3 of the Santa Ana River are as follows:

Table 5. Basin Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Prado Park Lake overflow from the lake to an unnamed creek, then to Reach 1A of Chino Creek	Present or Potential: Water contact recreation (REC-1), non-contact water recreation (REC-2), warm freshwater habitat, wildlife habitat (WILD), and rare, threatened and endangered species. Recreational use at Prado Park Lake is restricted to fishing and boating. Excepted from Municipal and Domestic Supply.
002	Reach 1 of Cucamonga Creek, then to Mill Creek, thence to Reach 1A of Chino Creek	Present or Potential: Groundwater Recharge, Water contact recreation (REC-1), non-contact water recreation (REC-2), Limited warm freshwater habitat, and wildlife habitat (WILD). Excepted from Municipal and Domestic Supply.
003	Reach 1B of Chino Creek	Present or Potential: Water contact recreation (REC-1), non-contact water recreation (REC-2), warm freshwater habitat, wildlife habitat (WILD), and rare, threatened and endangered species. Excepted from Municipal and Domestic Supply.
004	Reach 2 of Chino Creek	Present or Potential: Groundwater Recharge, Water contact recreation (REC-1), non-contact water recreation (REC-2), Cold freshwater habitat, and wildlife habitat (WILD). Excepted from Municipal and Domestic Supply.
001, 002, 003, 004, S-001, & S-002	Reach 3 of Santa Ana River within Prado Basin Area	Present or Potential: Agricultural supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, wildlife habitat, and rare, threatened or endangered species. Excepted from Municipal and Domestic Supply.
001, 002, 003, 004, 005, 006, 007, 008, S-001, & S-002	Chino North “Max Benefit” GMZ/Chino 1, 2 and 3 “antidegradation” GMZs	Present or Potential: Municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
	Orange GMZ (affected GMZ downstream of discharge points)	Present or Potential: Municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

Requirements of this Order implement the Basin Plan.

I. National Toxics Rule (NTR) and California Toxics Rule (CTR). USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

J. Compliance Schedules and Interim Requirements – Not Applicable

K. State Implementation Policy. On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

L. Alaska Rule. On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes. (40 C.F.R. section 131.21; 65 Fed. Reg. 24641 (April 27, 2000).) Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000 may be used for CWA purposes, whether or not approved by USEPA.

M. Stringency of Requirements for Individual Pollutants. This Order contains both technology-based and water quality based effluent limitations for individual pollutants. The technology-based effluent limitations consist of restrictions on BOD_5 and Suspended Solids. Restrictions on the same pollutants are discussed in Section IV.B.2. of Attachment F. This Order's technology-based pollutant restrictions implement the minimum, applicable federal technology-based requirements. In addition, this Order contains effluent limitations more stringent than the minimum, federal technology-based requirements that are necessary to meet water quality standards. These limitations are not more stringent than required by the CWA.

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. With the exception of certain surface water standards changes adopted as part of the Nitrogen/TDS Basin Plan Amendment (see Section H, above), all beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). The surface water standards changes adopted as part of the Nitrogen/TDS Basin Plan Amendment were approved by USEPA on June 20, 2007.

N. Antidegradation Policy. Section 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing quality of waters be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. As discussed in the Fact Sheet, discharges in accordance with the terms and conditions of this Order will not result in a lowering of water quality. Therefore, the permitted discharges are consistent with the antidegradation provisions of section 131.12 and State Water Board Resolution No. 68-16.

O. Anti-Backsliding Requirements. Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit. With the exception of the average monthly limitation for free cyanide, all effluent limitations in this Order are at least as stringent as the effluent limitations in the previous Orders and are consistent with the anti-backsliding requirements of the CWA and federal regulations.

P. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). This Order requires compliance with effluent limits, receiving water limits, and other requirements to protect the beneficial uses of waters of the state. The Discharger is responsible for meeting all requirements of the applicable Endangered Species Act.

Q. Monitoring and Reporting. Section 122.48 requires that all NPDES permits specify requirements for recording and reporting monitoring results. Water Code sections 13267 and 13383 authorizes the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program establishes monitoring and reporting requirements to implement federal and State requirements. This Monitoring and Reporting Program is provided in Attachment E.

R. Pretreatment: The Discharger has established an approved regional pretreatment program. The approved pretreatment program and its components, such as Ordinance No.97-OR5, local limits (adopted by the Discharger in 2000), and control mechanisms, among others, are hereby made an enforceable condition of this Order.

S. Biosolids Requirements. On February 19, 1993, the USEPA issued a final rule for the use and disposal of sewage sludge, 40 CFR, Part 503. This rule requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. The State of California has not been delegated the authority to implement this program, therefore, the U.S. Environmental Protection Agency is the implementing agency. However, this Order includes Regional Water Board biosolids requirements.

T. State General Waste Discharge Requirements for Sanitary Sewer Systems. The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003 on May 2, 2006, requiring public agencies that own sanitary sewer systems comprised of more than one mile of pipes or sewer lines, to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs).

This Order requires the Discharger and other governmental agencies[2] to obtain enrollment for regulation under the General Water Quality Order No. 2006-0003. The Discharger has already enrolled.

[2] *Member agencies and sewering agencies discharging wastewater into the Facility.*

U. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42. The Regional Water Board has also included in this Order special provisions applicable to the Discharger. The rationale for the special provisions contained in this Order is provided in the attached Fact Sheet.

V. Provisions and Requirements Implementing State Law. The provisions/requirements in subsections IV.B, IV.C, V.B, and VI.C. of this Order are included to implement state law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

W. Notification of Interested Parties. The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe Waste Discharge Requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Details of notification are provided in the Fact Sheet of this Order.

X. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet of this Order.

IT IS HEREBY ORDERED, that this Order supersedes Order No. R8-2006-0010 as amended by Orders No. R8-2007-0045 and No. R8-2007-0078; Order No. R8-2008-0028, and Order No. R8-2004-0020 as amended by Order Nos. R8-2006-0038, and R8-2007-0078, except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act (CWA) and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order.

III. DISCHARGE PROHIBITIONS

A. The direct discharge of secondary treated wastewater to Chino Creek and Reach 1 of Cucamonga Creek other than when the flow[3] in the creeks results in a dilution of 20:1 or more at the point of discharge is prohibited.

B. Discharge of wastewater at a location or in a manner different from those described in this Order is prohibited.

C. The bypass or overflow of untreated wastewater or wastes to surface waters or surface water drainage courses is prohibited, except as allowed in Standard Provision I.G. of Attachment D, Federal Standard Provisions.

D. The discharge of any substances in concentrations toxic to animal or plant life is prohibited.

E. The discharge of any radiological, chemical, or biological warfare agent or high level radiological waste is prohibited.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations –Discharge Points (DP) 001, 002, 003, and 004

Unless otherwise specifically specified hereinafter, compliance with the following effluent limitations is measured at monitoring locations M-001, M-002, M-003 and M-004 as described in the attached MRP (Attachment E).

1. Final Effluent Limitations for discharges under conditions <u>without</u> 20:1 dilution in the receiving water – DPs 001, 002, 003 and 004

a. The Discharge shall maintain compliance with the following effluent limitations at:

(1) DPs 001, 002, 003 and 004 with compliance measured at Monitoring Locations M-001A & B, M-002A & B, M-003 and M-004, respectively, as described in the attached MRP:

Table 6. Effluent Limitations at DP 001 through DP 004

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	20	30	--	--	--
Total Suspended Solids	mg/L	20	30	--	--	--
Ammonia-Nitrogen	mg/L	4.5	--	--	--	--
Total Chlorine Residual[3]	mg/L					0.1

(2) DPs 001 and 002 with compliance measured at Monitoring Locations M-001B and M-002A, respectively, as described in the attached MRP:

[3] *See Section VII.M. – Compliance Determination.*

Table 7. Effluent Limitations Applicable at DP 001 and DP 002 only

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Free Cyanide	µg/L	4.2	--	8.5
Bis(2-ethylhexyl) Phthalate	µg/L	5.9		11.9
Selenium	µg/L	4.1		8.2

(3) DP 003 with compliance measured at Monitoring Location M-003, as described in the attached MRP:

Table 8. Effluent Limitations Applicable at DP 003 only

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Free Cyanide	µg/L	4.6	--	7.3
Bromodichloromethane	µg/L	46	--	92

(4) DP 004 with compliance measured at Monitoring Location M-004, as described in the attached MRP:

Table 9. Effluent Limitations Applicable at DP 004 only

Parameter	Units	Effluent Limitations		
		Average Monthly	Average Weekly	Maximum Daily
Free Cyanide	µg/L	4.3	--	8.5
Bis(2-ethylhexyl) Phthalate	µg/L	5.9	--	11.9

b. **Percent Removal:** The average monthly percent removal of BOD 5-day 20°C and total suspended solids shall not be less than 85 percent. (See Compliance Determination Section VII.N.)

c. **TDS Limitations** - The lower of the two total dissolved solids (TDS) limits specified in (1) or (2), below, is the limit.

(1) The 12-month flow weighted running average TDS constituent concentration and mass emission rates shall not exceed 550 mg/L and 366,960 lbs/day[4], respectively. This limitation may be met on an agency-wide basis using flow weighted averages of the discharges from the Discharger's RP-1, RP-4, RP-5 and CCWRF, or

(2) The 12-month flow weighted running average TDS concentration shall not exceed the 12-month flow weighted running average TDS concentration in the water supply by more than 250 mg/L[5]. This limitation may be met on an agency-wide basis using flow weighted averages of the water supplied to the Discharger's RP-1, RP-4, RP-5 and CCWRF service areas.

d. The 12-month flow weighted running average Total Inorganic Nitrogen (TIN) concentration and mass emission rates shall not exceed 8 mg/L and 5,338 lbs/day[6], respectively. This limitation may be met on an agency-wide basis using flow weighted averages of the discharges from the Discharger's RP-1, RP-4, RP-5 and CCWRF.

e. The discharge shall at all times be adequately oxidized, filtered, and disinfected treated wastewater and shall meet the following limitations.

(1) The turbidity of the filtered wastewater shall not exceed any of the following:

(a) Average of 2 Nephelometric Turbidity Unit (NTU) within any 24-hour period;

(b) 5 NTU more than 5 percent of the time in any 24-hour period; and

(c) 10 NTU at any time.

(2) The disinfected effluent shall meet the following:

(a) When chlorine disinfection process is utilized following filtration, a CT (the product of total chlorine residual and modal contact time measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes[7], based on peak dry weather design flow[8;] shall be provided[9].

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4 *Based on wasteload allocation volume of 80 mgd and concentration of 550 mg/L.*

5 *See Section VII.L. - Compliance Determination.*

6 *Based on wasteload allocation volume of 80 mgd and concentration of 8 mg/L.*

7 *The modal contact time requirement is applicable only to the use of recycled water and not to surface water discharges, provided the receiving water provides a 1:1 dilution. The receiving water considered here shall exclude upstream POTW effluent flow.*

8 *"Peak Dry Weather Flow" means the arithmetic mean of the maximum peak flow rates sustained over some period of time (for example three hours) during the maximum 24-hour dry weather period. Dry weather period is defined as period of little or no rainfall.*

(b) When a disinfection process combined with the filtration process is utilized, the combined process shall demonstrate[10] inactivation and/or removal of 99.999 percent of the plaque-forming units of F-specific bacteriophage MS-2[11], or polio virus in the wastewater. A virus that is at least as resistant to disinfection as polio virus may be used for purposes of the demonstration.

(c) The weekly average concentration of total coliform bacteria shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml). (see Compliance Determination VII.J.1., below)

(d) The number of total coliform bacteria shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period.

(e) No total coliform bacteria sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

f. There shall be no visible oil and grease in the discharge.

g. The pH of the discharge shall be within 6.5 to 8.5 pH[12].

h. Wastewater discharged at DP 001 shall be limited to treated and disinfected effluent that meets the conditions in Section IV.A.1.

i. Wastewater discharged at DP 002 through DP 004 shall be limited to treated and disinfected effluent that meets the conditions in Section IV.A.1., except for discharges of treated wastewater that meets the conditions specified in Section IV.A.4., when the flow[13] in Reaches 1B or 2 of Chino Creek or Reach 1 of Cucamonga Creek results in a dilution of 20:1 or more at the point of discharge.

2. Interim Effluent Limitations – Not Applicable

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9 *Modal contact time and CT shall be calculated based on the minimum one-hour average value in a 24-hr period.*

10 *Meeting the discharge limits in A.1.e.(2).(c),(d), and (e) shall constitute the demonstration required by this sub-paragraph.*

11 *F-Specific bacteriophage MS-2 means a strain of a specific type of virus that infects coliform bacteria that is traceable to the American Type Culture Collection (ATCC) 15597B1) and is grown on lawns of E. coli (ATCC 15597).*

12 *See Section VII.K. Compliance Determination.*

13 *Exclusive of discharges to surface waters from upstream publicly owned treatment works.*

3. Toxicity Requirements/Discharge Specifications

a. There shall be no acute or chronic toxicity in the plant effluent nor shall the plant effluent cause any acute or chronic toxicity in the receiving water. All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in human, plant, animal, or indigenous aquatic life. This Order contains no numeric limitation for toxicity. However, the Discharger shall conduct chronic toxicity monitoring.

b. The Discharger shall implement the accelerated monitoring as specified in Attachment E when the result of any single chronic toxicity test of the effluent exceeds 1.0 TUc.

4. Effluent Limitations at DPs 002, 003, and 004, Under Conditions <u>with</u> 20:1 or More Dilution

The discharge of treated and disinfected effluent when the creek flow[14] at monitoring locations R-002U, R-003U, and/or R-004U results in a dilution of 20:1 (receiving water flow : wastewater flow) or more shall maintain compliance with the following effluent limitations at DPs 002, 003, and/or 004 with compliance measured at Monitoring Locations M002, M003 and M-004, respectively, as described in the attached MRP.

a. Numeric Effluent Limitations

Table 10. Effluent Limitations Under 20:1 Dilution

Parameter	Units	Effluent Limitations			
		Average Monthly	Average Weekly	Instantaneous Minimum	Instantaneous Maximum
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	30	45	- -	- -
Total Suspended Solids	mg/L	30	45	- -	- -
Total Residual Chlorine	mg/L	-	-	-	2.1

b. Treated wastewater shall at all times be adequately oxidized and disinfected wastewater and shall meet the following limitations:

(1) The weekly average number of coliform bacteria does not exceed a median of 23 per 100 milliliters as determined from the daily coliform bacteria values for the last seven (7) days. (see also Compliance Determination VII.J.2., below)

[14] *Exclusive of discharges to surface waters from upstream publicly owned treatment works.*

(2) The discharge shall be considered adequately oxidized if the 5-day @ 20°C Biochemical Oxygen Demand and Total Suspended Solids constituent concentrations of the discharge are less than or equal to the limitations shown in IV.A.4.a., above.

c. The monthly average biochemical oxygen demand and suspended solids concentrations of the discharge shall not be greater than fifteen percent (15%) of the monthly average influent concentration.

d. The pH of the discharge shall be within 6.5 to 8.5 pH[15].

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – DP 005 through DP 008

1. Upon the effective date of this Order, the use of recycled water for parks, landscape irrigation, and/or other similar uses shall maintain compliance with the following effluent limitations at DP 005 through DP 008 with compliance measured at monitoring locations REC-001 through REC-004, respectively, and where representative samples of recycled water can be obtained for laboratory testing and analysis as described in the attached Monitoring and Reporting Program (Attachment E). The Discharger shall submit for approval by the Executive Officer a list of other monitoring location(s) not specified herein where representative samples of recycled water could be obtained for laboratory testing and analysis.

   a. Physical/Biological Limitations:

Table 11. Recycled Water Effluent Limitations

Parameter	Units	Effluent Limitations	
		Average Monthly	Average Weekly
Biochemical Oxygen Demand 5-day @ 20°C	mg/L	20	30
Total Suspended Solids	mg/L	20	30

   b. TDS Limitations: The following TDS limitations apply to recycled water uses, except groundwater recharge, that would affect underlying local Groundwater Management Zone(s). These limitations may be met on an agency-wide basis using flow-weighted averages of the discharges from the Discharger's RP-1, RP-4, RP-5 and CCWRF.

[15] *See Section VII.K. Compliance Determination*

(1) If maximum benefit is demonstrated (see Provisions VI.C.6.), the 12-month flow weighted running average total dissolved solids concentration shall not exceed 550 mg/L.

(2) If maximum benefit is not demonstrated (see Provisions VI.C.6.), the 12-month flow weighted running average total dissolved solids concentration shall not exceed the following:

Table 12. Recycled Water Effluent TDS Limitations

Groundwater Management Zone	TDS limit, mg/L
Chino 1	280
Chino 2	250
Chino 3	260

c. Recycled water described in Section 60307(a) of Division 4, Chapter 3, Title 22, California Code of Regulations and for irrigation of food crops, parks and playground, school yards, residential landscaping and other irrigation uses not specified in Section 60304(a) of Division 4, Chapter 3, Title 22, California Code of Regulations or not prohibited in other Sections of the California Code of Regulations shall at all times be adequately oxidized, filtered, and disinfected tertiary treated wastewater and shall meet the following limitations:

(1) The turbidity of the filter effluent when filtration is through natural undisturbed soils or a bed of filter media shall not exceed any of the following:

(a) Average of 2 Nephelometric Turbidity Units (NTU) within any 24-hour period;
(b) 5 NTU more than 5 percent of the time in any 24-hour period; and
(c) 10 NTU at any time.

(2) The disinfected effluent shall meet the following:

(a) The weekly average total coliform bacteria[16] shall not exceed a Most Probable Number (MPN) of 2.2 total coliform bacteria per 100 milliliters (ml).
(b) The number of total coliform organism shall not exceed an MPN of 23 total coliform bacteria per 100 ml in more than one sample in any 30-day period.
(c) No total coliform sample shall exceed an MPN of 240 total coliform bacteria per 100 ml.

[16] *See Compliance Determination Section VII.J.1.*

(d) A chlorine disinfection process following filtration that provides a CT (the product of total chlorine residual and modal contact time[17] measured at the same point) value of not less than 450 milligram-minutes per liter at all times with a modal contact time of at least 90 minutes, based on peak dry weather design flow.

d. Recycled water used for irrigation of food crops where the edible portion is produced above ground and not contacted by the recycled water shall at all times be adequately oxidized and disinfected so that average weekly total coliform bacteria in the disinfected effluent does not exceed a most probable number (MPN) of 2.2 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 23 per 100 milliliters in more than one sample in any 30-day period.

e. Recycled water used for the uses listed below shall be an oxidized and disinfected water so that the average weekly total coliform bacteria[18] in the disinfected effluent does not exceed a most probable number (MPN) of 23 per 100 milliliters utilizing the bacteriological results of the last seven days for which analyses have been completed, and the number of total coliform bacteria does not exceed an MPN of 240 per 100 milliliters in more than one sample in any 30 day period.

(1) Industrial boiler feed, nonstructural fire fighting, backfill consolidation around nonpotable piping, soil compaction, mixing concrete, dust control on roads and streets, cleaning roads, sidewalks and outdoor work areas and industrial process water that will not come into contact with workers.
(2) Irrigation of cemeteries, freeway landscaping, restricted access golf courses, ornamental nursery stock and sod farms where access by the general public is not restricted, pasture for animals producing milk for human consumption, and any nonedible vegetation where access is controlled so that irrigated area cannot be used as if it were part of a park, playground or school yard.

f. For recycled water uses specified in Sections 60304 and 60307 of Title 22 where filtration is provided pursuant Section 60301.320(a) and coagulation is not used as part of the treatment process, the Discharger shall comply with the following:

(1) The turbidity of the influent to the filters is continuously measured and the influent turbidity does not exceed 5 NTU for more than 15 minutes and never exceeds 10 NTU;
(2) The filtered wastewater turbidity shall not exceed 2 NTU within any 24-hour period; and;

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[17] *Modal contact time and CT shall be calculated daily based on the minimum one-hour average value in a 24-hour period.*

[18] *See Compliance Determination Section VII.J.2.*

(3) Should the filter influent turbidity exceed 5 NTU for more than 15 minutes, chemical addition shall be automatically activated if available, if not, the wastewater shall be diverted.

2. For new reuse sites, the use of recycled water shall only commence after the California Department of Public Health (CDPH) grants final approval for such use. The Discharger shall provide the Regional Water Board with a copy of the CDPH approval letter within 30 days of the approval notice.

3. The Discharger shall be responsible for assuring that recycled water is delivered and utilized in conformance with this Order, the recycling criteria contained in Title 22, Division 4, Chapter 3, Sections 60301 through 60355, California Code of Regulations. The Discharger shall conduct periodic inspections of the facilities of the recycled water users to monitor compliance by the users with this Order.

4. The Discharger shall establish and enforce Rules and Regulations for Recycled Water users, governing the design and construction of recycled water use facilities and the use of recycled water in accordance with the uniform statewide recycling criteria established pursuant to the California Water Code Section 13521.

   a. Use of recycled water by the Discharger shall be consistent with its Rules and Regulations for Recycled Water Use.

   b. Any revisions made to the Rules and Regulations shall be subject to the review of the Regional Water Board, the California Department of Public Health, and the County Environmental Health Department. The revised Rules and Regulations or a letter certifying that the Discharger's Rules and Regulations contain the updated provisions in this Order, shall be submitted to the Regional Water Board within 60 days of adoption of this Order by the Regional Water Board.

5. The Discharger shall, within 60 days of the adoption of this Order, review and update as necessary its program to conduct compliance inspections of recycled water reuse sites. Inspections shall determine the status of compliance with the Discharger's Rules and Regulations for Recycled Water Use.

6. The storage, delivery, or use of recycled water shall not individually or collectively, directly or indirectly, result in a pollution or nuisance, or adversely affect water quality, as defined in the California Water Code.

7. Prior to delivering recycled water to any new user, the Discharger shall submit to the California Department of Public Health and the County Environmental Health Department a report containing the following information for review and approval:

   a. The average number of persons estimated to be served at each use site area on a daily basis.

b. The specific boundaries of the proposed use site area including a map showing the location of each facility, drinking water fountain, and impoundment to be used.

c. The person or persons responsible for operation of the recycled water system at each use area.

d. The specific use to be made of the recycled water at each use area.

e. The methods to be used to assure that the installation and operation of the recycled system will not result in cross connections between the recycled water and potable water piping systems. This shall include a description of the pressure, dye or other test methods to be used to test the system.

f. Plans and specifications which include following:
(1) Proposed piping system to be used.
(2) Pipe locations of both the recycled and potable systems.
(3) Type and location of the outlets and plumbing fixtures that will be accessible to the public.
(4) The methods and devices to be used to prevent backflow of recycled water into the potable water system.
(5) Plan notes relating to specific installation and use requirements.

8. The Discharger shall require the user(s) to designate an on-site supervisor responsible for the operation of the recycled water distribution system within the recycled water use area. The supervisor shall be responsible for enforcing this Order, prevention of potential hazards, the installation, operation and maintenance of the distribution system, maintenance of the distribution and irrigation system plans in "as-built" form, and for the distribution of the recycled wastewater in accordance with this Order.

9. Recycled water shall at all times be maintained within the property lines of any user. There shall be no direct or indirect discharge of recycled water into drainage systems that could affect surface water quality standards.

D. Stormwater Discharge Specifications – S-001 and S-002

1. Storm water[19] discharges shall maintain compliance with the following effluent limitations at S-001 and S-002 with compliance measured at monitoring locations STORM-001 and STORM-002 and shall not:

a. Cause or contribute to a violation of any applicable water quality standards contained in the Basin Plan or in the State or Federal regulations.

b. Cause or threaten to cause pollution, contamination, or nuisance.

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19 *Storm water means storm water runoff and surface runoff and drainage.*

c. Contain a hazardous substance equal to or in excess of a reportable quantity listed in 40 CFR Part 117 and/or 40 CFR Part 302.

d. Adversely impact human health or the environment.

e. Result in noncompliance with the lawful requirements of municipalities, counties, drainage districts, and other local agencies on storm water discharges into storm drain systems or other courses under their jurisdiction.

2. Stormwater discharges from this Facility shall comply with the Stormwater Requirements in Attachment J and K.

3. The Discharger must update and implement the Storm Water Pollution Prevention Plan for the Facility in accordance with Attachment J of this Order.

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitations

1. Receiving water limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this Order. The discharge shall not cause the following in Prado Park Lake, Reach 1 of Cucamonga Creek, Reaches 1A, 1B and 2 of Chino Creek or Reach 3 of the Santa Ana River and downstream reaches:

   a. Coloration of the receiving waters, which causes a nuisance or adversely affects beneficial uses.

   b. Deposition of oil, grease, wax or other materials in the receiving waters in concentrations which result in a visible film or in coating objects in the water, or which cause a nuisance or affect beneficial uses.

   c. An increase in the amounts of suspended or settleable solids in the receiving waters, which will cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.

   d. Taste or odor-producing substances in the receiving waters at concentrations, which cause a nuisance or adversely affect beneficial uses.

   e. The presence of radioactive materials in the receiving waters in concentrations, which are deleterious to human, plant or animal life.

   f. The depletion of the dissolved oxygen concentration below 5.0 mg/L.

   g. The temperature of the receiving waters to be raised above 90°F (32°C) during the period of June through October, or above 78°F (26°C) during the rest of the year.

h. The concentration of pollutants in the water column, sediments, or biota to adversely affect the beneficial uses of the receiving water. The discharge shall not result in the degradation of inland surface water communities and populations, including vertebrate, invertebrate, and plant species.

2. The discharge of wastes shall not cause a violation of any applicable water quality standards for receiving waters adopted by the Regional Water Board or State Water Board, as required by the Clean Water Act and regulations adopted thereunder.

3. Pollutants not specifically mentioned and limited in this Order shall not be discharged at levels that will bioaccumulate in aquatic resources to levels, which are harmful to human health or animal life.

4. The discharge shall not contain constituent concentrations of mercury that will result in the bioaccumulation of methylmercury in fish flesh tissue greater than 0.3 milligram methylmercury/kilogram. (See also Section VI.C.1.e. and VI.C.2.a., below).

B. Groundwater Limitations

The use of recycled water shall not cause the underlying groundwater to be degraded, to exceed water quality objectives, unreasonably affect beneficial uses, or cause a condition of pollution or nuisance.

VI. PROVISIONS

A. Standard Provisions

1. The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. The Discharger shall comply with the following provisions:

   a. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges from this Facility, may subject the Discharger to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the Discharger to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

b. In the event the Discharger does not comply or will be unable to comply for any reason, with any prohibition, discharge limitations (e.g., maximum daily effluent limitation), or receiving water limitation of this Order, the Discharger shall notify the Regional Water Board by telephone (951) 782-4130 within 24 hours of having knowledge of such noncompliance, and shall confirm this notification in writing within five days, unless the Regional Water Board waives confirmation. The written notification shall state the nature, time, duration, and cause of noncompliance, and shall describe the measures being taken to remedy the current noncompliance and, prevent recurrence including, where applicable, a schedule of implementation. Other noncompliance requires written notification as above at the time of the normal monitoring report.

c. Neither the treatment nor the discharge of pollutants shall create a pollution, contamination, or nuisance as defined by Section 13050 of the CWC.

d. The Discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncomplying discharge.

e. This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:

(1) Violation of any terms or conditions of this Order;
(2) Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts, or;
(3) In addition to any other grounds specified herein, this Order may be modified or revoked at any time if, on the basis of any data, the Regional Water Board determines that continued discharges may cause unreasonable degradation of the aquatic environment.

f. If an effluent standard or discharge prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307 (a) of the Clean Water Act for a toxic pollutant which is present in the discharge, and such standard or prohibition is more stringent than any limitation for that pollutant in this Order, this Order may be modified or revoked and reissued to conform to the effluent standard or discharge prohibition.

g. The Discharger shall file with the Regional Water Board a Report of Waste Discharge at least 180 days before making any material change in the character, location, or volume of the discharge. A material change includes, but is not limited to, the following:

(1) Adding a major industrial waste discharge to a discharge of essentially domestic sewage, or adding a new process or product by an industrial facility resulting in a change in the character of the waste.
(2) Significantly changing the disposal method or location, such as changing the disposal to another drainage area or water body.
(3) Significantly changing the method of treatment.
(4) Increasing the treatment plant design capacity beyond that specified in this Order.

h. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.

i. The Discharger shall maintain a copy of this Order at the site so that it is available to site operating personnel at all times. Key operating personnel shall be familiar with its content.

j. The Discharger shall optimize chemical additions needed in the treatment process to meet waste discharge requirements so as to minimize total dissolved solid increases in the treated wastewater.

k. Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Regional Water Board's Executive Officer.

l. The Discharger has demonstrated a correlation between the biological oxygen demand (BOD_5) and total organic carbon (TOC) concentrations in the effluent to the satisfaction of the Executive Officer. Therefore, compliance with the BOD_5 limits and monitoring requirements contained in this Order may be determined based on analyses of the TOC of the effluent.

m. In the event of any change in control or ownership of land or waste discharge facility presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be forwarded to the Regional Water Board.

n. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.

B. Monitoring and Reporting Program (MRP) Requirements

The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order. This monitoring and reporting program may be modified by the Executive Officer at any time during the term of this Order, and may include an increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected. Any increase in the number of parameters to be monitored, the frequency of the monitoring or the number and size of samples to be collected may be reduced back to the levels specified in the original monitoring and reporting program at the discretion of the Executive Officer.

C. Special Provisions

1. Reopener Provisions

a. This Order will be reopened to address any changes in State or federal plans, policies or regulations that would affect the quality requirements for the discharges.

b. This Order may be reopened to include effluent limitations for pollutants determined to be present in the discharge in concentrations that pose a reasonable potential to cause or contribute to violations of water quality standards.

c. This Order may be reopened and modified in accordance with the requirements set forth at 40 CFR 122 and 124, to include the appropriate conditions or limits to address demonstrated effluent toxicity based on newly available information, or to implement any EPA-approved new State water quality standards applicable to effluent toxicity.

d. This Order may be reopened for modification, or revocation and reissuance, as a result of the detection of a reportable priority pollutant generated by special conditions included in this Order. These special conditions may be, but are not limited to, fish tissue sampling, whole effluent toxicity, monitoring requirements on internal waste stream(s), and monitoring for surrogate parameters. Additional requirements may be included in this Order as a result of the special condition monitoring data.

e. This Order may be reopened to include an appropriate bioaccumulation based effluent limit for mercury if test results (as required in Attachment E of this Order) show that the concentration levels of methylmercury in the fish tissue are at or above 0.3 milligrams per kilogram.

f. This Order may be reopened to incorporate appropriate biosolids requirements if the State Water Resources Control Board and the Regional Water Quality Control Board are given the authority to implement regulations contained in 40 CFR 503.

2. Special Studies, Technical Reports and Additional Monitoring Requirements

a. By September 1, 2009, the Discharger shall notify the Executive Officer of its continuous involvement with the comprehensive mercury investigation program currently being conducted by a group of Santa Ana River system dischargers. If the Discharger discontinues its involvement with this comprehensive program, the Discharger shall, within 60 days of that date, submit for the approval of the Executive Officer its plan for the annual testing of mercury levels in fish flesh samples collected from the Santa Ana River, upstream of, at, and downstream of the point of the discharge point. Upon approval, the Discharger shall implement the plan.

b. Toxicity Reduction Requirements.

(1) The Discharger shall develop an Initial Investigation Toxicity Reduction Evaluation (IITRE) work plan that describes the steps the Discharger intends to follow if required by Toxicity Requirements b.(2), below. The work plan shall include at a minimum:

(a) A description of the investigation and evaluation techniques that will be used to identify potential causes/sources of the exceedance, effluent variability, and/or efficiency of the treatment system in removing toxic substances. This shall include a description of an accelerated chronic toxicity testing program.

(b) A description of the methods to be used for investigating and maximizing in-house treatment efficiency and good housekeeping practices.

(c) A description of the evaluation process to be used to determine if implementation of a more detailed TRE\TIE is necessary.

(2) The Discharger shall implement the IITRE work plan whenever the results of chronic toxicity tests of the effluent exceed:

(a) A two month median value of 1.0 TUc for survival or reproduction endpoint or,
(b) Any single test value of 1.7 TUc for survival endpoint.

(3) The Discharger shall develop a detailed Toxicity Reduction Evaluation and Toxicity Identification Evaluation (TRE/TIE) work plan that shall describe the steps the Discharger intends to follow if the implemented IITRE fails to identify the cause of, or to rectify, the toxicity.

(4) The Discharger shall use as guidance, at a minimum, EPA manuals EPA/600/2-88/070 (industrial), EPA/600/4-89-001A (municipal), EPA/600/6-91/005F (Phase I), EPA/600/R-92/080 (Phase II), and EPA-600/R-92/081 (Phase III) to identify the cause(s) of toxicity. If during the life of this Order the aforementioned EPA manuals are revised or updated, the revised/updated manuals may also be used as guidance. The detailed TRE/TIE work plan shall include:

(a) Further actions to investigate and identify the cause of toxicity;
(b) Actions the Discharger will take to mitigate the impact of the discharge and to prevent the recurrence of toxicity; and
(c) A schedule for these actions.

(5) The Discharger shall implement the TRE/TIE workplan if the IITRE fails to identify the cause of, or rectify, the toxicity, or if in the opinion of the Executive Officer the IITRE does not adequately address an identified toxicity problem.

(6) The Discharger shall assure that adequate resources are available to implement the required TRE/TIE.

3. Best Management Practices and Pollution Prevention

a. Pollutant Minimization Program

(1) The Discharger shall develop and conduct a Pollutant Minimization Program (PMP) as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity, health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a priority pollutant is present in the effluent above an effluent limitation and either:

(a) A sample result is reported as DNQ and the effluent limitation is less than the RL; or
(b) A sample result is reported as ND and the effluent limitation is less than the MDL.

(2) The PMP shall include, but not be limited to, the following actions and submittals acceptable to the Regional Water Board:

(a) An annual review and semi-annual monitoring of potential sources of the reportable priority pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

(b) Quarterly monitoring for the reportable priority pollutant(s) in the influent to the wastewater treatment system;

(c) Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable priority pollutant(s) in the effluent at or below the effluent limitation;

(d) Implementation of appropriate cost-effective control measures for the reportable priority pollutant(s), consistent with the control strategy; and

(e) An annual status report that shall be sent to the Regional Water Board including:

i. All PMP monitoring results for the previous year;
ii. A list of potential sources of the reportable priority pollutant(s);
iii. A summary of all actions undertaken pursuant to the control strategy; and
iv. A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

a. The Discharger's wastewater treatment plants shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to Title 23, Division 3, Chapter 14, California Code of Regulations.

b. The Discharger shall provide safeguards to assure that should there be reduction, loss, or failure of electric power, the Discharger will comply with the requirements of this Order.

c. The Discharger shall update as necessary, the "Operation and Maintenance Manual(s) (O&M Manual)" which it has developed for the treatment facilities to conform to latest plant changes and requirements. The O&M Manual(s) shall be readily available to operating personnel onsite. The O&M Manual(s) shall include the following:

(1) Description of the treatment plant table of organization showing the number of employees, duties and qualifications and plant attendance schedules (daily, weekends and holidays, part-time, etc). The description should include documentation that the personnel are knowledgeable and qualified to operate the treatment facility so as to achieve the required level of treatment at all times.
(2) Detailed description of safe and effective operation and maintenance of treatment processes, process control instrumentation and equipment.
(3) Description of laboratory and quality assurance procedures.
(4) Process and equipment inspection and maintenance schedules.
(5) Description of safeguards to assure that, should there be reduction, loss, or failure of electric power, the Discharger will be able to comply with requirements of this Order.
(6) Description of preventive (fail-safe) and contingency (response and cleanup) plans for controlling accidental discharges, and for minimizing the effect of such events. These plans shall identify the possible sources (such as loading and storage areas, power outage, waste treatment unit failure, process equipment failure, tank and piping failure) of accidental discharges, untreated or partially treated waste bypass, and polluted drainage.

5. Special Provisions for Municipal Facilities (POTWs Only)

a. Sewer Collection System Requirements: The Discharger's collection system is part of the system that is subject to this Order. As such, the Discharger must properly operate and maintain its collection system (40 C.F.R. § 122.41(e)). The Discharger must report any non-compliance (40 C.F.R. § 122.41(l)(6) and (7)) and mitigate any discharge from the collection system in violation of this Order (40 C.F.R. § 122.41(d)). See the Order at Standard Provision VI.A.2.b. and Attachment D, subsections I.D, V.E, V.H, and I.C.

Furthermore, the General Waste Discharge Requirements for Collection System Agencies (Order No. 2006-0003 DWQ) contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. While the Discharger must comply with both Order No. 2006-0003 DWQ and this Order, the General Collection System WDR more clearly and specifically stipulates requirements for operation and maintenance and for reporting and mitigating sanitary sewer overflows. The Discharger and other governmental agencies that are discharging wastewater into the facility are required to obtain enrollment for regulation under Order No. 2006-0003-DWQ.

b. Sludge Disposal Requirements

(1) Collected screenings, sludge, and other solids removed from liquid wastes shall be disposed of in a manner that is consistent with State Water Board and Integrated Waste Management Board's joint regulations (Title 27) of the California Code of Regulations and approved by the Regional Water Board's Executive Officer.
(2) The use and disposal of biosolids shall comply with existing Federal and State laws and regulations, including permitting requirements and technical standards included in 40 CFR 503.
(3) Any proposed change in biosolids use or disposal practice from a previously approved practice should be reported to the Executive Officer and EPA Regional Administrator at least 90 days in advance of the change.
(4) The Discharger shall take all reasonable steps to minimize or prevent any discharge or biosolids use or disposal that has the potential of adversely affecting human health or the environment.

c. Pretreatment Program

(1) The Discharger shall update as necessary and implement an acceptable pretreatment program.

(2) The Discharger shall update as necessary the appropriate contractual agreements with all governmental agencies[20]. The contractual agreements shall give the Discharger the authority to implement and enforce the approved pretreatment program within the sewer service areas of the treatment Facility. The Discharger shall assure that any other steps necessary to provide this implementation and enforcement authority (e.g. adoption of ordinances, etc.) are taken by all governmental agencies. If a governmental agency has an EPA approved pretreatment program for any portion of the service area of the treatment facility, the Discharger's pretreatment program shall contain provisions ensuring that that governmental agency's program is implemented. In the event that any agency discharging to Discharger's facility fails to effectively implement its individual EPA approved pretreatment program, the Discharger shall implement and enforce its approved program within that agency's service area.

[20] *Member agencies and sewering agencies discharging wastewater into the Facility.*

(3) The Discharger shall ensure that the POTW[21] pretreatment program for all contributory agencies discharging to the Discharger's treatment facility are implemented and enforced. The Discharger shall be responsible and liable for the performance of all Control Authority pretreatment requirements contained in 40 CFR 403, including any subsequent regulatory revisions to Part 403. Where Part 403 or subsequent revisions place mandatory actions upon the Discharger as Control Authority but does not specify a timetable for completion of the actions, the Discharger shall submit for approval of the Regional Water Board's Executive Officer, a schedule for implementation of the required actions and shall implement the approved schedule. The schedule for implementation shall be submitted within six months from the date that such mandatory actions are established. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines and other remedies by the EPA, or other appropriate parties, as provided in the CWA, as amended (33 USC 1351 et seq.). The EPA or the Regional Water Board may also initiate enforcement action against an industrial user (IU) for non-compliance with applicable standards and requirements as provided in the CWA.

(4) The Discharger shall perform the pretreatment functions as required in 40 CFR Part 403 including, but not limited to:

(a) Enforce the pretreatment requirements under 40 CFR 403.5 and 403.6;

(b) Implement the necessary legal authorities as provided in 40 CFR 403.8(f)(1);

(c) Implement the programmatic functions as provided in 40 CFR 403.8(f)(2);

(d) Publish a list of significant non-compliance as required by 40 CFR 403.8(f)(2)(vii); and

(e) Provide the requisite funding and personnel to implement the pretreatment program as provided in 40 CFR 403.8(f)(3).

(5) The following wastes shall not be introduced into the treatment works:

(a) Wastes which create a fire or explosion hazard in the treatment works;

(b) Wastes which will cause corrosive structural damage to treatment works, but, in no case, wastes with a pH lower than 5.0 unless the works are designed to accommodate such wastes;

[21] *Publicly owned treatment works.*

(c) Wastes at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so that there is a treatment process upset and subsequent loss of treatment efficiency;

(d) Solid or viscous wastes in amounts that would cause obstruction to the flow in sewers or otherwise interfere with the proper operation of the treatment works.

(6) The Discharger shall ensure compliance with any existing or future pretreatment standard promulgated by EPA under Section 307 of the CWA or amendments thereto for any discharge to the municipal system.

(7) The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement.

(8) The Discharger shall require each user not in compliance with any pretreatment standard to submit periodic notice (over intervals not to exceed nine months) of progress toward compliance with applicable toxic and pretreatment standards developed pursuant to the CWA or amendments thereto. The Discharger shall forward a copy of such notice to the Regional Water Board and to the EPA Regional Administrator.

(9) The Discharger shall operate the wastewater collection system under a comprehensive industrial pretreatment and pollutant control program for the control of discharge of toxic wastes from point sources. If the California Department of Health Services identifies any contaminants that may pose a risk of contamination to a drinking water supply, it may designate those contaminants for inclusion in the pretreatment and source control program requirements for IEUA to minimize the possibility that the influent wastewater to RP-1 and RP-4 will be contaminated with such toxic chemicals. The source control program shall include:

(a) An assessment of the fate of the specified contaminant compounds through the wastewater and recycled water treatment systems.

(b) A source investigation and monitoring program focused on the specified contaminants.

(c) An outreach program to industrial, commercial and residential communities within the sewage collection agency's service area to manage and minimize the discharge of compounds of concern at the source.

(d) A proactive program for maintaining an inventory of compounds discharged into the wastewater collection system so that new compounds of concern can be evaluated rapidly.

6. Other Special Provisions

a. As necessary based on the consideration of evidence regarding the implementation of the maximum benefit commitments shown in Attachment L , the Regional Water Board will be asked to make a determination of whether those commitments are being satisfied. If the Regional Water Board finds that the maximum benefit commitments are not being satisfied, then the Discharger shall implement a mitigation program approved by the Regional Water Board for recycled water use in the Chino 1, 2 or 3 Groundwater Management Zones using recycled water in excess of the limitations applicable to the Groundwater Management Zones (Sections IV.A.1.c. and IV.A.1.d., and Sections IV.C.1.b.). A proposed mitigation plan and schedule shall be submitted within 60-days of notification by the Regional Water Board Executive Officer of the need to do so. The Discharger shall implement the plan and schedule upon approval by the Regional Water Board.

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. General.

Compliance with effluent limitations for priority pollutants shall be determined using sample reporting protocols defined in the MRP and Attachment A of this Order. For purposes of reporting and administrative enforcement by the Regional and State Water Boards, the Discharger shall be deemed out of compliance with effluent limitations if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reporting level (RL).

B. Multiple Sample Data.

When determining compliance with an AMEL or MDEL for priority pollutants and more than one sample result is available, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of “Detected, but Not Quantified” (DNQ) or “Not Detected” (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

1. The data set shall be ranked from low to high, ranking the reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

2. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ.

C. Average Monthly Effluent Limitation (AMEL).

If the average (or when applicable, the median determined by subsection B above for multiple sample data) of daily discharges over a calendar month exceeds the AMEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of non-compliance in a 31-day month). If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

D. Average Weekly Effluent Limitation (AWEL).

If the average or when applicable, the median determined by subsection B above for multiple sample data of daily discharges over a calendar week exceeds the AWEL for a given parameter, this will represent a single violation, though the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in 7 days of non-compliance. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. The Discharger will only be considered out of compliance for days when the discharge occurs. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

E. Maximum Daily Effluent Limitation (MDEL).

If a daily discharge or when applicable, the median determined by subsection B above for multiple sample data of a daily discharge exceeds the MDEL for a given parameter, the Discharger will be considered out of compliance for that parameter for that 1 day only within the reporting period. For any 1 day during which no sample is taken, no compliance determination can be made for that day.

F. Instantaneous Minimum Effluent Limitation.

If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of non-compliance with the instantaneous minimum effluent limitation).

G. Instantaneous Maximum Effluent Limitation.

If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of non-compliance with the instantaneous maximum effluent limitation).

H. 12-Month Running Average Effluent Limitation (12-MRAEL).

Compliance with the 12-month flow weighted running average limits under Discharge Specification IV.A.1.c., IV.A.1.d., and IV.C.1.b. shall be determined by the arithmetic mean of the last twelve monthly averages.

I. Turbidity Limitations.

The Discharger shall be considered in compliance with Discharge Specifications IV.A.1.e.(1) and IV.C.1.c.(1), if the following conditions are met. If the Discharger is using a properly operating backup turbidimeter, the reading of the backup turbidimeter shall be considered in determining whether there has been an actual noncompliance:

1. There are no excursions above the limits specified in Discharge Specifications IV.A.1.e.(1)(a) and (b) and IV.C.1.c.(1)(a) and (b);
2. Exceedances of the “10 NTU at any time” turbidity requirement do not exceed a duration of one minute.
3. The apparent exceedance was caused by interference with, or malfunction of, the monitoring instrument.

J. Coliform Organism Effluent Limitations.

1. Compliance with the average weekly total coliform limit expressed in Discharge Specification IV.A.1.e.(2)(b), IV.C.1.c.(2)(a), and IV.C.1.d. shall be based on a median of test results from the previous 7 days. To comply with the limit, the 7-day median MPN must not exceed 2.2 per 100 milliliters on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 2.2 for more than one day in the week.

2. Compliance with the average weekly total coliform limit expressed in Discharge Specification IV.C.1.e. shall be based on a median of test results from the previous 7 days. To comply with the limit, the 7-day median MPN must not exceed 23 per 100 milliliters on any day during the week. However, only one violation is recorded for each calendar week, even if the 7-day median MPN value is greater than 23 for more than one day in the week.

K. pH Effluent Limitations.

Pursuant to 40 CFR 401.17, the Discharger shall be in compliance with the pH limitations specified in the Discharge Specification IV.A.1.g., IV.A.4.d., above, provided that both of the following conditions are satisfied:

1. The total time during which the pH values are outside the required range of 6.5-8.5 pH values shall not exceed 7 hours and 26 minutes in any calendar month; and
2. No individual excursion from the range of pH values shall exceed 60 minutes.

L. TDS Increment Limit.

Compliance with Discharge Specifications IV.A.1.c.(2) shall be based on IEUA's (RP-1, RP- 4, RP-5, and CCWRF) agency-wide flow weighted TDS water supply quality and shall be determined from TDS analysis of secondary treated wastewater. The Discharger shall provide the necessary calculations showing the overall TDS water supply quality.

M. Total Chlorine Residual Limitation (TCR)

Compliance determinations for total chlorine residual shall be based on 99% compliance. To determine 99% compliance with the effluent limitation for total chlorine residual, the following conditions shall be satisfied:

1. For TCR Limit specified in Section IV.A.1. :
   a The total time during which the total chlorine residual values are above 0.1 mg/L (instantaneous maximum value) shall not exceed 7 hours and 26 minutes in any calendar month;
   b No individual excursion from 0.1 mg/L value shall exceed 5 minutes; and
   c No individual excursion shall exceed 5.0 mg/L.

2. For TCR Limit specified in Section IV.A.4.:
   a The total time during which the total chlorine residual values are above 2.1 mg/L (instantaneous maximum value) shall not exceed 7 hours and 26 minutes in any calendar month;
   b No individual excursion from 2.1 mg/L value shall exceed 5 minutes; and
   c No individual excursion shall exceed 10.5 mg/L.

N. Percent Removal

Compliance with the 85 percent average monthly removal requirement (See Effluent Limitations and Discharge Specifications Section IV.A.1.b.)shall be determined for each individual facility (RP-1, RP-4, RP- 5, and CCWRF).

O. Priority Pollutants.

The Discharger shall be deemed out of compliance with an effluent limitation if the concentration of the priority pollutant in the monitoring sample is greater than the effluent limitation.

1. Compliance determination shall be based on the reporting level selected from minimum level (ML)[22] specified in Attachment H of this Order, unless an alternative reporting level is approved by the Regional Water Board's Executive Officer. When there is more than one ML value for a given substance, the Discharger shall select the ML value that is below the calculated effluent limitation, and use its associated analytical method, listed in Attachment H of this Order. If no ML value is below the effluent limitation, then the Regional Water Board will select as the reporting level the lowest ML value and its associated analytical method.

2. When determining compliance with an average monthly limit and more than one sample result is available in a month, the Discharger shall compute the arithmetic mean unless the data set contains one or more reported determinations of detected but not quantified (DNQ) or not detected (ND). In those cases, the Discharger shall compute the median in place of the arithmetic mean in accordance with the following procedure:

   a. The data set shall be ranked from low to high, reported ND determinations lowest, DNQ determinations next, followed by quantified values (if any). The order of the individual ND or DNQ determinations is unimportant.

   b. The median value of the data set shall be determined. If the data set has an odd number of data points, then the median is the middle value. If the data set has an even number of data points, then the median is the average of the two values around the middle unless one or both of the points are ND or DNQ, in which case the median value shall be the lower of the two data points where DNQ is lower than a value and ND is lower than DNQ. If a sample result, or the arithmetic mean or median of multiple sample results, is below the reporting level, and there is evidence that the priority pollutant is present in the effluent above an effluent limitation and the Discharger conducts a pollutant minimization program (PMP)[23] the Discharger shall not be deemed out of compliance.

P. Non-Priority Pollutants.

The discharge shall be considered to be in compliance with an effluent limitation that is less than or equal to the method detection limit (MDL) specified in 40 CFR 136 if the arithmetic mean of all test results for the monitoring period is less than the constituent effluent limitation. Analytical results that are less than the specified MDL shall be assigned a value of zero.

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[22] *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

[23] *The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation.*

Q. Compliance Determination

Compliance determinations shall be based on available analyses for the time interval associated with the effluent limitation. Where only one sample analysis is available in a specified time interval (e. g., monthly or weekly average), that sample shall serve to characterize the discharge for the entire interval. If quarterly sample results show noncompliance with the average monthly limit and that sample result is used for compliance determinations for each month of the quarter, then three separate violations of the average monthly limit shall be deemed to have occurred.

Compliance with a single effluent limitation which applies to a group of chemicals (e.g., PCBs), based on a single sample shall be determined by considering the concentrations of individual members of the group to be zero if the analytical response for the individual chemical falls below the method detection limit (MDL) for that chemical.

ATTACHMENT A – DEFINITIONS

Arithmetic Mean (μ), also called the average, is the sum of measured values divided by the number of samples. For ambient water concentrations, the arithmetic mean is calculated as follows:

Arithmetic mean = $\mu = \Sigma x / n$ where: Σx is the sum of the measured ambient water concentrations, and n is the number of samples.

Average Monthly Effluent Limitation (AMEL): the highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL): the highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Best Management Practices (BMPs) are methods, measures, or practices designed and selected to reduce or eliminate the discharge of pollutants to surface waters from point and nonpoint source discharges including storm water. BMPs include structural and non-structural controls, and operation and maintenance procedures, which can be applied before, during, and/or after pollution producing activities.

Bioaccumulative pollutants are those substances taken up by an organism from its surrounding medium through gill membranes, epithelial tissue, or from food and subsequently concentrated and retained in the body of the organism.

Carcinogenic pollutants are substances that are known to cause cancer in living organisms.

Coefficient of Variation (CV) is a measure of the data variability and is calculated as the estimated standard deviation divided by the arithmetic mean of the observed values.

Criteria Continuous Concentration (CCC) equals the highest concentration of a pollutant to which aquatic life can be exposed for an extended period of time (4 days) without deleterious effects.

Criteria Maximum Concentration (CMC) equals the highest concentration of a pollutant to which aquatic life can be exposed for a short period of time without deleterious effects.

Daily Discharge: Daily Discharge is defined as either: (1) the total mass of the constituent discharged over the calendar day (12:00 am through 11:59 pm) or any 24-hour period that reasonably represents a calendar day for purposes of sampling (as specified in the permit), for a constituent with limitations expressed in units of mass or; (2) the unweighted arithmetic mean measurement of the constituent over the day for a constituent with limitations expressed in other units of measurement (e.g., concentration).

The daily discharge may be determined by the analytical results of a composite sample taken over the course of one day (a calendar day or other 24-hour period defined as a day) or by the arithmetic mean of analytical results from one or more grab samples taken over the course of the day.

For composite sampling, if 1 day is defined as a 24-hour period other than a calendar day, the analytical result for the 24-hour period will be considered as the result for the calendar day in which the 24-hour period ends.

Detected, but Not Quantified (DNQ) are those sample results less than the RL, but greater than or equal to the laboratory's MDL.

Effluent Concentration Allowance (ECA) is a value derived from the water quality criterion/objective, dilution credit, and ambient background concentration that is used, in conjunction with the coefficient of variation for the effluent monitoring data, to calculate a long-term average (LTA) discharge concentration. The ECA has the same meaning as waste load allocation (WLA) as used in USEPA guidance (Technical Support Document For Water Quality-based Toxics Control, March 1991, second printing, EPA/505/2-90-001).

Estimated Chemical Concentration is the estimated chemical concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

Existing Discharger means any discharger that is not a new discharger. An existing discharger includes an "increasing discharger" (i.e., an existing facility with treatment systems in place for its current discharge that is or will be expanding, upgrading, or modifying its existing permitted discharge after the effective date of the State Implementation Policy).

Infeasible means not capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

Inland Surface Waters are all surface waters of the State that do not include the ocean, enclosed bays, or estuaries.

Instantaneous Maximum Effluent Limitation: the highest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous maximum limitation).

Instantaneous Minimum Effluent Limitation: the lowest allowable value for any single grab sample or aliquot (i.e., each grab sample or aliquot is independently compared to the instantaneous minimum limitation).

Load Allocation (LA) is the portion of receiving water's total maximum daily load that is allocated to one of its non-point sources of pollution or to natural background sources.

Maximum Daily Effluent Limitation (MDEL) means the highest allowable daily discharge of a pollutant, over a calendar day (or 24-hour period). For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the arithmetic mean measurement of the pollutant over the day.

Maximum Daily Flow is the maximum flow sample of all samples collected in a calendar day.

MEC: Maximum Effluent Concentration is the observed maximum pollutant concentration for the effluent.

Median is the middle measurement in a set of data. The median of a set of data is found by first arranging the measurements in order of magnitude (either increasing or decreasing order). If the number of measurements (*n*) is odd, then the median = $X_{(n+1)/2}$. If *n* is even, then the median = $(X_{n/2} + X_{(n/2)+1})/2$ (i.e., the midpoint between the *n*/2 and *n*/2+1).

Method Detection Limit (MDL) is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analyte concentration is greater than zero, as defined in title 40 of the Code of Federal Regulations, Part 136, Attachment B, revised as of July 3, 1999.

Minimum Level (ML) is the concentration at which the entire analytical system must give a recognizable signal and acceptable calibration point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.

Mixing Zone is a limited volume of receiving water that is allocated for mixing with a wastewater discharge where water quality criteria can be exceeded without causing adverse effects to the overall water body.

Not Detected (ND) are those sample results less than the laboratory's MDL.

Objectionable Bottom Deposits are an accumulation of materials or substances on or near the bottom of a water body, which creates conditions that adversely impact aquatic life, human health, beneficial uses, or aesthetics. These conditions include, but are not limited to, the accumulation of pollutants in the sediments and other conditions that result in harm to benthic organisms, production of food chain organisms, or fish egg development. The presence of such deposits shall be determined by RWQCB(s) on a case-by-case basis.

Persistent pollutants are substances for which degradation or decomposition in the environment is nonexistent or very slow.

Pollutant Minimization Program (PMP) means waste minimization and pollution prevention actions that include, but are not limited to, product substitution, waste stream recycling, alternative waste management methods, and education of the public and businesses. The goal of the PMP shall be to reduce all potential sources of a priority pollutant(s) through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the water quality-based effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The Regional Water Board may consider cost effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan, if required pursuant to Water Code section 13263.3(d), shall be considered to fulfill the PMP requirements.

Pollution Prevention means any action that causes a net reduction in the use or generation of a hazardous substance or other pollutant that is discharged into water and includes, but is not limited to, input change, operational improvement, production process change, and product reformulation (as defined in Water Code section 13263.3). Pollution prevention does not include actions that merely shift a pollutant in wastewater from one environmental medium to another environmental medium, unless clear environmental benefits of such an approach are identified to the satisfaction of the State or Regional Water Board.

Reporting Level (RL) is the ML (and its associated analytical method) chosen by the Discharger for reporting and compliance determination from the MLs included in this Order. The MLs included in this Order correspond to approved analytical methods for reporting a sample result that are selected by the Regional Water Board either from Appendix 4 of the SIP[1] in accordance with section 2.4.2 of the SIP or established in accordance with section 2.4.3 of the SIP. The ML is based on the proper application of method-based analytical procedures for sample preparation and the absence of any matrix interferences. Other factors may be applied to the ML depending on the specific sample preparation steps employed. For example, the treatment typically applied in cases where there are matrix-effects is to dilute the sample or sample aliquot by a factor of ten. In such cases, this additional factor must be applied to the ML in the computation of the RL.

Satellite Collection System is the portion, if any, of a sanitary sewer system owned or operated by a different public agency than the agency that owns and operates the wastewater treatment facility that a sanitary sewer system is tributary to.

Source of Drinking Water is any water designated as municipal or domestic supply (MUN) in a Regional Water Board Basin Plan.

[1] *SIP refers to the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California.*

Standard Deviation (σ) is a measure of variability that is calculated as follows:

$$\sigma = (\sum[(x - \mu)^2]/(n - 1))^{0.5}$$

where:

x is the observed value;

μ is the arithmetic mean of the observed values; and

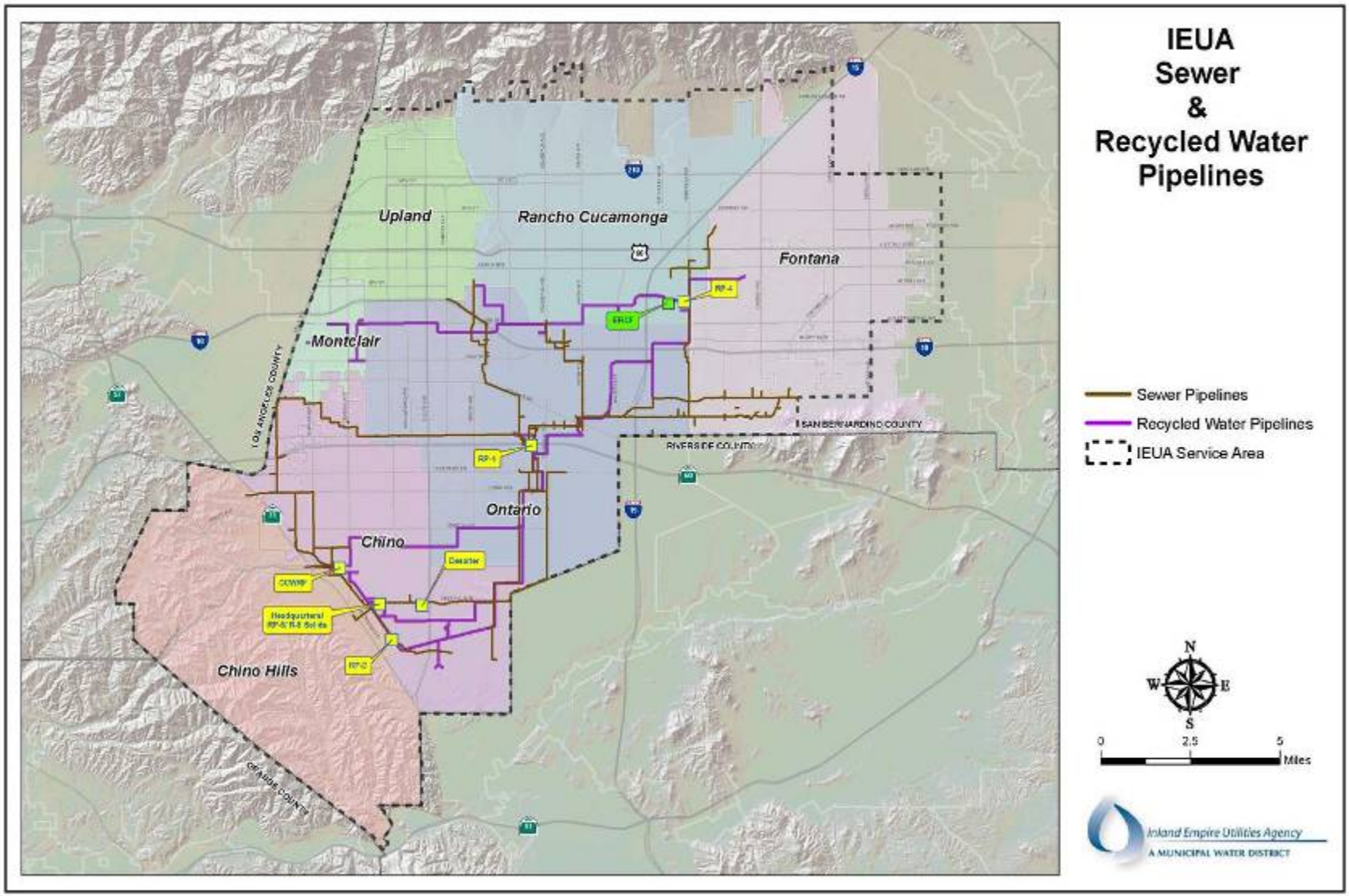
n is the number of samples.

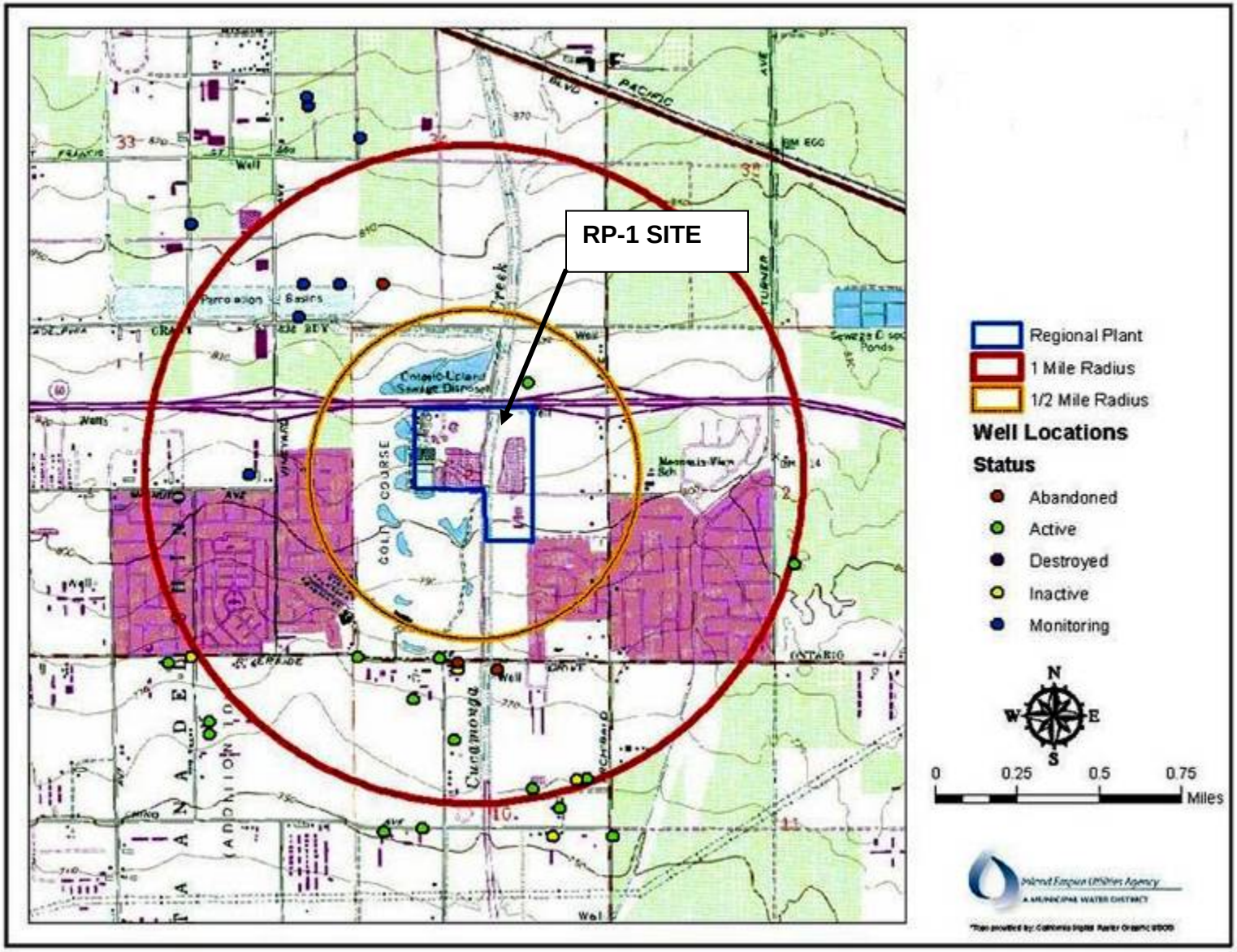
Toxicity Reduction Evaluation (TRE) is a study conducted in a step-wise process designed to identify the causative agents of effluent or ambient toxicity, isolate the sources of toxicity, evaluate the effectiveness of toxicity control options, and then confirm the reduction in toxicity. The first steps of the TRE consist of the collection of data relevant to the toxicity, including additional toxicity testing, and an evaluation of facility operations and maintenance practices, and best management practices. A Toxicity Identification Evaluation (TIE) may be required as part of the TRE, if appropriate. (A TIE is a set of procedures to identify the specific chemical(s) responsible for toxicity. These procedures are performed in three phases (characterization, identification, and confirmation) using aquatic organism toxicity tests.)

Water Effect Ratio (WER) is an appropriate measure of the toxicity of a material obtained in a site water divided by the same measure of the toxicity of the same material obtained simultaneously in a laboratory dilution water.

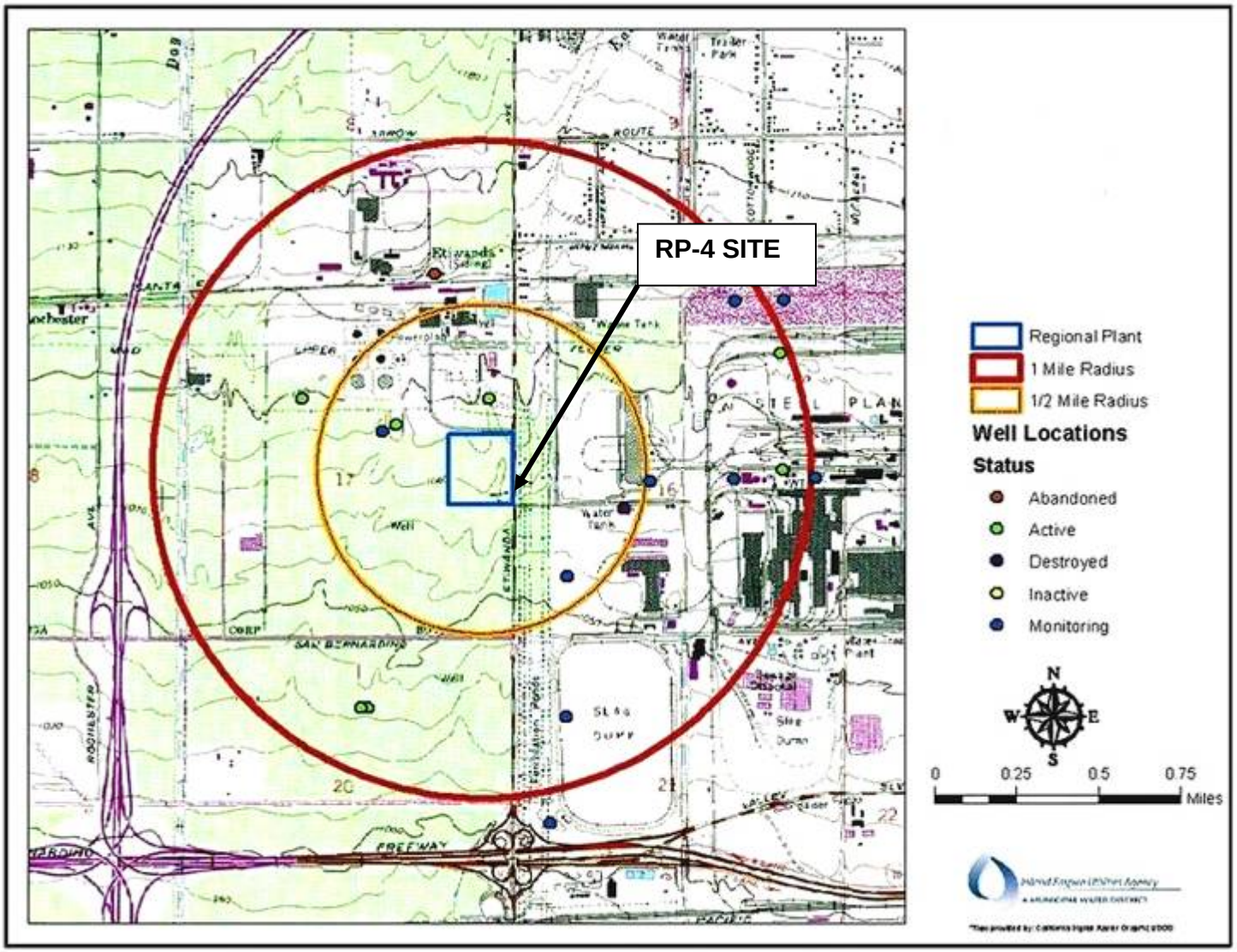
12-Month Running Average Effluent Limitation (12-MRAEL): the highest allowable average of monthly discharges over last twelve months, calculated as the sum of all monthly discharges measured during last twelve months divided by the number of monthly discharges measured during that time period.

ATTACHMENT B – LOCATION

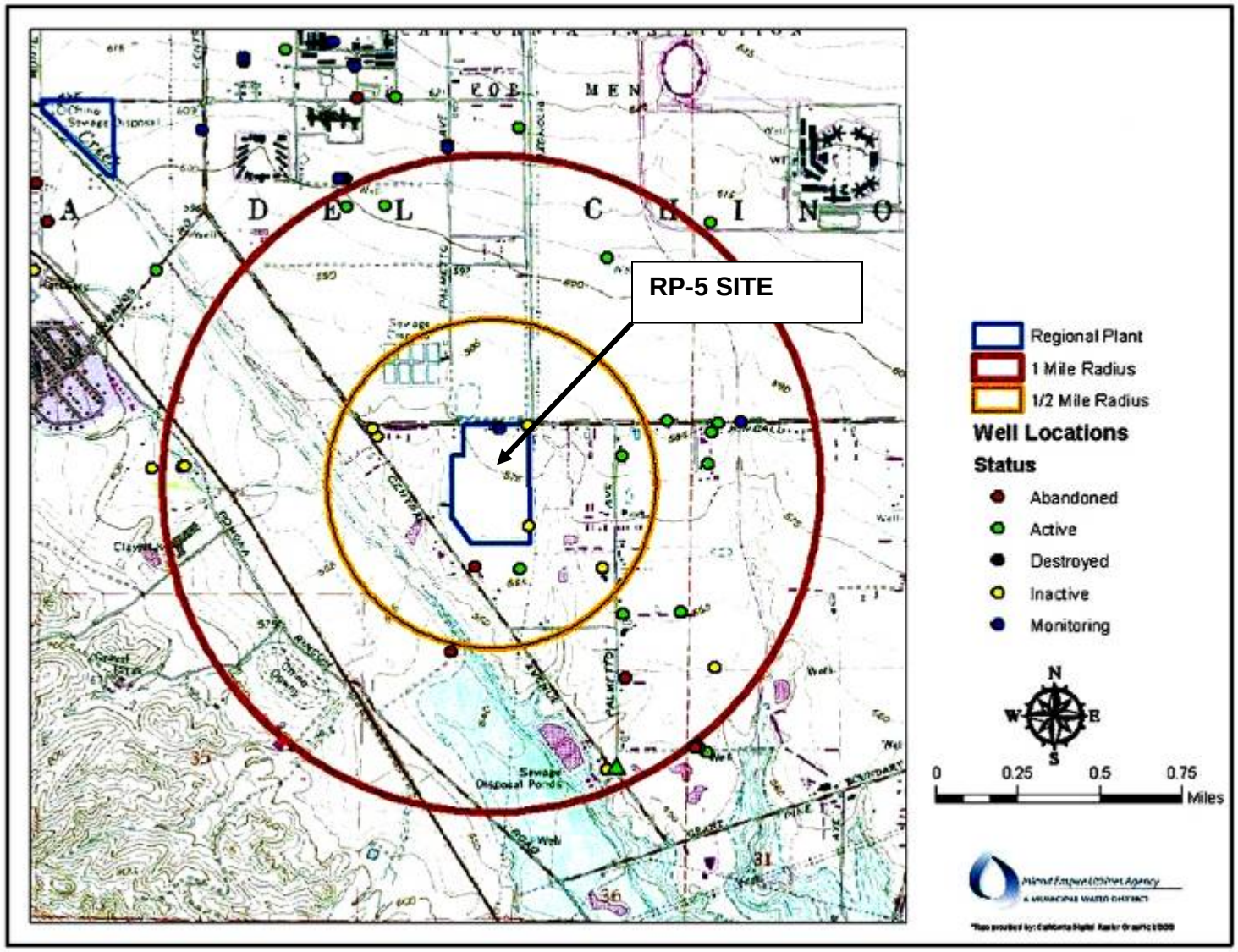




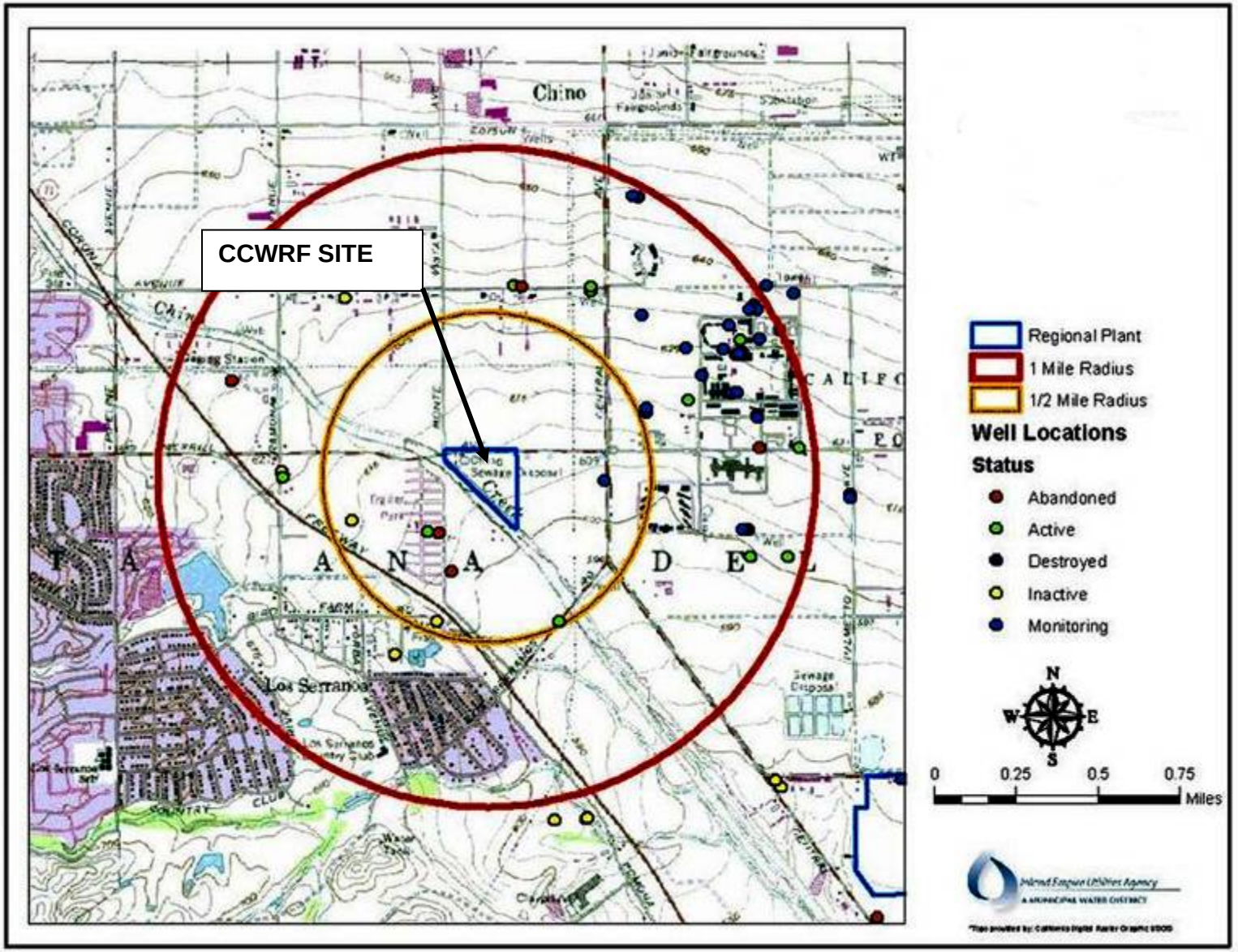
RP-1 LOCATION MAP



RP-4 LOCATION MAP

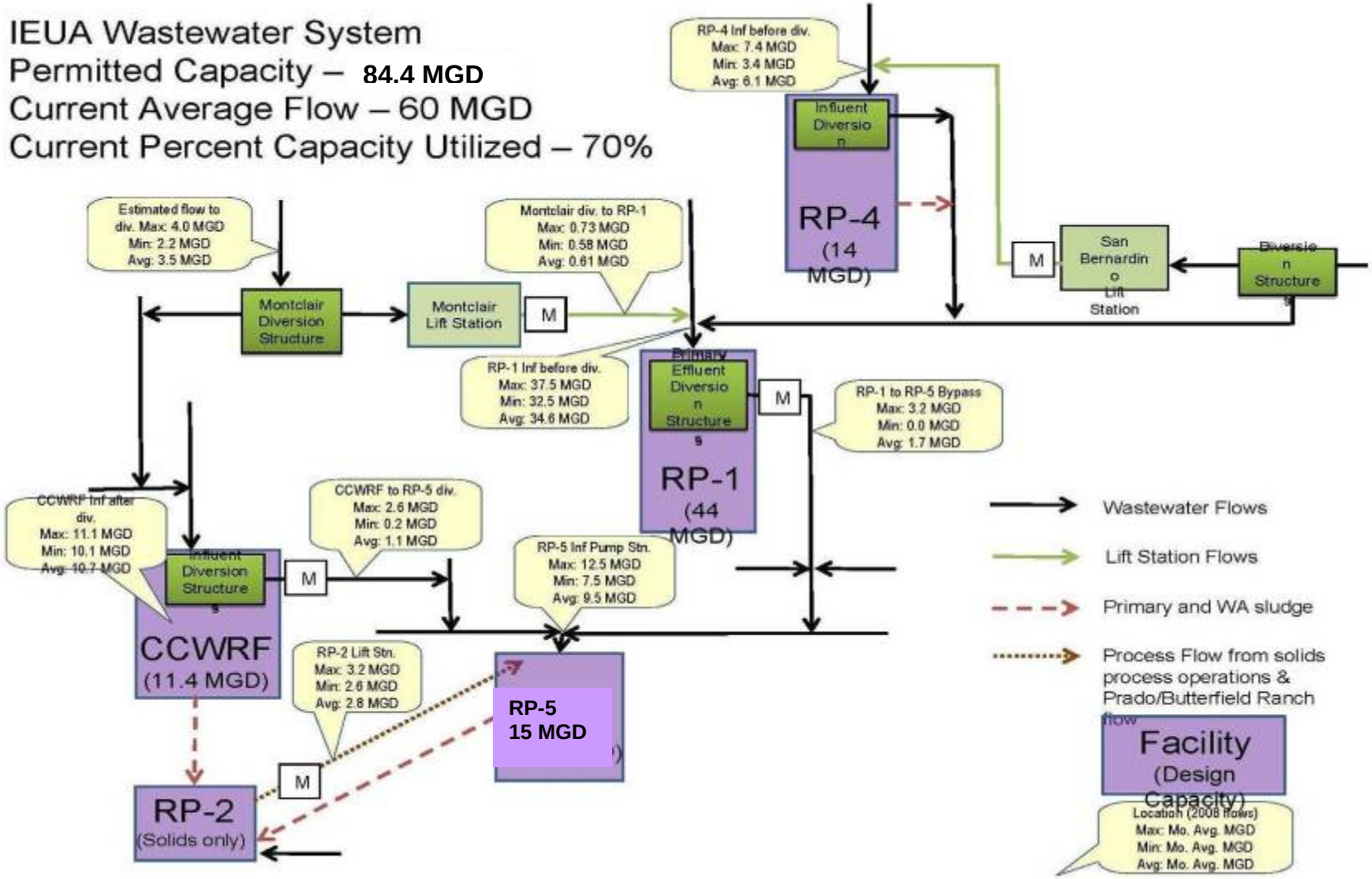


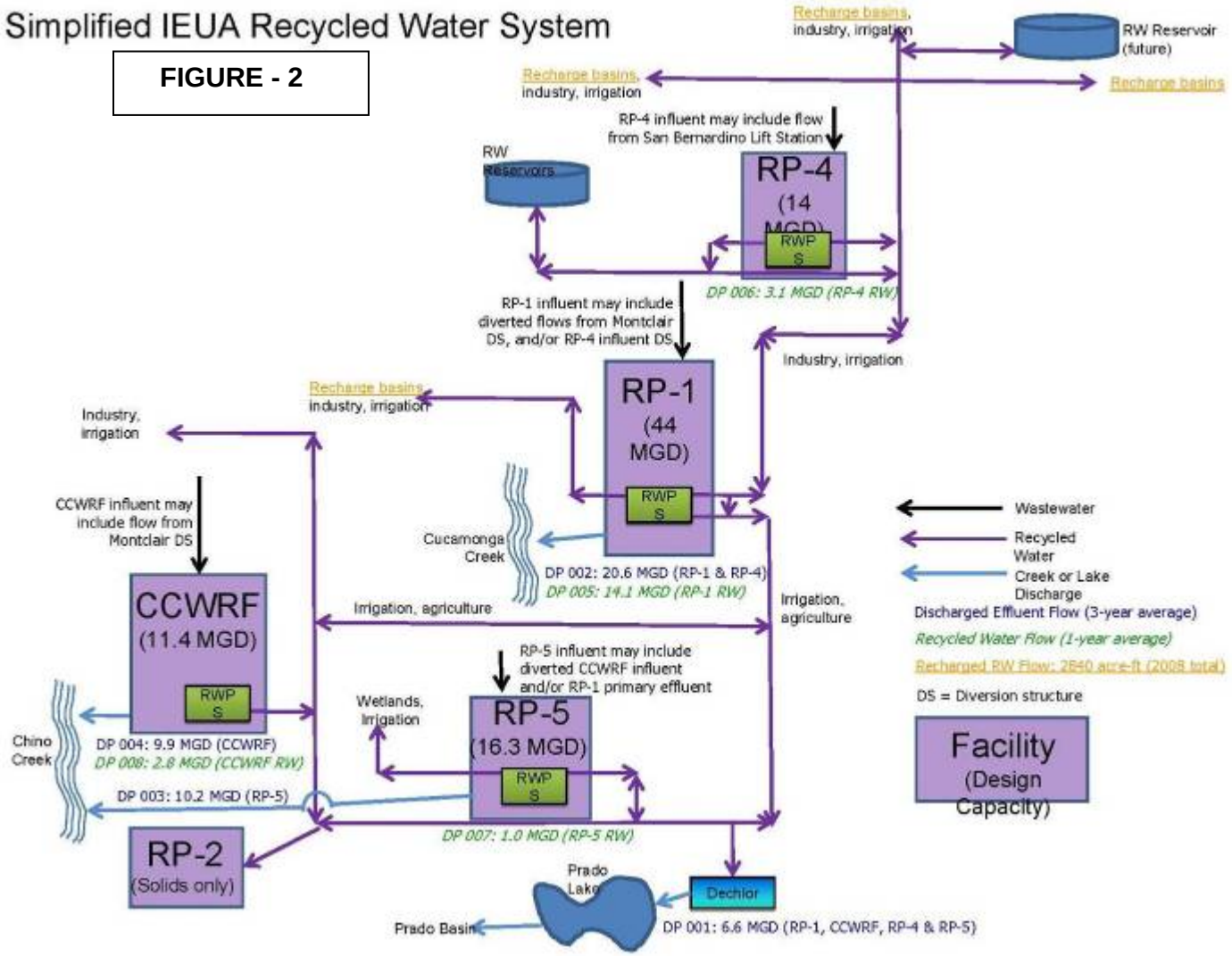
RP-5 LOCATION MAP

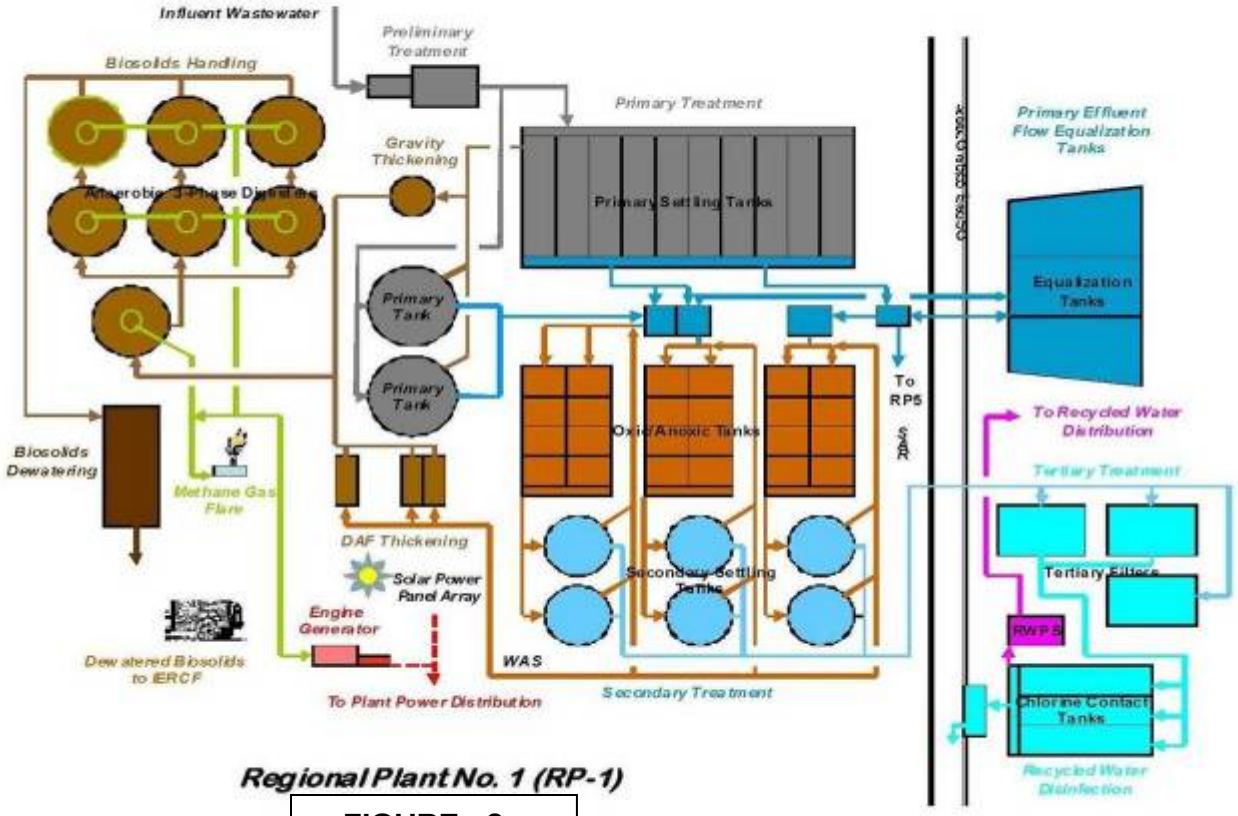


CCWRF LOCATION MAP

ATTACHMENT C – FIGURE 1




Simplified IEUA Recycled Water System
FIGURE - 2
Recharge basins, industry, irrigation
RW Reservoir (future)
Recharge basins
Recharge basins, industry, irrigation
RP-4 influent may include flow from San Bernardino Lift Station
RW Reservoirs
RP-4
(14 MGD)
RWPS
DP 006: 3.1 MGD (RP-4 RW)
RP-1 influent may include diverted flows from Montclair DS, and/or RP-4 influent DS
Industry, irrigation
Recharge basins, industry, irrigation
RP-1
(44 MGD)
RWPS
Industry, irrigation
CCWRF influent may include flow from Montclair DS
Cucamonga Creek
DP 002: 20.6 MGD (RP-1 & RP-4)
DP 005: 14.1 MGD (RP-1 RW)
Irrigation, agriculture
Irrigation, agriculture
CCWRF
(11.4 MGD)
RWPS
RP-5 influent may include diverted CCWRF influent and/or RP-1 primary effluent
Wetlands, Irrigation
RP-5
(16.3 MGD)
RWPS
Chino Creek
DP 004: 9.9 MGD (CCWRF)
DP 008: 2.8 MGD (CCWRF RW)
DP 003: 10.2 MGD (RP-5)
DP 007: 1.0 MGD (RP-5 RW)
RP-2
(Solids only)
Prado Lake
Dechlor
Prado Basin
DP 001: 6.6 MGD (RP-1, CCWRF, RP-4 & RP-5)
Wastewater
Recycled Water
Creek or Lake Discharge
Discharged Effluent Flow (3-year average)
Recycled Water Flow (1-year average)
Recharged RW Flow: 2640 acre-ft (2008 total)
DS = Diversion structure
Facility
(Design Capacity)



Regional Plant No. 1 (RP-1)

FIGURE - 3

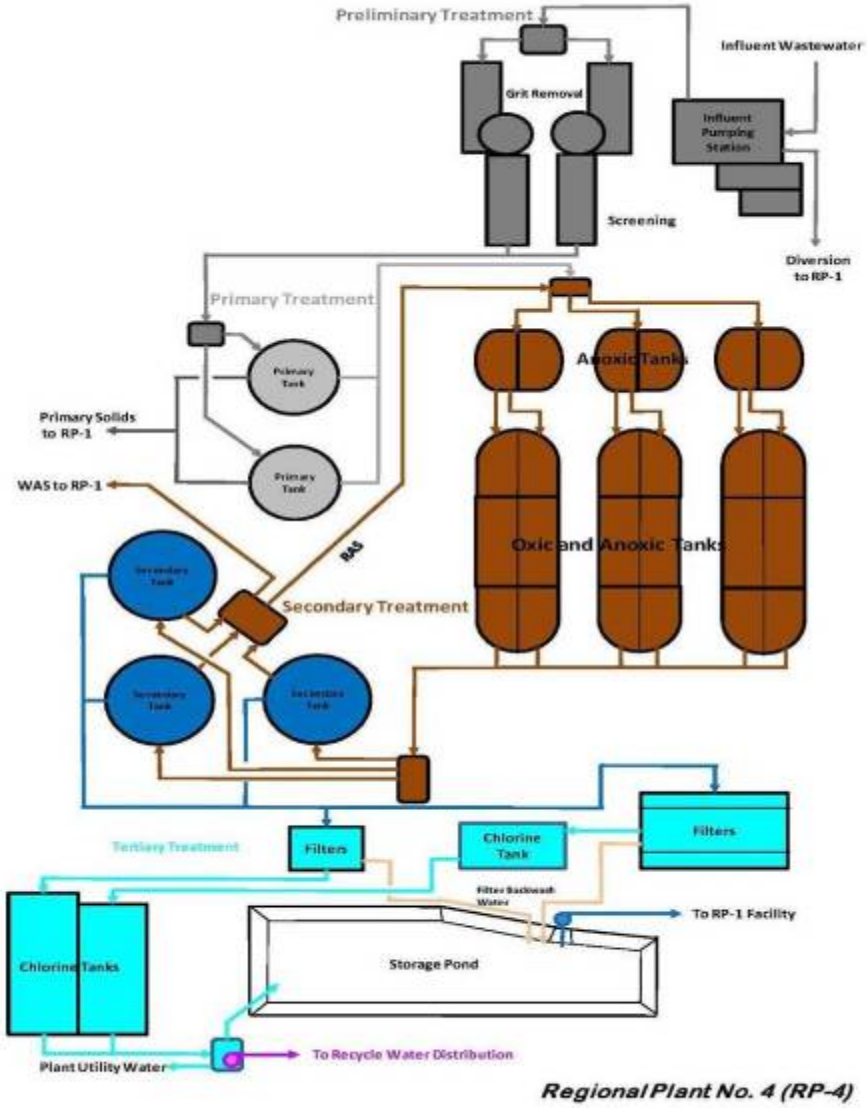
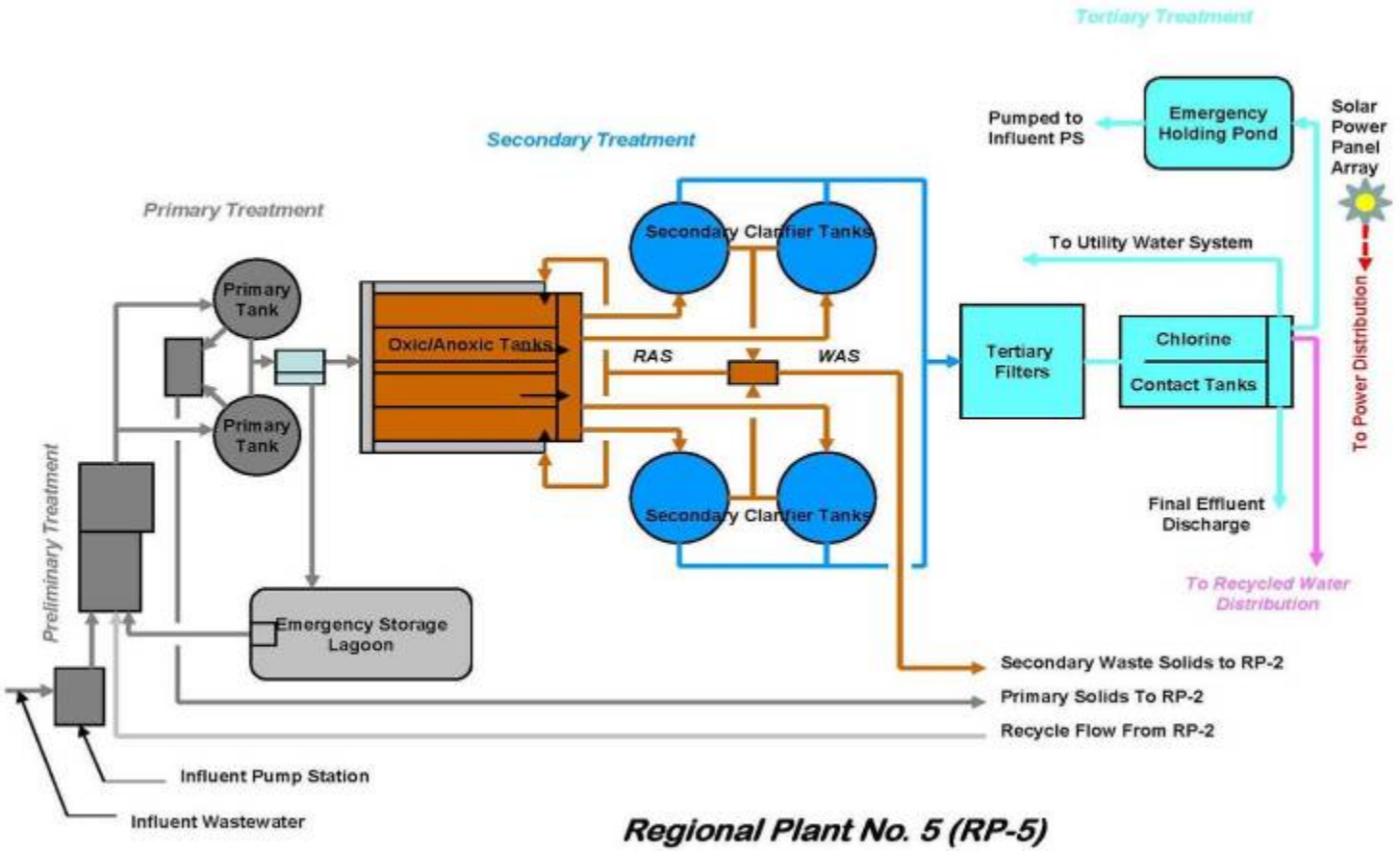
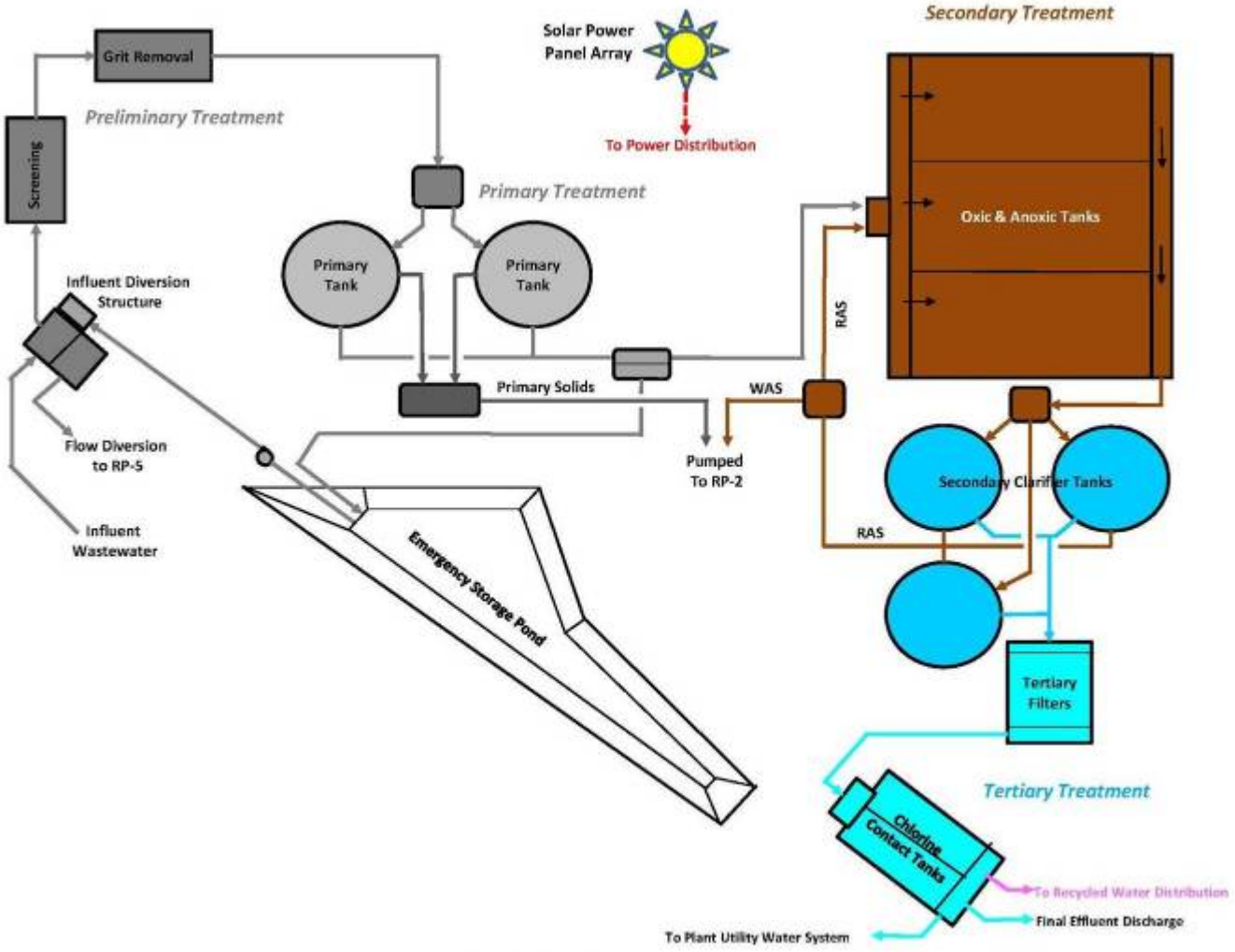

Preliminary Treatment
Influent Wastewater
Grit Removal
Influent Pumping Station
Screening
Diversion to RP-1
Primary Treatment
Primary Tank
Primary Tank
Primary Solids to RP-1
WAS to RP-1
Anoxic Tanks
Oxic and Anoxic Tanks
RAS
Secondary Treatment
Secondary Tank
Secondary Tank
Secondary Tank
Tertiary Treatment
Filters
Chlorine Tank
Filters
Filter Backwash Water
To RP-1 Facility
Storage Pond
Chlorine Tanks
Plant Utility Water
To Recycle Water Distribution
Regional Plant No. 4 (RP-4)

FIGURE - 4



Regional Plant No. 5 (RP-5)

FIGURE - 5



Carbon Canyon Water Recycle Facility (CCWRF)

FIGURE - 6

ATTACHMENT D –STANDARD PROVISIONS

I. STANDARD PROVISIONS – PERMIT COMPLIANCE

A. Duty to Comply

1. The Discharger must comply with all of the conditions of this Order. Any noncompliance constitutes a violation of the Clean Water Act (CWA) and the California Water Code and is grounds for enforcement action, for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. (40 C.F.R. § 122.41(a).)

2. The Discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the CWA for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions, even if this Order has not yet been modified to incorporate the requirement. (40 C.F.R. § 122.41(a)(1).)

B. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for a Discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. (40 C.F.R. § 122.41(c).)

C. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this Order that has a reasonable likelihood of adversely affecting human health or the environment. (40 C.F.R. § 122.41(d).)

D. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by a Discharger only when necessary to achieve compliance with the conditions of this Order. (40 C.F.R. § 122.41(e).)

E. Property Rights

1. This Order does not convey any property rights of any sort or any exclusive privileges. (40 C.F.R. § 122.41(g).)

2. The issuance of this Order does not authorize any injury to persons or property or invasion of other private rights, or any infringement of state or local law or regulations. (40 C.F.R. § 122.5(c).)

F. Inspection and Entry

The Discharger shall allow the Regional Water Board, State Water Board, United States Environmental Protection Agency (USEPA), and/or their authorized representatives (including an authorized contractor acting as their representative), upon the presentation of credentials and other documents, as may be required by law, to (40 C.F.R. § 122.41(i); Wat. Code, § 13383):

1. Enter upon the Discharger's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this Order (40 C.F.R. § 122.41(i)(1));

2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order (40 C.F.R. § 122.41(i)(2));

3. Inspect and photograph, at reasonable times, any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order (40 C.F.R. § 122.41(i)(3)); and

4. Sample or monitor, at reasonable times, for the purposes of assuring Order compliance or as otherwise authorized by the CWA or the Water Code, any substances or parameters at any location. (40 C.F.R. § 122.41(i)(4).)

G. Bypass

1. Definitions

   a. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility. (40 C.F.R. § 122.41(m)(1)(i).)

   b. “Severe property damage” means substantial physical damage to property, damage to the treatment facilities, which causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production. (40 C.F.R. § 122.41(m)(1)(ii).)

2. Bypass not exceeding limitations. The Discharger may allow any bypass to occur which does not cause exceedances of effluent limitations, but only if it is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions listed in Standard Provisions – Permit Compliance I.G.3, I.G.4, and I.G.5 below. (40 C.F.R. § 122.41(m)(2).)

3. Prohibition of bypass. Bypass is prohibited, and the Regional Water Board may take enforcement action against a Discharger for bypass, unless (40 C.F.R. § 122.41(m)(4)(i)):

   a. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage (40 C.F.R. § 122.41(m)(4)(i)(A));

   b. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass that occurred during normal periods of equipment downtime or preventive maintenance (40 C.F.R. § 122.41(m)(4)(i)(B)); and

   c. The Discharger submitted notice to the Regional Water Board as required under Standard Provisions – Permit Compliance I.G.5 below. (40 C.F.R. § 122.41(m)(4)(i)(C).)

4. The Regional Water Board may approve an anticipated bypass, after considering its adverse effects, if the Regional Water Board determines that it will meet the three conditions listed in Standard Provisions – Permit Compliance I.G.3 above. (40 C.F.R. § 122.41(m)(4)(ii).)

5. Notice

   a. Anticipated bypass. If the Discharger knows in advance of the need for a bypass, it shall submit a notice, if possible at least 10 days before the date of the bypass. (40 C.F.R. § 122.41(m)(3)(i).)

   b. Unanticipated bypass. The Discharger shall submit notice of an unanticipated bypass as required in Standard Provisions - Reporting V.E below (24-hour notice). (40 C.F.R. § 122.41(m)(3)(ii).)

H. Upset

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the Discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation. (40 C.F.R. § 122.41(n)(1).)

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Standard Provisions – Permit Compliance I.H.2 below are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review. (40 C.F.R. § 122.41(n)(2).).

2. Conditions necessary for a demonstration of upset. A Discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that (40 C.F.R. § 122.41(n)(3)):

   a. An upset occurred and that the Discharger can identify the cause(s) of the upset (40 C.F.R. § 122.41(n)(3)(i));

   b. The permitted facility was, at the time, being properly operated (40 C.F.R. § 122.41(n)(3)(ii));

   c. The Discharger submitted notice of the upset as required in Standard Provisions – Reporting V.E.2.b below (24-hour notice) (40 C.F.R. § 122.41(n)(3)(iii)); and

   d. The Discharger complied with any remedial measures required under Standard Provisions – Permit Compliance I.C above. (40 C.F.R. § 122.41(n)(3)(iv).)

3. Burden of proof. In any enforcement proceeding, the Discharger seeking to establish the occurrence of an upset has the burden of proof. (40 C.F.R. § 122.41(n)(4).)

II. STANDARD PROVISIONS – PERMIT ACTION

A. General

This Order may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any Order condition. (40 C.F.R. § 122.41(f).)

B. Duty to Reapply

If the Discharger wishes to continue an activity regulated by this Order after the expiration date of this Order, the Discharger must apply for and obtain a new permit. (40 C.F.R. § 122.41(b).)

C. Transfers

This Order is not transferable to any person except after notice to the Regional Water Board. The Regional Water Board may require modification or revocation and reissuance of the Order to change the name of the Discharger and incorporate such other requirements as may be necessary under the CWA and the Water Code. (40 C.F.R. § 122.41(l)(3); § 122.61.)

III. STANDARD PROVISIONS – MONITORING

A. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. (40 C.F.R. § 122.41(j)(1).)

B. Monitoring results must be conducted according to test procedures under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503 unless other test procedures have been specified in this Order. (40 C.F.R. § 122.41(j)(4); § 122.44(i)(1)(iv).)

IV. STANDARD PROVISIONS – RECORDS

A. Except for records of monitoring information required by this Order related to the Discharger's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by Part 503), the Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Water Board Executive Officer at any time. (40 C.F.R. § 122.41(j)(2).)

B. Records of monitoring information shall include:

1. The date, exact place, and time of sampling or measurements (40 C.F.R. § 122.41(j)(3)(i));

2. The individual(s) who performed the sampling or measurements (40 C.F.R. § 122.41(j)(3)(ii));

3. The date(s) analyses were performed (40 C.F.R. § 122.41(j)(3)(iii));

4. The individual(s) who performed the analyses (40 C.F.R. § 122.41(j)(3)(iv));

5. The analytical techniques or methods used (40 C.F.R. § 122.41(j)(3)(v)); and

6. The results of such analyses. (40 C.F.R. § 122.41(j)(3)(vi).)

C. Claims of confidentiality for the following information will be denied (40 C.F.R. § 122.7(b)):

1. The name and address of any permit applicant or Discharger (40 C.F.R. § 122.7(b)(1)); and

2. Permit applications and attachments, permits and effluent data. (40 C.F.R. § 122.7(b)(2).)

V. STANDARD PROVISIONS – REPORTING

A. Duty to Provide Information

The Discharger shall furnish to the Regional Water Board, State Water Board, or USEPA within a reasonable time, any information which the Regional Water Board, State Water Board, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order or to determine compliance with this Order. Upon request, the Discharger shall also furnish to the Regional Water Board, State Water Board, or USEPA copies of records required to be kept by this Order. (40 C.F.R. § 122.41(h); Wat. Code, § 13267.)

B. Signatory and Certification Requirements

1. All applications, reports, or information submitted to the Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Standard Provisions – Reporting V.B.2, V.B.3, V.B.4, and V.B.5 below. (40 C.F.R. § 122.41(k).)

2. All permit applications shall be signed by either a principal executive officer or ranking elected official. For purposes of this provision, a principal executive officer of a federal agency includes: (i) the chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA). (40 C.F.R. § 122.22(a)(3).).

3. All reports required by this Order and other information requested by the Regional Water Board, State Water Board, or USEPA shall be signed by a person described in Standard Provisions – Reporting V.B.2 above, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

   a. The authorization is made in writing by a person described in Standard Provisions – Reporting V.B.2 above (40 C.F.R. § 122.22(b)(1));

b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) (40 C.F.R. § 122.22(b)(2)); and

c. The written authorization is submitted to the Regional Water Board and State Water Board. (40 C.F.R. § 122.22(b)(3).)

4. If an authorization under Standard Provisions – Reporting V.B.3 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Standard Provisions – Reporting V.B.3 above must be submitted to the Regional Water Board and State Water Board prior to or together with any reports, information, or applications, to be signed by an authorized representative. (40 C.F.R. § 122.22(c).)

5. Any person signing a document under Standard Provisions – Reporting V.B.2 or V.B.3 above shall make the following certification:

   "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (40 C.F.R. § 122.22(d).)

C. Monitoring Reports

1. Monitoring results shall be reported at the intervals specified in the Monitoring and Reporting Program (Attachment E) in this Order. (40 C.F.R. § 122.22(l)(4).)

2. Monitoring results must be reported on a Discharge Monitoring Report (DMR) form or forms provided or specified by the Regional Water Board or State Water Board for reporting results of monitoring of sludge use or disposal practices. (40 C.F.R. § 122.41(l)(4)(i).)

3. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under Part 136 or, in the case of sludge use or disposal, approved under Part 136 unless otherwise specified in Part 503, or as specified in this Order, the results of this monitoring shall be included in the

calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Regional Water Board. (40 C.F.R. § 122.41(l)(4)(ii).)

4. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order. (40 C.F.R. § 122.41(l)(4)(iii).)

D. Compliance Schedules

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this Order, shall be submitted no later than 14 days following each schedule date. (40 C.F.R. § 122.41(l)(5).)

E. Twenty-Four Hour Reporting

1. The Discharger shall report any noncompliance that may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Discharger becomes aware of the circumstances. A written submission shall also be provided within five (5) days of the time the Discharger becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. (40 C.F.R. § 122.41(l)(6)(i).)

2. The following shall be included as information that must be reported within 24 hours under this paragraph (40 C.F.R. § 122.41(l)(6)(ii)):

    a. Any unanticipated bypass that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(A).)

    b. Any upset that exceeds any effluent limitation in this Order. (40 C.F.R. § 122.41(l)(6)(ii)(B).)

3. The Regional Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours. (40 C.F.R. § 122.41(l)(6)(iii).)

F. Planned Changes

The Discharger shall give notice to the Regional Water Board as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required under this provision only when (40 C.F.R. § 122.41(l)(1)):

1. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in section 122.29(b) (40 C.F.R. § 122.41(l)(1)(i)); or

2. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants that are not subject to effluent limitations in this Order. (40 C.F.R. § 122.41(l)(1)(ii).)

3. The alteration or addition results in a significant change in the Discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan. (40 C.F.R.§ 122.41(l)(1)(iii).)

G. Anticipated Noncompliance

The Discharger shall give advance notice to the Regional Water Board or State Water Board of any planned changes in the permitted facility or activity that may result in noncompliance with General Order requirements. (40 C.F.R. § 122.41(l)(2).)

H. Other Noncompliance

The Discharger shall report all instances of noncompliance not reported under Standard Provisions – Reporting V.C, V.D, and V.E above at the time monitoring reports are submitted. The reports shall contain the information listed in Standard Provision – Reporting V.E above. (40 C.F.R. § 122.41(l)(7).)

I. Other Information

When the Discharger becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Regional Water Board, State Water Board, or USEPA, the Discharger shall promptly submit such facts or information. (40 C.F.R. § 122.41(l)(8).)

VI. STANDARD PROVISIONS – ENFORCEMENT

A. The Regional Water Board is authorized to enforce the terms of this permit under several provisions of the Water Code, including, but not limited to, sections 13385, 13386, and 13387.

VII. ADDITIONAL PROVISIONS – NOTIFICATION LEVELS

A. Publicly-Owned Treatment Works (POTWs)

All POTWs shall provide adequate notice to the Regional Water Board of the following (40 C.F.R. § 122.42(b)):

1. Any new introduction of pollutants into the POTW from an indirect discharger that would be subject to sections 301 or 306 of the CWA if it were directly discharging those pollutants (40 C.F.R. § 122.42(b)(1)); and

2. Any substantial change in the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of adoption of the Order. (40 C.F.R. § 122.42(b)(2).)

3. Adequate notice shall include information on the quality and quantity of effluent introduced into the POTW as well as any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW. (40 C.F.R. § 122.42(b)(3).)

ATTACHMENT E – MONITORING AND REPORTING PROGRAM

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ATTACHMENT E – MONITORING AND REPORTING PROGRAM (MRP)

The Code of Federal Regulations section 122.48 requires that all NPDES permits specify monitoring and reporting requirements. Water Code Sections 13267 and 13383 also authorize the Regional Water Quality Control Board (Regional Water Board) to require technical and monitoring reports. This MRP establishes monitoring and reporting requirements, which implement the federal and California regulations.

I. GENERAL MONITORING PROVISIONS

A. General Monitoring Provision

1. All sampling and sample preservation shall be in accordance with the current edition of “Standard Methods for the Examination of Water and Wastewater” (American Public Health Association) or 40CFR136. (revised as of April 11, 2007) "Guidelines Establishing Test Procedures for the Analysis of Pollutants," promulgated by the United States Environmental Protection Agency (EPA).

2. All laboratory analyses shall be performed in accordance with test procedures under 40 CFR 136 (revised as of April 11, 2007) "Guidelines Establishing Test Procedures for the Analysis of Pollutants," promulgated by the United States Environmental Protection Agency (EPA), unless otherwise specified in this MRP. In addition, the Regional Water Board and/or EPA, at their discretion, may specify test methods that are more sensitive than those specified in 40 CFR 136.

3. Chemical, bacteriological, and bioassay analyses shall be conducted at a laboratory certified for such analyses by the California Department of Public Health in accordance with the provision of Water Code Section 13176, or conducted at a laboratory certified for such analyses by the EPA or at laboratories approved by the Regional Water Board's Executive Officer.

4. In conformance with federal regulations 40 CFR 122.45(c), analyses to determine compliance with the effluent limitations for metals shall be conducted using the total recoverable method. For Chromium (VI), the dissolved method in conformance with 40 CFR 136 may be used to measure compliance with the Chromium (VI) limitation.

5. The Discharger shall have, and implement an acceptable written quality assurance (QA) plan for laboratory analyses. Duplicate chemical analyses must be conducted on a minimum of ten percent (10%) of the samples, or at least one sample per month, whichever is greater. A similar frequency shall be maintained for analyzing spiked samples. When requested by the Regional Water Board or EPA, the Discharger will participate in the NPDES discharge monitoring report QA performance study.

6. For every item of monitoring data where the requirements are not met, the monitoring report shall include a statement discussing the reasons for noncompliance, the actions undertaken or proposed that will bring the discharge into full compliance with requirements at the earliest time, and an estimate of the date when the Discharger will be in compliance. The Discharger shall notify the Regional Water Board by letter when compliance with the time schedule has been achieved.

7. The Discharger shall assure that records of all monitoring information are maintained and accessible for a period of at least five years (this retention period supersedes the retention period specified in Section IV.A. of Attachment D) from the date of the sample, report, or application. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or by the request of the Regional Water Board at any time. Records of monitoring information shall include:

   a. The information listed in Attachment D- IV Standard Provisions – Records, subparagraph B. of this Order;
   b. The laboratory which performed the analyses;
   c. The date(s) analyses were performed;
   d. The individual(s) who performed the analyses;
   e. The modification(s) to analytical techniques or methods used;
   f. All sampling and analytical results, including
      (1) Units of measurement used;
      (2) Minimum reporting level for the analysis (minimum level);
      (3) Results less than the reporting level but above the method detection limit (MDL);
      (4) Data qualifiers and a description of the qualifiers;
      (5) Quality control test results (and a written copy of the laboratory quality assurance plan);
      (6) Dilution factors, if used; and
      (7) Sample matrix type.
   g. All monitoring equipment calibration and maintenance records;
   h. All original strip charts from continuous monitoring devices;
   i. All data used to complete the application for this Order; and,
   j. Copies of all reports required by this Order.
   k. Electronic data and information generated by the Supervisory Control And Data Acquisition (SCADA) System.

8. The flow measurement system shall be calibrated at least once per year or more frequently, to ensure continued accuracy.

9. Monitoring and reporting shall be in accordance with the following:

   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

   b. The monitoring and reporting of influent, effluent, and sludge shall be done more frequently as necessary to maintain compliance with this Order and or as specified in this Order.

   c. Whenever the Discharger monitors any pollutant more frequently than is required by this Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the discharge monitoring report specified by the Executive Officer.

   d. A "grab" sample is defined as any individual sample collected in less than 15 minutes.

   e. A composite sample is defined as a combination of no fewer than eight individual grab samples obtained over the specified sampling period. The volume of each individual grab sample shall be proportional to the discharge flow rate at the time of sampling. The compositing period shall equal the specific sampling period, or 24 hours, if no period is specified.

   f. Daily samples shall be collected on each day of the week.

   g. Monthly samples shall be collected on any representative day of each month.

   h. Quarterly samples shall be taken on any representative day of January, April, July, and October.

   i. Semi-annual samples shall be collected in January and July.

   j. Annual samples shall be collected in accordance with the following schedule:

Table 1 Annual Sampling Schedule

Year	Annual Samples
2010	July
2011	October
2012	January
2013	April
2014	July
2015	October

II. MONITORING LOCATIONS

The Discharger shall establish the following monitoring locations to demonstrate compliance with the effluent limitations, discharge specifications, and other requirements in this Order:

Table 2 Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description	Latitude and Longitude
001/002	M-INF 1A	RP-1 influent line, before Headworks	34°01'48"N, 117°36'07"W
001/002	M-INF 1B	RP-4 influent line, before Headworks	34°05'09"N, 117°31'28"W
001	M-001A	RP-1 effluent Outfall to Prado Park Lake	33°56'39"N, 117°38'34"W
001	M-001B	At the RP-1splitter box	34°01'29"N, 117°35'57"W
002	M-002A	RP-1 and RP-4 Effluent outfall to Reach 1 of Cucamonga Creek	34°01'31"N, 117°35'56"W
002	M-002B	RP-1 at the end of CCB 3 (Chlorine Contact Basin) before outfall discharge to Reach 1 of Cucamonga Creek	34°01'28"N, 117°35'57"W
003	M-INF 3A	RP-5 influent upstream of any in-plant return flows (theoretical point of combined M-INFB & M-INFD flows)	33°58'04"N, 117°40'28"W
003	M-INF 3B	RP-5 Influent Pump Station	33°57'38"N, 117°40'16"W
003	M-INF 3C	RP-2 Recycle Flow	33°57'29"N, 117°40'23"W
003	M-INF 3D	RP-2 Lift Station	33°57.08"N, 117°40'00"W
003	M-003	RP-5 Effluent to Reach 2 of Chino Creek	33°57'44"N, 117°40'41"W
004	M-INF 4	Influent sampling at CCWRF	33°58'56"N, 117°41'48"W
004	M-004	CCWRF Effluent to Reach 2 of Chino Creek	33°58'47"N, 117°41'39"W
005	REC-001	RP-1 Effluent to recycled water use area, same as M-001B	34°01'29"N, 117°35'57"W
006	REC-002	RP-4 Effluent to recycled water use area	34°04'59"N, 117°31'35"W
007	REC-003	RP-5 Effluent to recycled water use area - Same as M-003	33°57'44"N, 117°40'41"W
008	REC-004	CCWRF Effluent to recycled water use area – Same as M-004	33°58'47"N, 117°41'39"W
002	R-002U	Cucamonga Creek within 100 feet upstream of the DP 002	34°01'29"N, 117°35'58"W
002	R-002D	Cucamonga Creek within 500 feet downstream of DP 002 after blending	34°00'43"N, 117°35'59"W
003	R-003U	Chino Creek within 100 feet upstream of DP 003	33º57'45"N, 117º40'41"W
003	R-003D	Chino Creek within 500 feet downstream of DP 003 in	33º57'45"N, 117º40'41"W
004	R-004U	Chino Creek within 100 feet upstream of DP 004	33º58'47"N, 117º40'41"W
004	R-004D	Chino Creek within 500 feet downstream of DP 004 in	33º58'46"N, 117º40'38"W
S-001	STORM-001	Storm water runoff from RP-1, west	34°01'36"N, 117°35'59"W

Table 2 Monitoring Station Locations

Discharge Point Name	Monitoring Location Name	Monitoring Location Description	Latitude and Longitude
S-002	STORM-002	Storm water runoff from RP-1, east	34°01'28"N, 117°35'58"W

Note: RP-5 influent consists of RP-5 Influent Pump Station flows and RP-2 Lift Station flows, which include RP-2 Recycle Flow and Prado/Butterfield Ranch flows. Therefore, values reported for M-INF3A are flow-weighted values based on flows from RP-5 Pump Station and RP-2 Lift Station.

III. INFLUENT MONITORING REQUIREMENTS

A. Monitoring Locations M-INFs 1A, 1B, 3A, 3B, 3C, 3D, and M-INF 4

1. Sampling stations shall be established for the points of inflow to each treatment plant. The sampling stations shall be located upstream of any in-plant return flows and where representative samples of the influent of the treatment plant can be obtained.

2. The Discharger shall monitor the influent to the Facility at Monitoring Locations M-INFs 1A, 1B, 3A, 3B, 3C, 3D, and M-INF 4 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level:

Table 3 Influent Monitoring M-INFs 1A, 1B, 3A, 3B, 3C, 3D, and M-INF 4

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Recorder/Totalizer	Continuous	--
pH	pH Units	Recorder	Continuous	--
Specific Conductance	µmhos/cm	Recorder	Continuous	--
TOC	mg/L	Composite	Weekly	See Section I.A.2 & 3, above, of this MRP
BOD_5 [1]	mg/L	Composite	Weekly	"
Total Suspended Solids	mg/L	Composite	Weekly	"
Total Dissolved Solids	mg/L	Composite	Weekly	"
Ammonia-Nitrogen	mg/L	Grab	Weekly	"
Total Nitrogen	mg/L	Composite	Weekly	"
Total Inorganic Nitrogen	mg/L	Composite	Weekly	"
Cyanide (Free)[2]	µg/l	Grab	Monthly	"

1 *BOD_5 is calculated based on a BOD_5/TOC correlation approved by the Regional Water Board.*

2 *Free cyanide is measured as aquatic free cyanide (ASTM Method D7237) without sodium hydroxide (NaOH) preservation.*

Table 3 Influent Monitoring M-INFs 1A, 1B, 3A, 3B, 3C, 3D, and M-INF 4

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Total Hardness	mg/L	Composite	Quarterly	"
Boron	mg/L	Composite	Quarterly	"
Chloride	mg/L	Composite	Quarterly	"
Fluoride	mg/L	Composite	Quarterly	"
Sodium	mg/L	Composite	Quarterly	"
Sulfate	mg/L	Composite	Quarterly	See Section I.A.3. above, of this MRP
Arsenic	µg/L	Composite	Quarterly	See Section I.A.2. above, of this MRP
Cadmium	µg/L	Composite	Quarterly	"
Total Chromium or Chromium VI	µg/L	Composite	Quarterly	See Section I.A.2. above, of this MRP
Total Recoverable Copper	µg/L	Composite	Quarterly	"
Total Recoverable Lead	µg/L	Composite	Quarterly	"
Total Recoverable Mercury	µg/L	Composite	Quarterly	"
Total Recoverable Nickel	µg/L	Composite	Quarterly	"
Selenium	µg/L	Composite	Quarterly	"
Total Recoverable Silver	µg/L	Composite	Quarterly	"
Total Recoverable Zinc	µg/L	Composite	Quarterly	"
Bis (2-ethylhexyl) phthalate	µg/L	Grab	Quarterly	See Sections I.A.2., I.A.3., above of this MRP
2,3,7,8-TCDD (Dioxin)[3]	µg/L	Composite	Semi-Annually	See Section I.A.3. above, RL 1 pg/L
Volatile organic portion of EPA Priority Pollutants[4] (See Attachment G)	µg/L	Grab	Annually	See Section I.A.2. above, of this MRP
Remaining EPA Priority Pollutants[5] (See Attachment G)	µg/L	Composite	Annually	"

[3] *Applies at M-INF 3B & 3D and M-INF 4 only.*

[4] *EPA priority pollutants are those remaining volatile organic pollutants listed in Attachment "G" which are not specifically listed in this monitoring program table.*

[5] *Remaining EPA priority pollutants are those pollutants listed in Attachment "G" which are not volatile organics and pollutants not specifically listed in this monitoring program table.*

IV. EFFLUENT MONITORING REQUIREMENTS TO SURFACE WATER

The Discharger shall monitor tertiary effluent at monitoring locations M-001, M-002, M-003, and M-004 as follows. If more than one analytical test method is listed for a given parameter, the Discharger must select from the listed methods and corresponding Minimum Level.

A. Effluent Monitoring Locations M-001 to M-004

1. The Discharger shall monitor tertiary treated effluent for DP 001, DP 002, DP 003, and DP 004 at Monitoring Locations M-001B, M-002A, M-003, and M-004 as follows.

Table 4 Tertiary Effluent Monitoring at M-001B, M-002A, M-003, and M-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level, units, respectively
Flow	mgd	Recorder/ Totalizer	Continuous	--
Specific Conductance[6]	µmhos/cm	Recorder	Continuous	--
pH	pH units	Recorder	Continuous	--
Turbidity[7]	NTU	Recorder	Continuous	--
Total Chlorine Residual[8]	mg/L	Recorder	Continuous	--
Coliform Organisms[9], [10]	MPN per 100 ml[11]	Grab	Daily	See Section I.A.3., above of this MRP
CT	mg-minutes/L	Recorder	Continuous[12]	--
Total Organic Carbon (TOC)	mg/L	Composite	Daily	See Section I.A.3. above, of this MRP
BOD_5[13]	mg/L	Composite	Daily	See Section I.A.3. above, of

6 *Except M-001B.*

7 *Turbidity analysis shall be continuous, performed by a continuous recording turbidimeter. Compliance with the daily average operating filter effluent turbidity shall be determined by averaging the levels of recorded turbidity taken at a minimum of four-hour intervals over a 24-hour period. The results of the daily average turbidity determinations shall be reported monthly.*

8 *Except M-001B.*

9 *Samples for total coliform bacteria shall be collected daily. Samples shall be taken from the disinfected effluent.*

10 *M-001B is the coliform monitoring location for DP 001 & DP 002. Alternative monitoring at M-002B is available if gate is closed between Chlorine Contact Basin 2 and 3.*

11 *MPN/100mL = Most Probable Number per 100 milliliters.*

12 *The CT and modal contact time shall be continuously calculated and recorded. The minimum daily value shall be reported monthly. Modal contact time and CT shall be calculated based on the minimum one-hour average value in a 24-hr period.*

Table 4 Tertiary Effluent Monitoring at M-001B, M-002A, M-003, and M-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level, units, respectively
				this MRP
Total Suspended Solids	mg/L	Composite	Daily	See Section I.A.3. above
Ammonia-Nitrogen	mg/L	Grab	Weekly	See Section I.A.3. above, of this MRP
Temperature	°C	Grab	Weekly	--
Total Dissolved Solids[14]	mg/L	Composite	Monthly	See Section I.A.3. above
Total Inorganic Nitrogen	mg/L	Composite	Monthly	See Section I.A.3. above
Total Nitrogen	mg/L	Composite	Monthly	See Section I.A.3. above
Cyanide, free[15]	µg/L	Grab	Monthly	See Sections I.A.2., I.A.3., above of this MRP and RL 5 µg/L
Total Recoverable Copper	µg/L	Composite	Monthly	See Sections I.A.2., I.A.3. above of this MRP and RL 0.5 µg/L
Toxicity[16]	TUc	See Section V.A, Below	Monthly	See Section V, Below
Total Hardness	mg/L	Composite	Monthly	See Section I.A.3. above
Bicarbonate	mg/L	Composite	Monthly	See Section I.A.3. above, of this MRP
Boron	mg/L	Composite	Monthly	See Section I.A.3. above
Calcium	mg/L	Composite	Monthly	See Section I.A.3. above
Carbonate	mg/L	Composite	Monthly	See Section I.A.3. above
Chloride	mg/L	Composite	Monthly	See Section I.A.3. above
Fluoride	mg/L	Composite	Monthly	See Section I.A.3. above, of this MRP
Magnesium	mg/L	Composite	Monthly	See Section I.A.3. above
Sodium	mg/L	Composite	Monthly	See Section I.A.3. above
Sulfate	mg/L	Composite	Monthly	See Section I.A.3. above
Total Recoverable Cadmium	µg/L	Composite	Monthly	See Sections I.A.2., I.A.3., above of this MRP and RL 0.5 µg/L

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13 *BOD_5 is calculated daily based on a BOD_5/TOC correlation approved by the Regional Water Board.*

14 *Except M-001B.*

15 *Free cyanide is measured as aquatic free cyanide (ASTM Method D7237) without NaOH preservation.*

16 *Except M-001B.*

Table 4 Tertiary Effluent Monitoring at M-001B, M-002A, M-003, and M-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method and Minimum Level, units, respectively
Chromium (VI) or Total Chromium[17]	µg/L	Composite	Monthly	See Sections I.A.2., I.A.3. above of this MRP and RL 5 µg/L, Total Cr, RL 2 µg/L
Total Recoverable Lead	µg/L	Composite	Monthly	See Sections I.A.2., I.A.3. above of this MRP and RL 2 µg/L
Total Recoverable Mercury	µg/L	Composite	Monthly	See Sections I.A.2., I.A.3. above of this MRP and RL 0.05 µg/L
Total Recoverable Selenium	µg/L	Composite	Monthly	See Sections I.A.2., I.A.3. above of this MRP and RL 2 µg/L
Total Recoverable Silver	µg/L	Composite	Monthly	See Sections I.A.2., I.A.3., above of this MRP and RL 1 µg/L
Total Recoverable Zinc	µg/L	Composite	Monthly	See Sections I.A.2., I.A.3., above of this MRP
Bis (2-ethylhexyl) phthalate	µg/L	Grab	Monthly	See Sections I.A.2., I.A.3., above of this MRP
Bromodichloromethane[18]	µg/L	Grab	Monthly	See Sections I.A.2., I.A.3., above of this MRP, ML 5 µg/L
Aluminum	mg/L	Composite	Quarterly	See Section I.A.3. above
Antimony	mg/L	Composite	Quarterly	See Sections I.A.2., I.A.3., above of this MRP
Arsenic	µg/L	Composite	Quarterly, (See IV.A.3., below)	See Section I.A.3. above
Barium	µg/L	Composite	Quarterly, (See IV. A.3., below)	See Section I.A.3. above
Cobalt	µg/L	Composite	Quarterly (See IV.A.3., below)	See Section I.A.3. above,
Total Recoverable Nickel	µg/L	Composite	Quarterly (See IV.A.3., below)	See Section I.A.3. above,
2,3,7,8-TCDD (Dioxin)[19]	µg/L	Composite	Quarterly (See IV.A.5., below)	See Section I.A.3. above, RL 1 pg/L
Volatile organic portion of remaining EPA Priority Pollutants (See Attachment G)	µg/L	Grab	Annually (See IV.A.4., below)	See Sections I.A.2., I.A.3., above of this MRP
Remaining EPA Priority Pollutants (See Attachment G)	µg/L	Composite	Annually (See IV.A.4., below)	See Sections I.A.2., I.A.3., above of this MRP

[17] *If Total Chromium test result is greater than 11 µg/L, the following sample shall be tested for Chromium VI, until directed otherwise.*

[18] *Applies at M-003 only.*

[19] *Applies at M-003 and M-004 only.*

2. The Discharger shall monitor tertiary treated effluent for DPs 001 and 002 at M-001A as follows:

Table 5 Effluent Monitoring Requirements at M-001A

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Turbidity	NTU	Recorder	Continuous	--
Total Chlorine Residual	mg/l	Recorder	Continuous	--
Specific Conductance	µmhos/cm	Recorder	Continuous	--
Total Dissolved Solids	mg/l	Composite	Monthly	See Sections I.A.2., I.A.3., above of this MRP
Toxicity	TUc	See Section V.A, Below	Monthly	See Section V, Below

3. The monitoring frequency for those priority pollutants that are detected during the required quarterly monitoring at a concentration greater than the concentration specified for that pollutant[20] in Attachment I - Triggers for Monitoring Priority Pollutants shall be accelerated to monthly. To return to the monitoring frequency specified, the Discharger shall request and receive approval from the Regional Water Board's Executive Officer or designee.

4. The monitoring frequency for those priority pollutants that are detected during the required semi-annual or annual monitoring at a concentration greater than the concentration specified for that pollutant in Attachment I shall be accelerated to quarterly for one year. To return to the specified monitoring frequency, the Discharger shall request and receive approval from the Regional Water Board's Executive Officer or designee.

5. The Discharger is required to conduct quarterly monitoring for Dioxin for one year. After one year, if quarterly monitoring result show non-detect values at acceptable reporting levels, the Discharger may reduce the frequency of monitoring for Dioxin from quarterly to semi-annual monitoring upon approval by the Regional Water Board Executive Officer or designee.

B. Secondary Effluent Monitoring at M-002, M-003 and M-004 with 20:1 Dilution

1. The Discharger shall monitor secondary treated effluent at M-002B, M-003 and M-004 when 20:1 dilution is provided by the receiving surface water at the time of the discharge, as follows:

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[20] *For those priority pollutants without specified criteria values, accelerated monitoring is not required.*

Table 6 Secondary Effluent Monitoring at M-002B to M-004 w/ 20:1 Dilution

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Test Method
Flow	mgd	Grab	Daily (when discharging)	--
pH	pH units	Recorder/Totalizer	Continuous	--
Total Chlorine Residual	mg/L	Recorder	Continuous	--
BOD_5	mg/L	Grab	Daily (when discharging)	See Section I.A.3., above, of this MRP
Total Dissolved Solids	mg/L	Grab	when discharging	"
Coliform Organisms	MPN per 100 ml[21]	Grab	Daily (when discharging)	See Sections I.A.2., I.A.3., above of this MRP
Suspended Solids	mg/L	Grab	Daily (when discharging)	See Sections I.A.2., I.A.3., above of this MRP
Total Hardness	mg/L	Grab	When discharge	See Section I.A.3., above, of this MRP
EPA Priority Pollutants	µg/L	Grab	Annually[22] (See IV.A.3., above)	See Sections I.A.2., I.A.3., above of this MRP

V. WHOLE EFFLUENT TOXICITY TESTING REQUIREMENTS

A. Toxicity Monitoring Requirements at M-001A, M-002A, M-003, and M-004

1. The Discharger shall conduct critical life stage chronic toxicity testing in accordance with Method 1002.0 - Survival and Reproduction test for water flea, *Ceriodaphnia dubia* as specified in "Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms", Fourth Edition, Environmental Monitoring Systems Laboratory, U.S. Environmental Protection Agency 2002, Cincinnati, Ohio (October 2002, EPA-821-R-02-013).

2. The Discharger shall establish procedures to ensure that the toxicity testing laboratory notifies the Discharger of the results of toxicity testing by the end of the next business day following the completion of such tests.

3. A minimum of one monthly chronic toxicity test shall be conducted on representative composite samples.

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[21] *MPN/100mL = Most Probable Number per 100 milliliters*

[22] *Sample is collected from the first discharge, once a year.*

4. The Discharger shall increase the frequency of chronic toxicity testing to every two weeks whenever any test result exceeds 1.0 TUc. The first test under the accelerated schedule shall be conducted within two weeks of receiving notice of the test that exceeds 1.0 TUc, and every two weeks thereafter. The Discharger may resume the regular test schedule when two consecutive chronic toxicity tests result in 1.0 TUc, or when the results of the Initial Investigation Reduction Evaluation conducted by the Discharger have adequately addressed the identified toxicity problem.

5. The presence of chronic toxicity shall be estimated as specified in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. EPA-821-R-02-013.

6. Results for both survival and reproduction endpoints shall be reported in TUc, where TUc = 100/NOEC or 100/ICp or ECp (p is the percent effluent). The no observed effect concentration (NOEC) is the highest concentration of toxicant to which organisms are exposed in a chronic test, that causes no observable adverse effect on the tests organisms (e.g., the highest concentration of toxicant to which the values for the observed responses are not statistically significant different from the controls). The inhibition concentration (IC) is a point estimate of the toxicant concentration that causes a given percent reduction in a non-quantal biological measurement (e.g., reproduction or growth) calculated from a continuous model (the EPA Interpolation Method). The effective concentration (EC) is a point estimate of the toxicant concentration that would cause a given percent reduction in quantal biological measurement (e.g., larval development, survival) calculated from a continuous model (e.g., probit).

7. Additional Testing Requirements

    a. A series of at least five dilutions and a control will be tested. Five dilutions of the series shall be within 60% to 100% effluent concentration.
    b. If organisms are not cultured in-house, concurrent testing with reference toxicants shall be conducted. Where organisms are cultured in-house, monthly reference toxicant testing is sufficient. Reference toxicants shall also be conducted using the same test conditions as the effluent toxicity test (e.g., same test duration, etc).
    c. If either of the reference toxicant test or the effluent tests do not meet all test acceptability criteria as specified in the manual[23], then the Discharger must re-sample and re-test within 14 days or as soon as the Discharger receives notification of failed tests.
    d. Control and dilution water should be receiving water or lab water, as appropriate, as described in the manual. If the dilution water used is different from the culture water, a second control, using culture water shall also be used.

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[23] *Refers to USEPA Manual "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. - 4th Ed., October 2002, EPA-821-R-02-013.*

8. Quality Assurance/Control:

   a. A quality assurance/quality control (QA/QC) program shall be instituted to verify the results of the effluent toxicity monitoring program. The QA/QC program shall include but shall not be limited to the following: (1) Selection of an independent testing laboratory; (2) Approval by the Regional Water Board's Executive Officer or Executive Officer's designee of the independent testing laboratory; (3) Once during the year, the Discharger shall split samples with the independent laboratory for conducting chronic toxicity testing; (4) Results from the independent laboratory shall be submitted to the Regional Water Board and the Discharger for evaluation; (5) The Discharger shall review the test acceptability criteria in accordance with the EPA test protocols, Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. EPA-821-R-02-013.

   b. Results from the independent laboratory of the annual QA/QC split samples are to be used for Quality Assurance/Quality Control (QA/QC) purposes only and not for purposes of determining compliance with other requirements of this Order.

9. The use of alternative methods for measuring chronic toxicity may be considered by the Executive Officer on a case–by-case basis. The use of a different test species, in lieu of conducting the required test species may be considered and approved by the Executive Officer on a case-by case basis upon submittal of the documentation supporting Discharger’s determination that a different species is more sensitive and appropriate.

10. Reporting: Results of all toxicity testing conducted within the month following the reporting period shall be submitted monthly in accordance with "Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms. Fourth Edition. EPA-821-R-02-013.” The report shall include a determination of the median value of all chronic toxicity testing results conducted during the two previous months.

11. Whenever an Initial Investigation Reduction Evaluation is conducted, the results of the evaluation shall be submitted upon completion. In addition, monthly status reports shall be submitted as part of the Discharger’s monitoring report for the previous month.

VI. LAND DISCHARGE MONITORING REQUIREMENTS – NOT APPLICABLE

VII. RECLAMATION MONITORING REQUIREMENTS

A. Monitoring Locations REC-001 to REC-004

1. The Discharger shall monitor recycled water at REC-001, REC-002, REC-003 and REC-004 as follows:

Table 7 Reclamation Monitoring at REC-001 to REC-004

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	Recorder/Totalizer	Continuous	--
pH	Standard units	Recorder/Totalizer	Continuous	--
Turbidity[24]	NTU	Recorder	Continuous	--
CT	mg-minutes/L	Recorder	Continuous[25]	--
Coliform Organisms	MPN per 100 mL	Grab	Daily	See Section I.A.3., above, of this MRP
BOD_5	mg/L	Composite	Daily	See Section I.A.3., above, of this MRP
Total Suspended Solids	mg/L	Composite	Daily	See Section I.A.3., above, of this MRP
TDS	mg/L	Composite	Monthly	See Section I.A.3., above, of this MRP

B. Monitoring Users

Whenever recycled water is supplied to a user, the Discharger shall record on a permanent log: the volume of recycled water supplied; the user of recycled water; the locations of those sites including the names of the groundwater management zones underlying the recycled water use sites; type of use (e.g. irrigation, industrial, etc); and the dates at which water is supplied. The Discharger shall submit annually a summary report of the recorded information by groundwater management zone to the Regional Water Board.

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[24] *Turbidity samples shall be collected at M-001A, M-002A, M-003, and M-004, respectively.*

[25] *The CT and modal contact time shall be continuously calculated and recorded. Modal contact time and CT shall be calculated based on the minimum one-hour average value in a 24-hr period.*

VIII. RECEIVING WATER MONITORING REQUIREMENTS – SURFACE WATER AND GROUNDWATER

A. Flow Measurements at Monitoring Locations R-002U, R-003U, and R-004U During 20:1 Dilution.

The Discharger shall make provisions for the measurement of the receiving water flow at a suitable location in the creek and determine whether a 20:1 dilution exists at DP 002, DP 003, or DP 004, before discharging secondary treated effluent. A dilution of 20:1 or more exclusive of discharges to surface waters from upstream publicly owned treatment works is required at the point of discharge for the discharge of secondary effluent. Flow measurements shall be made prior to any direct discharge to the creeks and shall continue on a daily basis until the discharge is terminated.

B. Monitoring Locations R-002U, R-003U, and R-004U

1. The Discharger shall monitor the receiving water at R-002U, R-003U, and R-004U for the following parameters/constituents when there is flowing water:

Table 8 Receiving Water Monitoring at R-002U, R-003U, and R-004U

Parameter	Units	Sample Type	Minimum Sampling Frequency	Required Analytical Test Method
Flow	mgd	estimate	Weekly	--
Dissolved Oxygen	mg/L	Grab	Weekly	--
Temperature	^{0}C	"	Weekly	--
pH	pH unit	Grab	Weekly	--
Total Dissolved Solids	mg/L	Grab	Monthly	See Sections I.A.3. above of this MRP
Total Inorganic Nitrogen	mg/L	Grab	Monthly	See Sections I.A.3. above of this MRP
Total Hardness	mg/L	Grab	Quarterly	See Sections I.A.3. above of this MRP
Total Suspended Solids	mg/L	Grab	Quarterly	See Sections I.A.3. above of this MRP
EPA Priority Pollutants (see VIII.C.2., below)	µg/L	Grab	Annually	See Sections I.A.2., 3. above of this MRP

C. Monitoring Locations R-002D & R-003D

1. The Discharger shall monitor the receiving water at R-002D, R-003D, when there is flowing water upstream of the discharge point for the following constituents:

Table 9 Receiving Water Monitoring at R-002D & R-003D

Parameter	Units	Sample Type	Minimum Sampling & Testing Frequency	Required Analytical Test Method
Dissolved Oxygen	mg/L	Grab	Weekly	--
Temperature	^{0}C	Grab	Weekly	--
pH	pH unit	Grab	Weekly	--
Color change, foam, deposition of material, odor	--	Observe	Weekly	See Section I.A.3., above, of this MRP
Total Hardness	mg/L	Grab	Quarterly	See Sections I.A.3. above of this MRP
Total Suspended Solids	mg/L	Grab	Quarterly	"
EPA Priority Pollutants (see VIII.C.2., below)	µg/L	Grab	Annually	See Sections I.A.2., 3. above of this MRP

2. For the annual monitoring of the heavy metals EPA Priority Pollutants, the total recoverable and total dissolved metal concentrations shall be determined.

D. Regional Monitoring for Fish Flesh Testing:

Unless otherwise directed by the Regional Water Board Executive Officer, the Discharger shall implement the approved plan for the annual sampling and testing of mercury levels in fish flesh samples collected from the Santa Ana River. The frequency of monitoring and submission of reports shall be as stipulated in the approved plan.

E. Monitoring Requirements for Groundwater – Not Applicable

Monitoring of groundwater by the Discharger is addressed in Order No.R8-2007-0039.

IX. OTHER MONITORING REQUIREMENTS

A. Biosolids Monitoring

1. Biosolids monitoring shall be conducted as follows:

Table 10 Biosolids Monitoring Requirements

Biosolids Monitoring	Units	Type of Sample	Minimum Frequency of Sampling & Testing
Priority Pollutants	mg/kg	Grab	Semi-annually
Moisture Content (% solid)	mg/kg	Grab	Quarterly

2. The Discharger shall maintain a permanent log of solids hauled away from the treatment facilities for use/disposal elsewhere, including the date hauled, the volume or weight (in dry tons), type (screening, grit, raw sludge, biosolids), application (agricultural, composting, etc), and destination. This information shall be reported quarterly.

B. Stormwater Monitoring

The Discharger shall monitor discharges at Discharge Points S-001 to S-002 (as specified in Table 2 of this MRP) and submit monitoring reports in accordance with Attachments J and K - Stormwater Monitoring and Reporting Requirements.

C. Water Supply Monitoring

1. In August of each year, a sample of each source of the water supplied to the sewered area shall be obtained and analyzed for total dissolved solids concentration expressed in "mg/L".

2. Monthly reports shall be submitted stating the amount (in percentage or acre-feet) supplied to the sewered area from each source of water and the resulting flow-weighted water supply quality for total dissolved solids.

D. Pretreatment Monitoring and Reporting

1. The Discharger shall submit to the Regional Water Board and the EPA Region 9, a quarterly compliance status report. The quarterly compliance status reports shall cover the periods January 1 - March 31, April 1 - June 30, July 1 - September 30, and October 1 -December 31. Each report shall be submitted by the end of the month following the quarter, except that the report for April 1 - June 30 may be included in the annual report. This quarterly reporting requirement shall commence for the first full quarter following issuance of this Order. The reports shall identify:

   a. All significant industrial users (SIUs) which violated any standards or reporting requirements during that quarter;

   b. The violations committed (distinguish between categorical and local limits);

   c. The enforcement actions undertaken; and

d. The status of active enforcement actions from previous periods, including closeouts (facilities under previous enforcement actions which attained compliance during the quarter).

2. Annually, the Discharger shall submit a report to the Regional Water Board, the State Water Resources Control Board and the EPA Region 9 describing the pretreatment activities within the service area during the previous year. In the event that any control authority within the service area is not in compliance with any conditions or requirements of this Order or their approved pretreatment program (such as due to industrial user discharges, interjurisdictional agency agreement implementation issues, or other causes,) then the Discharger shall also include the reasons for non-compliance and state how and when the Discharger and the control authority shall comply with such conditions and requirements. This annual report shall cover operations from July 1 through June 30 of each fiscal year and is due on September 30 of each year. The report shall contain, but not be limited to, the following information:

   a. A summary of analytical results from representative, flow-proportioned, 24-hour composite sampling of the POTWs' influent and effluent wastewaters for those pollutants which are known or suspected to be discharged by industrial users (IUs) as identified by EPA under Section 307(a) of the CWA. The summary will include the result of annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants[26] detected in the full scan. The Discharger shall also provide any influent or effluent monitoring data for non-priority pollutants which the Discharger believes may be causing or contributing to Interference, Pass Through or adversely impacting sludge quality. Sampling and analysis shall be performed in accordance with the techniques prescribed in 40 CFR 136 and amendments thereto.

   b. A discussion of any upset, interference, or pass-through incidents at the treatment plants (if any), which the Discharger knows or suspects were caused by IUs of the POTW system. The discussion shall include the following:

      (1) The reasons why the incidents occurred, the corrective actions taken, and, if known, the name and address of the IU(s) responsible.

      (2) A review of the applicable pollutant limitations to determine whether any additional limitations, or changes to existing requirements, may be necessary to prevent pass through, interference or noncompliance with sludge disposal requirements.

[26] *The Discharger is not required to analyze for asbestos.*

c. A complete and updated list of the Discharger's significant industrial users (SIUs), including names, Standard Industrial Classification (SIC) code(s) and addresses, and a list of any SIU deletions and/or additions. The Discharger shall provide a brief explanation for each deletion. The SIU list shall identify the SIUs subject to Federal Categorical Standards by specifying which set(s) of standards are applicable to each SIU. The list shall also indicate which SIUs are subject to local limitations more stringent than Federal Categorical Standards and those, which are not subject to local limits.

d. A list or table characterizing the industrial compliance status of each SIU, including:

(1) SIU name;
(2) Industrial category;
(3) The type (processes) of wastewater treatment in place;
(4) Number of samples taken by the POTW during the year;
(5) Number of samples taken by the SIU during the year;
(6) Whether all needed certifications (if allowed) were provided by SIUs which have limits for total toxic organics;
(7) Federal and Regional Standards violated during the year, reported separately;
(8) Whether the SIU at any time in the year was in Significant Noncompliance (SNC)[27], as defined by 40 CFR 403.12 (f)(2)(vii); and
(9) A summary of enforcement actions against the SIU taken during the year, including the type of action, final compliance date, and amount of fines assessed/collected (if any). Proposed actions, if known, should be included.
(10) Number of inspections conducted at each SIU during the year.

e. A compliance summary table which includes:

(1) SIU's which were in SNC at any time during the year;
(2) The total number of SIUs which are in SNC with pretreatment compliance schedules during the year;
(3) The total number of notices of violation and administrative orders issued against SIUs during the year;
(4) The total number of civil and criminal judicial actions filed against SIUs during the year;
(5) The number of SIUs which were published as being in SNC during the year; and
(6) The number of IUs from which penalties were collected during the year.

[27] *SNC is determined at the beginning of each quarter based on data of the previous six months.*

f. A short description of any significant changes in operating the pretreatment program which differ from the previous year including, but not limited to changes concerning:

(1) The program's administrative structure;
(2) Local industrial discharge limitations;
(3) Monitoring program or monitoring frequencies;
(4) Legal authority or enforcement policy;
(5) Funding mechanisms; and
(6) Resource requirements and/or staffing levels.

g. A summary of the annual pretreatment budget, including the cost of pretreatment program functions and equipment purchases.

h. A summary of public participation activities to involve and inform the public.

i. A description of any changes in sludge disposal methods and a discussion of any concerns not described elsewhere in the report.

3. The cumulative number of industrial users that the Discharger has notified regarding Baseline Monitoring Reports and the cumulative number of industrial user responses.

4. The Discharger shall submit the quarterly compliance status reports and the annual pretreatment report to EPA Region 9, the State Board and the Regional Water Board.

X. REPORTING REQUIREMENTS

A. General Monitoring and Reporting Requirements

1. The Discharger shall comply with all Standard Provisions (Attachment D) related to monitoring, reporting, and recordkeeping.
2. All analytical data shall be reported with method detection limit[28] (MDLs) and with identification of either reporting level or limits of quantitation (LOQs). Quality assurance/quality control data shall be submitted upon request. Test results shall be reported in either milligrams/liter (mg/L) or micrograms/liter (µg/L), or picograms/L (pg/L), as appropriate.
3. For effluent wastewater monitoring:

[28] *The standardized test procedure to be used to determine the method detection limit (MDL) is given at Appendix B, 'Definition and Procedure for the Determination of the Method Detection Limit' of 40 CFR 136.*

a. The Discharger shall require its testing laboratory to calibrate the analytical system down to the minimum level (ML)[29] specified in Attachment H for priority pollutants with effluent limitations in this Order, unless an alternative minimum level is approved by the Regional Water Board's Executive Officer. When there is more than one ML value for a given substance, the Discharger shall use the ML values, and their associated analytical methods, listed in Attachment H that are below the calculated effluent limitation. The Discharger may select any one of those cited analytical methods for compliance determination. If no ML value is below the effluent limitation, then the lowest ML value and its associated analytical method, listed in Attachment H shall be used. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Water Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.

b. The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

(1) Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

(2) Sample results less than the reported ML, but greater than or equal to the laboratory's current Method Detection Limit (MDL)[30], shall be reported as "Detected, but Not Quantified," or "DNQ." The estimated chemical concentration of the sample shall also be reported.

(3) Sample results not detected above the laboratory's MDL shall be reported as "not detected" or "ND."

4. For receiving water monitoring and for those priority pollutants without effluent limitations, the Discharger shall require its testing laboratory to quantify constituent concentrations to the lowest achievable MDL as determined by the procedure found in 40 CFR 136 (revised as of April 11, 2007). In situations where the most stringent applicable receiving water objective (freshwater or human health (consumption of organisms only), as specified for that pollutant in 40 CFR 131.38[31] is below the minimum level value specified in Attachment H and the Discharger cannot achieve an MDL value for that pollutant below the ML value, the Discharger shall submit justification why a lower MDL value cannot be achieved. Justification shall be submitted together with monthly monitoring reports.

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29 *Minimum level is the concentration at which the entire analytical system must give a recognizable signal and acceptable point. The ML is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method specified sample weights, volumes, and processing steps have been followed.*

30 *MDL is the minimum concentration of a substance that can be measured and reported with 99 percent confidence that the analytical concentration is greater than zero, as defined in 40 CFR 136, Appendix B, revised as of April 11, 2007.*

31 *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

5. For non-priority pollutants monitoring, all analytical data shall be reported with method detection limits, as determined by the procedure found in 40 CFR 136 (revised as of April 11, 2007).
6. Any internal quality control data associated with the sample must be reported when requested by the Executive Officer. The Regional Water Board will reject the quantified laboratory data if quality control data is unavailable or unacceptable.
7. Discharge monitoring data shall be submitted in a format acceptable by the Regional Water Board. Specific reporting format may include preprinted forms and/or electronic media. The results of all monitoring required by this Order shall be reported to the Regional Water Board, and shall be submitted in such a format as to allow direct comparison with the limitations and requirements of this Order.
8. The Discharger shall tabulate the monitoring data to clearly illustrate compliance and/or noncompliance with the requirements of the Order.
9. The Discharger shall submit to the Regional Water Board reports necessary to determine compliance with effluent limitations in this Order and shall follow the chemical nomenclature and sequential order of priority pollutant constituents shown in Attachment G – Priority Pollutant Lists for reporting the required annual priority pollutant monitoring.
10. The reports for June and December shall include a roster of plant personnel, including job titles, duties, and level of State certification for each individual.
11. The Discharger shall report monitoring results for specific parameters in accordance with the following table:

Table 11 Reporting Requirements

Parameter	Measurement
Flow	Daily total flow
pH	Daily High and daily low
Total Residual Chlorine	Daily Maximum
Electrical Conductivity	Daily High
Turbidity	Daily maximum

12. The Discharger shall file a written report with the Regional Water Board within ninety (90) days after the average dry-weather waste flow for any month equals or exceeds 75 percent of the design capacity of the waste treatment and/or disposal facilities. The Discharger's senior administrative officer shall sign a letter which transmits that report and certifies that the policy making body is adequately informed about it. The report shall include:

    a. Average daily flow for the month, the date on which the instantaneous peak flow occurred, the rate of that peak flow, and the total flow for the day.

    b. The Discharger's best estimate of when the average daily dry-weather flow rate will equal or exceed the design capacity of the treatment facilities.

c. The Discharger's intended schedule for studies, design, and other steps needed to provide additional capacity for the waste treatment and/or disposal facilities before the waste flow rate equals the capacity of present units.

B. Self Monitoring Reports (SMRs)

1. At any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit Self-Monitoring Reports (SMRs) using the State Water Board's California Integrated Water Quality System (CIWQS) Program Web site (http://www.waterboards.ca.gov/ciwqs/index.html). Until such notification is given, the Discharger shall submit hard copy SMRs. The CIWQS Web site will provide additional directions for SMR submittal in the event there will be service interruption for electronic submittal.

2. The Discharger shall report in the SMR the results for all monitoring specified in this MRP under Sections III through IX. Additionally, the Discharger shall report in the SMR the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C. of this Order. The Discharger shall submit monthly, quarterly, and annual SMRs including the results of all required monitoring using USEPA-approved test methods or other test methods specified in this Order. If the Discharger monitors any pollutant more frequently than required by this Order, the results of this monitoring shall be included in the calculations and reporting of the data submitted in the SMR.

3. Monitoring periods and reporting for all required monitoring shall be completed according to the following schedule:

Table 12 Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Continuous	The effective day of this Order	All	Submit with monthly SMR
Daily	The effective day of this Order	(Midnight through 11:59 PM) or any 24-hour period that reasonably represents a calendar day for purposes of sampling.	Submit with monthly SMR
Weekly	The effective day of this Order	Sunday through Saturday	Submit with monthly SMR
Monthly	First day of calendar month following permit effective date or on permit date if that date is first day of the month	1st day of calendar month through last day of calendar month	First day of the second month following the reporting period, submit as monthly SMR

Table 12 Monitoring Periods and Reporting Schedule

Sampling Frequency	Monitoring Period Begins On	Monitoring Period	SMR Due Date
Quarterly[32]	Closest of January 1, April 1, July 1, or October 1 following permit effective date	January 1 through March 31, samples are collected in January; April 1 through June 30; samples are collected in April; July 1 through September 30; samples are collected in July; October 1 through December 31; samples are collected in October	First day of the second month following the reporting period, submit with monthly SMR
Semi-annually	Closest of January 1 or July 1 following permit effective date	January 1 through June 30, samples are collected in January. July 1 through December 31, samples are collected in July.	first day of the second month following the reporting period, submit with monthly SMR
Annually	The effective day of this Order	January 1 through December 31, see Table 1.	April 1 each year including report requirements in Attachments Pretreatment report due to September, 1

4. Reporting Protocols. The Discharger shall report with each sample result the applicable reported Minimum Level (ML) and the current Method Detection Limit (MDL), as determined by the procedure in Part 136.

   The Discharger shall report the results of analytical determinations for the presence of chemical constituents in a sample using the following reporting protocols:

   a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory (i.e., the measured chemical concentration in the sample).

   b. Sample results less than the RL, but greater than or equal to the laboratory's MDL, shall be reported as "Detected, but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.

   c. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration" (may be shortened to "Est. Conc."). The laboratory may, if such information is available, include numerical estimates of the data quality for the reported result. Numerical estimates of data quality may be percent accuracy (+ a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.

[32] *Quarterly monitoring result for certain constituents may be used to satisfy the annual monitoring for the same constituents.*

d. Sample results less than the laboratory's MDL shall be reported as "Not Detected," or ND.

e. Dischargers are to instruct laboratories to establish calibration standards so that the ML value (or its equivalent if there is differential treatment of samples relative to calibration standards) is the lowest calibration standard. At no time is the Discharger to use analytical data derived from extrapolation beyond the lowest point of the calibration curve.

5. The Discharger shall submit hard copy SMRs (with an original signature) when required by subsection B.1 above in accordance with the following requirements:

   a. The Discharger shall arrange all reported data in a tabular format. The data shall be summarized to clearly illustrate whether the facility is operating in compliance with interim and/or final effluent limitations.

   b. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

   c. SMRs must be submitted to the Regional Water Board, signed and certified as required by the Standard Provisions (Attachment D), to the address listed below:

      California Regional Water Quality Control Board
      Santa Ana Region
      3737 Main Street, Suite 500
      Riverside, CA 92501-3348

6. The Discharger shall attach a cover letter to the SMR. The information contained in the cover letter shall clearly identify violations of the WDRs; discuss corrective actions taken or planned; and the proposed time schedule for corrective actions. Identified violations must include a description of the requirement that was violated and a description of the violation.

7. By April 1 of each year, the Discharger shall submit an annual report to the Regional Water Board. The annual report shall include the following:

   a. Tabular and graphical summaries of the monitoring data obtained during the previous year;

   b. A discussion of the compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the waste discharge requirements;

   c. A summary of the quality assurance (QA) activities for the previous year; and

d. For priority pollutant constituents that do not have effluent limitations but are required to be monitored, the Discharger shall evaluate the monitoring data obtained during the previous year and determine whether detected constituents are at levels that would warrant reopening the permit to include effluent limitations for such constituent(s). To conduct this evaluation, the concentration of detected constituents shall be compared to the most stringent applicable receiving water objectives (freshwater or human health (consumption of organisms only) as specified for that pollutant in 40 CFR 131.3833). The Discharger shall include a discussion of the corrective actions taken or planned to address values above receiving water objectives.

C. Discharge Monitoring Reports (DMRs)

1. As described in Section X.B.1 above, at any time during the term of this permit, the State or Regional Water Board may notify the Discharger to electronically submit SMRs that will satisfy federal requirements for submittal of Discharge Monitoring Reports (DMRs). Until such notification is given, the Discharger shall submit DMRs in accordance with the requirements described below.

2. DMRs must be signed and certified as required by the standard provisions (Attachment D). The Discharger shall submit the original DMR and one copy of the DMR to the address listed below:

Table 13 Monitoring Reporting Submittal

Standard Mail	FedEx/UPS/ Other Private Carriers
State Water Resources Control Board Division of Water Quality c/o DMR Processing Center PO Box 100 Sacramento, CA 95812-1000	State Water Resources Control Board Division of Water Quality c/o DMR Processing Center 1001 I Street, 15th Floor Sacramento, CA 95814

3. All discharge monitoring results must be reported on the official USEPA pre-printed DMR forms (EPA Form 3320-1). Forms that are self-generated will not be accepted unless they follow the exact same format of EPA Form 3320-1.

   Regional Administrator
   U. S. Environmental Protection Agency
   Region 9 – Attention WTR – 7
   75 Hawthorne Street
   San Francisco, CA 94105

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[33] *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

D. Other Reports

1. The Discharger shall report the results of any special studies, acute and chronic toxicity testing, TRE/TIE, PMP, and Pollution Prevention Plan required by Special Provisions – VI.C. of this Order. The Discharger shall submit reports with the first monthly SMR scheduled to be submitted on or immediately following the report due date in compliance with SMR reporting requirements described in subsection X.B.5 above.

2. Site Spills

a. In accordance with the requirements of Health and Safety Code section 5411.5, the Discharger shall provide notification to the local health officer or the director of environmental health with jurisdiction over the affected water body of any unauthorized release of sewage or other waste that causes, or probably will cause, a discharge to any waters of the state.

b. In accordance with the requirements of Water Code section 13271, the Discharger shall provide notification to the Office of Emergency Services of the release of reportable amounts of hazardous substances or sewage that causes, or probably will cause, a discharge to any waters of the state. The California Code of Regulations, Title 23, section 2250, defines a reportable amount of sewage as being 1,000 gallons. The phone number for reporting these releases to the Office of Emergency Services is (800) 852-7550.

c. The Discharger shall notify the Regional Water Board of any unauthorized release of sewage from its wastewater treatment plant that causes, or probably will cause, a discharge to a water of the state as soon as possible, but not later than two (2) hours after becoming aware of the release. This notification does not need to be made if the Discharger has notified the Office of Emergency Services. The phone number for reporting these releases of sewage to the Regional Water Board is (951) 782-4130. At a minimum, the following information shall be provided:

(1) The location, date, and time of the release.

(2) The water body that received or will receive the discharge.

(3) An estimate of the amount of sewage or other waste released and the amount that reached a surface water at the time of notification.

(4) If ongoing, the estimated flow rate of the release at the time of the notification.

(5) The name, organization, phone number and email address of the reporting representative.

d. As soon as possible, but not later than twenty four (24) hours after becoming aware of an unauthorized discharge of sewage or other waste from its wastewater treatment plant to a water of the state, the Discharger shall submit a statement to the Regional Water Board by email at spillreportR8@waterboards.ca.gov. If the discharge is 1,000 gallons or more, this statement shall certify that the State Office of Emergency Services has been notified of the discharge in accordance with Water Code section 13271. The statement shall also certify that the local health officer or director of environmental health with jurisdiction over the affected water bodies has been notified of the discharge in accordance with Health and Safety Code section 5411.5. The statement shall also include at a minimum the following information:

(1) Agency and Order No.

(2) The location, date, and time of the discharge.

(3) The water body that received the discharge.

(4) A description of the level of treatment of the sewage or other waste discharged.

(5) An initial estimate of the amount of sewage or other waste released and the amount that reached a surface water.

(6) The Office of Emergency Services control number and the date and time that notification of the incident was provided to the Office of Emergency Services.

(7) The name of the local health officer or director of environmental health representative notified (if contacted directly); the date and time of notification; and the method of notification (e.g., phone, fax, email).

Attachment F – Fact Sheet

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ATTACHMENT F – FACT SHEET

As described in Section II of this Order, this Fact Sheet includes the legal requirements and technical rationale that serve as the basis for the requirements of this Order.

This Order has been prepared under a standardized format to accommodate a broad range of discharge requirements for Dischargers in California. Only those sections or subsections of this Order that are specifically identified as "not applicable" have been determined not to apply to this Discharger. Sections or subsections of this Order not specifically identified as "not applicable" are fully applicable to this Discharger.

I. PERMIT INFORMATION

The following table summarizes administrative information related to the facility.

Table 1. Facility Information

WDID		**8 332818001**			
Discharger/Operator		Inland Empire Utilities Agency			
Name of Facility		Regional Water Recycling Plant No. 1 (RP-1)	Regional Water Recycling Plant No. 4 (RP-4)	Regional Water Recycling Plant No. 5 (RP-5)	Carbon Canyon Water Reclamation Facility (CCWRF)
Address		2450 East Philadelphia Street.	12811 Sixth Street	6068 Kimball Avenue, Building "C"	14950 Telephone Avenue
		Ontario, CA 91761	Rancho Cucamonga, CA 91729	Chino, CA 91708	Chino, CA 91710
		San Bernardino County			
Facility Contact, Title and Phone		Patrick O. Sheilds, Executive Manager of Operations, (909) 993-1806			
Authorized Person to Sign and Submit Reports		Patrick O. Sheilds, Executive Manager of Operations, (909) 993-1806			
Address		6075 Kimball Avenue, Chino, CA 91708			
Mailing/Billing Address		P.O. Box 9020, Chino Hills, CA 91709			
Major or Minor Facility		Major			
Type of Facility		POTW			
Threat to Water Quality		1			
Complexity		A			
Pretreatment Program		Y			
Reclamation Requirements		Y			
Facilities Permitted Flow		84.4 million gallons per day (mgd)			
Facility Design Flow		44 mgd	14 mgd	15 mgd (and 1.3 mgd flow from sludge treatment system at Regional Water Recycling Plant No.2 (RP-2))	11.4 mgd
Watershed		Santa Ana River watershed			
Receiving Water	**Surface Waters**	Prado Park Lake, Reach 1A of Chino Creek, Reach 1 of Cucamonga Creek, Mill Creek, and Reach 3 of Santa Ana River		Reach 1B of Chino Creek and Reach 3 of Santa Ana River	Reach 2 of Chino Creek and Reach 3 of Santa Ana River
	Groundwater	Chino North "Maximum Benefit" Groundwater Management Zone/Chino 1, 2, and 3 "Antidegradation" Groundwater Management Zones			
Receiving Water Type		Inland surface water and groundwater			

A. Inland Empire Utilities Agency (hereinafter Discharger, or IEUA) is the owner and operator of four regional water recycling facilities, appurtenant structures[1], sewer pipeline system, and recycled water distribution system (hereinafter Facilities). The four Facilities are linked as shown in Figures 1 and 2 of Attachment C.

For the purposes of this Order, references to the "discharger" or "permittee" in applicable federal and State laws, regulations, plans, or policy are held to be equivalent to references to the Discharger herein.

B. The Discharger produces tertiary treated wastewater and discharges to surface waters at different locations, including discharges into Reaches IA, IB and 2 of Chino Creek, Reach 1 of Cucamonga Creek, Prado Park Lake, and Reach 3 of the Santa Ana River. Chino Creek, Reach 1 of Cucamonga Creek, Prado Park Lake, and the Santa Ana River are waters of the United States. Discharges from the Facilities are regulated pursuant to the following Orders tabulated below for each facility:

Table 2. List of Orders adopted for each Facility

Facility	Order No.	Order Adoption Date	Expiration Date	WDR Regulatory Scope
RP-1 & RP-4	R8-2006-0010, amended by R8-2007-0045 and R8-2007-0078	May 19, 2006	May 1, 2011	Regulates discharges to Prado Park Lake and Reach 1 of Cucamonga Creek, tributaries to Reach 3 of Santa Ana River and recycled water use.
RP-5	R8-2008-0028	Sept. 5, 2008	Sept. 1, 2013	Regulates discharges to Reach 1B of Chino Creek, a tributary to Reach 3 of Santa Ana River and recycled water use.
CCWRF	R8-2004-0020, amended by R8-2006-0038 and R8-2007-0078	August 13, 2004	August 1, 2009	Regulates discharges to Reach 2 of Chino Creek, a tributary to Reach 3 of Santa Ana River and recycled water use.

The terms and conditions of the current Orders remain in effect until new Waste Discharge Requirements and NPDES permit are adopted pursuant to this Order.

[1] *Appurtenant structures among other things include the Regional Water Recycling Plant No.2 (RP-2) facility. RP-2 is an existing tertiary wastewater treatment plant owned by the Discharger. Cease and Desist Order No. 94-74 required the Discharger to relocate the liquid treatment facilities at RP-2 to a site not subject to flooding. Consequently, RP-5 replaced RP-2. Only the sludge treatment systems at RP-2 are operational and there are no longer surface water discharges from RP-2. Primary and waste activated sludge from RP-5 and CCWRF are piped to the regional solids handling facility at RP-2 for sludge treatment. Dewatered wastewater from RP-2 is pumped back to the headworks of RP-5.*

C. The Discharger filed a report of waste discharge and submitted an application for a new Waste Discharge Requirements (WDRs) and National Pollutant Discharge Elimination System (NPDES) permit on January 27, 2009. The Discharger requests consolidation of all three permits into one permit for the Discharger's Facilities. This request is consistent with the interconnected nature of the facilities and the approach specified in the individual Orders to regulate certain constituents (TDS and TIN) on an agency-wide, flow-weighted average basis. This new permit will regulate the discharges from the Facilities to surface waters and will also regulate recycled water use. Supplemental information was requested starting February 13, 2009. The latest supplemental information was received on May 21, 2009. A site visit was conducted on May 19, 2009, to observe operations and collect additional data to develop permit limitations and conditions. The application was deemed complete on May 21, 2009.

II. FACILITY DESCRIPTION

A. Description of Wastewater and Biosolids Treatment or Controls

1. Discharger and Service Area

Inland Empire Utilities Agency (IEUA) is a municipal water supply and wastewater treatment agency. IEUA owns and operates a regional wastewater collection system and water recycling plants, including RP-1, RP-4, RP-5, and CCWRF. The treatment Facilities receive domestic, commercial, and industrial waste waters generated within the IEUA service areas. Wastewater can be diverted to different plants via available routing options built into the regional system (see Figure 1 of Attachment C for further detail). After treatment, recycled water can be discharged to nearby outfall(s) or recycled for industrial uses, irrigation and groundwater recharge. The following table summarizes the service areas and the population served by each Facility.

Table 3. Summary of Service Areas & Population Served

Facility	Population Served	Cities/Agency Served
RP-1 & RP-4	602,000	Chino, Fontana, Montclair, Upland, Ontario, and Cucamonga Valley Water District
RP-5	104,000	Chino, Chino Hills, and Ontario; Montclair and Upland via CCWRF
CCWRF	126,400	Chino, Chino Hills, Montclair, and Upland

Attachment B provides a map of the area at each water recycling Facility.

Attachment C provides the IEUA System-Wide influent flow interrelationship diagram, IEUA System-Wide Water Recycling Distribution System and treatment flow schematic for each Facility.

2. Design Characteristics and Biosolids Treatment

The treatment processes at each Facility are tabulated as follows:

Table 4. Plant Treatment Processes

Facility	RP-1	RP-4	RP-5	CCWRF
Preliminary & Primary Treatment	Mechanical bar screens, grit chambers, chemical addition, primary clarifiers, flow equalization /emergency storage basins	Mechanical bar screens, grit chambers, chemical addition, primary clarifiers	Mechanical bar screen, grit chambers, one storage basin (, primary clarifiers	Mechanical bar screen, grit removal, chemical addition, primary clarifiers, emergency storage basin
Secondary Treatment	Aeration trains with oxic/anoxic zones, secondary clarifiers	Aeration basins with oxic /anoxic zones, secondary clarifiers	Aeration basins with anoxic/oxic zones, secondary clarifiers	Aeration basins with anoxic/oxic zones, secondary clarifiers
Tertiary Treatment	Coagulation/Flocculation, sedimentation, filtration, chlorination, dechlorination	Coagulation/Flocculation, filtration, chlorination, de-chlorination (not used), emergency diversion pond	Coagulation/Flocculation, filtration, chlorination, de-chlorination, emergency overflow pond	Coagulation/flocculation, filtration, chlorination, dechlorination
Design Capacity, mgd	44	14	15 (and 1.3 mgd RP-2 sludge treatment system wastewater flows)	11.4
Solids Handling	The solids handling for these facilities takes place at RP-1. RP-4 primary sludge and waste activated sludge are conveyed through the sewer system and enter RP-1 as influent. Solids treatment includes gravity thickener and dissolved air flotation thickeners, anaerobic digestion, digester gas utilization, and belt press dewatering. Belt press wash water is pumped to the DAFT units where the solids can be recovered and the remaining liquid is returned to the activated sludge process.[2] Belt press filtrate is pumped to the Non-Reclaimable Waste System (NRWS) line and is ultimately treated by the County Sanitation Districts of Los Angeles County.		Primary and waste activated sludge wastes from RP-5 and CCWRF are piped to the regional solids handling facility at RP-2 for sludge treatment. The solids treatment system at RP-2 includes gravity thickeners; dissolved air flotation thickeners; anaerobic digestion; aerobic digestion; belt press, and centrifuge dewatering. Dewatered biosolids are hauled away to approved disposal sites Sludge treatment system wastewater from RP-2 is pumped back to headworks of RP-5.	

[2] *IEUA plans to construct a building to house four new centrifuges for dewatering digested sludge. This will replace the belt press dewatering. The tentative project completion and start-up date is 2012.*

3. Recycled Water Uses

The Discharger delivers tertiary treated wastewater through the regional recycled water system at various locations for recycling use. The recycled water is used for landscape irrigation by public and private users, for agricultural irrigation by farmers, for dust control at construction sites and for industrial purposes, including equipment/machinery cooling. Total average flow for recycled water use has increased significantly in recent years, with a peak annual average usage of approximately 20 mgd in 2008. This Order also regulates the recycled water use within the Discharger's service area.

Recycled water from RP-1 and RP- 4 is also used for groundwater recharge in areas overlying the Chino North Groundwater Management Zone. This groundwater recharge is regulated under a separate Order (Order No. R8-2007-0039). Order No. R8-2007-0039 was issued to the Discharger and the Chino Basin Watermaster to regulate the use of recycled water for the Chino Basin Recycled Water Groundwater Recharge Project, Phase I and Phase II. Order No. R8-2009-0021 does not regulate the use of recycled water for groundwater recharge.

B. Discharge Points and Receiving Waters

1. Discharge Points to Surface Water

Tertiary treated wastewater from each of the four Facilities is discharged at different Discharge Points (DPs 001, 002, 003, & 004) to surface waters that include Reaches 1A, 1B and 2 of Chino Creek, Reach 1 of Cucamonga Creek, and Prado Park Lake. These waterbodies are tributary to Reach 3 of the Santa Ana River within the Prado Basin Management Zone.

2. Stormwater Discharge points

Stormwater flows generated on site at RP-1 are collected and pumped to a liquid process stream for treatment. In the event that stormwater flows exceed the capacity to store and/or pump to a liquid process stream, stormwater may enter Reach 1 of Cucamonga Creek via S-001 or S-002.

Stormwater flows generated on site at RP- 4 are fully contained in an onsite, 4 million gallon capacity storage basin. All water captured in this basin is then pumped to a liquid process stream for treatment.

Stormwater flows generated on site at RP-5 and CCWRF plant are collected and pumped to the liquid process stream for treatment.

3. Recycled Water Use Area

Recycled water for irrigation is delivered to IEUA's service area through Discharge Points (DP) 005 through DP 008.

4. Receiving Water

Surface water. Tertiary treated wastewater discharges from the Facilities are either into Reaches 1A, 1B and 2 of Chino Creek, Reach 1 of Cucamonga Creek, and Prado Park Lake, tributaries of Reach 3 of the Santa Ana River within the Prado Basin Management Zone (PBMZ).

Groundwater. The Discharger distributes recycled water throughout its service area. The current recycled water use area overlies the Chino North "Maximum Benefit" Groundwater Management Zone (or Chino 1, 2, and 3 "Antidegradation" groundwater management zones).

There is little or no groundwater storage within the PBMZ.

Table 5 shows a summary of the discharge points, discharge coordinates (longitude and latitude), affected receiving waters, and estimated volume of discharge:

Table 5. Summary of Discharge Points and Receiving Waters

Discharge Point	Latitude	Longitude	Discharging Facility	Effluent Description and Receiving Water	Flow (MGD) & Frequency
001	N33°56'39"	W117°38'34"	RP-1	Tertiary treated effluent into Prado Park Lake. Overflow from the lake to an unnamed creek, then to Reach 1A of Chino Creek, a tributary to Reach 3 of Santa Ana River in Prado Basin	6.6 mgd 3-year average Continuous discharge
002	N34°1'31"	W117°33'56"	RP-1 & RP-4	Reach 1 of Cucamonga Creek, then to Mill Creek, then Reach 1A of Chino Creek, a tributary to Reach 3 of Santa Ana River in Prado Basin	20.6 mgd 3-year average Continuous discharge
003	N33°57'44"	W117°40'41"	RP-5	Reach 1B of Chino Creek, a tributary to Reach 3 of Santa Ana River	10.2 mgd 3-year average Continuous discharge
004	N33°58'56	W117°41'48"	CCWRF	Reach 2 of Chino Creek, a tributary to Reach 3 of Santa Ana River	9.9 mgd 3-year average Continuous discharge

Table 5. Summary of Discharge Points and Receiving Waters					
Discharge Point	Latitude	Longitude	Discharging Facility	Effluent Description and Receiving Water	Flow (MGD) & Frequency
005	N34°01'29"	W117°35'57"	RP-1	Recycled water use in areas overlying Chino North "Max Benefit" GMZ	14.1 mgd 1-year average - intermittent
006	N34°04'59"	W117°31'35"	RP-4	Recycled water use in areas overlying Chino North "Max Benefit" GMZ	3.1 mgd 1-year average (2007) - intermittent
007	N33°57'51"	W117°40'24"	RP-5	Recycled water use in areas overlying Chino North "Max Benefit" GMZ	1.0 MGD 1-year average - intermittent
008	N33°58'47"	W117°41'37"	CCWRF	Recycled water use in areas overlying Chino North "Max Benefit" GMZ	2.8 mgd 1-year average - intermittent
S-001	N34°01'36"	W117°35'59"	RP-1	Stormwater runoff to Reach 1 of Cucamonga Creek	Varies during storm event
S-002	N34°01'28"	W117°35'58"	RP-1	Stormwater runoff to Reach 1 of Cucamonga Creek	Varies during storm event

C. Summary of Previous Requirements and Self-Monitoring Report (SMR) Data

1. Effluent Limitations/Discharge Specifications contained in the previous Order No. R8-2006-0010 for discharges from RP-1 & RP-4 at Discharge Point 001 and DP002 and representative monitoring data from the term of the previous Order are as follows:

Table 6. RP-1 Historic Effluent Limitations and Monitoring Data at M-001A and M-001B

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug. 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Flow (mgd) (Jan 06 to Dec 08)				11.1		11.7	Avg: 6.5
pH Daily Average (SU)			Range 6.5-8.5			Range 6.7-8.4	
BOD5 (mg/L)	20	30		2	3		
Suspended Solids (mg/L)	20	30		2	3		
Coliform Organisms (MPN/100 mL)	23 (1/mo.)	2.2			2		
Ammonia-Nitrogen (mg/L)	4.5			2.9			

Table 6. RP-1 Historic Effluent Limitations and Monitoring Data at M-001A and M-001B

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug. 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Total Residual Chlorine (mg/L)			0.1 Instant. Max			0.0	
TDS (mg/L)	12-M, 550 agency-wide[3]			543			505 combined M-001 and M-002
Total Hardness (mg/L)					5th percentile 123	159	
Toxicity, TUc				1.7 Reproductio n			
TIN[4] (mg/L)	12-M, 8 agency-wide						9.8 Note: combined RP-1 and RP-4
Arsenic(µg/L)				6		6	
Cadmium(µg/L)				<0.25		<0.25	
Total recoverable Chromium (VI) (µg/L)				4.6		4.6	
Copper (µg/L)				7		7	
Free Cyanide (µg/L)[5]	4.2		8.5	24		24	
Lead (µg/L)				<0.5		<0.5	
Mercury (µg/L)				<0.05		<0.05	
Nickel (µg/L)				16		16	
Total recoverable Selenium (µg/L)	4.1		8.2	7		7	
Silver (µg/L)				0.7		0.7	
Zinc (µg/L)				122		122	
Bis(2-Ethylhexyl) Phthalate (µg/L)	5.9		11.8	9		9	
Bromodichloro Methane (µg/L)				34		34	
Chlorodibromo Methane (µg/L)				13		13	

[3] *This limitation may be met on an agency-wide basis using flow weighted averages of the discharges from all treatment plants operated by the Discharger*

[4] *Agency wide, the Discharger currently complies with the total inorganic nitrogen limitations in the Orders for RP-1, RP-4, RP-5 and CCWRF.*

[5] *Prior to January 2008, "Available cyanide" was measured rather than just "Free Cyanide". Available cyanide encompasses weak-acid dissociable cyanide compounds (that can release free cyanide) and free cyanide.*

Table 6. RP-1 Historic Effluent Limitations and Monitoring Data at M-001A and M-001B

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug. 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Turbidity, NTU			2			>2	

Table 7. RP-1 & RP-4 Historic Effluent Limitations and Monitoring Data at M-002A and M-002B

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Flow (mgd) (Jan 06 to Dec 08)				28.5		40.9	Avg: 20.4
pH Daily Average (SU)			Range 6.5-8.5			Range 6.5-8.0	
BOD5 (mg/L)	20	30		2	3		
Suspended Solids (mg/L)	20	30		5	12		
Coliform Organisms (MPN/100 mL)	23 (1/mo.)	2.2	240		2		
Ammonia-Nitrogen (mg/L)	4.5			3.0			
Total Residual Chlorine (mg/L)			0.1 instant. Max			4.8	
TDS (mg/L)	12-M, 550 agency-wide			534			505 Note: combined RP-1 and RP-4
Total Hardness (mg/L)					5^{th} percentile 120	162	
Toxicity, TUc				1.3 Reproduction			
TIN (mg/L)	12-M, 8 agency-wide						9.8 combined M-001 and M-002 only
Arsenic(µg/L)				6		6	
Cadmium(µg/L)				<0.25		<0.25	
Total recoverable Chromium (VI) (µg/L)				4.3		4.3	
Copper (µg/L)				8		8	
Free Cyanide (µg/L)[6]	4.2		8.5	15		15	
Lead (µg/L)				5		5	
Mercury (µg/L)				<0.05		<0.05	
Nickel (µg/L)				4		4	

[6] *Prior to January 2008, "Available" cyanide was measured rather than "Free Cyanide".*

Table 7. RP-1 & RP-4 Historic Effluent Limitations and Monitoring Data at M-002A and M-002B

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Total recoverable Selenium (µg/L)	4.1		8.2	8		8	
Silver (µg/L)				0.37		0.37	
Zinc (µg/L)				59		59	
Bis(2-Ethylhexyl) Phthalate (µg/L)	5.9		11.8	7		7	
Bromodichloro Methane (µg/L)				31		31	
Chlorodibromo Methane (µg/L)				13		13	

2. Effluent limitations/Discharge Specifications contained in the previous Order No. R8-2008-0028 for discharges from RP-5 at discharge Point 003 and representative monitoring data from the term of the previous Order are as follows:

Table 8. RP-5 Historic Effluent Limitations and Monitoring Data at M-003

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Flow (mgd) (Jan 06 to Dec 08)				13.0		15.4	Avg: 10.3
pH Daily Average (SU)			Range 6.5-8.5			Range 6.5-8.1	
BOD5 (mg/L)	20	30		<2	<3		
Suspended Solids (mg/L)	20	30		4	7		
Coliform Organisms (MPN/100 mL)	23 (1/mo.)	2.2	240		2		
Ammonia-Nitrogen (mg/L)	4.5			0.4			
Total Residual Chlorine (mg/L)			0.1 Instant. Max.			0.0	
TDS (mg/L)	12-M, 550 agency-wide			557			533
Total Hardness (mg/L)					5^{th} percentile 148	215	
Toxicity, TUc				>1.7 Reproduction			
TIN (mg/L)	12-M, 8 agency-wide						6.5
Arsenic (µg/L)				7		7	
Cadmium (µg/L)				1.7		1.7	

Table 8. RP-5 Historic Effluent Limitations and Monitoring Data at M-003

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Total recoverable Chromium (VI) (µg/L)				9		9	
Copper (µg/L)				13		13	
Free Cyanide (µg/L) [7]	4.6		7.3	8		8	
Lead (µg/L)				3		3	
Mercury (µg/L)				<0.05		<0.05	
Nickel (µg/L)				7		7	
Total recoverable Selenium (µg/L)				3		3	
Silver (µg/L)				0.5		0.5	
Zinc (µg/L)				69		69	
Bis(2-Ethylhexyl) Phthalate (µg/L)				3		3	
Bromodichloro Methane (µg/L)				48		48	
Chlorodibromo Methane (µg/L)				21		21	
2,3,7,8-TCDD (Dioxin), (µg/L)						0.0000035	

3. Effluent limitations/Discharge Specifications contained in the previous Order No. R8-2004-0020 for discharges from CCWRF at Discharge Point 004 and representative monitoring data from the term of the previous Order are as follows:

Table 9. CCWRF Historic Effluent Limitations and Monitoring Data at M-004

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Flow (mgd) (Jan 06 to Dec 08)	11.4			10.0		13.2	Avg: 6.9
pH Daily Average (SU)			Range 6.5-8.5			Range 6.6-7.7	
BOD5 (mg/L)	20	30		2	3		
Suspended Solids (mg/L)	20	30		2	8		
Coliform Organisms (MPN/100 mL)	23 (1/mo.)	2.2	240		2		
Ammonia-Nitrogen (mg/L)	4.5			0.2			

[7] *Prior to January 2008, "Available cyanide" was measured rather than "Free Cyanide".*

Table 9. CCWRF Historic Effluent Limitations and Monitoring Data at M-004

Parameter (units)	Effluent Limitation			Monitoring Data (From Aug 2004 to December 2008)			
	Average Monthly	Average Weekly	Maximum Daily	Highest Average Monthly Discharge	Highest Average Weekly Discharge	Highest Daily Discharge	Highest 12-Month Average
Total Residual Chlorine (mg/L)			0.1 instant. Max			0.0	
TDS (mg/L)	12M, 550 agency-wide			554			537
Total Hardness (mg/L)					5th percentile 130		
Toxicity, TUc				1.7 Reproduction			
TIN (mg/L)	12M, 8						7.5
Arsenic(µg/L)				7		7	
Cadmium(µg/L)				<0.25		<0.25	
Total recoverable Chromium (VI) (µg/L)	8.2		16.3	4.1		4.1	
Copper (µg/L)				12		12	
Free Cyanide (µg/L)[8]	4.1		8.2	8		8	
Lead (µg/L)				0.5		0.5	
Mercury (µg/L)				<0.05		<0.05	
Nickel (µg/L)				20		20	
Total recoverable Selenium (µg/L)	4.1		8.2	<2		<2	
Silver (µg/L)				0.9		0.9	
Zinc (µg/L)				57		57	
Bis(2-Ethylhexyl) Phthalate(µg/L)	5.9		11.8	25		25	
Bromodichloro Methane (µg/L)				33		33	
Chlorodibromo Methane (µg/L)				10		10	
2,3,7,8-TCDD (Dioxin) (µg/L)						0.00000026	

D. Compliance Summary

Based on a review of effluent monitoring data submitted by the Discharger for the period from 2004 through 2008, the following Table shows the compliance summary for each Facility:

[8] *Prior to January 2008, "Available cyanide" was measured rather than Free Cyanide.*

Table 10. Compliance Status RP-1, RP-5 and CCWRF

Date	Plant	Parameter	Value	Permit Limit	Reason for Violation	Corrective Measures
01/02/04	RP-1 (001)	Chlorine Residual	4.6 mg/L	0.1mg/L	Sodium Bisulfite (SBS) crystallized due to low temps	Heat tape installed to the SBS piping distribution system to prevent crystallization of SBS in the line
10/17/04	RP-1 (001)	Chlorine Residual	6.5 mg/L	0.1mg/L or not exceed 5 mg/L	Dechlor Station power failure	Monthly standby generator testing and automated V-1 valve closure
03/14/05	RP-1 (001)	Turbidity	>2 NTU	2 NTU	Plant upset, unstable activated sludge system , and one activated sludge train was in repair	Placed train back into service, reseeded one activated sludge system, polymer addition, chlorinated RAS.
03/14/05 - 03/16/05	RP-1 (002)	Turbidity	>2 NTU	2 NTU, 5 NTU 5%		
07/24/06	RP-1 (002)	Chlorine Residual	4.8 mg/L	0.1mg/L	Stage 2 Power Alert. Standby generator at pump stations and Dechlor stn power failure	Preventative maintenance procedures reviewed, revised, and implemented.
10/01/06	RP-1 (002)	Coliform	900 MPN/100 mL	240 MPN/ 100mL	Sample contamination	Staff retrained in sample collection and handling techniques
09/05/07	RP-1 (001)	Coliform	500 MPN/100 mL	240 MPN/ 100mL	Sample contamination	Staff retrained in sample collection and handling techniques
11/22/07	RP-1 (002)	Coliform	>1600 MPN/100 mL	240 MPN/ 100mL	Metal tip at sampling point contaminated sample	Discontinued use of metal tip at sampling point
03/06/07	CCWRF	Bis(2-ethylhexyl phthalate	25 µg/L	5.9 µg/L avg; 11.8 µg/L max	Sample contamination	Compound commonly used in the manufacturing of plastics. Influent concentration was “non-detect”
01/04/05	RP-5	Chlorine Residual	5.29 mg/L	0.1mg/L or not exceed 5 mg/L	Sodium Bisulfite (SBS) crystallized due to low temps	Heat tape installed to the SBS piping distribution system to prevent crystallization of SBS in the line.
01/09/05	RP-5	Chlorine Residual	>5.0 mg/L	0.1mg/L or not exceed 5 mg/L	Control analyzer failure	Allow effluent gate to close automatically as designed.

E. Planned Changes – Not Applicable

III. APPLICABLE PLANS, POLICIES, AND REGULATIONS

A. Legal Authorities

This Order is issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the U.S. Environmental Protection Agency (USEPA) and Chapter 5.5, Division 7 of the California Water Code (commencing with Section 13370). It shall serve as a NPDES permit for point source discharges from the Regional Water Recycling Facilities to surface waters. This Order also serves as Waste Discharge Requirements (WDRs) pursuant to article 4, Chapter 4, Division 7 of the Water Code (commencing with Section 13260). This Order also includes Producer/User Recycling Requirements to regulate recycled water use for irrigation and other industrial uses.

B. California Environmental Quality Act (CEQA)

Under Water Code section 13389, this action to adopt an NPDES permit is exempt from the provisions of CEQA, Public Resources Code section 21000 et seq. (*County of Los Angeles v. California State Water Resources Control Board* (2006) 143 Cal.App.4th 985, mod. (Nov. 6, 2006, B184034) 50 Cal.Rptr.3d 619, 632-636.)

This action also involves the re-issuance of waste discharge requirements for an existing Facility that discharges treated wastewater to land and as such, is exempt from the provisions of California Environmental Quality Act (commencing with Section 21100) in that the activity is exempt pursuant to Title 14 of the California Code of Regulations Section 15301.

C. State and Federal Regulations, Policies, and Plans

1. **Water Quality Control Plans.** The Regional Water Board adopted an updated Water Quality Control Plan for the Santa Ana Basin (hereinafter Basin Plan) that became effective on January 24, 1995. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters addressed through the plan. In addition, State Water Resources Control Board (State Water Board) Resolution No. 88-63 (Sources of Drinking Water Policy) requires that, with certain exceptions, the Regional Water Board assign the municipal and domestic water supply use to water bodies. Based on the exception criteria specified in Resolution No. 88-63, the Regional Water Board excepted certain waters from the municipal and domestic supply beneficial use.

   On January 22, 2004, the Regional Water Board adopted Resolution No. R8-2004-0001, amending the Basin Plan to incorporate revised boundaries for groundwater subbasins, now termed “management zones”, new nitrate-nitrogen and TDS objectives for the new management zones, and new nitrogen and TDS management strategies applicable to both surface and ground waters. The State Water Board and Office of Administrative Law (OAL) approved the N/TDS

Amendment on September 30, 2004 and December 23, 2004, respectively. EPA approved the surface water standards components of the N/TDS Amendment on June 20, 2007. Effluent limitations in this Order for TDS and TIN discharges to Chino Creek, Reach 1 of Cucamonga Creek, Prado Park Lake, and Reach 3 of the Santa Ana River are based on applicable wasteload allocations specified in the Basin Plan as amended.

The designated beneficial uses of receiving waters affected by the discharge from the Facility are as follows:

Table 11. Basin Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001	Prado Park Lake, overflow from the lake to an unnamed creek, then to Reach 1A of Chino Creek	Present or Potential: Water contact recreation (REC-1), non-contact water recreation (REC-2), warm freshwater habitat, wildlife habitat (WILD), and rare, threatened and endangered species. Recreational use at Prado Park Lake is restricted to fishing and boating. Excepted from Municipal and Domestic Supply.
002	Reach 1 of Cucamonga Creek, to Mill Creek, then Reach 1A of Chino Creek	Present or Potential: Groundwater Recharge, Water contact recreation (REC-1), non-contact water recreation (REC-2), Limited warm freshwater habitat, and wildlife habitat (WILD). Excepted from Municipal and Domestic Supply.
003	Reach 1B of Chino Creek	Present or Potential: Water contact recreation (REC-1), non-contact water recreation (REC-2), warm freshwater habitat, wildlife habitat (WILD), and rare, threatened and endangered species. Excepted from Municipal and Domestic Supply.
004	Reach 2 of Chino Creek	Present or Potential: Groundwater Recharge, Water contact recreation (REC-1), non-contact water recreation (REC-2), Cold freshwater habitat, and wildlife habitat (WILD). Excepted from Municipal and Domestic Supply.
001, 002, 003, 004, S-001, & S-002	Reach 3 of Santa Ana River within Prado Basin Management Zone	Present or Potential: Agricultural supply, groundwater recharge, water contact recreation, non-contact water recreation, warm freshwater habitat, wildlife habitat, rare, threatened or endangered species, and spawning, reproduction, and development waters supporting high quality aquatic habitats. Excepted from Municipal and Domestic Supply.

Table 11. Basin Plan Beneficial Uses

Discharge Point	Receiving Water	Beneficial Uses
001, 002, 003, 004, 005, 006, 007, 008, S-001, & S-002	Chino North "Max Benefit" GMZ / Chino 1, 2 and 3 "antidegradation" GMZs	Present or Potential: Municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.
	Orange GMZ (affected GMZ downstream of discharge points)	Present or Potential: Municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

Requirements of this Order implement the Basin Plan.

2. **National Toxics Rule (NTR) and California Toxics Rule (CTR).** USEPA adopted the NTR on December 22, 1992, and later amended it on May 4, 1995 and November 9, 1999. About forty criteria in the NTR applied in California. On May 18, 2000, USEPA adopted the CTR. The CTR promulgated new toxics criteria for California and, in addition, incorporated the previously adopted NTR criteria that were applicable in the state. The CTR was amended on February 13, 2001. These rules contain water quality criteria for priority pollutants.

3. **State Implementation Policy.** On March 2, 2000, the State Water Board adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (State Implementation Policy or SIP). The SIP became effective on April 28, 2000 with respect to the priority pollutant criteria promulgated for California by the USEPA through the NTR and to the priority pollutant objectives established by the Regional Water Board in the Basin Plan. The SIP became effective on May 18, 2000 with respect to the priority pollutant criteria promulgated by the USEPA through the CTR. The State Water Board adopted amendments to the SIP on February 24, 2005 that became effective on July 13, 2005. The SIP establishes implementation provisions for priority pollutant criteria and objectives and provisions for chronic toxicity control. Requirements of this Order implement the SIP.

4. **Alaska Rule.** On March 30, 2000, USEPA revised its regulation that specifies when new and revised state and tribal water quality standards (WQS) become effective for CWA purposes (40 C.F.R. § 131.21, 65 Fed. Reg. 24641 (April 27, 2000)). Under the revised regulation (also known as the Alaska rule), new and revised standards submitted to USEPA after May 30, 2000, must be approved by USEPA before being used for CWA purposes. The final rule also provides that standards already in effect and submitted to USEPA by May 30, 2000, may be used for CWA purposes, whether or not approved by USEPA.

5. **Antidegradation Policy.** 40 CFR § 131.12 requires that the state water quality standards include an antidegradation policy consistent with the federal policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16. Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the State and federal antidegradation policies. As discussed in Section IV. E. 2 of this Fact Sheet, the permitted discharges are consistent with the antidegradation provisions of § 131.12 and State Water Board Resolution No. 68-16.

6. **Anti-Backsliding Requirements.** Sections 402(o)(2) and 303(d)(4) of the CWA and federal regulations at title 40, Code of Federal Regulations[9] section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require that effluent limitations in a reissued permit must be as stringent as those in the previous permit, with some exceptions in which limitations may be relaxed. All effluent limitations in the Order are at least as stringent as the effluent limitations in the previous Orders for each Facility.

7. **Monitoring and Reporting Requirements.** Section 122.48 of 40 CFR requires that all NPDES permits specify requirements for recording and reporting monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Board to require technical and monitoring reports. The Monitoring and Reporting Program (MRP) establishes monitoring and reporting requirements to implement federal and State requirements. This MRP is provided in Attachment E.

D. Impaired Water Bodies on CWA 303(d) List

Reach 1 of Chino Creek, Mill Creek (Prado Area) and Prado Park Lake are included in the USEPA approved 2006 CWA 303(d) list due to nutrients resulting principally from agricultural and dairy operations inputs during storm events. Reaches 1 & 2 of Mill Creek are also listed due to pathogen indicators, also resulting principally from dairy operations inputs during storm events. This Order requires that the wastewater discharged from the Facilities be essentially free of pathogens/pathogen indicators and that the wastewaters comply with the applicable Basin Plan wasteload allocation for total inorganic nitrogen (8 mg/L) for surface water discharges.

E. Other Plans, Polices and Regulations-Not Applicable

[9] *All further statutory references are to title 40 of the Code of Federal Regulations unless otherwise indicated.*

IV. RATIONALE FOR EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

The CWA requires point source Dischargers to control the amount of conventional, non-conventional, and toxic pollutants that are discharged into the waters of the United States. The control of pollutants discharged is established through effluent limitations and other requirements in NPDES permits. There are two principal bases for effluent limitations in the Code of Federal Regulations: section 122.44(a) requires that permits include applicable technology-based limitations and standards; and section 122.44(d) requires that permits include water quality-based effluent limitations to attain and maintain applicable numeric and narrative water quality criteria to protect the beneficial uses of the receiving water

A. Discharge Prohibitions

The discharge prohibitions are based on the Federal Clean Water Act, Basin Plan, State Water Board's plans and policies, U.S. Environmental Protection Agency guidance and regulations, and previous permit provisions in Orders No. R8-2006-0010, R8-2008-0028, and R8-2004-0020 and are consistent with the requirements set for other discharges regulated by NPDES permits adopted by the Regional Water Board.

B. Technology-Based Effluent Limitations

1. Scope and Authority

Section 301(b) of the CWA and implementing USEPA permit regulations at section 122.44, title 40 of the Code of Federal Regulations, require that permits include conditions meeting applicable technology-based requirements at a minimum, and any more stringent effluent limitations necessary to meet applicable water quality standards. The discharge authorized by this Order must meet minimum federal technology-based requirements based on Secondary Treatment Standards at Part 133 and/or Best Professional Judgment (BPJ) in accordance with Part 125, section 125.3.

Regulations promulgated in 40 CFR §125.3(a)(1) require technology-based effluent limitations for municipal dischargers to be placed in waste discharge requirements based on Secondary Treatment Standards or Equivalent to Secondary Treatment Standards.

The Federal Water Pollution Control Act Amendments of 1972 (PL 92-500) established the minimum performance requirements for POTWs [defined in Section 304(d)(1)]. Section 301(b)(1)(B) of that Act requires that such treatment works must, as a minimum, meet effluent limitations based on secondary treatment as defined by the USEPA Administrator.

Based on this statutory requirement, USEPA developed secondary treatment regulations, which are specified in 40 CFR Part 133. These technology-based regulations apply to all municipal wastewater treatment plants and identify the minimum level of effluent quality attainable by secondary treatment in terms of biochemical oxygen demand (BOD_5), total suspended solids (TSS), and pH.

2. Applicable Technology-Based Effluent Limitations for 20:1 dilution

This Facility meets the technology-based regulations for the minimum level of effluent quality attainable by secondary treatment in terms of BOD_5, total suspended solids and removal rate as summarized in the Table below. These effluent limitations have been set for secondary treated wastewater discharges at Discharge Points (DPs) 002, 003, and 004 under 20:1 dilution conditions.

Table 12. Summary of Technology-Based Effluent Limits for Secondary Treatment

Constituent	Average Weekly (mg/L)	Average Monthly (mg/L)	Average Monthly Removal Rate %
Biochemical Oxygen Demand, 5-day 20^0C	45	30	85
Total Suspended Solids	45	30	85

DP 001 discharges to Prado Park Lake. This lake is a property of the County of San Bernardino. The County and the Discharger agreed that the Discharger will provide up to 6.6 mgd of tertiary treated recycled water to the lake for recreation and fishing. There are no other discharges into the lake except stormwater from the tributary drainage area. Overflow from this lake discharges continuously to an unnamed creek, then to Reach 1A of Chino Creek. Consequently, discharges of secondary treated wastewater under 20:1 dilution condition into the lake is not allowed.

C. WQBEL-Based Effluent Limitations for DP 001 through DP 004

1. Scope and Authority

Section 301(b) of the CWA and section 122.44(d) require that permits include limitations more stringent than applicable federal technology-based requirements where necessary to achieve applicable water quality standards.

Section 122.44(d)(1)(i) mandates that permits include effluent limitations for all pollutants that are or may be discharged at levels that have the reasonable potential to cause or contribute to an exceedance of a water quality standard, including numeric and narrative objectives within a standard. Where reasonable potential has been established for a pollutant, but there is no numeric criterion or objective for the

pollutant, water quality-based effluent limitations (WQBELs) must be established using: (1) USEPA criteria guidance under CWA section 304(a), supplemented where necessary by other relevant information; (2) an indicator parameter for the pollutant of concern; or (3) a calculated numeric water quality criterion, such as a proposed state criterion or policy interpreting the state's narrative criterion, supplemented with other relevant information, as provided in section 122.44(d)(1)(vi).

The process for determining reasonable potential and calculating WQBELs when necessary is intended to protect the designated uses of the receiving water as specified in the Basin Plan, and achieve applicable water quality objectives and criteria that are contained in other state plans and policies, or any applicable water quality criteria contained in the CTR and NTR.

2. Applicable Beneficial Uses and Water Quality Criteria and Objectives

a. The Basin Plan specifies narrative and numeric water quality objectives applicable to surface water as follows.

Table 13. Applicable Basin Plan Surface Water Quality Objectives

Constituents	Basis for Limitations
Ammonia Nitrogen	Dissociates under certain conditions to the toxic un-ionized form. Thus, nitrogen discharges to surface water pose a threat to aquatic life and instream beneficial uses, as well as to the beneficial uses of affected groundwater. The Basin Plan specifies total ammonia and un-ionized ammonia objectives and an effluent limit of 4.5 mg/L for discharges to surface waters--Chino Creek and Mill Creek.
Hydrogen Ion (pH)	Hydrogen Ion (pH) is a measure of Hydrogen Ion concentration in the water. A pH range of 6.5 to 8.5 for surface water discharges is specified.
Oil & Grease	Oil and related materials have a high surface tension and are not soluble in water, resulting in odors and visual impacts.
Total Dissolved Solids	High levels of TDS can adversely impact groundwater affected by recharge of the affected receiving waters, as well as the use of that groundwater for supply purposes. The TDS limit for surface water discharges is based on the amended Basin Plan wasteload allocation for the discharger of 550 mg/L[10] and 80 mgd flow.
Total Inorganic Nitrogen	Nitrogen discharges to the Santa Ana River pose a threat to aquatic life and instream beneficial uses, as well as to the beneficial uses of affected groundwater. The TIN limit for surface water discharges is based on the amended Basin Plan wasteload allocation of 8.0 mg/L and 80 mgd flow .
Total Chlorine Residual	Wastewater disinfection with chlorine usually produces chlorine residual. Chlorine and its reaction products are toxic to aquatic life. To protect aquatic life, the chlorine residual in wastewater discharged to inland surface waters shall not exceed 0.1 mg/L.

10 *The Basin Plan specifies in Table 5-5 that TDS and TIN discharges to surface waters from the Discharger's wastewater treatment facilities are to be regulated pursuant to a single wasteload allocation, applied as a flow-weighted average of the discharges from the facilities. The TDS and TIN wasteload allocations are not contingent on "maximum benefit" objectives or implementation.*

(1) TDS and TIN: TDS and TIN limitations are specified in the Order for discharges of tertiary treated effluent at DPs 001, 002, 003, and 004. These TDS/TIN limits are based on the waste load allocation specified in Table 5-5 of the amended Basin Plan.

(2) TDS: This Order also includes a TDS limit based on the flow weighted running average quality of the water supplied to the service area plus a reasonable use increment of 250 mg/L. This reasonable use increment addition is discussed and authorized in the Basin Plan.

(3) For surface water discharges, the more restrictive of the TDS limit based on the wasteload allocation or the TDS limit based on water supply quality plus the reasonable use increment applies to discharges from the Facilities.

(4) In accordance with 40 CFR Section 122.45(d), there may be instances in which the basis for a limit for a particular continuous discharge may be impracticable to be stated as a maximum daily, average weekly, or average monthly effluent limitation. The Regional Water Board has determined that it is not practicable to express TDS and TIN effluent limitations as average weekly and average monthly effluent limitations because the TDS and TIN objectives in the Basin Plan were established primarily to protect the underlying groundwater. Consequently, a 12-month average period is more appropriate.

b. NTR, CTR and SIP. The National Toxics Rule, California Toxics Rule (CTR) and State Implementation Policy specify numeric objectives for toxic substances and the procedures whereby these objectives are to be implemented. The procedures include those used to conduct reasonable potential analysis to determine the need for effluent limitations for priority and non-priority pollutants.

c. Requirement to meet 2.2 total coliform bacteria limit in the effluent. Article 3, Section 60305 of Title 22, Chapter 3, "Use of Recycled water for impoundments" of the California Code of Regulations specifies that recycled water used as a source of supply in a nonrestricted recreational impoundment shall be at all times an adequately disinfected, oxidized, coagulated, clarified, filtered wastewater (tertiary treated). The degree of treatment specified represents an approximately 5-log reduction in the virus content of the water. The California State Department of Public Health (CDPH) has determined that this degree of virus removal is necessary to protect the health of people using these impoundments for water contact recreation. The CDPH has developed wastewater disinfection guidelines ("Wastewater Disinfection for Health Protection", Department of Health Services, Sanitary Engineering Branch, February 1987) for discharges of wastewater to surface waters where water contact recreation (REC-1) is a beneficial use. The disinfection guidelines recommend the same treatment requirements for wastewater discharges to REC-1 waters as those stipulated in Title 22 for supply of recycled water to nonrestricted recreational impoundments, since the public health risks under both

scenarios are analogous. The disinfection guidelines are based on sound science and are widely used as guidance to assure public health and beneficial use protection.

None of the surface waters to which the discharges regulated under this Order occur are considered to be "nonrestricted recreational impoundments", nor is "recycled water[11]" being used as a supply source pursuant to the definitions in Title 22. However, to protect the water contact recreation beneficial use and to prevent nuisance and health risk, it is necessary and appropriate to require the same degree of treatment for wastewater discharges to the affected waterbodies as would be required for the use of recycled water in a nonrestricted recreational impoundment. Thus, this Order specifies requirements based on tertiary or equivalent treatment.

d. Requirement to meet disinfection CT limit in the effluent. The Board has consulted with the CDPH regarding the applicability of the process design standards (specifically filter rates, CT, and modal contact) for discharges of waste to flowing streams. CDPH has determined that although compliance with these standards is necessary to protect public health when recycled water is used, compliance with these standards is not necessary to protect public health for discharges into waterbodies that provide dilution of the wastewater, provided the performance standards are consistently met. During periods when the receiving water can provide a 1:1 dilution of the wastewater discharge, the Order provides that the specified filter rates, CT, and modal contact time do not apply to wastewater discharges to surface water. The specified filter rates, CT, and modal contact time applies to recycled water use.

3. Determining the Need for WQBELs

In accordance with Section 1.3 of the SIP, the Regional Water Board conducted a reasonable potential analysis (RPA) for each priority pollutant with an applicable criterion or objective to determine if a WQBEL is required in the Order. The Regional Water Board analyzed effluent data to determine if a pollutant in a discharge has the reasonable potential to cause or contribute to an excursion above a state water quality standard. For all parameters that have the reasonable potential to cause or contribute to an excursion above a water quality standard, numeric WQBELs are required. The RPA considers criteria from the CTR, and when applicable, water quality objectives specified in the Basin Plan. For hardness dependent metals, a fixed hardness value for each outfall, based on the lowest 5th percentile of effluent hardness measurements from each plant, is used to facilitate the determination of compliance. The decision to use the 5th percentile of effluent hardness measurements is based on previous practice resulting from the Santa Ana River Use Attainability Analysis conducted in 1994 and a 2008 special study conducted by the State Water Board staff.

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11 *As defined in the Reclamation Criteria, recycled water means water which, as a result of treatment of domestic wastewater, is suitable for a direct beneficial use or a controlled use that would not otherwise occur.*

Sufficient data are needed to conduct a complete RPA. If data are not sufficient, the Discharger will be required to gather the appropriate data for the Regional Water Board to conduct the RPA. Upon review of the data, and if the Regional Water Board determines that WQBELs are needed to protect the beneficial uses, the permit will be reopened for appropriate modification.

The RPA was performed by reviewing the data provided by the Discharger in accordance with the SIP. Total recoverable selenium, and bis(2-ethylhexyl) phthalate were determined to have reasonable potential to cause an excursion above applicable pollutant criteria or objectives for discharges at DP 001 and DP 002. For discharges at DP 003, cyanide, selenium, bis(2-ethylhexyl) phthalate, and Bromodichloromethane were determined to have reasonable potential to cause an excursion above applicable pollutant criteria or objectives. For discharges at DP 004, bis(2-ethylhexyl) phthalate was determined to have reasonable potential to cause an excursion above applicable pollutant criteria or objectives. For CCWRF, the RPA also determined that total recoverable chromium (VI) does not have the reasonable potential to cause an excursion above applicable pollutant criteria or objectives. Consequently, effluent limitations for this constituent are not included in this Order.

The December 2007 monitoring data for 2,3,7,8-TCDD (Dioxin) at DP 003 and DP 004 showed one detected value each at 0.0000035 µg/L and 0.00000026 µg/L, respectively. These values are above the water quality criteria for Dioxin. However, the prior monitoring results before detection showed non-detect values and subsequent to detection, three monitoring data for each outfall also showed non-detect values. Considering the previous and subsequent monitoring results, it is determined that there is no reasonable potential for Dioxin to exceed applicable pollutant criteria. Consequently, no effluent limitation for Dioxin is included in the Order. However, the Order requires the Discharger to conduct quarterly monitoring for Dioxin for one year. The monitoring frequency is reduced to semi-annual if quarterly monitoring results show non-detect values at acceptable reporting levels.

For free cyanide, the RPA was based on the previous RPA that was done for each facility because the EPA approved test method for free cyanide is in question and the Discharger is using a test method that is currently being verified for accuracy and repeatability. This test method will be submitted to EPA for approval. Meanwhile, this Order retains the current effluent limits for free cyanide for RP-1, RP-4, RP-5 and CCWRF.

The following tables show the RPA study results for each Facility. Effluent limitations are established in this Order for those parameters with “yes” in the RPA column of the tables.

Table 14. RP-1 - Comparing DP 001 Effluent Data with WQOs

Parameter	unit	Effluent MEC[12]	CTR-Fresh water			Basin Plan	RPA
		Fresh water	CMC/CCC	WQO	Human Health Organisms Only	WQO	
Cyanide, Free	µg/L	24	22/5.2				yes
Bis(2-ethylhexyl) Phthalate	µg/L	9			5.9		yes
Total recoverable selenium	µg/L	7.0	0/5.0				yes

*: 5th percentile of effluent hardness of 124 mg/l is used to calculate metals criteria with hardness related.

Table 15. RP-1 & RP-4 - Comparing DP 001 & DP 002 Effluent Data with WQOs

Parameter	unit	Effluent MEC	CTR-Fresh water			Basin Plan	RPA
		Fresh water	CMC/CCC	WQO	Human Health	WQO	
Cyanide, Free	µg/L	15	22/5.2				yes
Bis(2-ethylhexyl) Phthalate	µg/L	7			5.9		yes
Total recoverable selenium	µg/L	8.0	0/5.0				yes

*: 5th percentile of effluent hardness of 122 mg/l is used to calculate metals criteria with hardness related.

Table 16. RP-5 - Comparing DP 003 Effluent Data with WQOs

Parameter	unit	Effluent MEC	CTR-Fresh water			Basin Plan	RPA
		Fresh water	CMC/CCC	WQO	Human Health	WQO	
Cyanide, Free	µg/L	8	22/5.2				yes
Bis(2-ethylhexyl) Phthalate	µg/L	4			5.9		no
Total recoverable Selenium	µg/L	3	0/5.0				No
2,3,7,8-TCDD (Dioxin)	µg/L	0.0000035			0.000000014		No, see Section IV.C.3., above
Bromodichloromethane	µg/L	48			46		yes

*: 5th percentile of effluent hardness of 148 mg/l is used to calculate metals criteria with hardness related.

[12] *MEC, CMC, CCC are defined in Attachment A.*

Table 17. CCWRF - Comparing DP 004 Effluent Data with WQOs

Parameter	unit	Effluent MEC	CTR-Fresh water			Basin Plan	RPA
		Fresh water	CMC/CCC	WQO	Human Health	WQO	
Cyanide, Free	µg/L	8	22/5.2				yes
Bis(2-ethylhexyl) Phthalate	µg/L	25			5.9		yes
Total recoverable chromium (VI)	µg/L	4.1	16/11				No
Total recoverable Selenium	µg/L	<2	0/5.0				No
2,3,7,8-TCDD (Dioxin)	µg/L	0.00000026			0.000000014		No, see Section IV.C.3., above

*: 5th percentile of effluent hardness of 130 mg/l is used to calculate metals criteria with hardness related.

4. WQBEL Calculations

No mixing zone allowance is included in the calculation of effluent limits in this Order. Consequently, compliance with the effluent limits is required to be determined at the end of the discharge pipe for freshwater discharge.

a. For priority pollutants, water quality based effluent limits based on monitoring results and the calculation process outlined in Section 1.4 of the California Toxic Rule and the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California are summarized in the following Tables 19, 20 and 21. The criteria calculation is based on CTR criteria for freshwater.

The calculated coefficients of variation (CVs) for data sets of total recoverable selenium and cyanide are based on standard deviation, number of samples and mean of the data set.

This Order retains the free cyanide limits in the prior permits. The following table shows the free cyanide limits.

Table 18. Cyanide Limits in prior Orders

Discharge Point	Order	Facility	Effluent Limitations, µg/L	
			Average Monthly	Maximum Daily
DP 001&DP 002	R8-2006-0010	RP-1/RP-4	4.2	8.5
DP 003	R8-2008-0028	RP-5	4.6	7.3
DP 004	R8-2004-0020	CCWRF	4.3	8.5

Table 19. Calculation of Effluent Limits at DP 001 and DP002

				CV = 0.6, long-term average			Aquatic Life		Human		Permit Limit	
	CTR Criteria			Acute M	Chronic M	LTA	Objective/limits		Health Limits		Concentration Limit	
	Fresh water		Human Health	0.321	0.527		**3.11**	**1.55**	**2.01**			
Constituent	CMC	CCC		Acute LTA	Chronic LTA		MDEL	AMEL	MDEL	AMEL	MDEL	AMEL
Bis(2-ethylhexyl) Phthalate			5.9						11.9	5.9	**11.9**	**5.9**
Total recoverable selenium		5.0			2.6	***2.6***	8.2	4.1			**8.2**	**4.1**

Table 20. Calculation of Effluent Limits at DP 003

Bromodichloromethane			46						92.5	46.0	**92**	**46**

Table 21. Calculation of Effluent Limits at DP 004

Constituent	CMC	CCC		Acute LTA	Chronic LTA		MDEL	AMEL	MDEL	AMEL	MDEL	AMEL
Bis(2-ethylhexyl) Phthalate			5.9						11.9	5.9	**11.9**	**5.9**

5. Whole Effluent Toxicity (WET)

This Order does not specify WET limits but requires chronic toxicity monitoring. This Order, as in the previous Orders, also requires the Discharger to conduct the accelerated monitoring as specified in Attachment E when the result of any single chronic toxicity test of the effluent exceeds 1.0 TUc. The monitoring data for all the Facilities during the past three years (2005-2008) indicated that the monthly trigger of 1 TUc has not been exceeded.

D. BPJ - Based Effluent Specifications for DP 001 through DP 004

For tertiary treated wastewater, the BOD_5 and TSS concentration limits are based on Best Professional Judgment. The technology-based secondary treatment standards specify BOD_5 and TSS concentration limits that are less stringent.

Table 22. Tertiary Effluent BOD_5 and TSS Limits

Constituent	Average Weekly	Average Monthly
Biochemical Oxygen Demand	30 mg/L	20 mg/L
Suspended Solids	30 mg/L	20 mg/L

E. Summary of Final Effluent Limitations

1. Satisfaction of Anti-Backsliding Requirements

All effluent limitations in this Order are at least as stringent as the effluent limitations in previous Orders.

2. Satisfaction of Antidegradation Policy

The discharges addressed in this Order are existing discharges regulated under waste discharge requirements issued for each of the Facilities. This Order consolidates those requirements. The effluent limitations in this Order are at least as stringent as those specified in the prior individual waste discharge requirements. No increases in the regulated discharge flows are proposed. Therefore, discharges conducted in conformance with the requirements of this Order will not result in a lowering of water quality. The discharges therefore conform to antidegradation requirements specified in Resolution No. 68-16, which incorporates the federal antidegradation policy at 40 CFR 131.12 where, as here, is it applicable.

3. Stringency of Requirements for Individual Pollutants

Water quality-based effluent limitations have been scientifically derived to implement water quality objectives that protect beneficial uses. Both the beneficial uses and the water quality objectives have been approved pursuant to federal law and are the applicable federal water quality standards. To the extent that toxic pollutant water quality-based effluent limitations were derived from the CTR, the CTR is the applicable standard pursuant to section 131.38. The scientific procedures for calculating the individual water quality-based effluent limitations for priority pollutants are based on the CTR-SIP, which was approved by USEPA on May 18, 2000. Apart from certain surface water standards changes resulting from the N/TDS Basin Plan amendment that do not materially affect the quality requirements for the discharges regulated by this Order, all beneficial uses and water quality objectives contained in the Basin Plan were approved under state law and submitted to and approved by USEPA prior to May 30, 2000. Any water quality objectives and beneficial uses submitted to USEPA prior to May 30, 2000, but not approved by USEPA before that date, are nonetheless "applicable water quality standards for purposes of the CWA" pursuant to section 131.21(c)(1). Collectively, this Order's restrictions on individual pollutants are no more stringent than required to implement the requirements of the CWA.

4. Summary of Final Effluent Limitations

Table 23. Summary of Water Quality-Based Effluent Limits at all DPs

Parameter	Units	Effluent Limitations					Basis
		Average Monthly	Average Weekly	Max Daily	Instant. Max.	Range	
BOD_5	mg/L	20	30	--	--	--	Basin Plan
Total Suspended Solids	mg/L	20	30	--	--	--	BP
pH	Std. unit	--	--	--		6.5-8.5	BP
Total Residual Chlorine	mg/L				0.1		BP
Coliform	MPN	--		2.2 MPN	--	--	Title 22
Ammonia Nitrogen	mg/L	4.5					BP
Free Cyanide	µg/L	4.0		9.2			CTR
Bis (2-Ethylhexyl) Phthalate at DPs 001, 002, & 004	µg/L	5.9		12			CTR
Total recoverable selenium at DPs 001 & 002	µg/L						CTR
Bromodichloromethane At DP 003	µg/L	46		92	µg/L		CTR

F. Interim Effluent Limitations - Not Applicable

G. Land Discharge Specifications – Not Applicable

H. Reclamation Specifications

1. Section 13523 of the California Water Code provides that a Regional Water Board, after consulting with and receiving the recommendations from the CDPH and any party who has requested in writing to be consulted, and after any necessary hearing, shall prescribe water reclamation requirements for water which is used or proposed to be used as recycled water, if, in the judgment of the Board, such requirements are necessary to protect the public health, safety, or welfare. Section 13523 further provides that such requirements shall include, or be in conformance with, the statewide uniform water recycling criteria established by the CDPH pursuant to California Water Code Section 13521.

2. Reclamation specifications in the proposed Order are based upon the recycling criteria contained in Title 22, Division 4, Chapter 3, Sections 60301 through 60355, California Code of Regulations, and the California Water Code Section 13521.

3. As shown in Chapter 4 of the Basin Plan as amended by the N/TDS Amendment, Resolution No. R8-2004-0001, two sets of groundwater management zones (GMZs) and respective TDS objectives have been adopted for a portion of the Chino Basin. "Maximum benefit" objectives are established for the Chino North GMZ, while "antidegradation" objectives are set for the Chino 1, 2 and 3 GMZs. Order Nos. R8-2004-0020, R8-2006-0010, and R8-2008-0028 include TDS limits for recycled water use that implement the Chino North and Chino 1, 2, and 3 TDS objectives. Provided that applicable maximum benefit commitments specified in Chapter 5 of the amended Basin Plan (and shown in Attachment J of this Order) are satisfied by the Discharger and the Chino Basin Watermaster, the TDS discharges from the combined effluent quality from the Discharger's treatment plants will be limited to 550 mg/L. Note that the "maximum benefit" objective for the Chino North GMZ is 420 mg/L. The basis for the TDS limit of 550 mg/L is as follows. The TDS value of 550 mg/L for recycled water use was assumed as part of the development of the maximum benefit objective for the Chino North GMZ and the maximum benefit program. Implementation of that program, which entails blending of recycled water with other sources of supply (stormwater, imported State Project Water) will assure that the TDS objective of the Chino North GMZ is achieved and maintained. If the Regional Board finds that thee maximum benefit commitments are not satisfied, then the Chino 1, 2 and 3 "antidegradation" management zones and their respective TDS objectives apply. Since the Chino 1, 2 and 3 GMZs lack assimilative capacity for TDS, the TDS limits are the same as the management zone objectives.

Table 24. TDS Limitations

Receiving Groundwater Management Zone	12-Mo Average TDS Concentration, mg/L
Chino 1	280
Chino 2	250
Chino 3	260
Chino – North "maximum benefit"	550

4. TIN limits: When recycled water is reused for irrigation, no nitrogen limit is established for the effluent, since nitrogen is anticipated to be used by plants and will not affect water quality.

I. Stormwater Discharge Requirements

On April 17, 1997, the State Board adopted the General Industrial Storm Water Permit, Order No. 97-03-DWQ, NPDES No. CAS000001. This General Permit implements the Final Regulations (40 CFR 122, 123, and 124) for stormwater runoff published on November 16, 1990 by EPA in compliance with Section 402(p) of the Clean Water Act (CWA). Industrial facilities, including POTW sites, are required to obtain NPDES Permits for stormwater discharges. Accordingly, this Order incorporates requirements for the discharge of stormwater from RP-1[13].

J. Groundwater Recharge Requirements – Not Applicable

Order No. R8-2007-0039 regulates the use of recycled water from RP-1 and RP-4 for groundwater recharge.

V. RATIONALE FOR RECEIVING WATER LIMITATIONS

A. Surface Water

The surface water receiving water limitations in this Order are based upon the water quality objectives contained in the Basin Plan. As such, they are required part of the proposed Order.

B. Groundwater – Not Applicable

[13] *Stormwater discharges from the Discharger's other Facilities are treated onsite (see II. B. 2, above).*

VI. RATIONALE FOR MONITORING AND REPORTING REQUIREMENTS

Section 122.48 of 40 CFR requires all NPDES permits to specify recording and reporting of monitoring results. Sections 13267 and 13383 of the CWC authorize the Regional Water Boards to require technical and monitoring reports. The MRP, Attachment E of this Order, establishes monitoring and reporting requirements to implement federal and State requirements. The following provides the rationale for the monitoring and reporting requirements contained in the MRP for these Facilities.

A. Influent Monitoring

This Order carries forward the treatment plant influent monitoring requirements specified in Orders No. R8-2004-0020, R8-2006-0010, and R8-2008-0028 with modifications. Influent monitoring is required to determine the effectiveness of the treatment program and assess treatment plant performance, and to implement EPA source control/pretreatment program.

B. Effluent Monitoring

The Discharger is required to conduct monitoring of the permitted discharges in order to evaluate compliance with permit conditions. Monitoring requirements are given in the proposed monitoring and reporting program (Attachment E). This provision requires compliance with the monitoring and reporting program, and is based on 40 CFR 122.44(i), 122.62, 122.63 and 124.5. The SMP is a standard requirement in almost all NPDES permits (including the proposed Order) issued by the Regional Water Board. In addition to containing definitions of terms, it specifies general sampling/analytical protocols and the requirements of reporting of spills, violations, and routine monitoring data in accordance with NPDES regulations, the California Water Code, and Regional Water Board's policies. The monitoring and reporting program also contains sampling program specific for the Discharger's wastewater treatment plant. It defines the sampling stations and frequency, pollutants to be monitored, and additional reporting requirements. Pollutants to be monitored include all pollutants for which effluent limitations are specified. Further, in accordance with Section 1.3 of the SIP, periodic monitoring is required for all priority pollutants defined by the CTR, for which criteria apply and for which no effluent limitations have been established, to evaluate reasonable potential to cause or contribute to an excursion above a water quality standard.

This Order continues the monitoring requirements specified in the Order No. R8-2004-0020, No. R8-2006-0010, and No. R8-2008-0028, with modifications. This Order also requires the Discharger to conduct accelerated monitoring for those constituents that are detected in the annual priority pollutant scan.

C. Whole Effluent Toxicity Testing Requirements

Whole effluent toxicity (WET) protects the receiving water quality from the aggregate toxic effect of a mixture of pollutants in the effluent. WET tests measure the degree of response of exposed aquatic test organisms to an effluent. The WET approach implements the narrative "no toxics in toxic amounts" criterion. There are two types of WET tests: acute and chronic. An acute toxicity test is conducted over a shorter time period and measures mortality. A chronic toxicity test is conducted over a longer period of time and may measure mortality, reproduction, and growth.

The Basin Plan specifies a narrative objective for toxicity, requiring that all waters be maintained free of toxic substances in concentrations that are lethal to or produce other detrimental response on aquatic organisms. Detrimental response includes but is not limited to decreased growth rate, decreased reproductive success of resident or indicator species, and/or significant alterations in population, community ecology, or receiving water biota.

In addition to the Basin Plan requirements, Section 4 of the SIP states that a chronic toxicity effluent limitation is required in permits for all discharges that will cause, have the reasonable potential to cause, or contribute to chronic toxicity in receiving waters. Therefore, in accordance with the SIP, this Order requires the Discharger to conduct chronic toxicity testing. In addition, the Order establishes thresholds that when exceeded require the Discharger to conduct accelerated toxicity testing and/or to conduct toxicity identification evaluation (TIE) studies.

This Order requires the Discharger to conduct chronic toxicity testing of the effluent from each of the Facilities on a monthly basis. The Order also requires the Discharger to conduct an Initial Investigation Toxicity Reduction Evaluation (IITRE) program when either the two-month median of toxicity test results exceeds 1 TUc or any single test exceeds 1.7 TUc for survival endpoint. Based on the results of this investigation program and at the discretion of the Executive Officer, a more rigorous Toxicity Reduction Evaluation/Toxicity Identification Evaluation (TRE/TIE) may be required. A re-opener provision is included in the Order to incorporate a chronic toxicity effluent limitation if warranted by the toxicity test results.

D. Receiving Water Monitoring

1. Surface Water

Receiving water monitoring is required to determine compliance with receiving water limitations and to characterize the water quality of the receiving water. Requirements are based on the Basin Plan.

2. Groundwater – Not Applicable

E. Other Monitoring Requirements

1. **Water Supply Monitoring** - The Discharger is required to collect a sample of each source of water supplied and analyze for total dissolved solids. The result of this monitoring will enable the Discharger to show compliance with TDS limitations in the Order.

2. **Biosolids Monitoring** - This Order continues the monitoring requirements specified in Order No. R8-2004-0020, No. R8-2006-0010, and No. R8-2008-0028, with modifications.

3. **Pretreatment Monitoring** - These monitoring and reporting requirements are established pursuant EPA 40 CFR 403 regulations.

VII. RATIONALE FOR PROVISIONS

A. Standard Provisions

Standard Provisions, which apply to all NPDES permits in accordance with section 122.41, and additional conditions applicable to specified categories of permits in accordance with section 122.42, are provided in Attachment D. The Discharger must comply with all standard provisions and with those additional conditions that are applicable under section 122.42.

Section 122.41(a)(1) and (b) through (n) establish conditions that apply to all State-issued NPDES permits. These conditions must be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to the regulations must be included in the Order. Section 123.25(a)(12) allows the state to omit or modify conditions to impose more stringent requirements. In accordance with section 123.25, this Order omits federal conditions that address enforcement authority specified in section0s 122.41(j)(5) and (k)(2) because the enforcement authority under the Water Code is more stringent. In lieu of these conditions, this Order incorporates by reference Water Code section 13387(e).

B. Special Provisions

1. Reopener Provisions

The provisions are based on 40 CFR Parts 122.44(c) and 123. The Regional Water Board may reopen the permit to modify permit conditions and requirements. Causes for modifications include the promulgation of new regulations, modification in sludge use or disposal practices, or adoption of new regulations by the State Water Board or Regional Water Board, including revisions to the Basin Plan.

2. Special Studies and Additional Monitoring Requirements

Toxicity Identification Evaluations or Toxicity Reduction Evaluations. This provision is based on the SIP, Section 4, Toxicity Control Provisions.

3. Best Management Practices and Pollution Prevention

Best Management Practices and Pollution Prevention - The requirements are based on the SIP Section 2.4.5.1

4. Construction, Operation, and Maintenance Specifications

Construction, Operation, and Maintenance Specifications - The requirements are based on requirements that were specified in prior Orders issued to the Discharger.

5. Special Provisions for Municipal Facilities - POTWs Only

a. Oxidized, filtered, and disinfected by UV or chlorine Wastewater Requirements: These requirements are based on Title 22 requirements for the use of recycled water.

b. Pretreatment: The system treatment plants capacity is 84.4 mgd. Consequently, this Order contains requirements for the implementation of an effective pretreatment program pursuant to Section 307 of the Federal Clean Water Act; Parts 35 and 403 of Title 40, Code of Federal Regulations (40 CFR 35 and 40 CFR 403); and/or Section 2233, Title 23, California Code of Regulations.

c. The State Water Board issued General Waste Discharge Requirements for Sanitary Sewer Systems, Water Quality Order No. 2006-0003-DWQ (General Order) on May 2, 2006. The General Order requires public agencies that own or operate sanitary sewer systems with greater than one mile of pipes or sewer lines to enroll for coverage under the General Order. The General Order requires agencies to develop sanitary sewer management plans (SSMPs) and report all sanitary sewer overflows (SSOs), among other requirements and prohibitions. The Discharger has enrolled and implemented these requirements.

Furthermore, the General Order contains requirements for operation and maintenance of collection systems and for reporting and mitigating sanitary sewer overflows. Inasmuch as the Discharger's collection system is part of the system that is subject to this Order, Provisions section VI.C.5.a. of this Order applies. For instance, the 24-hour reporting requirements in this Order (Provisions section VI.A.2.b.) are not included in the General Order. The Discharger must comply with both the General Order and this Order. The Discharger and public agencies that are discharging wastewater into one or more of the individual facilities were required to obtain enrollment for regulation under the General Order. The Discharger and public agencies that are discharging wastewater into one or more of the individual facilities have enrolled and implemented these requirements.

d. Biosolids: On February 19, 1993, the USEPA issued a final rule for the use and disposal of sewage sludge, 40 CFR, Part 503. This rule requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. The State of California has not been delegated the authority to implement this program, therefore, the U.S. Environmental Protection Agency is the implementing agency.

6. Other Special Provisions – Not Applicable

7. Compliance Schedules – Not Applicable

VIII. PUBLIC PARTICIPATION

The California Regional Water Quality Control Board, Santa Ana Region (Regional Water Board) is considering the issuance of waste discharge requirements (WDRs) that will serve as a National Pollutant Discharge Elimination System (NPDES) permit for Inland Empire Utilities Agency's Regional Water Recycling Facilities. As a step in the WDR adoption process, the Regional Water Board staff has developed tentative WDRs. The Regional Water Board encourages public participation in the WDR adoption process.

A. Notification of Interested Parties

The Regional Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity to submit their written comments and recommendations. Notification was provided through the posting of a Notice of Public Hearing at the Inland Empire Utilities Agency's RP-1, RP-4, RP-5, CCWRF Facilities and office, and at the Regional Water Board website http://www.waterboards.ca.gov/santaana/board_decisions/tentative_orders/index.shtml and publication in the local newspaper on June 10, 2009.

B. Written Comments

The staff determinations are tentative. Interested persons are invited to submit written comments concerning these tentative WDRs. Comments must be submitted either in person or by mail to the Executive Officer at the Regional Water Board at the address shown below.

To be fully responded to by staff and considered by the Regional Water Board, written comments should be received at the Regional Water Board offices by 5:00 p.m. on June 19, 2009.

Jane Qiu
California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

C. Public Hearing

The Regional Water Board will hold a public hearing on the tentative WDRs during its regular Board meeting on the following date and time and at the following location:

Date: July 20, 2009
Time: 10:00 A.M.
Location: California Regional Water Quality Control Board
Santa Ana Region
3737 Main Street, Suite 500
Riverside, CA 92501-3348

Interested persons are invited to attend. At the public hearing, the Regional Water Board will hear testimony, if any, pertinent to the discharge, WDRs, and permit. Oral testimony will be heard; however, for accuracy of the record, important testimony should be in writing.

Please be aware that dates and venues may change. Our web address is http://www.waterboards.ca.gov/santaana. You can access the current agenda for changes in dates and locations.

D. Waste Discharge Requirements Petitions

Any aggrieved person may petition the State Water Board to review the decision of the Regional Water Board regarding the final WDRs. The petition must be submitted within 30 days of the Regional Water Board's action to the following address:

State Water Resources Control Board
Office of Chief Counsel
P.O. Box 100, 1001 I Street
Sacramento, CA 95812-0100

E. Information and Copying

The Report of Waste Discharge (RWD), related documents, tentative effluent limitations and special provisions, comments received, and other information are on file and may be inspected at the address above at any time between 9:00 a.m. and 3:00 p.m. Monday through Friday. Copying of documents may be arranged through the Regional Water Board by calling Jane Qiu (951) 320-2008.

F. Register of Interested Persons

Any person interested in being placed on the mailing list for information regarding the WDRs and NPDES permit should contact the Regional Water Board, reference this facility, and provide a name, address, and phone number.

G. Additional Information

Requests for additional information or questions regarding this Order should be directed to Jane Qiu at (951) 320-2008.

ATTACHMENT G - EPA PRIORITY POLLUTANT LIST

EPA PRIORITY POLLUTANT LIST					
Metals		**Acid Extractibles**		**Base/Neutral Extractibles (continuation)**	
1.	Antimony	45.	2-Chlorophenol	91.	Hexachloroethane
2.	Arsenic	46.	2,4-Dichlorophenol	92.	Indeno (1,2,3-cd) Pyrene
3.	Beryllium	47.	2,4-Dimethylphenol	93.	Isophorone
4.	Cadmium	48.	2-Methyl-4,6-Dinitrophenol	94.	Naphthalene
5a.	Chromium (III)	49.	2,4-Dinitrophenol	95.	Nitrobenzene
5b.	Chromium (VI)	50.	2-Nitrophenol	96.	N-Nitrosodimethylamine
6.	Copper	51.	4-Nitrophenol	97.	N-Nitrosodi-N-Propylamine
7.	Lead	52.	3-Methyl-4-Chlorophenol	98.	N-Nitrosodiphenylamine
8.	Mercury	53.	Pentachlorophenol	99.	Phenanthrene
9.	Nickel	54.	Phenol	100.	Pyrene
10.	Selenium	55.	2, 4, 6 – Trichlorophenol	101.	1,2,4-Trichlorobenzene
11.	Silver	**Base/Neutral Extractibles**		**Pesticides**	
12.	Thallium	56.	Acenaphthene	102.	Aldrin
13.	Zinc	57.	Acenaphthylene	103.	Alpha BHC
Miscellaneous		58.	Anthracene	104.	Beta BHC
14.	Cyanide, Free	59.	Benzidine	105.	Delta BHC
15.	Asbestos (not required unless requested)	60.	Benzo (a) Anthracene	106.	Gamma BHC
16.	2,3,7,8-Tetrachlorodibenzo-P-Dioxin (TCDD)	61.	Benzo (a) Pyrene	107.	Chlordane
Volatile Organics		62.	Benzo (b) Fluoranthene	108.	4, 4' - DDT
17.	Acrolein	63.	Benzo (g,h,i) Perylene	109.	4, 4' - DDE
18.	Acrylonitrile	64.	Benzo (k) Fluoranthene	110.	4, 4' - DDD
19.	Benzene	65.	Bis (2-Chloroethoxy) Methane	111.	Dieldrin
20.	Bromoform	66.	Bis (2-Chloroethyl) Ether	112.	Alpha Endosulfan
21.	Carbon Tetrachloride	67.	Bis (2-Chloroisopropyl) Ether	113.	Beta Endosulfan
22.	Chlorobenzene	68.	Bis (2-Ethylhexyl) Phthalate	114.	Endosulfan Sulfate
23.	Chlorodibromomethane	69.	4-Bromophenyl Phenyl Ether	115.	Endrin
24.	Chloroethane	70.	Butylbenzyl Phthalate	116.	Endrin Aldehyde
25.	2-Chloroethyl Vinyl Ether	71.	2-Chloronaphthalene	117.	Heptachlor
26.	Chloroform	72.	4-Chlorophenyl Phenyl Ether	118.	Heptachlor Epoxide
27.	Dichlorobromomethane	73.	Chrysene	119.	PCB 1016
28.	1,1-Dichloroethane	74.	Dibenzo (a,h) Anthracene	120.	PCB 1221
29.	1,2-Dichloroethane	75.	1,2-Dichlorobenzene	121.	PCB 1232
30.	1,1-Dichloroethylene	76.	1,3-Dichlorobenzene	122.	PCB 1242
31.	1,2-Dichloropropane	77.	1,4-Dichlorobenzene	123.	PCB 1248
32.	1,3-Dichloropropylene	78.	3,3'-Dichlorobenzidine	124.	PCB 1254
33.	Ethylbenzene	79.	Diethyl Phthalate	125.	PCB 1260
34.	Methyl Bromide	80.	Dimethyl Phthalate	126.	Toxaphene
35.	Methyl Chloride	81.	Di-n-Butyl Phthalate		
36.	Methylene Chloride	82.	2,4-Dinitrotoluene		
37.	1,1,2,2-Tetrachloroethane	83.	2-6-Dinitrotoluene		
38.	Tetrachloroethylene	84.	Di-n-Octyl Phthalate		
39.	Toluene	85.	1,2-Dipenylhydrazine		
40.	1,2-Trans-Dichloroethylene	86.	Fluoranthene		
41.	1,1,1-Trichloroethane	87.	Fluorene		
42.	1,1,2-Trichloroethane	88.	Hexachlorobenzene		
43.	Trichloroethylene	89.	Hexachlorobutadiene		
44.	Vinyl Chloride	90.	Hexachlorocyclopentadiene		

ATTACHMENT H – MINIMUM LEVELS

MINIMUM LEVELS IN PPB (μg/l)

Table 1- VOLATILE SUBSTANCES[1]	GC	GCMS
Acrolein	2.0	5
Acrylonitrile	2.0	2
Benzene	0.5	2
Bromoform	0.5	2
Carbon Tetrachloride	0.5	2
Chlorobenzene	0.5	2
Chlorodibromomethane	0.5	2
Chloroethane	0.5	2
Chloroform	0.5	2
Dichlorobromomethane	0.5	2
1,1 Dichloroethane	0.5	1
1,2 Dichloroethane	0.5	2
1,1 Dichloroethylene	0.5	2
1,2 Dichloropropane	0.5	1
1,3 Dichloropropylene (volatile)	0.5	2
Ethylbenzene	0.5	2
Methyl Bromide (*Bromomethane*)	1.0	2
Methyl Chloride (*Chloromethane*)	0.5	2
Methylene Chloride (*Dichloromethane*)	0.5	2
1,1,2,2 Tetrachloroethane	0.5	1
Tetrachloroethylene	0.5	2
Toluene	0.5	2
trans-1,2 Dichloroethylene	0.5	1
1,1,1 Trichloroethane	0.5	2
1,1,2 Trichloroethane	0.5	2
Trichloroethylene	0.5	2
Vinyl Chloride	0.5	2
1,2 Dichlorobenzene (volatile)	0.5	2
1,3 Dichlorobenzene (volatile)	0.5	2
1,4 Dichlorobenzene (volatile)	0.5	2

Selection and Use of Appropriate ML Value:

ML Selection: When there is more than one ML value for a given substance, the discharger may select any one of those ML values, and their associated analytical methods, listed in this Attachment that are below the calculated effluent limitation for compliance determination. If no ML value is below the effluent limitation, then the discharger shall select the lowest ML value, and its associated analytical method, listed in the PQL Table.

ML Usage: The ML value in this Attachment represents the lowest quantifiable concentration in a sample based on the proper application of all method-based analytical procedures and the absence of any matrix interferences. Assuming that all method-specific analytical steps are followed, the ML value will also represent, after the appropriate application of method-specific factors, the lowest standard in the calibration curve for that specific analytical technique. Common analytical practices sometimes require different treatment of the sample relative to calibration standards.
Note: chemical names in parenthesis and italicized is another name for the constituent.

[1] *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (μg/l)

Table 2 – Semi-Volatile Substances[2]	GC	GCMS	LC
2-Chloroethyl vinyl ether	1	1	
2 Chlorophenol	2	5	
2,4 Dichlorophenol	1	5	
2,4 Dimethylphenol	1	2	
4,6 Dinitro-2-methylphenol	10	5	
2,4 Dinitrophenol	5	5	
2- Nitrophenol		10	
4- Nitrophenol	5	10	
4 Chloro-3-methylphenol	5	1	
2,4,6 Trichlorophenol	10	10	
Acenaphthene	1	1	0.5
Acenaphthylene		10	0.2
Anthracene		10	2
Benzidine		5	
Benzo (a) Anthracene (*1,2 Benzanthracene*)	10	5	
Benzo(a) pyrene (*3,4 Benzopyrene*)		10	2
Benzo (b) Flouranthene (*3,4 Benzofluoranthene*)		10	10
Benzo(g,h,i)perylene		5	0.1
Benzo(k)fluoranthene		10	2
bis 2-(1-Chloroethoxyl) methane		5	
bis(2-chloroethyl) ether	10	1	
bis(2-Chloroisopropyl) ether	10	2	
bis(2-Ethylhexyl) phthalate	10	5	
4-Bromophenyl phenyl ether	10	5	
Butyl benzyl phthalate	10	10	
2-Chloronaphthalene		10	
4-Chlorophenyl phenyl ether		5	
Chrysene		10	5
Dibenzo(a,h)-anthracene		10	0.1
1,2 Dichlorobenzene (semivolatile)	2	2	
1,3 Dichlorobenzene (semivolatile)	2	1	
1,4 Dichlorobenzene (semivolatile)	2	1	
3,3-Dichlorobenzidine		5	
Diethyl phthalate	10	2	
Dimethyl phthalate	10	2	
di-n-Butyl phthalate		10	
2,4 Dinitrotoluene	10	5	
2,6 Dinitrotoluene		5	
di-n-Octyl phthalate		10	
1,2-Diphenylhydrazine		1	
Fluoranthene	10	1	0.05
Fluorene		10	0.1
Hexachloro-cyclopentadiene	5	5	
1,2,4 Trichlorobenzene	1	5	

MINIMUM LEVELS IN PPB (μg/l)

Table 2 - SEMI-VOLATILE SUBSTANCES[2]	GC	GCMS	LC	COLOR
Pentachlorophenol	1	5		
Phenol [3]	1	1		50
Hexachlorobenzene	5	1		
Hexachlorobutadiene	5	1		
Hexachloroethane	5	1		
Indeno(1,2,3,cd)-pyrene		10	0.05	
Isophorone	10	1		
Naphthalene	10	1	0.2	
Nitrobenzene	10	1		
N-Nitroso-dimethyl amine	10	5		
N-Nitroso -di n-propyl amine	10	5		
N-Nitroso diphenyl amine	10	1		
Phenanthrene		5	0.05	
Pyrene		10	0.05	

Table 3– INORGANICS[4]	FAA	GFAA	ICP	ICPMS	SPGFAA	HYDRIDE	CVAA	COLOR	DCP
Antimony	10	5	50	0.5	5	0.5			1000
Arsenic		2	10	2	2	1		20	1000
Beryllium	20	0.5	2	0.5	1				1000
Cadmium	10	0.5	10	0.25	0.5				1000
Chromium (total)	50	2	10	0.5	1				1000
Chromium VI	5							10	
Copper	25	5	10	0.5	2				1000
Lead	20	5	5	0.5	2				10000
Mercury				0.5			0.2		
Nickel	50	5	20	1	5				1000
Selenium		5	10	2	5	1			1000
Silver	10	1	10	0.25	2				1000
Thallium	10	2	10	1	5				1000
Zinc	20		20	1	10				1000
Cyanide								5	

2 *With the exception of phenol by colorimetric technique, the normal method-specific factor for these substances is 1000, therefore, the lowest standards concentration in the calibration curve is equal to the above ML value for each substance multiplied by 1000.*

3 *Phenol by colorimetric technique has a factor of 1.*

4 *The normal method-specific factor for these substances is 1, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance.*

MINIMUM LEVELS IN PPB (μg/l)

Table 4- PESTICIDES – PCBs[5]	GC
Aldrin	0.005
alpha–BHC (*a-Hexachloro-cyclohexane*)	0.01
beta–BHC (*b-Hexachloro-cyclohexane*)	0.005
Gamma–BHC (*Lindane; g-Hexachloro-cyclohexane*)	0.02
Delta-BHC (*d-Hexachloro-cyclohexane*)	0.005
Chlordane	0.1
4,4'-DDT	0.01
4,4'-DDE	0.05
4,4'-DDD	0.05
Dieldrin	0.01
Alpha-Endosulfan	0.02
Beta-Endosulfan	0.01
Endosulfan Sulfate	0.05
Endrin	0.01
Endrin Aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
PCB 1016	0.5
PCB 1221	0.5
PCB 1232	0.5
PCB 1242	0.5
PCB 1248	0.5
PCB 1254	0.5
PCB 1260	0.5
Toxaphene	0.5

Techniques:
GC - Gas Chromatography
GCMS - Gas Chromatography/Mass Spectrometry
HRGCMS - High Resolution Gas Chromatography/Mass Spectrometry (i.e., EPA 1613, 1624, or 1625)
LC - High Pressure Liquid Chromatography
FAA - Flame Atomic Absorption
GFAA - Graphite Furnace Atomic Absorption
HYDRIDE - Gaseous Hydride Atomic Absorption
CVAA - Cold Vapor Atomic Absorption
ICP - Inductively Coupled Plasma
ICPMS - Inductively Coupled Plasma/Mass Spectrometry
SPGFAA - Stabilized Platform Graphite Furnace Atomic Absorption (i.e., EPA 200.9)
DCP - Direct Current Plasma
COLOR - Colorimetric

5 *The normal method-specific factor for these substances is 100, therefore, the lowest standard concentration in the calibration curve is equal to the above ML value for each substance multiplied by 100.*

ATTACHMENT I – TRIGGERS FOR MONITORING PRIORITY POLLUTANTS

Table I-1. For DP001 and DP002

	CONSTITUENT	µg/L		CONSTITUENT	µg/L
1	Antimony	2150	38	Tetratchloroethylene	4.43
2	Arsenic	75	*39*	***Toluene***	***150***
3	Beryllium	--	*40*	***1,2,-Trans-dichloroethylene***	***10***
4	Cadmium	3.7	*41*	***1,1,1-Trichloroethane***	***200***
5a	Chromium III	122	42	***1,1,2-Trichloroethane***	***5***
5b	Chromium VI	5.5	*43*	***Trichloroethylene***	***5***
6	Copper	14	*44*	***Vinyl Chloride***	***0.5***
7	Lead	12	45	2-Chlorophenol	200
8	Mercury	0.026	46	2,4-Dichlorophenol	395
9	Nickel	31	47	2,4-Dimethylphenol	1150
10	Selenium	2.5	48	2-Methy-4,6-Dinitrophenol	383
11	Silver	2.9	49	2,4-Dinitrophenol	7000
12	Thallium	3.2	50	2-Nitrophenol	--
13	Zinc	71	51	4-Nitrophenol	--
14	Cyanide	2.6	52	3-Methyl-4-Chlorophenol	--
15	Asbestos	--	53	***Pentachlorophenol***	***1***
16	2,3,7,8-TCDD (Dioxin)	0.000000007	54	Phenol	2,300,000
17	Acrolein	390	55	2,4,6-Trichlorophenol	3.3
18	Acrylonitrile	0.33	56	Acenapthene	1,350
19	***Benzene***	***1***	57	Acenapthylene	--
20	Bromoform	180	58	Anthracene	55,000
21	***Carbon Tetrachloride***	***0.5***	59	Benzidine	0.00027
22	Chlorobenzene	10500	60	Benzo (a) anthracene	0.025
23	Chlorodibromomethane	17	61	Benzo (a) pyrene	0.025
24	Chloroethane	--	62	Benzo (b) fluoranthene	0.025
25	2-Chloroethyl vinyl ether	--	63	Benzo (g,h,i) pyrylene	--
26	Chloroform	--	64	Benzo (k) fluorantene	0.025
27	Dichlorobromomethane	23	65	Bis (2-Chloroethoxy) methane	--
28	***1,1-Dichloroethane***	***5***	66	Bis (2-Chloroethyl) ether	0.7
29	***1,2-Dichloroethane***	***0.5***	67	Bis (2-Chloroisopropyl) ether	85,000
30	1,1-Dichloroethylene	1.6	68	Bis (2-ethyhexyl) phthalate	3.0
31	***1,2-Dichloropropane***	***5***	69	4-Bromophenyl phenyl ether	--
32	***1,3-Dichloropropylene***	***0.5***	70	Butyl benzyl phthalate	2600
33	***Ethylbenzene***	***300***	71	2- Chloronapthalene	2150
34	Methyl Bromide	2000	72	4-Chlrorphenyl phenyl ether	--
35	Methyl Chloride	--	73	Chrysene	0.025
36	Methylene Chloride	800	74	Dibenzo (a,h) anthracene	0.025
37	***1,1,2,2-Tetratchloroethane***	***1***	***75***	***1,2-Dichlorobenzene***	***600***

Table I-1. For DP001 and DP002--Continued

	CONSTITUENT	µg/L
76	1,3-Dichlorobenzene	1,300
77	***1,4-Dichlorobenzene***	***5***
78	3,3-Dichlorobenzidine	0.039
79	Diethyl phthalate	60,000
80	Dimethyl phthalate	1,450,000
81	Di-N-butyl phthalate	6,000
82	2,4-Dinitrotoluene	4.6
83	2,6-Dinitrotoluene	--
84	Di-N-octyl phthalate	--
85	1,2-Diphenylhydrazine	0.27
86	Fluoranthene	185
87	Fluorene	7,000
88	Hexachlorobenzene	0.00039
89	Hexachlorobutadiene	25
90	***Hexachlorocyclopentadiene***	***50***
91	Hexachloroethane	4.5
92	Indeno (1,2,3-cd) pyrene	0.025
93	Isophorone	300
94	***Naphthalene***	***17***
95	Nitrobenzene	950
96	***N-Nitrosodimethylamine***	***0.01***
97	***N-Nitrosodi-N-propylamine***	***0.01***
98	N-Nitrosodiphenylamine	8
99	Phenantrene	--

	CONSTITUENT	µg/L
100	Pyrene	5,500
101	***1,2,4 -Trichlorobenzene***	***5***
102	Aldrin	0.00007
103	BHC Alpha	0.0065
104	BHC Beta	0.023
105	BHC Gamma	0.032
106	BHC Delta	--
107	Chlordane	0.0003
108	4,4-DDT	0.0003
109	4,4-DDE	0.0003
110	4,4-DDD	0.00042
111	Dieldrin	0.00007
112	Endosulfan Alpha	0.028
113	Endosulfan Beta	0.028
114	Endosulfan Sulfate	120
115	Endrin	0.018
116	Endrin Aldehyde	0.42
117	Heptachlor	0.00011
118	Heptachlor Epoxide	0.000055
119	PCB 1016	0.000085
120	PCB 1221	0.000085
125	PCB 1260	0.000085
126	Toxaphene	0.0001

Notes:

1. For constituents not shown italicized, the values shown in the Table are fifty percent of the most stringent applicable receiving water objectives (freshwater or human health (consumption of water and organisms) as specified for that pollutant in 40 CFR 131.38[1]).
2. For constituents shown bold and italicized, the values shown in the Table are based on the California Department of Public Health maximum contaminant levels (MCLs) or Notification Level. Notification Level based trigger is underlined.
3. For hardness dependent metals, the hardness value used is 122 mg/L as 5th percentile of effluent flows and for pentachlorophenol, the pH value used is 7.5 standard units.

[1] *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

Table I-1. For DP003

	CONSTITUENT	µg/L
1	Antimony	2150
2	Arsenic	75
3	Beryllium	--
4	Cadmium	4.4
5a	Chromium III	143
5b	Chromium VI	5.5
6	Copper	17
7	Lead	16
8	Mercury	0.026
9	Nickel	36
10	Selenium	2.5
11	Silver	4.0
12	Thallium	3.2
13	Zinc	84
14	Cyanide	2.6
15	Asbestos	--
16	2,3,7,8-TCDD (Dioxin)	0.000000007
17	Acrolein	390
18	Acrylonitrile	0.33
19	***Benzene***	***1***
20	Bromoform	180
21	***Carbon Tetrachloride***	***0.5***
22	Chlorobenzene	10500
23	Chlorodibromomethane	17
24	Chloroethane	--
25	2-Chloroethyl vinyl ether	--
26	Chloroform	--
27	Dichlorobromomethane	23
28	***1,1-Dichloroethane***	***5***
29	***1,2-Dichloroethane***	***0.5***
30	1,1-Dichloroethylene	1.6
31	***1,2-Dichloropropane***	***5***
32	***1,3-Dichloropropylene***	***0.5***
33	***Ethylbenzene***	***300***
34	Methyl Bromide	2000
35	Methyl Chloride	--
36	Methylene Chloride	800
37	***1,1,2,2-Tetratchloroethane***	***1***
38	Tetratchloroethylene	4.43
39	***Toluene***	***150***
40	***1,2,-Trans-dichloroethylene***	***10***
41	***1,1,1-Trichloroethane***	***200***
42	***1,1,2-Trichloroethane***	***5***
43	***Trichloroethylene***	***5***
44	***Vinyl Chloride***	***0.5***
45	2-Chlorophenol	200
46	2,4-Dichlorophenol	395
47	2,4-Dimethylphenol	1150
48	2-Methy-4,6-Dinitrophenol	383
49	2,4-Dinitrophenol	7000
50	2-Nitrophenol	--
51	4-Nitrophenol	--
52	3-Methyl-4-Chlorophenol	--
53	***Pentachlorophenol***	***1***
54	Phenol	2,300,000
55	2,4,6-Trichlorophenol	3.3
56	Acenapthene	1,350
57	Acenapthylene	--
58	Anthracene	55,000
59	Benzidine	0.00027
60	Benzo (a) anthracene	0.025
61	Benzo (a) pyrene	0.025
62	Benzo (b) fluoranthene	0.025
63	Benzo (g,h,i) pyrylene	--
64	Benzo (k) fluorantene	0.025
65	Bis (2-Chloroethoxy) methane	--
66	Bis (2-Chloroethyl) ether	0.7
67	Bis (2-Chloroisopropyl) ether	85,000
68	Bis (2-ethyhexyl) phthalate	3.0
69	4-Bromophenyl phenyl ether	--
70	Butyl benzyl phthalate	2600
71	2- Chloronapthalene	2150
72	4-Chlrorphenyl phenyl ether	--
73	Chrysene	0.025
74	Dibenzo (a,h) anthracene	0.025
75	***1,2-Dichlorobenzene***	***600***

Table I-1. For DP003--Continued

	CONSTITUENT	µg/L
76	1,3-Dichlorobenzene	1,300
77	***1,4-Dichlorobenzene***	***5***
78	3,3-Dichlorobenzidine	0.039
79	Diethyl phthalate	60,000
80	Dimethyl phthalate	1,450,000
81	Di-N-butyl phthalate	6,000
82	2,4-Dinitrotoluene	4.6
83	2,6-Dinitrotoluene	--
84	Di-N-octyl phthalate	--
85	1,2-Diphenylhydrazine	0.27
86	Fluoranthene	185
87	Fluorene	7,000
88	Hexachlorobenzene	0.00039
89	Hexachlorobutadiene	25
90	***Hexachlorocyclopentadiene***	***50***
91	Hexachloroethane	4.5
92	Indeno (1,2,3-cd) pyrene	0.025
93	Isophorone	300
94	***Naphthalene***	***17***
95	Nitrobenzene	950
96	***N-Nitrosodimethylamine***	***0.01***
97	***N-Nitrosodi-N-propylamine***	***0.01***
98	N-Nitrosodiphenylamine	8
99	Phenantrene	--

	CONSTITUENT	µg/L
100	Pyrene	5,500
101	***1,2,4 -Trichlorobenzene***	***5***
102	Aldrin	0.00007
103	BHC Alpha	0.0065
104	BHC Beta	0.023
105	BHC Gamma	0.032
106	BHC Delta	--
107	Chlordane	0.0003
108	4,4-DDT	0.0003
109	4,4-DDE	0.0003
110	4,4-DDD	0.00042
111	Dieldrin	0.00007
112	Endosulfan Alpha	0.028
113	Endosulfan Beta	0.028
114	Endosulfan Sulfate	120
115	Endrin	0.018
116	Endrin Aldehyde	0.42
117	Heptachlor	0.00011
118	Heptachlor Epoxide	0.000055
119	PCB 1016	0.000085
120	PCB 1221	0.000085
125	PCB 1260	0.000085
126	Toxaphene	0.0001

Notes:

4. For constituents not shown italicized, the values shown in the Table are fifty percent of the most stringent applicable receiving water objectives (freshwater or human health (consumption of water and organisms) as specified for that pollutant in 40 CFR 131.38[2]).
5. For constituents shown bold and italicized, the values shown in the Table are based on the California Department of Public Health maximum contaminant levels (MCLs) or Notification Level. Notification Level based trigger is underlined.
6. For hardness dependent metals, the hardness value used is 148 mg/L as 5th percentile of effluent flows and for pentachlorophenol, the pH value used is 7.5 standard units.

[2] *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

Table I-2. For DP004

	CONSTITUENT	µg/L
1	Antimony	2150
2	Arsenic	75
3	Beryllium	--
4	Cadmium	3.9
5a	Chromium III	128
5b	Chromium VI	5.5
6	Copper	15
7	Lead	14
8	Mercury	0.026
9	Nickel	33
10	Selenium	2.5
11	Silver	3.2
12	Thallium	3.2
13	Zinc	75
14	Cyanide	2.6
15	Asbestos	--
16	2,3,7,8-TCDD (Dioxin)	0.000000007
17	Acrolein	390
18	Acrylonitrile	0.33
19	***Benzene***	***1***
20	Bromoform	180
21	***Carbon Tetrachloride***	***0.5***
22	Chlorobenzene	10500
23	Chlorodibromomethane	17
24	Chloroethane	--
25	2-Chloroethyl vinyl ether	--
26	Chloroform	--
27	Dichlorobromomethane	23
28	***1,1-Dichloroethane***	***5***
29	***1,2-Dichloroethane***	***0.5***
30	1,1-Dichloroethylene	1.6
31	***1,2-Dichloropropane***	***5***
32	***1,3-Dichloropropylene***	***0.5***
33	***Ethylbenzene***	***300***
34	Methyl Bromide	2000
35	Methyl Chloride	--
36	Methylene Chloride	800
37	***1,1,2,2-Tetratchloroethane***	***1***
38	Tetratchloroethylene	4.43
39	***Toluene***	***150***
40	***1,2,-Trans-dichloroethylene***	***10***
41	***1,1,1-Trichloroethane***	***200***
42	***1,1,2-Trichloroethane***	***5***
43	***Trichloroethylene***	***5***
44	***Vinyl Chloride***	***0.5***
45	2-Chlorophenol	200
46	2,4-Dichlorophenol	395
47	2,4-Dimethylphenol	1150
48	2-Methy-4,6-Dinitrophenol	383
49	2,4-Dinitrophenol	7000
50	2-Nitrophenol	--
51	4-Nitrophenol	--
52	3-Methyl-4-Chlorophenol	--
53	***Pentachlorophenol***	***1***
54	Phenol	2,300,000
55	2,4,6-Trichlorophenol	3.3
56	Acenapthene	1,350
57	Acenapthylene	--
58	Anthracene	55,000
59	Benzidine	0.00027
60	Benzo (a) anthracene	0.025
61	Benzo (a) pyrene	0.025
62	Benzo (b) fluoranthene	0.025
63	Benzo (g,h,i) pyrylene	--
64	Benzo (k) fluorantene	0.025
65	Bis (2-Chloroethoxy) methane	--
66	Bis (2-Chloroethyl) ether	0.7
67	Bis (2-Chloroisopropyl) ether	85,000
68	Bis (2-ethyhexyl) phthalate	3.0
69	4-Bromophenyl phenyl ether	--
70	Butyl benzyl phthalate	2600
71	2- Chloronapthalene	2150
72	4-Chlrorphenyl phenyl ether	--
73	Chrysene	0.025
74	Dibenzo (a,h) anthracene	0.025
75	***1,2-Dichlorobenzene***	***600***

Table I-1. For DP004--Continued

	CONSTITUENT	µg/L
76	1,3-Dichlorobenzene	1,300
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81	Di-N-butyl phthalate	6,000
82	2,4-Dinitrotoluene	4.6
83	2,6-Dinitrotoluene	--
84	Di-N-octyl phthalate	--
85	1,2-Diphenylhydrazine	0.27
86	Fluoranthene	185
87	Fluorene	7,000
88	Hexachlorobenzene	0.00039
89	Hexachlorobutadiene	25
90	***Hexachlorocyclopentadiene***	***50***
91	Hexachloroethane	4.5
92	Indeno (1,2,3-cd) pyrene	0.025
93	Isophorone	300
94	***Naphthalene***	***17***
95	Nitrobenzene	950
96	***N-Nitrosodimethylamine***	***0.01***
97	***N-Nitrosodi-N-propylamine***	***0.01***
98	N-Nitrosodiphenylamine	8
99	Phenantrene	--

	CONSTITUENT	µg/L
100	Pyrene	5,500
101	***1,2,4 -Trichlorobenzene***	***5***
102	Aldrin	0.00007
103	BHC Alpha	0.0065
104	BHC Beta	0.023
105	BHC Gamma	0.032
106	BHC Delta	--
107	Chlordane	0.0003
108	4,4-DDT	0.0003
109	4,4-DDE	0.0003
110	4,4-DDD	0.00042
111	Dieldrin	0.00007
112	Endosulfan Alpha	0.028
113	Endosulfan Beta	0.028
114	Endosulfan Sulfate	120
115	Endrin	0.018
116	Endrin Aldehyde	0.42
117	Heptachlor	0.00011
118	Heptachlor Epoxide	0.000055
119	PCB 1016	0.000085
120	PCB 1221	0.000085
125	PCB 1260	0.000085
126	Toxaphene	0.0001

Notes:

7. For constituents not shown italicized, the values shown in the Table are fifty percent of the most stringent applicable receiving water objectives (freshwater or human health (consumption of water and organisms) as specified for that pollutant in 40 CFR 131.38[3]).
8. For constituents shown bold and italicized, the values shown in the Table are based on the California Department of Public Health maximum contaminant levels (MCLs) or Notification Level. Notification Level based trigger is underlined.
9. For hardness dependent metals, the hardness value used is 130 mg/L as 5th percentile of effluent flows and for pentachlorophenol, the pH value used is 7.5 standard units.

[3] *See Federal Register/ Vol. 65, No. 97 / Thursday, May 18, 2000 / Rules and Regulations.*

ATTACHMENT J – STORMWATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. *Implementation Schedule*

The storm water pollution prevention plan (SWPPP) shall be updated and implemented in a timely manner, but in no case later than October 30, 2009.

2. *Objectives*

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, over-head coverage). To achieve these objectives, dischargers should consider the five phase process for SWPPP development and implementation as shown in Table A, below.

The SWPPP requirements are designed to be sufficiently flexible to meet the various needs of the facility. SWPPP requirements that are not applicable to the facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

3. *Planning and Organization*

a. Pollution Prevention Team

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in the Stormwater monitoring program of Order No. R8-2009-0021. The SWPPP shall clearly identify the storm water pollution prevention related responsibilities, duties, and activities of each team member.

b. Review Other Requirements and Existing Facility Plans

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. The discharger shall review all local, state, and federal requirements that impact, complement, or are consistent with the requirements of Order No. R8-2009-0021. The discharger shall identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of Order No. R8-2009-0021. As examples, dischargers whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, the discharger whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

4. *Site Map*

The SWPPP shall include a site map. The site map shall be provided on an 8-1/2 x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, the discharger may provide the required information on multiple site maps. The following information shall be included on the site map:

a. The facility boundaries; the outline of all storm water drainage areas within the facility boundaries; portions of the drainage area impacted by run-on from surrounding areas; and direction of flow of each drainage area, on-site surface water bodies, and areas of soil erosion. The map shall also identify nearby water bodies (such as rivers, lakes, ponds) and municipal storm drain inlets where the facility's storm water discharges and authorized non-storm water discharges may be received.

b. The location of the storm water collection and conveyance system, associated points of discharge, and direction of flow. Include any structural control measures that affect storm water discharges, authorized non-storm water discharges, and run-on. Examples of structural control measures are catch basins, berms, detention ponds, secondary containment, oil/water separators, diversion barriers, etc.

c. An outline of all impervious areas of the facility, including paved areas, buildings, covered storage areas, or other roofed structures.

d. Locations where materials are directly exposed to precipitation and the locations where significant spills or leaks identified in Section 6.a.(4)., below, have occurred.

e. Areas of industrial activity. This shall include the locations of all storage areas and storage tanks, shipping and receiving areas, fueling areas, vehicle and equipment storage/maintenance areas, material handling and processing areas, waste treatment and disposal areas, dust or particulate generating areas,

cleaning and rinsing areas, and other areas of industrial activity which are potential pollutant sources.

5. *List of Significant Materials*

The SWPPP shall include a list of significant materials handled and stored at the site. For each material on the list, describe the locations where the material is being stored, received, shipped, and handled, as well as the typical quantities and frequency. Materials shall include raw materials, intermediate products, final or finished products, recycled materials, and waste or disposed materials.

6. *Description of Potential Pollutant Sources*

a. The SWPPP shall include a narrative description of the facility's industrial activities, as identified in Section 4.e., above, associated potential pollutant sources, and potential pollutants that could be discharged in storm water discharges or authorized non-storm water discharges. At a minimum, the following items related to a facility's industrial activities shall be considered:

1) Industrial Processes

Describe each industrial process, the type, characteristics, and quantity of significant materials used in or resulting from the process, and a description of the processes (manufacturing or treatment), cleaning, rinsing, recycling, disposal, or other activities related to the process. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

2) Material Handling and Storage Areas

Describe each handling and storage area, type, characteristics, and quantity of significant materials handled or stored, description of the shipping, receiving, and loading procedures, and the spill or leak prevention and response procedures. Where applicable, areas protected by containment structures and the corresponding containment capacity shall be described.

3) Dust and Particulate Generating Activities

Describe all industrial activities that generate dust or particulates that may be deposited within the facility's boundaries and identify their discharge locations; the characteristics of dust and particulate pollutants; the approximate quantity of dust and particulate pollutants that may be deposited within the facility boundaries; and a description of the primary areas of the facility where dust and particulate pollutants would settle.

4) Significant Spills and Leaks

Describe materials that have spilled or leaked in significant quantities in storm water discharges or non-storm water discharges. Include toxic chemicals (listed in 40 Code of Federal Regulations [CFR] Part 302) that have been discharged to storm water as reported on U.S. Environmental Protection Agency (U.S. EPA) Form R, and oil and hazardous substances in excess of reportable quantities (see 40 CFR, Parts 110, 117, and 302).

The description shall include the type, characteristics, and approximate quantity of the material spilled or leaked, the cleanup or remedial actions that have occurred or are planned, the approximate remaining quantity of materials that may be exposed to storm water or non-storm water discharges, and the preventative measures taken to ensure spills or leaks do not reoccur. Such list shall be updated as appropriate during the term of Order No. R8-2009-0021.

5) Non-Storm Water Discharges

The discharger shall investigate the facility to identify all non-storm water discharges and their sources. As part of this investigation, all drains (inlets and outlets) shall be evaluated to identify whether they connect to the storm drain system.

All non-storm water discharges shall be described. This shall include the source, quantity, frequency, and characteristics of the non-storm water discharges and associated drainage area.

Non-storm water discharges that contain significant quantities of pollutants or that do not meet the conditions of Order No. R8-2009-0021 are prohibited. (Examples of prohibited non-storm water discharges are contact and non-contact cooling water, boiler blowdown, rinse water, wash water, etc.). The SWPPP must include BMPs to prevent or reduce contact of non-storm water discharges with significant materials or equipment.

6) Soil Erosion

Describe the facility locations where soil erosion may occur as a result of industrial activity, storm water discharges associated with industrial activity, or authorized non-storm water discharges.

b. The SWPPP shall include a summary of all areas of industrial activities, potential pollutant sources, and potential pollutants. This information should be summarized similar to Table B below. The last column of Table B, "Control Practices", should be completed in accordance with Section 8., below.

7. *Assessment of Potential Pollutant Sources*

a. The SWPPP shall include a narrative assessment of all industrial activities and potential pollutant sources as described in Section 6., above, to determine:

1) Which areas of the facility are likely sources of pollutants in storm water discharges and authorized non-storm water discharges, and

2) Which pollutants are likely to be present in storm water discharges and authorized non-storm water discharges. The discharger shall consider and evaluate various factors when performing this assessment such as current storm water BMPs; quantities of significant materials handled, produced, stored, or disposed of; likelihood of exposure to storm water or authorized non-storm water discharges; history of spill or leaks; and run-on from outside sources.

b. The discharger shall summarize the areas of the facility that are likely sources of pollutants and the corresponding pollutants that are likely to be present in storm water discharges and authorized non-storm water discharges.

The discharger is required to develop and implement additional BMPs as appropriate and necessary to prevent or reduce pollutants associated with each pollutant source. The BMPs will be narratively described in Section 8., below.

8. *Storm Water Best Management Practices*

The SWPPP shall include a narrative description of the storm water BMPs to be implemented at the facility for each potential pollutant and its source identified in the site assessment phase (Sections 6. and 7., above). The BMPs shall be developed and implemented to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Each pollutant and its source may require one or more BMPs. Some BMPs may be implemented for multiple pollutants and their sources, while other BMPs will be implemented for a very specific pollutant and its source.

The description of the BMPs shall identify the BMPs as (1) existing BMPs, (2) existing BMPs to be revised and implemented, or (3) new BMPs to be implemented. The description shall also include a discussion on the effectiveness of each BMP to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. The SWPPP shall provide a summary of all BMPs implemented for each pollutant source. This information should be summarized similar to Table B.

The discharger shall consider the following BMPs for implementation at the facility:

a. Non-Structural BMPs: Non-structural BMPs generally consist of processes, prohibitions, procedures, schedule of activities, etc., that prevent pollutants associated with industrial activity from contacting with storm water discharges and authorized non-storm water discharges. They are considered low technology, cost-effective measures. The discharger should consider all possible non-structural BMPs options before considering additional structural BMPs (see Section 8.b., below). Below is a list of non-structural BMPs that should be considered:

1) Good Housekeeping: Good housekeeping generally consist of practical procedures to maintain a clean and orderly facility.

2) Preventive Maintenance: Preventive maintenance includes the regular inspection and maintenance of structural storm water controls (catch basins, oil/water separators, etc.) as well as other facility equipment and systems.

3) Spill Response: This includes spill clean-up procedures and necessary clean-up equipment based upon the quantities and locations of significant materials that may spill or leak.

4) Material Handling and Storage: This includes all procedures to minimize the potential for spills and leaks and to minimize exposure of significant materials to storm water and authorized non-storm water discharges.

5) Employee Training: This includes training of personnel who are responsible for (a) implementing activities identified in the SWPPP, (b) conducting inspections, sampling, and visual observations, and (c) managing storm water. Training should address topics such as spill response, good housekeeping, and material handling procedures, and actions necessary to implement all BMPs identified in the SWPPP. The SWPPP shall identify periodic dates for such training. Records shall be maintained of all training sessions held.

6) Waste Handling/Recycling: This includes the procedures or processes to handle, store, or dispose of waste materials or recyclable materials.

7) Record Keeping and Internal Reporting: This includes the procedures to ensure that all records of inspections, spills, maintenance activities, corrective actions, visual observations, etc., are developed, retained, and provided, as necessary, to the appropriate facility personnel.

8) Erosion Control and Site Stabilization: This includes a description of all sediment and erosion control activities. This may include the planting and maintenance of vegetation, diversion of run-on and runoff, placement of sandbags, silt screens, or other sediment control devices, etc.

9) Inspections: This includes, in addition to the preventative maintenance inspections identified above, an inspection schedule of all potential pollutant sources. Tracking and follow-up procedures shall be described to ensure adequate corrective actions are taken and SWPPPs are made.

10) Quality Assurance: This includes the procedures to ensure that all elements of the SWPPP and Monitoring Program are adequately conducted.

b. Structural BMPs: Where non-structural BMPs as identified in Section 8.a., above, are not effective, structural BMPs shall be considered. Structural BMPs generally consist of structural devices that reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Below is a list of structural BMPs that should be considered:

1) Overhead Coverage: This includes structures that provide horizontal coverage of materials, chemicals, and pollutant sources from contact with storm water and authorized non-storm water discharges.

2) Retention Ponds: This includes basins, ponds, surface impoundments, bermed areas, etc., that do not allow storm water to discharge from the facility.

3) Control Devices: This includes berms or other devices that channel or route run-on and runoff away from pollutant sources.

4) Secondary Containment Structures: This generally includes containment structures around storage tanks and other areas for the purpose of collecting any leaks or spills.

5) Treatment: This includes inlet controls, infiltration devices, oil/water separators, detention ponds, vegetative swales, etc., that reduce the pollutants in storm water discharges and authorized non-storm water discharges.

9. *Annual Comprehensive Site Compliance Evaluation*

The discharger shall conduct one comprehensive site compliance evaluation in each reporting period (July 1-June 30). Evaluations shall be conducted within 8-16 months of each other. The SWPPP shall be revised, as appropriate, and the revisions implemented within 90 days of the evaluation. Evaluations shall include the following:

a. A review of all visual observation records, inspection records, and sampling and analysis results.

b. A visual inspection of all potential pollutant sources for evidence of, or the potential for, pollutants entering the drainage system.

c. A review and evaluation of all BMPs (both structural and non-structural) to determine whether the BMPs are adequate, properly implemented and maintained, or whether additional BMPs are needed. A visual inspection of equipment needed to implement the SWPPP, such as spill response equipment, shall be included.

d. An evaluation report that includes, (1) identification of personnel performing the evaluation, (2) the date(s) of the evaluation, (3) necessary SWPPP revisions, (4) schedule, as required in Section 10.e, below, for implementing SWPPP revisions, (5) any incidents of non-compliance and the corrective actions taken, and (6) a certification that the discharger is in compliance with Order No. R8-2009-0021. If the above certification cannot be provided, explain in the evaluation report why the discharger is not in compliance with this order. The evaluation report shall be submitted as part of the annual report, retained for at least five years, and signed and certified in accordance with Attachment D, Standard Provision, Section V Reporting, Subsection B. Signatory and Certification Requirements of Order No. R8-2009-0021.

10. *SWPPP General Requirements*

a. The SWPPP shall be retained on site and made available upon request by a representative of the Regional Water Board and/or local storm water management agency (local agency) which receives the storm water discharges.

b. The Regional Water Board and/or local agency may notify the discharger when the SWPPP does not meet one or more of the minimum requirements of this section. As requested by the Regional Water Board and/or local agency, the discharger shall submit a SWPPP revision and implementation schedule that meets the minimum requirements of this section to the Regional Water Board and/or local agency that requested the SWPPP revisions. Within 14 days after implementing the required SWPPP revisions, the discharger shall provide written certification to the Regional Water Board and/or local agency that the revisions have been implemented.

c. The SWPPP shall be revised, as appropriate, and implemented prior to changes in industrial activities which (1) may significantly increase the quantities of pollutants in storm water discharge, (2) cause a new area of industrial activity at the facility to be exposed to storm water, or (3) begin an industrial activity which would introduce a new pollutant source at the facility.

d. The SWPPP shall be revised and implemented in a timely manner, but in no case more than 90 days after a discharger determines that the SWPPP is in violation of any requirement(s) of Order No. R8-2009-0021.

e. When any part of the SWPPP is infeasible to implement by the deadlines specified in Order No. R8-2009-0021, due to proposed significant structural changes, the discharger shall submit a report to the Regional Water Board prior to the applicable deadline that (1) describes the portion of the SWPPP that is infeasible to implement by the deadline, (2) provides justification for a time extension, (3) provides a schedule for completing and implementing that portion of the SWPPP, and (4) describes the BMPs that will be implemented in the interim period to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges. Such reports are subject to Regional Water Board approval and/or modifications. The discharger shall provide written notification to the Regional Water Board within 14 days after the SWPPP revisions are implemented.

f. The SWPPP shall be provided, upon request, to the Regional Water Board. The SWPPP is considered a report that shall be available to the public by the Regional Water Board under Section 308(b) of the Clean Water Act.

TABLE A

FIVE PHASES FOR DEVELOPING AND IMPLEMENTING INDUSTRIAL STORM WATER POLLUTION PREVENTION PLANS

PLANNING AND ORGANIZATION

*Form pollution prevention team
*Review other plans

ASSESSMENT PHASE

*Develop a site map
*Identify potential pollutant sources
*Inventory of materials and chemicals
*List significant spills and leaks
*Identify non-storm water discharges
*Assess pollutant risks

BEST MANAGEMENT PRACTICES IDENTIFICATION PHASE

*Non-structural BMPs
*Structural BMPs
*Select activity and site-specific BMPs

IMPLEMENTATION PHASE

*Train employees
*Implement BMPs
*Conduct record keeping and reporting

EVALUATION / MONITORING

*Conduct annual site evaluation
*Review monitoring information
*Evaluate BMPs
*Review and revise SWPPP

TABLE B

EXAMPLE

ASSESSMENT OF POTENTIAL POLLUTION SOURCES AND CORRESPONDING BEST MANAGEMENT PRACTICES SUMMARY

AREA	ACTIVITY	POLLUTANT SOURCE	POLLUTANT	BEST MANAGEMENT PRACTICES
Vehicle & equipment fueling	Fueling	Spills and leaks during delivery	Fuel oil	- Use spill and overflow protection - Minimize run-on of storm water into the fueling area - Cover fueling area - Use dry cleanup methods rather than hosing down area - Implement proper spill prevention control program - Implement adequate preventative maintenance program to prevent tank and line leaks - Inspect fueling areas regularly to detect problems before they occur - Train employees on proper fueling, cleanup, and spill response techniques.
		Spills caused by topping off fuel oil	Fuel oil	
		Hosing or washing down fuel area	Fuel oil	
		Leaking storage tanks	Fuel oil	
		Rainfall running off fueling areas, and rainfall running onto and off fueling area	Fuel oil	

ATTACHMENT K – STORMWATER MONITORING AND REPORTING REQUIREMENTS

1. *Implementation Schedule*

The discharger shall continue to implement their existing Stormwater monitoring program and implement any necessary revisions to their Stormwater monitoring program in a timely manner, but in no case later than December 30, 2009. The discharger may use the monitoring results conducted in accordance with their existing Stormwater monitoring program to satisfy the pollutant/parameter reduction requirements in Section 5.c., below, and Sampling and Analysis Exemptions and Reduction Certifications in Section 10, below.

2. Objectives

The objectives of the monitoring program are to:

a. Ensure that storm water discharges are in compliance with waste discharge requirements specified in Order No. R8-2009-0021.

b. Ensure practices at the facility to reduce or prevent pollutants in storm water discharges and authorized non-storm water discharges are evaluated and revised to meet changing conditions.

c. Aid in the implementation and revision of the SWPPP required by Attachment "J" Stormwater Pollution Prevention Plan of Order No. R8-2009-0021.

d. Measure the effectiveness of best management practices (BMPs) to prevent or reduce pollutants in storm water discharges and authorized non-storm water discharges. Much of the information necessary to develop the monitoring program, such as discharge locations, drainage areas, pollutant sources, etc., should be found in the Storm Water Pollution Prevention Plan (SWPPP). The facility's monitoring program shall be a written, site-specific document that shall be revised whenever appropriate and be readily available for review by employees or Regional Water Board inspectors.

3. *Non-Storm Water Discharge Visual Observations*

a. The discharger shall visually observe all drainage areas within their facility for the presence of unauthorized non-storm water discharges;

b. The discharger shall visually observe the facility's authorized non-storm water discharges and their sources;

c. The visual observations required above shall occur quarterly, during daylight hours, on days with no storm water discharges, and during scheduled facility operating hours[1]. Quarterly visual observations shall be conducted in each of the following periods: January-March, April-June, July-September, and October-December. The discharger shall conduct quarterly visual observations within 6-18 weeks of each other.

d. Visual observations shall document the presence of any discolorations, stains, odors, floating materials, etc., as well as the source of any discharge. Records shall be maintained of the visual observation dates, locations observed, observations, and response taken to eliminate unauthorized non-storm water discharges and to reduce or prevent pollutants from contacting non-storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Attachment "J" Stormwater Pollution Prevention Plan Requirements of Order No. R8-2009-0021.

4. *Storm Water Discharge Visual Observations*

a. With the exception of those facilities described in Section 4.d., below, the discharger shall visually observe storm water discharges from one storm event per month during the wet season (October 1-May 30). These visual observations shall occur during the first hour of discharge and at all discharge locations. Visual observations of stored or contained storm water shall occur at the time of release.

b. Visual observations are only required of storm water discharges that occur during daylight hours that are preceded by at least three (3) working days[2] without storm water discharges and that occur during scheduled facility operating hours.

c. Visual observations shall document the presence of any floating and suspended material, oil and grease, discolorations, turbidity, odor, and source of any pollutants. Records shall be maintained of observation dates, locations observed, observations, and response taken to reduce or prevent pollutants in storm water discharges. The SWPPP shall be revised, as necessary, and implemented in accordance with Attachment "J" Stormwater Pollution Prevention Plan Requirements of Order No. R8-2009-0021.

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1 *"Scheduled facility operating hours" are the time periods when the facility is staffed to conduct any function related to industrial activity, but excluding time periods where only routine maintenance, emergency response, security, and/or janitorial services are performed.*

2 *Three (3) working days may be separated by non-working days such as weekends and holidays provided that no storm water discharges occur during the three (3) working days and the non-working days.*

d. The discharger with storm water containment facilities shall conduct monthly inspections of their containment areas to detect leaks and ensure maintenance of adequate freeboard. Records shall be maintained of the inspection dates, observations, and any response taken to eliminate leaks and to maintain adequate freeboard.

5. *Sampling and Analysis*

a. The discharger shall collect storm water samples during the first hour of discharge from (1) the first storm event of the wet season, and (2) at least one other storm event in the wet season. All storm water discharge locations shall be sampled. Sampling of stored or contained storm water shall occur at the time the stored or contained storm water is released. The discharger that does not collect samples from the first storm event of the wet season are still required to collect samples from two other storm events of the wet season and shall explain in the "Annual Stormwater Report" (see Section 12, below) why the first storm event was not sampled.

b. Sample collection is only required of storm water discharges that occur during scheduled facility operating hours and that are preceded by at least (3) three working days without storm water discharge.

c. The samples shall be analyzed for:

1) Total suspended solids (TSS) pH, specific conductance, and total organic carbon (TOC). Oil and grease (O&G) may be substituted for TOC;

2) Toxic chemicals and other pollutants that are likely to be present in storm water discharges in significant quantities. If these pollutants are not detected in significant quantities after two consecutive sampling events, the discharger may eliminate the pollutant from future sample analysis until the pollutant is likely to be present again;

3) The discharger is not required to analyze a parameter when either of the two following conditions are met: (a) the parameter has not been detected in significant quantities from the last two consecutive sampling events, or (b) the parameter is not likely to be present in storm water discharges and authorized non-storm water discharges in significant quantities based upon the discharger's evaluation of the facilities industrial activities, potential pollutant sources, and SWPPP; and

4) Other parameters as required by the Regional Water Board.

6. *Sample Storm Water Discharge Locations*

a. The discharger shall visually observe and collect samples of storm water discharges from all drainage areas that represent the quality and quantity of the facility's storm water discharges from the storm event.

b. If the facility's storm water discharges are commingled with run-on from surrounding areas, the discharger should identify other visual observation and sample collection locations that have not been commingled by run-on and that represent the quality and quantity of the facility's storm water discharges from the storm event.

c. If visual observation and sample collection locations are difficult to observe or sample (e.g., sheet flow, submerged outfalls), the discharger shall identify and collect samples from other locations that represent the quality and quantity of the facility's storm water discharges from the storm event.

d. The discharger that determines that the industrial activities and BMPs within two or more drainage areas are substantially identical may either (1) collect samples from a reduced number of substantially identical drainage areas, or (2) collect samples from each substantially identical drainage area and analyze a combined sample from each substantially identical drainage area. The discharger must document such a determination in the annual Stormwater report.

7. Visual Observation and Sample Collection Exceptions

The discharger is required to be prepared to collect samples and conduct visual observations at the beginning of the wet season (October 1) and throughout the wet season until the minimum requirements of Sections 4. and 5., above, are completed with the following exceptions:

a. The discharger is not required to collect a sample and conduct visual observations in accordance with Section 4 and Section 5, above, due to dangerous weather conditions, such as flooding, electrical storm, etc., when storm water discharges begin after scheduled facility operating hours or when storm water discharges are not preceded by three working days without discharge. Visual observations are only required during daylight hours. The discharger that does not collect the required samples or visual observations during a wet season due to these exceptions shall include an explanation in the "Annual Stormwater Report" why the sampling or visual observations could not be conducted.

b. The discharger may conduct visual observations and sample collection more than one hour after discharge begins if the discharger determines that the objectives of this section will be better satisfied. The discharger shall include an explanation in the "Annual Stormwater Report" why the visual observations and sample collection should be conducted after the first hour of discharge.

8. *Alternative Monitoring Procedures*

The discharger may propose an alternative monitoring program that meets Section 2, above, monitoring program objectives for approval by the Regional Water Board's Executive Officer. The discharger shall continue to comply with the monitoring requirements of this section and may not implement an alternative monitoring plan until the alternative monitoring plan is approved by the Regional Water Board's Executive Officer. Alternative monitoring plans are subject to modification by the Regional Water Board's Executive Officer.

9. Monitoring Methods

a. The discharger shall explain how the facility's monitoring program will satisfy the monitoring program objectives of Section 2., above. This shall include:

1) Rationale and description of the visual observation methods, location, and frequency;

2) Rationale and description of the sampling methods, location, and frequency; and

3) Identification of the analytical methods and corresponding method detection limits used to detect pollutants in storm water discharges. This shall include justification that the method detection limits are adequate to satisfy the objectives of the monitoring program.

b. All sampling and sample preservation shall be in accordance with the current edition of "Standard Methods for the Examination of Water and Wastewater" (American Public Health Association). All monitoring instruments and equipment (including the discharger's own field instruments for measuring pH and Electro-conductivity) shall be calibrated and maintained in accordance with manufacturers' specifications to ensure accurate measurements. All laboratory analyses must be conducted according to test procedures under 40 CFR Part 136, unless other test procedures have been specified in Order No. R8-2009-0021 or by the Regional Water Board's Executive Officer. All metals shall be reported as total recoverable metals or unless otherwise specified in Order No. R8-2009-0021. With the exception of analysis conducted by the discharger, all laboratory analyses shall be conducted at a laboratory certified for such analyses by the State Department of Health Services. The discharger may conduct their own sample analyses if the discharger has sufficient capability (qualified employees, laboratory equipment, etc.) to adequately perform the test procedures.

10. *Sampling and Analysis Exemptions and Reductions*

A discharger who qualifies for sampling and analysis exemptions, as described below in Section 10.a.(1) or who qualifies for reduced sampling and analysis, as described below in Section 10.b., must submit the appropriate certifications and required documentation to the Regional Water Board prior to the wet season (October 1) and certify as part of the annual Stormwater report submittal. A discharger that qualifies for either the Regional Water Board or local agency certification programs, as described below in Section 10.a.(2) and (3), shall submit certification and documentation in accordance with the requirements of those programs. The discharger who provides certification(s) in accordance with this section are still required to comply with all other monitoring program and reporting requirements. The discharger shall prepare and submit their certification(s) using forms and instructions provided by the State Water Board, Regional Water Board, or local agency or shall submit their information on a form that contains equivalent information. The discharger whose facility no longer meets the certification conditions must notify the Regional Water Board's Executive Officer (and local agency) within 30 days and immediately comply with Section 5., Sampling and Analysis requirements. Should a Regional Water Board (or local agency) determine that a certification does not meet the conditions set forth below, the discharger must immediately comply with the Section 5., Sampling and Analysis requirements.

a. Sampling and Analysis Exemptions

A discharger is not required to collect and analyze samples in accordance with Section 5., above, if the discharger meets all of the conditions of one of the following certification programs:

1) No Exposure Certification (NEC)

This exemption is designed primarily for those facilities where all industrial activities are conducted inside buildings and where all materials stored and handled are not exposed to storm water. To qualify for this exemption, the discharger must certify that their facilities meet all of the following conditions:

a) All prohibited non-storm water discharges have been eliminated or otherwise permitted.

b) All authorized non-storm water discharges have been identified and addressed in the SWPPP.

c) All areas of past exposure have been inspected and cleaned, as appropriate.

d) All significant materials related to industrial activity (including waste materials) are not exposed to storm water or authorized non-storm water discharges.

e) All industrial activities and industrial equipment are not exposed to storm water or authorized non-storm water discharges.

f) There is no exposure of storm water to significant materials associated with industrial activity through other direct or indirect pathways such as from industrial activities that generate dust and particulates.

g) There is periodic re-evaluation of the facility to ensure conditions (a), (b), (d), (e), and (f) above are continuously met. At a minimum, re-evaluation shall be conducted once a year.

2) Regional Water Board Certification Programs

The Regional Water Board may grant an exemption to the Section 5. Sampling and Analysis requirements if it determines a discharger has met the conditions set forth in a Regional Water Board certification program. Regional Water Board certification programs may include conditions to (a) exempt the discharger whose facilities infrequently discharge storm water to waters of the United States, and (b) exempt the discharger that demonstrate compliance with the terms and conditions of Order No. R8-2009-0021.

3) Local Agency Certifications

A local agency may develop a local agency certification program. Such programs must be approved by the Regional Water Board. An approved local agency program may either grant an exemption from Section 5. Sampling and Analysis requirements or reduce the frequency of sampling if it determines that a discharger has demonstrated compliance with the terms and conditions of the Industrial Activities Storm Water General Permit Order No. 97-03-DWQ which was adopted by the State Water Resources Control Board on April 17, 1997.

b. Sampling and Analysis Reduction

1) A discharger may reduce the number of sampling events required to be sampled for the remaining term of Order No. R8-2009-0021 if the discharger provides certification that the following conditions have been met:

a) The discharger has collected and analyzed samples from a minimum of six storm events from all required drainage areas;

b) All prohibited non-storm water discharges have been eliminated or otherwise permitted;

c) The discharger demonstrates compliance with the terms and conditions of the Order No. R8-2009-0021 for the previous two years (i.e., completed Annual Stormwater Reports, performed visual observations, implemented appropriate BMPs, etc.);

d) The discharger demonstrates that the facility's storm water discharges and authorized non-storm water discharges do not contain significant quantities of pollutants; and

e) Conditions (b), (c), and (d) above are expected to remain in effect for a minimum of one year after filing the certification.

2) Unless otherwise instructed by the Regional Water Board, the discharger shall collect and analyze samples from two additional storm events during the remaining term of Order No. R8-2009-0021 in accordance with Table A, below. The discharger shall collect samples of the first storm event of the wet season. The discharger that does not collect samples from the first storm event of the wet season shall collect samples from another storm event during the same wet season. The discharger that does not collect a sample in a required wet season shall collect the sample from another storm event in the next wet season. The discharger shall explain in the "Annual Stormwater Report" why the first storm event of a wet season was not sampled or a sample was not taken from any storm event in accordance with the Table A schedule, below.

Table A. REDUCED MONITORING SAMPLING SCHEDULE

Discharger Filing Sampling Reduction Certification By	Samples Shall be Collected and Analyzed in these wet seasons	
	Sample 1	Sample 2
Sept. 1, 2008	Oct. 1, 2008-May 31, 2009	Oct. 1, 2008-May 31, 2009
Sept. 1, 2009	Oct. 1, 2009-May 31, 2010	Oct. 1, 2009-May 31, 2010
Sept. 1, 2010	Oct. 1, 2010-May 31, 2011	Oct. 1, 2010-May 31, 2011
Sept. 1, 2011	Oct. 1, 2011-May 31, 2012	Oct. 1, 2011-May 31, 2012
Sept. 1, 2012	Oct. 1, 2012-May 31, 2013	Oct. 1, 2012-May 31, 2013
Sept. 1, 2013	Oct. 1, 2013-May 31, 2014	Oct. 1, 2013-May 31, 2014

11. Records

Records of all storm water monitoring information and copies of all reports (including the Annual Stormwater Reports) required by Order No. R8-2009-0021 shall be retained for a period of at least five years. These records shall include:

a. The date, place, and time of site inspections, sampling, visual observations, and/or measurements;

b. The individual(s) who performed the site inspections, sampling, visual observations, and or measurements;

c. Flow measurements or estimates;

d. The date and approximate time of analyses;

e. The individual(s) who performed the analyses;

f. Analytical results, method detection limits, and the analytical techniques or methods used;

g. Quality assurance/quality control records and results;

h. Non-storm water discharge inspections and visual observations and storm water discharge visual observation records (see Sections 3. and 4., above);

i. Visual observation and sample collection exception records (see Section 5.a, 6.d, 7, and 10.b.(2), above;

j. All calibration and maintenance records of on-site instruments used;

k. All Sampling and Analysis Exemption and Reduction certifications and supporting documentation (see Section 10);

l. The records of any corrective actions and follow-up activities that resulted from the visual observations.

12. Annual Report

The discharger shall submit an Annual Stormwater Report by July 1 of each year to the Executive Officer of the Regional Water Board and to the local agency (if requested). The report shall include a summary of visual observations and sampling results, an evaluation of the visual observation and sampling and analysis results, laboratory reports, the Annual Comprehensive Site Compliance Evaluation Report required in Section 9. of Attachment "J" of Order No. R8-2009-0021, an explanation of why a facility did not implement any activities required by Order No. R8-2009-0021 (if not already included in the Evaluation Report), and records specified in Section 11., above. The method detection limit of each analytical parameter shall be included. Analytical results that are less than the method detection limit shall be reported as "less than the method detection limit". The Annual Stormwater Report shall be signed and certified in accordance with Attachment D. Federal Standard Provisions, Section V-Reporting, Subsection B. Signatory and Certification requirements of Order No. R8-2009-0021. The discharger shall prepare and submit their Annual Stormwater Reports using the annual report forms provided by the State Water Board or Regional Water Board or shall submit their information on a form that contains equivalent information.

13. Watershed Monitoring Option

Regional Water Boards may approve proposals to substitute watershed monitoring for some or all of the requirements of this section if the Regional Water Board finds that the watershed monitoring will provide substantially similar monitoring information in evaluating discharger compliance with the requirements of Order No. R8-2009-0021.

ATTACHMENT L – CHINO BASIN MAXIMUM BENEFIT COMMITMENTS

Table 5-8a of Resolution No. R8-2004-0001

Chino Basin Maximum Benefit Commitments

Description of Commitment	Compliance Date – as soon as possible, but no later than
1. Surface Water Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005 (complied)
b. Implement Monitoring Program	b. Within 30 days from date of Regional Board approval of monitoring plan
c. Quarterly data report submittal	c. April 15, July 15, October 15, January 15
d. Annual data report submittal	d. February 15th
2. Groundwater Monitoring Program	
a. Submit Draft Monitoring Program to Regional Board	a. January 23, 2005(complied)
b. Implement Monitoring Program	b. Within 30 days from date of Regional Board approval of monitoring plan
c. Annual data report submittal	c. February 15th
3. Chino Desalters	
a. Chino 1 desalter expansion to 10 MGD	a. Prior to recharge of recycled water
b. Chino 2 desalter at 10 MGD design	b. Recharge of recycled water allowed once award of contract and notice to proceed issued for construction of desalter treatment plant
4. Future desalters plan and schedule submittal	October 1, 2005 Implement plan and schedule upon Regional Board approval
5. Recharge facilities (17) built and in operation	June 30, 2005 (Partially complied)
6. IEUA wastewater quality improvement plan and schedule submittal	60 days after agency-wide 12 month running average effluent TDS quality equals or exceeds 545 mg/L for 3 consecutive months or agency-wide 12 month running average TIN equals or exceeds 8 mg/L in any month. Implement plan and schedule upon approval by Regional Board

Table 5-8a of Resolution No. R8-2004-0001

Chino Basin Maximum Benefit Commitments (cont.)

Description of Commitment	Compliance Date – as soon as possible, but no later than
7. Recycled water will be blended with other recharge sources so that the 5-year running average TDS and nitrate-nitrogen concentrations of water recharged are equal to or less than the "maximum benefit" water quality objectives for the affected Management Zone (Chino North or Cucamonga).	Compliance must be achieved by end of 5th year after initiation of recycled water recharge operations.
a. Submit a report that documents the location, amount of recharge, and TDS and nitrogen quality of stormwater recharge before the OBMP recharge improvements were constructed and what is projected to occur after the recharge improvements are completed	a. Prior to initiation of recycled water recharge
b. Submit documentation of amount, TDS and nitrogen quality of all sources of recharge and recharge locations. For stormwater recharge used for blending, submit documentation that the recharge is the result of CBW/IEUA enhanced recharge facilities.	b. Annually, by February 15th, after initiation of construction of basins/other facilities to support enhanced stormwater recharge.
8. Hydraulic Control Failure	
a. Plan and schedule to correct loss of hydraulic control	a. 60 days from Regional Board finding that hydraulic control is not being maintained
b. Achievement and maintenance of hydraulic control	b. In accordance with plan and schedule approved by Regional Board. The schedule shall assure that hydraulic control is achieved as soon as possible but no later than 180 days after loss of hydraulic control is identified.
c. Mitigation plan for temporary failure to achieve/maintain hydraulic control	c. By January 23, 2005(complied). Implement plan upon Regional Board determination that hydraulic control is not being maintained.
9. Ambient groundwater quality determination	July 1, 2005 and every 3 years thereafter

Appendix B

Plant Facilities Calculations

APPENDIX B - PLANT FACILITIES CALCULATIONS

CALCULATIONS FOLLOW FOR TABLES IN SECTION 4:

(Only those tables in Section 4 that have calculated or estimated values are shown herein. See Section 4 for other tables, references, and explanations.)

Table 4-2. Raw Wastewater Characteristics

Parameter	Units	Value	Reference
Annual Average Raw Influent Quality			
BOD-5 day	mg/L	451	IEUA, 2011-12
TSS	mg/L	390	IEUA, 2011-12
TOC	mg/L	246	IEUA, 2011-12
Ammonia-nitrogen	mg/L	34.1	IEUA, 2011-12
TKN	mg/L	31.7	IEUA, 2011-12
TIN	mg/L	53.3	IEUA, 2011-12
pH	units	7.1	IEUA, 2011-12
Winter temperature	degrees C	20	IEUA, 2011-12
Summer temperature	degrees C	25	IEUA, 2011-12
TDS	mg/L	538	IEUA, 2011-12
Annual Average Raw Influent Loadings			
BOD-5 day	lbs/day	42,879	calculated [1]
TSS	lbs/day	37,080	calculated [1]
Peak Month Average Raw Influent Quality			
BOD	mg/L	627	IEUA, 2011-12
TSS	mg/L	730	IEUA, 2011-12
TOC	mg/L	334	IEUA, 2011-12
Ammonia-nitrogen	mg/L	45.8	IEUA, 2011-12
TKN	mg/L	33.1	IEUA, 2011-12
TIN	mg/L	59.6	IEUA, 2011-12
pH	units	7.2	IEUA, 2011-12
TDS	mg/L	559	IEUA, 2011-12
Peak Month Average Raw Influent Loadings			
BOD-5 day	lbs/day	59,613	calculated [1]
TSS	lbs/day	69,405	calculated [1]

[1] For more information on calculated values, see comments in right margin.

Table 4-3. Screening Facilities Design Data

Parameter	Units	Value	Reference
Mechanical Bar Screens			
Number	units	2	CH2M-Hill, 1988
Channel width	feet	4.0	CH2M-Hill, 1988
Channel depth	feet	13.7	CH2M-Hill, 1988
Bar spacing	inches	0.5	CH2M-Hill, 1988
Peak flow capacity	mgd, each	20	CH2M-Hill, 1988
Total peak flow capacity	mgd	40	calculated [1]
Manual Bar Screen			
Number	units	1	CH2M-Hill, 1988
Channel width	feet	4.0	CH2M-Hill, 1988
Channel depth	feet	5.2	CH2M-Hill, 1988
Bar spacing	inches	1	CH2M-Hill, 1988
Peak flow capacity	mgd	40	CH2M-Hill, 1988

[1] For more information on calculated values, see comments in right margin.

Table 4-5. Flow Measurement Design Data

Parameter	Units	Value	Reference
Influent Parshall Flume			
Number	units	1	CH2M-Hill, 1988
Throat size	inches	48	IEUA, 2014
Maximum capacity	mgd	43.9	calculated [1]
Ultrasonic level sensor	units	1	HDR, 2005
Motor-operated Weir Gates	units	2	HDR, 2005
Ultrasonic Level Indicators on the Influent Diversion Structure	units	2	HDR, 2005

[1] For more information on calculated values, see comments in right margin.

Table 4-7. Primary Treatment Design Data

Parameter	Units	Value	Reference
Primary Clarifiers			
Number	units	2	CH2M-Hill, 1988
Diameter	feet	95	CH2M-Hill, 1988
Side water depth	feet	12	CH2M-Hill, 1988
Total volume	cu ft	170,117	calculated [1]
Surface area per clarifier	sq ft	7,088	calculated [1]
Total surface area, all units in service	sq ft	14,176	calculated [1]
Peak overflow rate, all units in service	gpd/sq ft	1,760	CH2M-Hill, 1988
Peak capacity per clarifier	mgd	12.5	calculated [1]
Total peak flow capacity, all units in service	mgd	25.0	calculated [1]
Total annual average flow capacity, all units in service	mgd	13.2	calculated [1]
Total annual average flow capacity, one unit out of service	mgd	6.6	calculated [1]
Detention Time at annual average flow, all units in service	hours	2.7	calculated [1]
BOD Removal	percent	30	CH2M-Hill, 1987
TSS Removal	percent	60	Ch2M-Hill, 1987

[1] For more information on calculated values, see comments in right margin.

Table 4-8. Chemical Facilities Serving Primary Treatment Design Data

Parameter	Units	Value	Reference
Ferric Chloride Storage and Feed Facilities			
Storage Tanks			
Number	units	1	IEUA, 2014
Total storage volume	gal	7,000	IEUA, 2014
Feed Pumps			
Number	units	2	IEUA, 2014
Ferric chloride dosage	mg/L	15	IEUA, 2014
Total ferric chloride use	lbs/day	1,426	calculated [1]
Polymer Storage and Feed Facilities (typically not used)			

[1] For more information on calculated values, see comments in right margin.

Table 4-11. Short-Term Emergency Storage & Pumping Design Criteria

Parameter	Units	Value	Reference
Emergency Storage			
Number of basins	units	1	CH2M-Hill, 1988
Volume	mil gal	9	CH2M-Hill, 1987
Volume as a percent of annual average flow	percent	79	calculated[1]
Retention time at annual average flow	hours	19	calculated[1]
Emergency Storage Return Pumping			
Number of pumps	units	1	IEUA, 2014
Type of pumps	type	Submersible	IEUA, 2014
Capacity per pump	mgd	4	IEUA, 2014

[1] For more information on calculated values, see comments in right margin.

Table 4-12. Secondary Treatment Design Criteria

Parameter	Units	Value	Reference
Influent Annual Average Flow	mgd	11.4	CH2M-Hill, 1988
Average influent BOD	mg/L	316	calculated [2]
Average influent TSS	mg/L	156	calculated [2]
Average influent Total Nitrogen	mg/L	43	calculated[2,4]
Peak month influent BOD	mg/L	439	calculated [2]
Peak month influent TSS	mg/L	292	calculated [2]
Peak month influent Total Nitrogen	mg/L	48	calculated[2,4]
Aeration Basin No. 1 [1]			
Anoxic zone			
Number of basins	units	1	IEUA, 2014
Length, each	feet	55	IEUA, 2014
Width, each	feet	50	CH2M-Hill, 1988
Side water depth	feet	21	CH2M-Hill, 1988
Total volume	mil gal	0.43	calculated[2]
Oxic zone			
Number of basins	units	1	IEUA, 2014
Length, each	feet	135	IEUA, 2014
Width, each	feet	50	CH2M-Hill, 1988
Side water depth	feet	21	Ch2M-Hill, 1988
Total volume	mil gal	1.06	calculated [2]
Average mixed liquor suspended solids	mg/L	3,800	IEUA, 2014
Aeration type	type	Flexible sheath	CBMWD, 1994
Aeration Basin Nos. 2 through 6			
Anoxic zone			
Number of basins	units	5	IEUA, 2014
Length, each	feet	77	IEUA, 2014
Width, each	feet	50	CH2M-Hill, 1988
Side water depth	feet	21	CH2M-Hill, 1988
Total volume	mil gal	3.02	calculated [2]
Number of anoxic mixers per basin	units	4	IEUA, 2014
Hydraulic retention time in anoxic zone at annual average flow	hours	6.4	calculated [2]

Parameter	Units	Value	Reference
Oxic (aeration) zone			
Number of basins	units	5	IEUA, 2014
Length, each	feet	113	IEUA, 2014
Width, each	feet	50	CH2M-Hill, 1988
Side water depth	feet	21	CH2M-Hill, 1988
Total volume	mil gal	4.44	calculated [2]
Average mixed liquor suspended solids	mg/L	3,800	IEUA, 2014
Dissolved oxygen level	mg/L	2.0	IEUA, 2014
Aeration type	type	Flexible sheath	CBMWD, 1994
Hydraulic retention time in oxic zone at annual average flow	hours	9.3	calculated [2]
Mixed Liquor Return Pumping			
Number of pumps	units	4	IEUA, 2014
Type	type	Low-head submersible, propeller	CH2M-Hill, 1987
Capacity, each	mgd	10.7	IEUA, 2014

[1] Aeration Basin No. 1 anoxic and oxic zone lengths are variable.
[2] For more information on calculated values, see comments in right margin.
[3] See Section 4.2 regarding design flows.
[4] Assume 20% total nitrogen removal by primary treatment.

Table 4-13. Secondary Clarifier Design Criteria

Parameter	Units	Value	Reference
Number	units	3	CH2M-Hill, 1988
Diameter, each	feet	120	CH2M-Hill, 1988
Side water depth	feet	15	CH2M-Hill, 1988
Surface area per clarifier	sq ft	11,310	calculated[1]
Total surface area	sq ft	33,929	calculated[1]
Volume per clarifier	gallons	1,269,100	calculated[1]
Total volume	gallons	3,807,400	calculated[1]
Average overflow rate, all units in service, initial design	gpd/sq ft	360	CH2M-Hill, 1988
Peak month overflow rate, all units in service, initial design	gpd/sq ft	460	CH2M-Hill, 1988
Detention time at Annual Average Flow, all units in service	hours	8.0	calculated[1]
Average solids loading rate	lbs/day/sq ft	11	CH2M-Hill, 1988
Peak month solids loading rate	lbs/day/sq ft	14	CH2M-Hill, 1988
Return Activated Sludge	mg/L	8,000	CH2M-Hill, 1987
Annual average flow capacity, all units in service, 2014 re-rated capacity	mgd	14	CH2M-Hill, 2014
Annual average flow capacity, one unit out of service, 2014 re-rated capacity	mgd	12	CH2M-Hill, 2014
Average overflow rate, all units in service, 2014 re-rated capacity	gpd/sq ft	413	calculated[1]
Average overflow rate, one unit out of service, 2014 re-rerated capacity	gpd/sq ft	530	calculated[1]
Peak overflow rate, all units in service, 2014 re-rated capacity	gpd/sq ft	784	calculated[1]

[1] For more information on calculated values, see comments in right margin.

Table 4-17. Coagulation / Flocculation Design Data

Parameter	Units	Value	Reference
Rapid Mix Chamber			
Number	units	1	CH2M-Hill, 1988
Length	feet	17.5	CH2M-Hill, 1988
Width	feet	9	CH2M-Hill, 1988
Side water depth	feet	11.6	CH2M-Hill, 1988
Total volume	cu ft	1,833	calculated [1]
Detention Time at annual average flow	minutes	2	calculated [1]
Coagulation / Flocculation Basin			
Number	units	1	CH2M-Hill, 1988
Length	feet	49	CH2M-Hill, 1988
Width	feet	18	CH2M-Hill, 1988
Side water depth	feet	7.6	CH2M-Hill, 1988
Total volume	cu ft	6,686	calculated [1]
Detention Time at annual average flow	minutes	6	calculated [1]
Filter-Aid Coagulant System			
Type	---	Aluminum sulfate and/or polymer	IEUA, 2014
Use	---	As-needed	IEUA, 2014
Feedpoint	---	Rapid mix chamber to flocculation	IEUA, 2014
Alum pumps	units	2	IUEA, 2014
Alum storage tank	number	1	IEUA, 2014
Polymer pumps	units	2	IEUA, 2014
Polymer storage tanks	number	2	IEUA, 2014

[1] For more information on calculated values, see comments at right margin.

Table 4-18. Tertiary Filtration Design Criteria

Parameter	Units	Value	Reference
Total number of filters	units	3	CH2M-Hill, 1988
Type	type	Shallow bed, continuous backwash	CH2M-Hill, 1988
Media	type	sand	CH2M-Hill, 1988
Depth	inches	16	CH2M-Hill, 1988
Length per filter	feet	100	CH2M-Hill, 1988
Width per filter	feet	16	CH2M-Hill, 1988
Surface area per filter	sq ft	1,600	calculated[1]
Total surface area, all filters in service	sq ft	4,800	calculated[1]
Firm surface area, one filter out for maintenance	sq ft	3,200	calculated[1]
Maximum filtration rate	gpm/sq ft	4.0	CDPH, 2010 and RWQCB, 2010
Maximum capacity, all filters in service [2]	mgd	27.6	calculated[1]
Filter backwash rate	gpm/sq ft	15	CH2M-Hill, 1988
Waste backwash pumping			
Number of pumps	units	3	CH2M-Hill, 1988
Type	type	Submersible, centrifugal	CH2M-Hill, 1988
Capacity per pump	gpm	950	CH2M-Hill, 1988
Total capacity	gpm	2,850	calculated[1]

[1] For more information on calculated values, see comments in right margin.
[2] See Section 4 regarding reliable capacity.

Table 4-20. Sodium Hypochlorite System Design Criteria

Parameter	Units	Value	Reference
Sodium hypochlorite concentration	percent	12.5	IEUA, 2014
Maximum dose @ average flow	mg/L	20	Parsons, 2003, IEUA, 2014
Days of storage	days	3	IEUA, 2014
Bulk Storage System			
Number of tanks	units	2	IEUA, 2014
Volume per tank	gallons	10,000	IEUA, 2014
Total volume	gallons	20,000	calculated[1]
Feed System			
Number of metering pumps	units	4	IEUA, 2014
Capacity per pump	gph	77	IEUA, 2014
Capacity			
Peak capacity at 10 mg/L feedrate, all units in service	mgd	88.6	calculated[1]
Annual average capacity at 15 mg/L feedrate, all units in service	mgd	59.1	calculated[1]
Annual average capacity at 15 mg/L feedrate, one pump out of service	mgd	44.3	calculated[1]

[1] For more information on calculated values, see comments in right margin.

Table 4-21. Chlorine Contact Tank Operating Parameters

Parameter	Units	Value	Reference
Number of tanks	units	1	CH2M-Hill, 1988
Length (per channel) (8 channels)	feet	115	CH2M-Hill, 1988, IEUA, 2014, CBMWD, 1998
Width per tank (8 channels)	feet	92.7	IEUA, 2014
Average side water depth	feet	13.25	IEUA, 2014
Total contact volume[1]	gallons	1,047,560	calculated[2]
Channel width	feet	11.6	IEUA, 2014
Effective length	feet	911.2	calculated[2]
Length : width	ratio	78 : 1	calculated[2]
Length : depth	ratio	69 : 1	calculated[2]
Required modal contact time	minutes	90	CCR, 2001
Required CT	mg-min/L	450	CCR, 2001
Peak capacity, at 89 minutes modal contact time, all units in service	mgd	15.61	SFE Global, 2004
PDWF capacity, at 90 minutes modal contact time, all units in service	mgd	15.4 [3]	calculated[2]

[1] Total volume of tank plus inlet chamber, less dechlorination chamber.
[2] For more information on calculated values, see comments in right margin.
[3] See Section 4 regarding reliable capacity.

Table 4-23. Dechlorination Design Criteria

Parameter	Units	Value	Reference
Average Sodium Bisulfite Dose	mg/L	7	Parsons, 2003
Average Sodium Bisulfite Feed Rate	lbs/day	648	calculated[1]
Average Sodium Bisulfite Use	gpd	155	calculated[1]
Maximum Sodium Bisulfite Dose	mg/L	20	IEUA, 2014
Maximum Sodium Bisulfite Feed Rate	lbs/day	1,851	calculated[1]
Maximum Sodium Bisulfite Use	gpd	443	calculated[1]
Sodium Bisulfite Storage			
Number of tanks	units	1	Lee & Ro, 2004
Volume per tank	gallons	5,500	IEUA, 2014
	gallons	11,000	IEUA, 2014
Sodium Bisulfite Feed Pumps			
Type	---	Diaphragm metering	Stantec, 2012
Total number of pumps	units	5	Stantec, 2012
Number of skid pumps	units	2	Stantec, 2012
Capacity per skid pump	gph	5.2	IEUA, 2014
Number of stand-alone pumps	units	2	Stantec, 2012
Capacity per stand-alone pump	gph	20.2	Stantec, 2012
Number of large pumps	units	1	Stantec, 2012
Capacity per large pump	gph	52	IEUA, 2014
Capacity			
Feed rate	gpd	2,467	calculated[1]
Peak capacity at 20 mg/L feedrate, all units in service	mgd	62.1	calculated[1]
Annual average capacity, all units in service	mgd	32.7	calculated[1]
Annual average capacity, largest pump out of service	mgd	16.2	calculated[1]

[1] For more information on calculated values, see comments in right margin.

Appendix C

Carbon Canyon Water Recycling Facility

Summary of Alarms

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
1	CP3030	SBS	SBS_AIN	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
2	CP3030	SBS	P1_SPEED_IND	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
3	CP3030	SBS	P2_SPEED_IND	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
4	CP3030	SBS	P3_SPEED_IND	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
5	CP3030	SBS	P1_PRES_IND	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
6	CP3030	SBS	P2_PRES_IND	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
7	CP3030	SBS	P3_PRES_IND	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
8	CP3030	SBS	FIT_5441	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
9	CP3030	SBS	FIT_5442	AIN	BAD/OUT OF RANGE	I/O BAD	5	5	N/A	N/A	
10	CP3030	SBS	FIT_5462	AIN	BAD/OUT OF RANGE	CREEK FLOW IOBAD	1	1	N/A	N/A	
11	CP3030	SBS	TANK1	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
12	CP3030	SBS	TANK2	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
13	CP3030	BLEACH	P1_PRES_IND	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
14	CP3030	BLEACH	P2_PRES_IND	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
15	CP3030	BLEACH	P3_PRES_IND	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
16	CP3030	BLEACH	P4_PRES_IND	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
17	CP3030	BLEACH	TANK1	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
18	CP3030	BLEACH	TANK2	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
19	CP3030	SHUTDN	CT_AVG	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
20	CP3030	SHUTDN	DT_AVG	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
21	CP3030	SHUTDN	FILTER_LOAD	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
22	CP3030	A_AIO	FIT_1452	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
23	CP3030	A_AIO	FI_0705	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
24	CP3030	A_AIO	AI_0667	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
25	CP3030	A_AIO	AI_0720	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
26	CP3030	A_AIO	AI_0725	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
27	CP3030	A_AIO	AI_0730	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
28	CP3030	A_AIO	HIGH_SO2_LIM	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
29	CP3030	A_AIO	AI_0767	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
30	CP3030	A_AIO	PH_14	AIN	BAD/OUT OF RANGE	I/O BAD	1	1	N/A	N/A	
31	CP3030	A_AIO	OUTFALL_EC	AIN	BAD/OUT OF RANGE	BAD OUTFALL EC	2	2	N/A	N/A	
32	CP3030	A_AIO	LI_1113A	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	5	N/A	N/A	
33	CP3030	A_AIO	LI_1113B	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
34	CP3030	A_AIO	LI_1122	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
35	CP3030	A_AIO	PI_1221	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
36	CP3030	A_AIO	FI_1250	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
37	CP3030	A_AIO	LI_1250	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
38	CP3030	B_AIO	ZI_0520A	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
39	CP3030	B_AIO	ZI_0520B	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
40	CP3030	B_AIO	ZI_0520C	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
41	CP3030	B_AIO	FI_0520A	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
42	CP3030	B_AIO	FI_0520B	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
43	CP3030	B_AIO	FI_0520C	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	3	N/A	N/A	
44	CP3030	B_AIO	FIC_0540	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
45	CP3030	B_AIO	BL1_AMP	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
46	CP3030	B_AIO	BL2_AMP	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
47	CP3030	B_AIO	BL3_AMP	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
48	CP3030	B_AIO	PI_1030	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
49	CP3030	B_AIO	FI_1040	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
50	CP3030	B_AIO	FI_2665	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
51	CP3030	ALUM	TURB_CNTRL	AIN	BAD DISABLED	BAD Disabled	5	5	N/A	N/A	
52	CP3030	RECLAIM	RECVLV_POS	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
53	CP3030	RECLAIM	RECVLV_TIME	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
54	CP3030	RECLAIM	PMPFLW	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
55	CP3030	RECLAIM	RESVFLW	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
56	CP3030	RECLAIM	RESVLVL	AIN	BAD/OUT OF RANGE	RECLAIM LEVEL BAD	1	1	N/A	N/A	
57	CP3030	RECLAIM	R1CL2	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
58	CP3030	RECLAIM	R2CL2	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
59	CP3030	RECLAIM	T1LVL	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
60	CP3030	RECLAIM	RP2_RECL_FLW	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
61	CP3031	INFLUENT	CCW_TOT_FLOW	AIN	BAD DISABLED	BAD Disabled	2	2	N/A	N/A	
62	CP3031	INFLUENT	CCW_FLOW_AV	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
63	CP3031	INFLUENT	INFL_LEVEL	AIN	BAD DISABLED	BAD Disabled	2	2	N/A	N/A	
64	CP3031	INFLUENT	RP5_FLOW	AIN	BAD DISABLED	BAD Disabled	2	2	N/A	N/A	
65	CP3031	INFLUENT	RP5_LEVEL	AIN	BAD DISABLED	BAD Disabled	2	2	N/A	N/A	
66	CP3031	INFLUENT	CCWRF_LEVEL	AIN	BAD DISABLED	BAD Disabled	2	2	N/A	N/A	
67	CP3031	C_AIO	LI_0310	AIN	BAD/OUT OF RANGE	TRANS FAIL	1	1	N/A	N/A	
68	CP3031	C_AIO	AI_0425A	AIN	BAD/OUT OF RANGE	AI_0425A BAD	5	3	N/A	N/A	
69	CP3031	C_AIO	AI_0425B	AIN	BAD/OUT OF RANGE	AI_0425B BAD	2	1	N/A	N/A	
70	CP3031	C_AIO	AI_0425C	AIN	BAD/OUT OF RANGE	AI_0425C BAD	2	1	N/A	N/A	
71	CP3031	C_AIO	AI_0425D	AIN	BAD/OUT OF RANGE	AI_0425D BAD	2	1	N/A	N/A	
72	CP3031	C_AIO	AI_0425E	AIN	BAD/OUT OF RANGE	AI_0425E BAD	2	1	N/A	N/A	
73	CP3031	C_AIO	AI_0425F	AIN	BAD/OUT OF RANGE	AI_0425F BAD	2	1	N/A	N/A	
74	CP3031	C_AIO	ZI_0430B	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
75	CP3031	C_AIO	ZI_0430C	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
76	CP3031	C_AIO	ZI_0430D	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
77	CP3031	C_AIO	ZI_0430E	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
78	CP3031	C_AIO	ZI_0430F	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
79	CP3031	C_AIO	AI_0430B	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
80	CP3031	C_AIO	AI_0430C	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
81	CP3031	C_AIO	AI_0430D	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
82	CP3031	C_AIO	AI_0430E	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
83	CP3031	C_AIO	AI_0430F	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
84	CP3031	D_AIO	APH_106	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
85	CP3031	D_AIO	LI_0105A	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
86	CP3031	D_AIO	LI_0105B	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
87	CP3031	D_AIO	FI_0150	AIN	BAD/OUT OF RANGE	FI_0150 BAD	1	1	N/A	N/A	
88	CP3031	D_AIO	FI_0250	AIN	BAD/OUT OF RANGE	TRANS FAIL	5	1	N/A	N/A	
89	CP3031	D_AIO	LI_1305	AIN	BAD/OUT OF RANGE	XMTR FAIL	5	1	N/A	N/A	
90	CP3031	D_AIO	LI_1305B	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
91	CP3031	D_AIO	FI_1320	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
92	CP3031	D_AIO	AI_0169	AIN	BAD/OUT OF RANGE	TRANS FAIL	2	2	N/A	N/A	
93	CP3031	D_AIO	SYS_TIME	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
94	CP3031	D_AIO	AI3165A	AIN	BAD/OUT OF RANGE	AI365 BAD	2	2	N/A	N/A	
95	CP3031	CP2ALMS	CCWRF_TIMER	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
96	CP3031	SLDGXFR	LEVEL_CNTRL	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
97	CP3031	ODOR_A	LI3115A	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
98	CP3031	ODOR_A	LI3115B	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
99	CP3030	RECLAIM	PUMPS_KW	AIN	BAD DISABLED	BAD Disabled	5	1	N/A	N/A	
100	CP3030	SBS	SBS_AIN	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
101	CP3030	SBS	P1_SPEED_IND	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
102	CP3030	SBS	P2_SPEED_IND	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
103	CP3030	SBS	P3_SPEED_IND	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
104	CP3030	SBS	P1_PRES_IND	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
105	CP3030	SBS	P2_PRES_IND	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
106	CP3030	SBS	P3_PRES_IND	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
107	CP3030	SBS	FIT_5441	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
108	CP3030	SBS	FIT_5442	AIN	OUT OF RANGE	OUT OF RANGE	5	5	N/A	N/A	
109	CP3030	SBS	FIT_5462	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
110	CP3030	SBS	TANK1	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
111	CP3030	SBS	TANK2	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
112	CP3030	BLEACH	P1_PRES_IND	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
113	CP3030	BLEACH	P2_PRES_IND	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
114	CP3030	BLEACH	P3_PRES_IND	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
115	CP3030	BLEACH	P4_PRES_IND	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
116	CP3030	BLEACH	TANK1	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
117	CP3030	BLEACH	TANK2	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
118	CP3030	SHUTDN	CT_AVG	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
119	CP3030	SHUTDN	DT_AVG	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
120	CP3030	SHUTDN	FILTER_LOAD	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
121	CP3030	A_AIO	FIT_1452	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
122	CP3030	A_AIO	FI_0705	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
123	CP3030	A_AIO	AI_0667	AIN	OUT OF RANGE DISABLED	OUT OF RANGE	1	1	N/A	N/A	
124	CP3030	A_AIO	AI_0720	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
125	CP3030	A_AIO	AI_0725	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
126	CP3030	A_AIO	AI_0730	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
127	CP3030	A_AIO	HIGH_SO2_LIM	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
128	CP3030	A_AIO	AI_0767	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
129	CP3030	A_AIO	PH_14	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
130	CP3030	A_AIO	OUTFALL_EC	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
131	CP3030	A_AIO	LI_1122	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
132	CP3030	A_AIO	PI_1221	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
133	CP3030	A_AIO	FI_1250	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
134	CP3030	A_AIO	LI_1250	AIN	OUT OF RANGE	OUT OF RANGE	1	1	N/A	N/A	
135	CP3030	B_AIO	FI_0520A	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
136	CP3030	B_AIO	FI_0520B	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
137	CP3030	B_AIO	FI_0520C	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
138	CP3030	B_AIO	FIC_0540	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
139	CP3030	B_AIO	BL1_AMP	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
140	CP3030	B_AIO	BL2_AMP	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
141	CP3030	B_AIO	BL3_AMP	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
142	CP3030	B_AIO	PI_1030	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
143	CP3030	ALUM	TURB_CNTRL	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
144	CP3030	RECLAIM	RECVLV_POS	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
145	CP3030	RECLAIM	RECVLV_TIME	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
146	CP3030	RECLAIM	PMPFLW	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
147	CP3030	RECLAIM	RESVFLW	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
148	CP3030	RECLAIM	RESVLVL	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
149	CP3030	RECLAIM	R1CL2	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
150	CP3030	RECLAIM	R2CL2	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
151	CP3030	RECLAIM	T1LVL	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
152	CP3030	RECLAIM	RP2_RECL_FLW	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
153	CP3031	INFLUENT	CCW_TOT_FLOW	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
154	CP3031	INFLUENT	CCW_FLOW_AV	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
155	CP3031	INFLUENT	INFL_LEVEL	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
156	CP3031	INFLUENT	RP5_FLOW	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
157	CP3031	INFLUENT	RP5_LEVEL	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
158	CP3031	INFLUENT	CCWRF_LEVEL	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
159	CP3031	C_AIO	LI_0310	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
160	CP3031	C_AIO	AI_0425A	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
161	CP3031	C_AIO	AI_0425B	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
162	CP3031	C_AIO	AI_0425C	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
163	CP3031	C_AIO	AI_0425D	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
164	CP3031	C_AIO	AI_0425E	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
165	CP3031	C_AIO	AI_0425F	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
166	CP3031	C_AIO	ZI_0430B	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
167	CP3031	C_AIO	ZI_0430C	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
168	CP3031	C_AIO	ZI_0430D	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
169	CP3031	C_AIO	ZI_0430E	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
170	CP3031	D_AIO	APH_106	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
171	CP3031	D_AIO	FI_0150	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
172	CP3031	D_AIO	LI_1305	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
173	CP3031	D_AIO	LI_1305B	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
174	CP3031	D_AIO	FI_1320	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
175	CP3031	D_AIO	AI_0169	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
176	CP3031	D_AIO	SYS_TIME	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
177	CP3031	CP2ALMS	CCWRF_TIMER	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
178	CP3031	SLDGXFR	LEVEL_CNTRL	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
179	CP3031	ODOR_A	LI3115A	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
180	CP3031	ODOR_A	LI3115B	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
181	CP3030	RECLAIM	PUMPS_KW	AIN	OUT OF RANGE DISABLED	Out of Range Disabled	DISABLED	DISABLED	N/A	N/A	
182	CP3030	SBS	SBS_AIN	AIN	HI&LO ALM	START PUMP & STOP PUMP	5	5	0.9	1.3	
183	CP3030	SBS	P1_PRES_IND	AIN	HI ALM	& HIGH PRESSURE	1	1	N/A	50	
184	CP3030	SBS	P2_PRES_IND	AIN	HI ALM	& HIGH PRESSURE	1	1	N/A	50	
185	CP3030	SBS	P3_PRES_IND	AIN	HI ALM	& HIGH PRESSURE	1	1	N/A	50	
186	CP3030	SBS	FIT_5462	AIN	HI ALM	LOW FLOW & HIGH FLOW	5	5	N/A	18.1	
187	CP3030	SBS	TANK1	AIN	LO ALM	SBS TANK1 SWITCHOVER &	2	2	2.9	N/A	
188	CP3030	SBS	TANK2	AIN	LO ALM	SBS TANK2 SWITCHOVER &	2	2	2.9	N/A	
189	CP3030	BLEACH	P1_PRES_IND	AIN	HI ALM	& HIGH PRESSURE	5	5	N/A	71	
190	CP3030	BLEACH	P2_PRES_IND	AIN	HI ALM	& HIGH PRESSURE	5	1	N/A	72	
191	CP3030	BLEACH	P3_PRES_IND	AIN	HI ALM	& HIGH PRESSURE	5	5	N/A	73	
192	CP3030	BLEACH	P4_PRES_IND	AIN	HI ALM	& HIGH PRESSURE	5	5	N/A	74	
193	CP3030	BLEACH	TANK1	AIN	LO ALM	BLEACH TANK1 SWITCHOVER &	5	5	3	N/A	
194	CP3030	BLEACH	TANK2	AIN	LO ALM	BLEACH TANK2 SWITCHOVER &	5	5	3	N/A	
195	CP3030	SHUTDN	CT_AVG	AIN	LO ALM	LOW HOURLY AVE. CT &	1	1	460	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
196	CP3030	SHUTDN	DT_AVG	AIN	LO ALM	LOW HOURLY AVE. DT &	1	1	95	N/A	
197	CP3030	SHUTDN	FILTER_LOAD	AIN	HI ALM	& HIGH ALARM	1	1	N/A	2.45	
198	CP3030	A_AIO	FIT_1452	AIN	HI&LO ALM	&	5	3	50	50000	
199	CP3030	A_AIO	FI_0705	AIN	HI&LO ALM	EFFL. FLW LOW & EFFL. FLW HI	1	2	2	15.43	
200	CP3030	A_AIO	AI_0667	AIN	HI ALM	& HIGH TURB	1	1	N/A	3	
201	CP3030	A_AIO	AI_0720	AIN	HI&LO ALM	INITIAL CL2 RESIDUAL LOW & INITIAL CL2 RESIDUAL HIGH	1	1	4.8	9.5	
202	CP3030	A_AIO	AI_0725	AIN	HI&LO ALM	EFFLUENT CL2 RESIDUAL LOW & EFFLUENT CL2 RESID. HIGH	1	1	3.5	8.5	
203	CP3030	A_AIO	AI_0730	AIN	HI&LO ALM	& SBS HIGH BUMP	2	2	-1	4.5	
204	CP3030	A_AIO	HIGH_SO2_LIM	AIN	HI ALM	& HIGH SBS ALARM DISABLED	5	5	N/A	3600	
205	CP3030	A_AIO	AI_0767	AIN	HI&LO ALM	LOW TURBIDITY & HIGH ALARM	1	2	0.1	2	
206	CP3030	A_AIO	PH_14	AIN	HI&LO ALM	OUTFALL PH LOW & OUTFALL PH HIGH	1	2	6.44	8.5	
207	CP3030	A_AIO	OUTFALL_EC	AIN	HI&LO ALM	LOW EC & HIGH EC	2	2	400	1500	
208	CP3030	A_AIO	LI_1122	AIN	HI&LO ALM	&	5	1	0.25	10	
209	CP3030	A_AIO	PI_1221	AIN	HI&LO ALM	LOW & HIGH	1	1	40	110	
210	CP3030	A_AIO	FI_1250	AIN	HI&LO ALM	&	5	1	25	1600	
211	CP3030	A_AIO	LI_1250	AIN	LO ALM	LEVEL LOW/CLOSE REC. VLV. &	2	1	9.8	N/A	
212	CP3030	B_AIO	FI_0520A	AIN	LO ALM	LOW FLOW &	5	1	2	N/A	
213	CP3030	B_AIO	FI_0520B	AIN	LO ALM	LOW FLOW &	2	2	2	N/A	
214	CP3030	B_AIO	FI_0520C	AIN	LO ALM	LOW FLOW &	1	1	2	N/A	
215	CP3030	B_AIO	FIC_0540	AIN	HI&LO ALM	WAS FLOW LOW & WAS FLOW HIGH	1	2	20	500	
216	CP3030	B_AIO	BL1_AMP	AIN	HI ALM	& HIGH AMP	5	5	N/A	49	
217	CP3030	B_AIO	BL2_AMP	AIN	HI ALM	& HIGH AMP	5	5	N/A	52	
218	CP3030	B_AIO	BL3_AMP	AIN	HI ALM	& HIGH AMP	5	5	N/A	49	
219	CP3030	B_AIO	PI_1030	AIN	LO ALM	LOW PRESSURE &	1	1	10.1	N/A	
220	CP3030	ALUM	TURB_CNTRL	AIN	HI&LO ALM	ALUM P1 STOP & ALUM P1 START	5	5	1.5	4	
221	CP3030	RECLAIM	RECVLV_POS	AIN	LO ALM	RECLAIM VALVE CLOSED &	2	2	25	N/A	
222	CP3030	RECLAIM	RECVLV_TIME	AIN	HI ALM	& RECLAIM VALVE ALARM START	5	5	N/A	1.75	
223	CP3030	RECLAIM	PMPFLW	AIN	HI&LO ALM	&	5	3	800	10000	
224	CP3030	RECLAIM	RESVFLW	AIN	HI&LO ALM	&	5	3	500	10000	
225	CP3030	RECLAIM	RESVLVL	AIN	LO ALM	LAG1 SHUTDOWN &	2	2	14.5	N/A	
226	CP3030	RECLAIM	R1CL2	AIN	HI&LO ALM	MID CL2 RESIDUAL LOW & MID CL2 RESIDUAL HIGH	1	1	4.5	9	
227	CP3030	RECLAIM	R2CL2	AIN	HI&LO ALM	RECLAIM DISCHARGE CL2 LOW & RECLAIM DISCHARGE CL2 HIGH	2	1	1	7	
228	CP3030	RECLAIM	T1LVL	AIN	HI&LO ALM	BLEACH TANK LEVEL LOW &	5	1	2	100	
229	CP3030	RECLAIM	RP2_RECL_FLW	AIN	HI ALM	& HIGH FLOW	1	1	N/A	2500	
230	CP3031	INFLUENT	CCW_TOT_FLOW	AIN	HI ALM	& TOTAL FLOW HIGH	1	1	N/A	22	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
231	CP3031	INFLUENT	CCW_FLOW_AV	AIN	HI&LO ALM	LOW DEVIATION & HIGH DEVIATION	5	5	:FLOW_SPT.RO02	:FLOW_SPT.RO01	
232	CP3031	INFLUENT	INFL_LEVEL	AIN	HI ALM	& HIGH LEVEL	1	1	N/A	7.3	
233	CP3031	INFLUENT	RP5_FLOW	AIN	HI ALM	& BYPASS FLOW HIGH	5	5	N/A	9.5	
234	CP3031	INFLUENT	RP5_LEVEL	AIN	HI ALM	& HIGH LEVEL	1	1	N/A	7.5	
235	CP3031	INFLUENT	CCWRF_LEVEL	AIN	HI ALM	& HIGH LEVEL	1	1	N/A	7.5	
236	CP3031	C_AIO	LI_0310	AIN	HI&LO ALM	& INFLUENT W.W. HI HI	5	1	0	6.1	
237	CP3031	C_AIO	AI_0425A	AIN	HI&LO ALM	AB 3 LOW D.O. &	5	3	0.4	3	
238	CP3031	C_AIO	AI_0425B	AIN	HI&LO ALM	D.O. LOW & D.O. HIGH	5	3	0.4	3	
239	CP3031	C_AIO	AI_0425C	AIN	HI&LO ALM	D.O. LOW & D.O. HIGH	5	3	0.4	3	
240	CP3031	C_AIO	AI_0425D	AIN	HI&LO ALM	D.O. LOW & D.O. HIGH	5	3	0.4	3	
241	CP3031	C_AIO	AI_0425E	AIN	HI&LO ALM	D.O. LOW & D.O. HIGH	5	3	0.4	3	
242	CP3031	C_AIO	AI_0425F	AIN	HI&LO ALM	D.O. LOW & D.O. HIGH	5	3	0.4	3	
243	CP3031	C_AIO	ZI_0430B	AIN	HI&LO ALM	&	5	1	-20	95	
244	CP3031	C_AIO	ZI_0430C	AIN	HI&LO ALM	&	5	1	0	95	
245	CP3031	C_AIO	ZI_0430D	AIN	HI&LO ALM	&	5	1	0	95	
246	CP3031	C_AIO	ZI_0430E	AIN	HI&LO ALM	&	5	1	0	95	
247	CP3031	D_AIO	APH_106	AIN	HI&LO ALM	INFLUENT PH LOW & INFLUENT PH HIGH	2	2	6.5	8.5	
248	CP3031	D_AIO	FI_0150	AIN	HI&LO ALM	& INFLUENT FLOW HIGH	1	1	0	18	
249	CP3031	D_AIO	LI_1305	AIN	HI&LO ALM	&	1	1	2	8.5	
250	CP3031	D_AIO	LI_1305B	AIN	HI&LO ALM	&	5	2	2	8.5	
251	CP3031	D_AIO	FI_1320	AIN	HI&LO ALM	&	5	1	0	1000	
252	CP3031	D_AIO	AI_0169	AIN	HI&LO ALM	LOW CONDUCTIVITY & HIGH CONDUCTIVITY	2	2	300	1800	
253	CP3031	D_AIO	SYS_TIME	AIN	HI ALM	& EC ALARM START	5	5	N/A	1.5	
254	CP3031	CP2ALMS	CCWRF_TIMER	AIN	HI&LO ALM	&	5	5	0	6	
255	CP3031	SLDGXFR	LEVEL_CNTRL	AIN	HI&LO ALM	PUMP STOP & PUMP START	5	5	2	3.5	
256	CP3031	ODOR_A	LI3115A	AIN	HI&LO ALM	SODIUM HYPOCHLORITE LEVEL LOW & SODIUM HYPOCHLORITE LEVEL HIGH	5	1	2.2	100	
257	CP3031	ODOR_A	LI3115B	AIN	HI&LO ALM	SODIUM HYDROXIDE LEVEL LOW & SODIUM HYDROXIDE LEVEL HIGH	5	1	0	100	
258	CP3030	RECLAIM	PUMPS_KW	AIN	HI&LO ALM	LOW KW HOLD VALUE TO TOTALIZER &	5	5	10	1000	
259	CP3030	SBS	P1_PRES_IND	AIN	HIHI ALM	& P1 HIGH PRESSURE	1	1	N/A	30	
260	CP3030	SBS	P2_PRES_IND	AIN	HIHI ALM	& P2 HIGH PRESSURE	1	1	N/A	30	
261	CP3030	SBS	P3_PRES_IND	AIN	HIHI ALM	& P3 HIGH PRESSURE	1	1	N/A	30	
262	CP3030	SBS	TANK1	AIN	HIHI&LOLO ALM	SBS TANK1 LOW LEVEL & SBS TANK1 HIGH LEVEL	1	1	2.6	7.5	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
263	CP3030	SBS	TANK2	AIN	HIHI&LOLO ALM	SBS TANK2 LOW LEVEL & SBS TANK2 HIGH LEVEL	1	1	2.8	7.5	
264	CP3030	BLEACH	TANK1	AIN	HIHI&LOLO ALM	BLEACH TANK1 LO LEVEL & BLEACH TANK1 HI LEVEL	5	5	2.8	7	
265	CP3030	BLEACH	TANK2	AIN	HIHI&LOLO ALM	BLEACH TANK2 LO LEVEL & BLEACH TANK2 HI LEVEL	5	5	2.8	7	
266	CP3030	SHUTDN	FILTER_LOAD	AIN	HIHI ALM	& WARNING FILTER LOAD HI	1	1	N/A	2.2	
267	CP3030	A_AIO	FI_0705	AIN	HIHI ALM	& EFFL. FLW HI HI	1	2	N/A	15.43	
268	CP3030	A_AIO	AI_0667	AIN	LOLO ALM	LOW TURB &	2	2	0.5	N/A	
269	CP3030	A_AIO	AI_0730	AIN	HIHI&LOLO ALM	&	5	3	0	5.1	
270	CP3030	A_AIO	HIGH_SO2_LIM	AIN	HIHI ALM	& HIGH SBS ALARM ENABLED	5	5	N/A	21600	
271	CP3030	A_AIO	LI_1250	AIN	LOLO ALM	W3 LEVEL LOW &	1	1	8.8	N/A	
272	CP3030	ALUM	TURB_CNTRL	AIN	HIHI&LOLO ALM	ALUM P2 STOP & ALUM P2 START	5	5	1.5	4	
273	CP3030	RECLAIM	RECVLV_TIME	AIN	HIHI ALM	& RECLAIM VALVE ALARM STOP	5	5	N/A	7.5	
274	CP3030	RECLAIM	RESVLVL	AIN	LOLO ALM	LAG2 SHUTDOWN &	2	2	15	N/A	
275	CP3031	D_AIO	SYS_TIME	AIN	HIHI ALM	& EC ALARM STOP	5	5	N/A	7	
276	CP3031	CP2ALMS	CCWRF_TIMER	AIN	HIHI ALM	&	5	5	N/A	16	
277	CP3030	SBS	P1_FAIL	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
278	CP3030	SBS	P2_FAIL	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
279	CP3030	SBS	P3_FAIL	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
280	CP3030	SBS	LAH_5445	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
281	CP3030	SBS	LAH_5447	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
282	CP3030	BLEACH	WTR_CHP_FAIL	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
283	CP3030	BLEACH	P1_FAIL	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
284	CP3030	BLEACH	P2_FAIL	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
285	CP3030	BLEACH	P3_FAIL	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
286	CP3030	BLEACH	P4_FAIL	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
287	CP3030	BLEACH	LAH_5443	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
288	CP3030	BLEACH	LAH_5444	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
289	CP3030	BLEACH	LAH_5446	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
290	CP3031	PAGER	TEST_ALARM	CIN	BAD DISABLED	FAIL	5	1	N/A	N/A	
291	CP3030	BLEACH	BLCH_MTR1	MTR	BAD ENABLED		5	1	N/A	N/A	
292	CP3030	BLEACH	BLCH_MTR2	MTR	BAD ENABLED		5	1	N/A	N/A	
293	CP3030	RECLAIM	P1MTR	MTR	BAD ENABLED		5	1	N/A	N/A	
294	CP3030	RECLAIM	P2MTR	MTR	BAD ENABLED		5	1	N/A	N/A	
295	CP3030	RECLAIM	P3MTR	MTR	BAD ENABLED		5	2	N/A	N/A	
296	CP3030	RECLAIM	P4MTR	MTR	BAD ENABLED		5	1	N/A	N/A	
297	CP3031	PRELIM	BAR1	MTR	BAD ENABLED	BAD I/O F08142-25	5	1	N/A	N/A	
298	CP3031	PRELIM	BAR2	MTR	BAD ENABLED	BAD I/O F08142-26	5	1	N/A	N/A	
299	CP3031	SPR	PUMP_2	MTR	BAD ENABLED	BAD I/O F08133-32	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
300	CP3031	SLDGXFR	PUMP1	MTR	BAD ENABLED	PUMP1 I/O BAD	1	1	N/A	N/A	
301	CP3031	SLDGXFR	PUMP2	MTR	BAD ENABLED	PUMP2 I/O BAD	1	1	N/A	N/A	
302	CP3030	SBS	P1_START	GDEV	BAD ENABLED	I/O BAD	1	1	N/A	N/A	
303	CP3030	SBS	P2_START	GDEV	BAD ENABLED	I/O BAD	1	1	N/A	N/A	
304	CP3030	SBS	P3_START	GDEV	BAD ENABLED	1	1	1	N/A	N/A	
305	CP3030	SBS	P1_FAIL	CIN	DIGITAL ENABLED	SBS PUMP1 DIAPHRAGM FAIL	1	1	N/A	N/A	
306	CP3030	SBS	P2_FAIL	CIN	DIGITAL ENABLED	SBS PUMP2 DIAPHRAGM FAIL	1	1	N/A	N/A	
307	CP3030	SBS	P3_FAIL	CIN	DIGITAL ENABLED	SBS PUMP3 DIAPHRAGM FAIL	1	1	N/A	N/A	
308	CP3030	SBS	LAH_5445	CIN	DIGITAL ENABLED	SBS PIPE TRENCH LEVEL HIGH ALARM	1	1	N/A	N/A	
309	CP3030	SBS	LAH_5447	CIN	DIGITAL ENABLED	SBS SUMP LEVEL HIGH ALARM	1	1	N/A	N/A	
310	CP3030	BLEACH	WTR_CHP_FAIL	CIN	DIGITAL ENABLED	WATER CHAMP FAIL	2	1	N/A	N/A	
311	CP3030	BLEACH	P1_FAIL	CIN	DIGITAL ENABLED	BLEACH PUMP1 DIAPHRAGM FAIL	2	2	N/A	N/A	
312	CP3030	BLEACH	P2_FAIL	CIN	DIGITAL ENABLED	BLEACH PUMP2 DIAPHRAGM FAIL	2	2	N/A	N/A	
313	CP3030	BLEACH	P3_FAIL	CIN	DIGITAL ENABLED	BLEACH PUMP3 DIAPHRAGM FAIL	2	2	N/A	N/A	
314	CP3030	BLEACH	P4_FAIL	CIN	DIGITAL ENABLED	BLEACH PUMP4 DIAPHRAGM FAIL	2	2	N/A	N/A	
315	CP3030	BLEACH	LAH_5443	CIN	DIGITAL ENABLED	BLEACH/SBS PIPE PIPE LEAK ALARM	5	2	N/A	N/A	
316	CP3030	BLEACH	LAH_5444	CIN	DIGITAL ENABLED	BLEACH PIPE TRENCH HIGH LEVEL	5	2	N/A	N/A	
317	CP3030	BLEACH	LAH_5446	CIN	DIGITAL ENABLED	BLEACH SUMP HIGH LEVEL	2	2	N/A	N/A	
318	CP3031	PAGER	TEST_ALARM	CIN	DIGITAL ENABLED	CCWRF PAGER TEST NORMAL	1	1	N/A	N/A	
319	CP3030	BLEACH	BLCH_MTR1	MTR	DIGITAL ENABLED		1	1	N/A	N/A	
320	CP3030	BLEACH	BLCH_MTR2	MTR	DIGITAL ENABLED		1	1	N/A	N/A	
321	CP3030	SLUDGE	WASMTR_1	MTR	DIGITAL ENABLED	WAS PUMP 1 FAIL	5	1	N/A	N/A	
322	CP3030	SLUDGE	WASMTR_2	MTR	DIGITAL ENABLED	WAS PUMP 2 FAIL	5	1	N/A	N/A	
323	CP3030	POLYMER	MIXER1	MTR	DIGITAL ENABLED	MIXER 1 FAIL	5	1	N/A	N/A	
324	CP3030	POLYMER	MIXER2	MTR	DIGITAL ENABLED	MIXER 2 FAIL	5	1	N/A	N/A	
325	CP3030	POLYMER	PLYPMP2	MTR	DIGITAL ENABLED	SOL PUMP 2 FAIL	5	1	N/A	N/A	
326	CP3030	ALUM	ALMMTR_1	MTR	DIGITAL ENABLED	ALUM PUMP 1 FAIL	5	1	N/A	N/A	
327	CP3030	ALUM	ALMMTR_2	MTR	DIGITAL ENABLED	ALUM PUMP 2 FAIL	5	1	N/A	N/A	
328	CP3030	WATER	PUMP1	MTR	DIGITAL ENABLED	WTR PMP1 FAIL	5	1	N/A	N/A	
329	CP3030	WATER	PUMP2	MTR	DIGITAL ENABLED	WTR PMP2 FAIL	5	1	N/A	N/A	
330	CP3030	WATER	PUMP3	MTR	DIGITAL ENABLED	WTR PMP3 FAIL	5	1	N/A	N/A	
331	CP3030	WATER	PUMP4	MTR	DIGITAL ENABLED	WTR PMP4 FAIL	5	1	N/A	N/A	
332	CP3030	RECLAIM	P1MTR	MTR	DIGITAL ENABLED		2	1	N/A	N/A	
333	CP3030	RECLAIM	P2MTR	MTR	DIGITAL ENABLED		1	1	N/A	N/A	
334	CP3030	RECLAIM	P3MTR	MTR	DIGITAL ENABLED		1	2	N/A	N/A	
335	CP3030	RECLAIM	P4MTR	MTR	DIGITAL ENABLED		1	1	N/A	N/A	
336	CP3030	RECLAIM	MP1MTR	MTR	DIGITAL ENABLED		5	1	N/A	N/A	
337	CP3030	RECLAIM	MP2MTR	MTR	DIGITAL ENABLED		5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
338	CP3031	PRELIM	BAR1	MTR	DIGITAL ENABLED	BARSCREEN 1 FAILURE	1	1	N/A	N/A	
339	CP3031	PRELIM	BAR2	MTR	DIGITAL ENABLED	BARSCREEN 2 FAILURE	1	1	N/A	N/A	
340	CP3031	PRELIM	CONVEYOR	MTR	DIGITAL ENABLED	CONVEYOR FAILURE	5	1	N/A	N/A	
341	CP3031	GRIT	GRITPMP1	MTR	DIGITAL ENABLED	GRIT PUMP 1 FAIL	5	1	N/A	N/A	
342	CP3031	GRIT	GRITPMP2	MTR	DIGITAL ENABLED	GRIT PUMP 2 FAIL	5	1	N/A	N/A	
343	CP3031	GRIT	CLASS1	MTR	DIGITAL ENABLED	CLASSIFIER 1 FAIL	3	1	N/A	N/A	
344	CP3031	GRIT	CLASS2	MTR	DIGITAL ENABLED	CLASSIFIER 2 FAIL	5	1	N/A	N/A	
345	CP3031	GRIT	GRITDRV	MTR	DIGITAL ENABLED	GRIT DRIVE FAIL	5	1	N/A	N/A	
346	CP3031	PRISLDG	PSMTR_1	MTR	DIGITAL ENABLED	PS PUMP 1 FAIL	5	1	N/A	N/A	
347	CP3031	PRISLDG	PSMTR_2	MTR	DIGITAL ENABLED	PS PUMP 2 FAIL	5	1	N/A	N/A	
348	CP3031	PRISLDG	PSMTR_3	MTR	DIGITAL ENABLED	PS PUMP 3 FAIL	5	1	N/A	N/A	
349	CP3031	PEPUMPS	PE_PMP1	MTR	DIGITAL ENABLED		5	1	N/A	N/A	
350	CP3031	PEPUMPS	PE_PMP2	MTR	DIGITAL ENABLED		5	1	N/A	N/A	
351	CP3031	PEPUMPS	RAS_PMP	MTR	DIGITAL ENABLED		5	1	N/A	N/A	
352	CP3031	PRI_EFF	PUMP_1	MTR	DIGITAL ENABLED	PE PUMP 1 FAIL	5	1	N/A	N/A	
353	CP3031	PRI_EFF	PUMP_2	MTR	DIGITAL ENABLED	PE PUMP 2 FAIL	5	1	N/A	N/A	
354	CP3031	PRI_EFF	PUMP_3	MTR	DIGITAL ENABLED	PE PUMP 3 FAIL	5	1	N/A	N/A	
355	CP3031	SPR	PUMP_1	MTR	DIGITAL ENABLED	RAS W.W PUMP FAIL	5	1	N/A	N/A	
356	CP3031	SPR	PUMP_2	MTR	DIGITAL ENABLED	SPR PUMP 1 FAIL	1	2	N/A	N/A	
357	CP3031	MIXLQR	PUMP_1	MTR	DIGITAL ENABLED	MLR PUMP 1 FAIL	5	1	N/A	N/A	
358	CP3031	MIXLQR	PUMP_2	MTR	DIGITAL ENABLED	MLR PUMP 2 FAIL	5	1	N/A	N/A	
359	CP3031	MIXLQR	PUMP_3	MTR	DIGITAL ENABLED	MLR PUMP 3 FAIL	5	1	N/A	N/A	
360	CP3031	MIXLQR	PUMP_4	MTR	DIGITAL ENABLED	MLR PUMP 4 FAIL	5	1	N/A	N/A	
361	CP3031	SLDGXFR	PUMP1	MTR	DIGITAL ENABLED	SLDGXFR PMP1 FAIL	1	1	N/A	N/A	
362	CP3031	SLDGXFR	PUMP2	MTR	DIGITAL ENABLED	SLDGXFR PMP2 FAIL	1	1	N/A	N/A	
363	CP3030	POLYMER	MUVLV1	VLV	DIGITAL ENABLED	WTR VLV2 FAIL	5	1	N/A	N/A	
364	CP3030	POLYMER	MUVLV2	VLV	DIGITAL ENABLED	WTR VLV2 FAIL	5	1	N/A	N/A	
365	CP3030	POLYMER	W3VLV	VLV	DIGITAL ENABLED	W3 VALVE FAIL	5	1	N/A	N/A	
366	CP3030	ALUM	W3VLV	VLV	DIGITAL ENABLED		5	1	N/A	N/A	
367	CP3031	GRIT	AIRSOL	VLV	DIGITAL ENABLED		5	1	N/A	N/A	
368	CP3031	PEPUMPS	RASGATE	VLV	DIGITAL ENABLED		5	1	N/A	N/A	
369	CP3031	PRI_EFF	GATE_1	VLV	DIGITAL ENABLED	PE GATE 1 FAIL	5	1	N/A	N/A	
370	CP3031	PRI_EFF	GATE_2	VLV	DIGITAL ENABLED	PE GATE 2 FAIL	5	1	N/A	N/A	
371	CP3031	PRI_EFF	GATE_3	VLV	DIGITAL ENABLED	PE GATE 3 FAIL	5	1	N/A	N/A	
372	CP3030	SBS	P1_START	GDEV	DIGITAL ENABLED	SBS PUMP #1 FAIL	1	1	N/A	N/A	
373	CP3030	SBS	P2_START	GDEV	DIGITAL ENABLED	SBS PUMP #2 FAIL	1	1	N/A	N/A	
374	CP3030	SBS	P3_START	GDEV	DIGITAL ENABLED	SBS PUMP #3 FAIL	1	1	N/A	N/A	
375	CP3030	SBS	TANK1_VALVE	GDEV	DIGITAL ENABLED	FAIL	5	5	N/A	N/A	
376	CP3030	SBS	TANK2_VALVE	GDEV	DIGITAL ENABLED	FAIL	5	5	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
377	CP3030	BLEACH	P1_START	GDEV	DIGITAL ENABLED	FAIL	5	5	N/A	N/A	
378	CP3030	BLEACH	P2_START	GDEV	DIGITAL ENABLED	FAIL	5	5	N/A	N/A	
379	CP3030	BLEACH	P3_START	GDEV	DIGITAL ENABLED	FAIL	5	5	N/A	N/A	
380	CP3030	BLEACH	P4_START	GDEV	DIGITAL ENABLED	FAIL	5	5	N/A	N/A	
381	CP3030	BLEACH	TANK1_VALVE	GDEV	DIGITAL ENABLED	FAIL	5	5	N/A	N/A	
382	CP3030	BLEACH	TANK2_VALVE	GDEV	DIGITAL ENABLED	FAIL	5	5	N/A	N/A	
383	CP3030	SBS	SBS_ALARMS1	BLNALM	DIGITAL ENABLED	SBS TANK1 VALVE1 FAILED TO OPENED	1	1	N/A	N/A	
384	CP3030	SHUTDN	CT_ALARM	BLNALM	DIGITAL ENABLED	CT/DT/FL SHUTDOWN DISABLE	1	1	N/A	N/A	
385	CP3030	CP1ALMS	EFF_FILTER1	BLNALM	DIGITAL ENABLED	FILTER #1 FILTER #1 IN BACKWASH	3	2	N/A	N/A	
386	CP3030	CP1ALMS	EFF_FILTER2	BLNALM	DIGITAL ENABLED	FILTER #1 TIME FILTER #1 BACKWASH FAIL	1	1	N/A	N/A	
387	CP3030	CP1ALMS	SEC_CLAR1	BLNALM	DIGITAL ENABLED	LALL_0515B SEC. SCUM PIT 2 LOW-LOW LEVEL	1	1	N/A	N/A	
388	CP3030	CP1ALMS	SEC_CLAR2	BLNALM	DIGITAL ENABLED	PAH_0571C SEC SCUM PUMP 3 DISCH PRESS	1	1	N/A	N/A	
389	CP3030	CP1ALMS	SEC_CLAR3	BLNALM	DIGITAL ENABLED	PAH_0572A WAS PUMP 1 DISCH PRESSURE	1	1	N/A	N/A	
390	CP3030	CP1ALMS	AERA_BLWRS1	BLNALM	DIGITAL ENABLED	UA_1071A AERATION BLOWER 1 TROUBLE ALARM	1	1	N/A	N/A	
391	CP3030	CP1ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	LAH_0468 SODA ASH STORAGE SILO HIGH LEVEL	1	1	N/A	N/A	
392	CP3030	CP1ALMS	MISC_SYS1	BLNALM	DIGITAL ENABLED	PALL_2615 AIR LOW-LOW PRESSURE	2	1	N/A	N/A	
393	CP3030	CP1ALMS	SULFON1	BLNALM	DIGITAL ENABLED	FAL_0917 W3 TO SULFONATION FLOW LOW	5	1	N/A	N/A	
394	CP3030	CP1ALMS	CHEM_SYS1	BLNALM	DIGITAL ENABLED	LALL_1113A POLYMER DAY TANK 1 LO-LO LEVEL	1	1	N/A	N/A	
395	CP3030	CP1ALMS	CHEM_SYS2	BLNALM	DIGITAL ENABLED	UA_1173B ALUM PUMP 2 FAIL	1	1	N/A	N/A	
396	CP3030	CP1ALMS	CHEM_SYS3	BLNALM	DIGITAL ENABLED	UA_1132B POLYMER FEEDER 2 FAIL	1	1	N/A	N/A	
397	CP3030	CP1ALMS	CHLOR_CONT1	BLNALM	DIGITAL ENABLED	PAH_1205 NO. 3 WATER PRESSURE HIGH	1	1	N/A	N/A	
398	CP3030	CP1ALMS	CHLOR_CONT2	BLNALM	DIGITAL ENABLED	LAH_0779 DEWATERING WETWELL LEVEL HIGH	1	1	N/A	N/A	
399	CP3030	RECLAIM	ALARMS	BLNALM	DIGITAL ENABLED	RECLAIM:DI1.CIN_1 Fault	1	1	N/A	N/A	
400	CP3030	RECLAIM	ALARMS2	BLNALM	DIGITAL ENABLED	RECLAIM:DI2.CIN_8 Fault	2	1	N/A	N/A	
401	CP3030	A_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_1112A_AU POLYMER MIXER 1 AUTO	5	1	N/A	N/A	
402	CP3030	A_STATUS	BL2	BLNALM	DIGITAL ENABLED	SCU_1173B_RM ALUM PUMP 2 REMOTE	5	1	N/A	N/A	
403	CP3030	A_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_1171A_RM HEAT POLYMER PUMP 1 REMOTE	5	1	N/A	N/A	
404	CP3030	A_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_1172B_AU POLYMER SOLUTION PUMP 2 AUTO	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
405	CP3030	A_STATUS	BL5	BLNALM	DIGITAL ENABLED	0 Fault	5	1	N/A	N/A	
406	CP3030	A_STATUS	BL6	BLNALM	DIGITAL ENABLED	QL_1271C #3 WATER PUMP 3 RUNNING	5	1	N/A	N/A	
407	CP3030	A_STATUS	BL7	BLNALM	DIGITAL ENABLED	QL_2671A AIR COMPRESSOR 1 RUNNING	5	1	N/A	N/A	
408	CP3030	A_STATUS	BL8	BLNALM	DIGITAL ENABLED	CP_0620A_BW FILTER 1 IN BACKWASH	5	1	N/A	N/A	
409	CP3030	A_STATUS	BL9	BLNALM	DIGITAL ENABLED	HS_0816B_SB MISC. USES CHLORINATOR STANDBY	5	1	N/A	N/A	
410	CP3030	B_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0572A_AU WAS PUMP 1 AUTO	5	1	N/A	N/A	
411	CP3030	B_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_1071B AERATION BLOWER 2 RUNNING	5	1	N/A	N/A	
412	CP3030	B_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0572A_RM WAS PUMP 1 REMOTE	5	1	N/A	N/A	
413	CP3030	B_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_0512B SCUM COLLECTOR 2 ON	5	1	N/A	N/A	
414	CP3031	INFLUENT	INFL_ALARM1	BLNALM	DIGITAL ENABLED	RP5 INFLUENT RP5 INFL. PUMPS FAIL	1	1	N/A	N/A	
415	CP3031	DS1	TSTALARM	BLNALM	DIGITAL ENABLED	:DS1_CALC.BO02 Fault	5	5	N/A	N/A	
416	CP3031	D_ALM	BL5	BLNALM	DIGITAL ENABLED	INFLUENT PH INFLUENT PH HI/LO	2	2	N/A	N/A	
417	CP3031	D_ALM	BL6	BLNALM	DIGITAL ENABLED	PF_OPLCP POWER FAILURE	5	1	N/A	N/A	
418	CP3031	CP2ALMS	AERATION1	BLNALM	DIGITAL ENABLED	LALL_0460A SOLIDS PROCESS BASIN A LO-LO LVL	1	1	N/A	N/A	
419	CP3031	CP2ALMS	AERATION2	BLNALM	DIGITAL ENABLED	PAH_0472C MLR PUMP 3 DISCH PRESSURE	1	1	N/A	N/A	
420	CP3031	CP2ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	LAH_0305 P.E. CHANL. OVERFLOW TO POND	1	1	N/A	N/A	
421	CP3031	CP2ALMS	PRI_EFF2	BLNALM	DIGITAL ENABLED	C_DIO:DI7.CIN_9 Fault	1	1	N/A	N/A	
422	CP3031	CP2ALMS	SLDG_XFER1	BLNALM	DIGITAL ENABLED	UA_1371B SLUDGE TRANS PUMP 2 VALVE FAIL	1	1	N/A	N/A	
423	CP3031	CP2ALMS	PRI_CLAR1	BLNALM	DIGITAL ENABLED	NAH_0210A PRI CLARIFIER 1 HIGH TORQUE	1	1	N/A	N/A	
424	CP3031	CP2ALMS	PRI_CLAR2	BLNALM	DIGITAL ENABLED	UA_0265 PRIMARY SAMPLER TROUBLE	1	1	N/A	N/A	
425	CP3031	CP2ALMS	PRE_TREAT1	BLNALM	DIGITAL ENABLED	LAHH_0105 UPSTREAM BARSCREEN LEVEL ALARM	1	1	N/A	N/A	
426	CP3031	CP2ALMS	PRE_TREAT2	BLNALM	DIGITAL ENABLED	PAH_0171B DISCHARGE PRESSURE 2 HIGH	1	1	N/A	N/A	
427	CP3031	CP2ALMS	PRE_TREAT3	BLNALM	DIGITAL ENABLED	AL_132A CLASSIFIER #1 FAILURE	1	1	N/A	N/A	
428	CP3031	CP2ALMS	SCE_ALARM	BLNALM	DIGITAL ENABLED	SCE/RTU SCE REQUEST SHUTDOWN	1	1	N/A	N/A	
429	CP3031	RP2	ALARMS1	BLNALM	DIGITAL ENABLED	CCWRF/RP2 CCWRF/RP2 TELEMETRY FAIL	1	1	N/A	N/A	
430	CP3031	ODOR_D	SYS_A	BLNALM	DIGITAL ENABLED	COMMON ALARM FAIL	5	1	N/A	N/A	
431	CP3031	ODOR_D	SYS_B	BLNALM	DIGITAL ENABLED	COMMON ALARM FAIL	5	1	N/A	N/A	
432	CP3031	ODOR_D	SYS_C	BLNALM	DIGITAL ENABLED	COMMON ALARM FAIL	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
433	CP3031	C_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0420C3 BASIN 3 MIXERS	5	1	N/A	N/A	
434	CP3031	C_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0420D5 BASIN 4 MIXERS	5	1	N/A	N/A	
435	CP3031	C_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0381A_AU PRI. EFFLUENT GATE 1 AUTO	5	1	N/A	N/A	
436	CP3031	C_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0430E_AU BASIN 5 AUTO	5	1	N/A	N/A	
437	CP3031	C_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0471B_AU SPR PUMP 2 AUTO	5	1	N/A	N/A	
438	CP3031	C_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_0421A PE DISTRIBUTION CHANNEL MIXERS	5	1	N/A	N/A	
439	CP3031	C_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0430D_AU BASIN 4 AUTO	5	1	N/A	N/A	
440	CP3031	C_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0371C_AU PRI EFFLUENT PUMP 3 AUTO	5	1	N/A	N/A	
441	CP3031	C_STATUS	BL9	BLNALM	DIGITAL ENABLED	HS_0472C_LD MLR PUMP 3 LEAD	5	1	N/A	N/A	
442	CP3031	C_STATUS	BL10	BLNALM	DIGITAL ENABLED	HS_0472C_RM MLR PUMP 3 REMOTE	5	1	N/A	N/A	
443	CP3031	C_STATUS	BL11	BLNALM	DIGITAL ENABLED	HS_0420A4 BASIN 1 MIXERS	5	1	N/A	N/A	
444	CP3031	C_STATUS	BL12	BLNALM	DIGITAL ENABLED	HS_0420A12 BASIN 1 MIXERS	5	1	N/A	N/A	
445	CP3031	C_STATUS	BL13	BLNALM	DIGITAL ENABLED	HS_0420B3 BASIN 2 MIXERS	5	1	N/A	N/A	
446	CP3031	D_STATUS	BL1	BLNALM	DIGITAL ENABLED	CP_0110A_RM BARSCREEN 1 CONTROLLER REMOTE	5	1	N/A	N/A	
447	CP3031	D_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0110_IN INITIATE SCREENINGS SYSTEM	5	1	N/A	N/A	
448	CP3031	D_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0171B_AU GRIT PUMP 2 AUTO	5	1	N/A	N/A	
449	CP3031	D_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_1371B_RM SLUDGE TRANSFER PUMP 2 REMOTE	5	1	N/A	N/A	
450	CP3031	D_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0272B_RM PRI SLUDGE PUMP 2 REMOTE	5	1	N/A	N/A	
451	CP3031	D_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1305A2_SL SELECT SLUDGE PIT 2 ALARM	5	1	N/A	N/A	
452	CP3031	D_STATUS	BL7	BLNALM	DIGITAL ENABLED	CP_1310B_RM SLUDGE GRINDER 2 REMOTE	5	1	N/A	N/A	
453	CP3031	D_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0132A_RM CLASSIFIER 1 REMOTE	5	1	N/A	N/A	
454	CP3031	D_STATUS	BL9	BLNALM	DIGITAL ENABLED	HS_0140A_AU GRIT CHAMBER AUTO	5	1	N/A	N/A	
455	CP3031	TIME_SYNC	SYNC_ALARM	BLNALM	DIGITAL ENABLED	TS_ALARM DE-SYNC	5	1	N/A	N/A	
456	CP3030	CP1ALMS	EFF_FILTER3	BLNALM	DIGITAL ENABLED	FITER #1 BACKWASH FILTER #1 BACKWASH IN MANUAL	2	2	N/A	N/A	
457	CP3030	SBS	SBS_ALARMS1	BLNALM	DIGITAL ENABLED	SBS TANK2 VALVE2 FAILED TO OPENED	1	1	N/A	N/A	
458	CP3030	SHUTDN	CT_ALARM	BLNALM	DIGITAL ENABLED	PE_PUMPS FROM CT/DT PE PUMPS @ 50% SPEED	1	2	N/A	N/A	
459	CP3030	CP1ALMS	EFF_FILTER1	BLNALM	DIGITAL ENABLED	UA_0620B FILTER 2 TROUBLE	1	1	N/A	N/A	
460	CP3030	CP1ALMS	EFF_FILTER2	BLNALM	DIGITAL ENABLED	FILTER #2 TIME FILTER #2 BACKWASH FAIL	1	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
461	CP3030	CP1ALMS	SEC_CLAR2	BLNALM	DIGITAL ENABLED	NAH_0510A CLARIFIER 1 HIGH TORQUE	1	1	N/A	N/A	
462	CP3030	CP1ALMS	SEC_CLAR3	BLNALM	DIGITAL ENABLED	PAH_0572B WAS PUMP 2 DISCH PRESSURE	1	1	N/A	N/A	
463	CP3030	CP1ALMS	AERA_BLWRS1	BLNALM	DIGITAL ENABLED	UA_1071B AERATION BLOWER 2 TROUBLE ALARM	1	1	N/A	N/A	
464	CP3030	CP1ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	LALL_0468 SODA ASH STORAGE SILO LO-LO LVL	1	1	N/A	N/A	
465	CP3030	CP1ALMS	MISC_SYS1	BLNALM	DIGITAL ENABLED	UA_2630 SCRUBBER FAIL	1	1	N/A	N/A	
466	CP3030	CP1ALMS	SULFON1	BLNALM	DIGITAL ENABLED	AAH_0930 SO2 LEAK	5	1	N/A	N/A	
467	CP3030	CP1ALMS	CHEM_SYS1	BLNALM	DIGITAL ENABLED	LAL_1113A POLYMER DAY TANK 1 LOW LEVEL	1	1	N/A	N/A	
468	CP3030	CP1ALMS	CHEM_SYS2	BLNALM	DIGITAL ENABLED	ALH_1179 SUMP PUMP SYSTEM HIGH LEVEL	1	1	N/A	N/A	
469	CP3030	CP1ALMS	CHEM_SYS3	BLNALM	DIGITAL ENABLED	12KV CNTRL VOLTAGE 12KV BATTERY FAIL	1	1	N/A	N/A	
470	CP3030	RECLAIM	ALARMS	BLNALM	DIGITAL ENABLED	RECLAIM:DI1.CIN_4 Fault	1	1	N/A	N/A	
471	CP3030	A_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_1112B_AU POLYMER MIXER 2 AUTO	5	1	N/A	N/A	
472	CP3030	A_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_1173B ALUM PUMP 2 RUNNING	5	1	N/A	N/A	
473	CP3030	A_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_1171A HEAT POLYMER PUMP 1 ON	5	1	N/A	N/A	
474	CP3030	A_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_1172B POLYMER SOLUTION PUMP 2 ON	5	1	N/A	N/A	
475	CP3030	A_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_1171A NEAT POLYMER PUMP 1 AUTO	5	1	N/A	N/A	
476	CP3030	A_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1271C_AU #3 WATER PUMP 3 AUTO	5	1	N/A	N/A	
477	CP3030	A_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_2671B_AU AIR COMPRESSOR 2 AUTO	5	1	N/A	N/A	
478	CP3030	A_STATUS	BL8	BLNALM	DIGITAL ENABLED	QL_0620B FILTER 2 ON	5	1	N/A	N/A	
479	CP3030	A_STATUS	BL9	BLNALM	DIGITAL ENABLED	QL_1132A POLYMER FEEDER PUMP 1 RUNNING	5	1	N/A	N/A	
480	CP3030	B_STATUS	BL1	BLNALM	DIGITAL ENABLED	QL_0572A WAS PUMP 1 ON	5	1	N/A	N/A	
481	CP3030	B_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_1071C AERATION BLOWER 3 RUNNING	5	1	N/A	N/A	
482	CP3030	B_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_1071D AERATION BLOWER 4 RUNNING	5	1	N/A	N/A	
483	CP3030	B_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_0512C SCUM COLLECTOR 3 ON	5	1	N/A	N/A	
484	CP3031	INFLUENT	INFL_ALARM1	BLNALM	DIGITAL ENABLED	CCWRF INFLUENT INFLUENT LEVEL HI	1	1	N/A	N/A	
485	CP3031	DS1	TSTALARM	BLNALM	DIGITAL ENABLED	:DS1_CALC.BI01 Fault	5	5	N/A	N/A	
486	CP3031	D_ALM	BL6	BLNALM	DIGITAL ENABLED	LCP_3 LCP 3 IN ALARM	5	1	N/A	N/A	
487	CP3031	CP2ALMS	AERATION1	BLNALM	DIGITAL ENABLED	LAHH_0460A SOLIDS PROCESS BASIN A HI-HI LV	1	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
488	CP3031	CP2ALMS	AERATION2	BLNALM	DIGITAL ENABLED	PAH_0472D MLR PUMP 4 DISCH PRESSURE	1	1	N/A	N/A	
489	CP3031	CP2ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	C_DIO:DI7.CIN_2 Fault	1	1	N/A	N/A	
490	CP3031	CP2ALMS	PRI_EFF2	BLNALM	DIGITAL ENABLED	C_DIO:DI7.CIN_12 Fault	1	1	N/A	N/A	
491	CP3031	CP2ALMS	SLDG_XFER1	BLNALM	DIGITAL ENABLED	LAHH_1305 SELECTED SLUDGE PIT LEVEL HI-HI	1	1	N/A	N/A	
492	CP3031	CP2ALMS	PRI_CLAR1	BLNALM	DIGITAL ENABLED	NAHH_0210A PRI CLARIFIER 1 HI-HI TORQUE	1	1	N/A	N/A	
493	CP3031	CP2ALMS	PRI_CLAR2	BLNALM	DIGITAL ENABLED	PAH_0271A PRI SCUM PUMP 1 DISCH PRESS HIGH	2	1	N/A	N/A	
494	CP3031	CP2ALMS	PRE_TREAT1	BLNALM	DIGITAL ENABLED	XA_0110A BARSCREEN 1 SYSTEM FAIL	1	1	N/A	N/A	
495	CP3031	CP2ALMS	PRE_TREAT2	BLNALM	DIGITAL ENABLED	AAH_0169 INFLUENT CONDUCTIVITY HIGH	1	1	N/A	N/A	
496	CP3031	CP2ALMS	PRE_TREAT3	BLNALM	DIGITAL ENABLED	AL_132B CLASSIFIER #2 FAILURE	1	1	N/A	N/A	
497	CP3031	CP2ALMS	SCE_ALARM	BLNALM	DIGITAL ENABLED	SCE/RTU SCE TIMER TRIPPED	1	1	N/A	N/A	
498	CP3031	RP2	ALARMS1	BLNALM	DIGITAL ENABLED	RP-2 SYSTEM RP-2 SYS ALARM	1	3	N/A	N/A	
499	CP3031	ODOR_D	SYS_A	BLNALM	DIGITAL ENABLED	AIR_PRESSURE LOW	5	1	N/A	N/A	
500	CP3031	ODOR_D	SYS_B	BLNALM	DIGITAL ENABLED	AIR_PRESSURE LOW	5	1	N/A	N/A	
501	CP3031	ODOR_D	SYS_C	BLNALM	DIGITAL ENABLED	AIR_PRESSURE LOW	5	1	N/A	N/A	
502	CP3031	C_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0420C4 BASIN 3 MIXERS	5	1	N/A	N/A	
503	CP3031	C_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0420D6 BASIN 4 MIXERS	5	1	N/A	N/A	
504	CP3031	C_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0381A PRI. EFFLUENT GATE 1 OPEN/CLS	5	1	N/A	N/A	
505	CP3031	C_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0430E_RM BASIN 5 REMOTE	5	1	N/A	N/A	
506	CP3031	C_STATUS	BL5	BLNALM	DIGITAL ENABLED	QL_0471B SPR PUMP 2 ON	5	1	N/A	N/A	
507	CP3031	C_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_0421B PE DISTRIBUTION CHANNEL MIXERS	5	1	N/A	N/A	
508	CP3031	C_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0430D_RM BASIN 4 REMOTE	5	1	N/A	N/A	
509	CP3031	C_STATUS	BL8	BLNALM	DIGITAL ENABLED	QL_0371C PRI EFFLUENT PUMP 3 ON	5	1	N/A	N/A	
510	CP3031	C_STATUS	BL9	BLNALM	DIGITAL ENABLED	HS_0472D_LD MLR PUMP 4 LEAD	5	1	N/A	N/A	
511	CP3031	C_STATUS	BL10	BLNALM	DIGITAL ENABLED	HS_0472C_AU MLR PUMP 3 AUTO	5	1	N/A	N/A	
512	CP3031	C_STATUS	BL11	BLNALM	DIGITAL ENABLED	HS_0420A5 BASIN 1 MIXERS	5	1	N/A	N/A	
513	CP3031	C_STATUS	BL12	BLNALM	DIGITAL ENABLED	HS_0420A13 BASIN 1 MIXERS	5	1	N/A	N/A	
514	CP3031	C_STATUS	BL13	BLNALM	DIGITAL ENABLED	HS_0420B4 BASIN 2 MIXERS	5	1	N/A	N/A	
515	CP3031	D_STATUS	BL1	BLNALM	DIGITAL ENABLED	QL_0110A BARSCREEN 1 ON	5	1	N/A	N/A	
516	CP3031	D_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0110_ST STOP SCREENINGS SYSTEM	5	1	N/A	N/A	
517	CP3031	D_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0171B_RM GRIT PUMP 2 REMOTE	5	1	N/A	N/A	
518	CP3031	D_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_0271A PRI SCUM PUMP 1 ON	5	1	N/A	N/A	
519	CP3031	D_STATUS	BL5	BLNALM	DIGITAL ENABLED	QL_0272B PRI SLUDGE PUMP 2 ON	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
520	CP3031	D_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1305B1_SL SELECT SLUDGE PIT 1	5	1	N/A	N/A	
521	CP3031	D_STATUS	BL7	BLNALM	DIGITAL ENABLED	QL_1371A SLUDGE TRANSFER PUMP 1 RUNNING	5	1	N/A	N/A	
522	CP3031	D_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0132A_AU CLASSIFIER 1 AUTO	5	1	N/A	N/A	
523	CP3031	TIME_SYNC	SYNC_ALARM	BLNALM	DIGITAL ENABLED	TS_HEALTH STOPPED	1	1	N/A	N/A	
524	CP3030	CP1ALMS	EFF_FILTER3	BLNALM	DIGITAL ENABLED	FILTER #2 BACKWASH FILTER #2 BACKWASH IN MANUAL	2	2	N/A	N/A	
525	CP3030	SBS	SBS_ALARMS1	BLNALM	DIGITAL ENABLED	SBS PUMP1 SBS P1 FAILED TO START	1	1	N/A	N/A	
526	CP3030	SHUTDN	CT_ALARM	BLNALM	DIGITAL ENABLED	CT/DT OVERRIDE SHUTDOWN DISABLED	2	2	N/A	N/A	
527	CP3030	CP1ALMS	EFF_FILTER1	BLNALM	DIGITAL ENABLED	UA_0620C FILTER 3 TROUBLE	1	1	N/A	N/A	
528	CP3030	CP1ALMS	EFF_FILTER2	BLNALM	DIGITAL ENABLED	FILTER #3 TIME FILTER #3 BACKWASH FAIL	1	1	N/A	N/A	
529	CP3030	CP1ALMS	SEC_CLAR1	BLNALM	DIGITAL ENABLED	UA_0565 SECONDARY SAMPLER TROUBLE	1	1	N/A	N/A	
530	CP3030	CP1ALMS	SEC_CLAR2	BLNALM	DIGITAL ENABLED	NAHH_0510A CLARIFIER 1 TORQUE SHUTDOWN	1	1	N/A	N/A	
531	CP3030	CP1ALMS	SEC_CLAR3	BLNALM	DIGITAL ENABLED	LAH_0579 SUMP PUMP SYSTEM LEVEL HIGH	1	1	N/A	N/A	
532	CP3030	CP1ALMS	AERA_BLWRS1	BLNALM	DIGITAL ENABLED	UA_1071C AERATION BLOWER 3 TROUBLE ALARM	1	1	N/A	N/A	
533	CP3030	CP1ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	GENERATOR PEAK SHAVER GEN. FAIL/STOP	:TIME_DELAY.MA	1	N/A	N/A	
534	CP3030	CP1ALMS	MISC_SYS1	BLNALM	DIGITAL ENABLED	FAL_2636 SCRUBBER INLET AIR FLOW LOW	1	1	N/A	N/A	
535	CP3030	CP1ALMS	CHEM_SYS1	BLNALM	DIGITAL ENABLED	LAHH_1113A POLYMER DAY TANK 1 HI-HI LEVEL	1	1	N/A	N/A	
536	CP3030	CP1ALMS	CHLOR_CONT1	BLNALM	DIGITAL ENABLED	PAL_1221 HYDROPNEUMATIC TANK LOW PRESSURE	1	1	N/A	N/A	
537	CP3030	RECLAIM	ALARMS	BLNALM	DIGITAL ENABLED	RECLAIM:DI1.CIN_7 Fault	1	1	N/A	N/A	
538	CP3030	A_STATUS	BL1	BLNALM	DIGITAL ENABLED	QL_1112A POLYMER MIXER 1 ON	5	1	N/A	N/A	
539	CP3030	A_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_1173B_AU ALUM PUMP 2 AUTO	5	1	N/A	N/A	
540	CP3030	A_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_1171B_RM HEAT POLYMER PUMP 2 REMOTE	5	1	N/A	N/A	
541	CP3030	A_STATUS	BL4	BLNALM	DIGITAL ENABLED	SCU_1173A_RM ALUM PUMP 1 REMOTE	5	1	N/A	N/A	
542	CP3030	A_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_1171B NEAT POLYMER PUMP 2 AUTO	5	1	N/A	N/A	
543	CP3030	A_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1271D_RM #3 WATER PUMP 4 REMOTE	5	1	N/A	N/A	
544	CP3030	A_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_1124_AU ALUM W3 MAKE-UP VALVE AUTO	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
545	CP3030	A_STATUS	BL8	BLNALM	DIGITAL ENABLED	CP_0620B_BW FILTER 2 IN BACKWASH	5	1	N/A	N/A	
546	CP3030	A_STATUS	BL9	BLNALM	DIGITAL ENABLED	M_1132A_AU POLYMER FEEDER 1 AUTO	5	1	N/A	N/A	
547	CP3030	B_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0572B_RM WAS PUMP 2 REMOTE	5	1	N/A	N/A	
548	CP3030	B_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_0571A SEC SCUM PUMP 1 ON	5	1	N/A	N/A	
549	CP3030	B_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_2660 ENGINE GENERATOR ON	5	1	N/A	N/A	
550	CP3031	INFLUENT	INFL_ALARM1	BLNALM	DIGITAL ENABLED	RP5 FLOW BYPASS FLOW HI	1	1	N/A	N/A	
551	CP3031	D_ALM	BL6	BLNALM	DIGITAL ENABLED	RP2/CCWRF RP2/CCWRF TELEMETRY FAILURE	5	1	N/A	N/A	
552	CP3031	CP2ALMS	AERATION1	BLNALM	DIGITAL ENABLED	LALL_0460B SOLIDS PROCESS BASIN B LO-LO LVL	1	1	N/A	N/A	
553	CP3031	CP2ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	LAHH_0315 INFLUENT WET WELL LEVEL HI-HI	1	1	N/A	N/A	
554	CP3031	CP2ALMS	PRI_EFF2	BLNALM	DIGITAL ENABLED	C_DIO:DI7.CIN_14 Fault	1	1	N/A	N/A	
555	CP3031	CP2ALMS	SLDG_XFER1	BLNALM	DIGITAL ENABLED	UA_1310A SLUDGE GRINDER 1 FAIL	5	1	N/A	N/A	
556	CP3031	CP2ALMS	PRI_CLAR1	BLNALM	DIGITAL ENABLED	NAH_0210B PRI CLARIFIER 2 HIGH TORQUE	1	1	N/A	N/A	
557	CP3031	CP2ALMS	PRI_CLAR2	BLNALM	DIGITAL ENABLED	PAH_0271B PRI SCUM PUMP 2 DISCH PRESS HIGH	2	1	N/A	N/A	
558	CP3031	CP2ALMS	PRE_TREAT1	BLNALM	DIGITAL ENABLED	XA_0110B BARSCREEN 2 SYSTEM FAIL	1	1	N/A	N/A	
559	CP3031	CP2ALMS	PRE_TREAT2	BLNALM	DIGITAL ENABLED	XA_0120 SCREENINGS CONVEYOR FAIL	1	1	N/A	N/A	
560	CP3031	CP2ALMS	PRE_TREAT3	BLNALM	DIGITAL ENABLED	D_DIO:DI3.CIN_2 Fault	1	5	N/A	N/A	
561	CP3031	RP2	ALARMS1	BLNALM	DIGITAL ENABLED	RP-2 PROCESS PRIORITY 1 ALARM	1	3	N/A	N/A	
562	CP3031	ODOR_D	SYS_A	BLNALM	DIGITAL ENABLED	H2O_PRESSURE LOW	5	1	N/A	N/A	
563	CP3031	ODOR_D	SYS_B	BLNALM	DIGITAL ENABLED	H2O_PRESSURE LOW	5	1	N/A	N/A	
564	CP3031	ODOR_D	SYS_C	BLNALM	DIGITAL ENABLED	H2O_PRESSURE LOW	5	1	N/A	N/A	
565	CP3031	C_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0420C5 BASIN 3 MIXERS	5	1	N/A	N/A	
566	CP3031	C_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0420E1 BASIN 5 MIXERS	5	1	N/A	N/A	
567	CP3031	C_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0381A_RM PRI. EFFLUENT GATE 1 REMOTE	5	1	N/A	N/A	
568	CP3031	C_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0430F_AU BASIN 6 AUTO	5	1	N/A	N/A	
569	CP3031	C_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0420F1 BASIN 6 MIXERS	5	1	N/A	N/A	
570	CP3031	C_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_0421C PE DISTRIBUTION CHANNEL MIXERS	5	1	N/A	N/A	
571	CP3031	C_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0371A_AU PRI EFFLUENT PUMP 1 AUTO	5	1	N/A	N/A	
572	CP3031	C_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0371C_RM PRI EFFLUENT PUMP 3 REMOTE	5	1	N/A	N/A	
573	CP3031	C_STATUS	BL9	BLNALM	DIGITAL ENABLED	HS_0472A_RM MLR PUMP 1 REMOTE	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
574	CP3031	C_STATUS	BL10	BLNALM	DIGITAL ENABLED	QL_0472C MLR PUMP 3 ON	5	1	N/A	N/A	
575	CP3031	C_STATUS	BL11	BLNALM	DIGITAL ENABLED	HS_0420A6 BASIN 1 MIXERS	5	1	N/A	N/A	
576	CP3031	C_STATUS	BL12	BLNALM	DIGITAL ENABLED	HS_0420A14 BASIN 1 MIXERS	5	1	N/A	N/A	
577	CP3031	C_STATUS	BL13	BLNALM	DIGITAL ENABLED	HS_0420B5 BASIN 2 MIXERS	5	1	N/A	N/A	
578	CP3031	D_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0110A_DF BARSCREEN 1 DIFFERENTIAL	5	1	N/A	N/A	
579	CP3031	D_STATUS	BL2	BLNALM	DIGITAL ENABLED	CP_0120_RM SCREENINGS CONVEYOR REMOTE	5	1	N/A	N/A	
580	CP3031	D_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0171_IN INITIATE GRIT SYSTEM	5	1	N/A	N/A	
581	CP3031	D_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0271A_AU PRI SCUM PUMP 1 AUTO	5	1	N/A	N/A	
582	CP3031	D_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0272B_AU PRI SLUDGE PUMP 2 AUTO	5	1	N/A	N/A	
583	CP3031	D_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1305B2_SL SELECT SLUDGE PIT 2	5	1	N/A	N/A	
584	CP3031	D_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_1371A_AU SLUDGE TRANSFER PUMP 1 AUTO	5	1	N/A	N/A	
585	CP3031	D_STATUS	BL8	BLNALM	DIGITAL ENABLED	QL_0132A CLASSIFIER 1 ON	5	1	N/A	N/A	
586	CP3030	CP1ALMS	EFF_FILTER3	BLNALM	DIGITAL ENABLED	FILTER #3 BACKWASH FILTER #3 BACKWASH IN MANUAL	2	2	N/A	N/A	
587	CP3030	SBS	SBS_ALARMS1	BLNALM	DIGITAL ENABLED	SBS PUMP2 SBS P2 FAILED TO START	1	1	N/A	N/A	
588	CP3030	SHUTDN	CT_ALARM	BLNALM	DIGITAL ENABLED	OUTFALL ANALYZER LINE CLEANING ACTIVE	1	1	N/A	N/A	
589	CP3030	CP1ALMS	EFF_FILTER1	BLNALM	DIGITAL ENABLED	LAH_0605 FILTER INFL. LEVEL HIGH	1	1	N/A	N/A	
590	CP3030	CP1ALMS	SEC_CLAR1	BLNALM	DIGITAL ENABLED	XA_0571A SEC. SCUM WELL #1 LEVEL HIGH	2	1	N/A	N/A	
591	CP3030	CP1ALMS	SEC_CLAR2	BLNALM	DIGITAL ENABLED	NAH_0510B CLARIFIER 2 HIGH TORQUE	1	1	N/A	N/A	
592	CP3030	CP1ALMS	AERA_BLWRS1	BLNALM	DIGITAL ENABLED	UA_1071D AERATION BLOWER 4 TROUBLE ALARM	1	1	N/A	N/A	
593	CP3030	CP1ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	SHUTDN:PLANT.BO01 Fault	1	1	N/A	N/A	
594	CP3030	CP1ALMS	MISC_SYS1	BLNALM	DIGITAL ENABLED	UA_2661 DIESEL FUEL TANK LEAK	5	2	N/A	N/A	
595	CP3030	CP1ALMS	CHEM_SYS1	BLNALM	DIGITAL ENABLED	LALL_1113B POLYMER DAY TANK 2 LO-LO LEVEL	1	1	N/A	N/A	
596	CP3030	CP1ALMS	CHEM_SYS2	BLNALM	DIGITAL ENABLED	UA_1171B NEAT POLYMER PUMP 2 FAIL	1	1	N/A	N/A	
597	CP3030	CP1ALMS	CHLOR_CONT1	BLNALM	DIGITAL ENABLED	DT_ALM CONTACT BASIN DT LOW	1	1	N/A	N/A	
598	CP3030	RECLAIM	ALARMS	BLNALM	DIGITAL ENABLED	RECLAIM:DI1.CIN_10 Fault	1	1	N/A	N/A	
599	CP3030	A_STATUS	BL1	BLNALM	DIGITAL ENABLED	QL_1112B POLYMER MIXER 1 ON	5	1	N/A	N/A	
600	CP3030	A_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_1171B HEAT POLYMER PUMP 2 ON	5	1	N/A	N/A	
601	CP3030	A_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_1173A ALUM PUMP 1 RUNNING	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
602	CP3030	A_STATUS	BL5	BLNALM	DIGITAL ENABLED	FFIC_1173A ALUM PUMP 1 AUTO	5	1	N/A	N/A	
603	CP3030	A_STATUS	BL6	BLNALM	DIGITAL ENABLED	QL_1271D #3 WATER PUMP 4 RUNNING	5	1	N/A	N/A	
604	CP3030	A_STATUS	BL7	BLNALM	DIGITAL ENABLED	M_1132A_RM POLYMER FEEDER 1 REMOTE	5	1	N/A	N/A	
605	CP3030	A_STATUS	BL8	BLNALM	DIGITAL ENABLED	QL_0620C FILTER 3 ON	5	1	N/A	N/A	
606	CP3030	A_STATUS	BL9	BLNALM	DIGITAL ENABLED	M_1132B_AU POLYMER FEEDER 2 AUTO	5	1	N/A	N/A	
607	CP3030	B_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0572B_AU WAS PUMP 2 AUTO	5	1	N/A	N/A	
608	CP3030	B_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0571A_AU SEC SCUM PUMP 1 AUTO	5	1	N/A	N/A	
609	CP3030	B_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_2679 POND PUMP SYSTEM ON	5	1	N/A	N/A	
610	CP3031	CP2ALMS	AERATION1	BLNALM	DIGITAL ENABLED	LAHH_0460B SOLIDS PROCESS BASIN B HI-HI LVL	1	1	N/A	N/A	
611	CP3031	CP2ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	LAHH_0320 RAS INFL W.W. CH LEVEL HI-HI	1	1	N/A	N/A	
612	CP3031	CP2ALMS	PRI_CLAR1	BLNALM	DIGITAL ENABLED	NAHH_0210B PRI CLARIFIER 2 HI-HI TORQUE	1	1	N/A	N/A	
613	CP3031	CP2ALMS	PRI_CLAR2	BLNALM	DIGITAL ENABLED	PAH_0272A PRI SLUDGE PUMP 1 DISCH PRESS HI	1	1	N/A	N/A	
614	CP3031	CP2ALMS	PRE_TREAT1	BLNALM	DIGITAL ENABLED	FAL_0171A SEAL WATER 1 LOW FLOW	1	1	N/A	N/A	
615	CP3031	CP2ALMS	PRE_TREAT2	BLNALM	DIGITAL ENABLED	UA_0165 INFLUENT SAMPLER TROUBLE ALARM	1	1	N/A	N/A	
616	CP3031	C_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0420C6 BASIN 3 MIXERS	5	1	N/A	N/A	
617	CP3031	C_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0420E2 BASIN 5 MIXERS	5	1	N/A	N/A	
618	CP3031	C_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0381B_AU PRI. EFFLUENT GATE 2 AUTO	5	1	N/A	N/A	
619	CP3031	C_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0430F_RM BASIN 6 REMOTE	5	1	N/A	N/A	
620	CP3031	C_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0420F2 BASIN 6 MIXERS	5	1	N/A	N/A	
621	CP3031	C_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_0421D PE DISTRIBUTION CHANNEL MIXERS	5	1	N/A	N/A	
622	CP3031	C_STATUS	BL7	BLNALM	DIGITAL ENABLED	QL_0371A PRI EFFLUENT PUMP 1 ON	5	1	N/A	N/A	
623	CP3031	C_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0371A_LD PRI EFFLUENT PUMP 1 LEAD SELECT	5	1	N/A	N/A	
624	CP3031	C_STATUS	BL9	BLNALM	DIGITAL ENABLED	HS_0472A_AU MLR PUMP 1 AUTO	5	1	N/A	N/A	
625	CP3031	C_STATUS	BL10	BLNALM	DIGITAL ENABLED	HS_0381C_RM PRI EFFLUENT GATE 3 REMOTE	5	1	N/A	N/A	
626	CP3031	C_STATUS	BL11	BLNALM	DIGITAL ENABLED	HS_0420A7 BASIN 1 MIXERS	5	1	N/A	N/A	
627	CP3031	C_STATUS	BL12	BLNALM	DIGITAL ENABLED	HS_0472D_RM MLR PUMP 4 REMOTE	5	1	N/A	N/A	
628	CP3031	C_STATUS	BL13	BLNALM	DIGITAL ENABLED	HS_0420B6 BASIN 2 MIXERS	5	1	N/A	N/A	
629	CP3031	D_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0110A_TM BARSCREEN 1 TIME	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
630	CP3031	D_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_0120 SCREENINGS CONVEYOR ON	5	1	N/A	N/A	
631	CP3031	D_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0171_ST STOP GRIT SYSTEM	5	1	N/A	N/A	
632	CP3031	D_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_0271B PRI SCUM PUMP 2 ON	5	1	N/A	N/A	
633	CP3031	D_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0272C_RM PRI SLUDGE PUMP 3 REMOTE	5	1	N/A	N/A	
634	CP3031	D_STATUS	BL6	BLNALM	DIGITAL ENABLED	QL_1310A SLUDGE GRINDER 1 RUNNING	5	1	N/A	N/A	
635	CP3031	D_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_1371A_RM SLUDGE TRANSFER PUMP 1 REMOTE	5	1	N/A	N/A	
636	CP3031	D_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0132B_RM CLASSIFIER 2 REMOTE	5	1	N/A	N/A	
637	CP3030	CP1ALMS	EFF_FILTER3	BLNALM	DIGITAL ENABLED	FILTER LOADING FILTER #1 OFFLINE	2	2	N/A	N/A	
638	CP3030	SBS	SBS_ALARMS1	BLNALM	DIGITAL ENABLED	SBS PUMP3 SBS P3 FAILED TO START	1	1	N/A	N/A	
639	CP3030	CP1ALMS	EFF_FILTER1	BLNALM	DIGITAL ENABLED	UA_0620A FILTER 1 TROUBLE	1	1	N/A	N/A	
640	CP3030	CP1ALMS	SEC_CLAR1	BLNALM	DIGITAL ENABLED	PAH_0571A SEC SCUM PUMP 1 DISCH PRESS	1	1	N/A	N/A	
641	CP3030	CP1ALMS	SEC_CLAR2	BLNALM	DIGITAL ENABLED	NAHH_0510B CLARIFIER 2 TORQUE SHUTDOWN	1	1	N/A	N/A	
642	CP3030	CP1ALMS	AERA_BLWRS1	BLNALM	DIGITAL ENABLED	AERATION BASIN AB AVG D.O. LOW	1	1	N/A	N/A	
643	CP3030	CP1ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	:TIME_DELAY.BO07 Fault	1	1	N/A	N/A	
644	CP3030	CP1ALMS	MISC_SYS1	BLNALM	DIGITAL ENABLED	UA_2660 ENGINE GENERATOR FAIL	1	1	N/A	N/A	
645	CP3030	CP1ALMS	CHEM_SYS1	BLNALM	DIGITAL ENABLED	LAL_1113B POLYMER DAY TANK 2 LOW LEVEL	1	1	N/A	N/A	
646	CP3030	CP1ALMS	CHEM_SYS2	BLNALM	DIGITAL ENABLED	UA_1172A POLYMER SOLUTION PUMP 1 FAIL	5	1	N/A	N/A	
647	CP3030	CP1ALMS	CHLOR_CONT1	BLNALM	DIGITAL ENABLED	CT_ALM CONTACT BASIN LOW CT	2	1	N/A	N/A	
648	CP3030	RECLAIM	ALARMS	BLNALM	DIGITAL ENABLED	RECLAIM:DI3.CIN_1 Fault	1	1	N/A	N/A	
649	CP3030	A_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_1114A_AU MAKE-UP WATER VALVE 1 AUTO	5	1	N/A	N/A	
650	CP3030	A_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_1271A_RM #3 WATER PUMP 1 REMOTE	5	1	N/A	N/A	
651	CP3030	A_STATUS	BL3	BLNALM	DIGITAL ENABLED	SCU_1172A_RM POLYMER SOLUTION PUMP 1 REMOTE	5	1	N/A	N/A	
652	CP3030	A_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_2671B AIR COMPRESSOR 2 RUNNING	5	1	N/A	N/A	
653	CP3030	A_STATUS	BL5	BLNALM	DIGITAL ENABLED	FFIC_1173B ALUM PUMP 2 AUTO	5	1	N/A	N/A	
654	CP3030	A_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1271D_AU #3 WATER PUMP 4 AUTO	5	1	N/A	N/A	
655	CP3030	A_STATUS	BL7	BLNALM	DIGITAL ENABLED	M_1132B_RM POLYMER FEEDER 2 REMOTE	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
656	CP3030	A_STATUS	BL8	BLNALM	DIGITAL ENABLED	CP_0620C_BW FILTER 3 IN BACKWASH	5	1	N/A	N/A	
657	CP3030	B_STATUS	BL1	BLNALM	DIGITAL ENABLED	QL_0572B WAS PUMP 2 ON	5	1	N/A	N/A	
658	CP3030	B_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_0571B SEC SCUM PUMP 2 ON	5	1	N/A	N/A	
659	CP3030	B_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0510A SECONDARY CLARIFIER 1 ON	5	1	N/A	N/A	
660	CP3031	D_ALM	BL5	BLNALM	DIGITAL ENABLED	LCP1 ANNUN. HEADWORKS/PRIMARY SECT. FAIL	1	1	N/A	N/A	
661	CP3031	CP2ALMS	AERATION1	BLNALM	DIGITAL ENABLED	PAH_0471A SPR PUMP 1 DISCH PRESSURE	1	1	N/A	N/A	
662	CP3031	CP2ALMS	SLDG_XFER1	BLNALM	DIGITAL ENABLED	PAH_1371A SLUDGE TRANS PUMP 1 HI PRESSURE	1	1	N/A	N/A	
663	CP3031	CP2ALMS	PRI_CLAR1	BLNALM	DIGITAL ENABLED	LALL_0215A PRI SCUM PIT LOW-LOW LEVEL	1	1	N/A	N/A	
664	CP3031	CP2ALMS	PRI_CLAR2	BLNALM	DIGITAL ENABLED	PAH_0272B PRI SLUDGE PMP 2 DISCH PRESS HI	1	1	N/A	N/A	
665	CP3031	CP2ALMS	PRE_TREAT1	BLNALM	DIGITAL ENABLED	PAL_0171A SUCTION PRESSURE 1 LOW	1	1	N/A	N/A	
666	CP3031	CP2ALMS	PRE_TREAT2	BLNALM	DIGITAL ENABLED	LAH_0179 HEADWORKS SUMP SYS. LVL. HI HI	1	1	N/A	N/A	
667	CP3031	ODOR_D	SYS_B	BLNALM	DIGITAL ENABLED	SUMP 1 LEVEL HIGH	5	1	N/A	N/A	
668	CP3031	ODOR_D	SYS_C	BLNALM	DIGITAL ENABLED	SUMP 2 LEVEL HIGH	5	1	N/A	N/A	
669	CP3031	C_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0420D1 BASIN 4 MIXERS	5	1	N/A	N/A	
670	CP3031	C_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0420E3 BASIN 5 MIXERS	5	1	N/A	N/A	
671	CP3031	C_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0381B PRI. EFFLUENT GATE 2 OPEN/CLS	5	1	N/A	N/A	
672	CP3031	C_STATUS	BL4	BLNALM	DIGITAL ENABLED	SCU_0471A_RM SPR PUMP 1 REMOTE	5	1	N/A	N/A	
673	CP3031	C_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0420F3 BASIN 6 MIXERS	5	1	N/A	N/A	
674	CP3031	C_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_0430B_AU BASIN 2 AUTO	5	1	N/A	N/A	
675	CP3031	C_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0371A_RM PRI EFFLUENT PUMP 1 REMOTE	5	1	N/A	N/A	
676	CP3031	C_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0371B_LD PRI EFFLUENT PUMP 2 LEAD SELECT	5	1	N/A	N/A	
677	CP3031	C_STATUS	BL9	BLNALM	DIGITAL ENABLED	QL_0472A MLR PUMP 1 ON	5	1	N/A	N/A	
678	CP3031	C_STATUS	BL10	BLNALM	DIGITAL ENABLED	ZS_0382 INFLUENT WET WELL CHANNEL 3 GATE	5	1	N/A	N/A	
679	CP3031	C_STATUS	BL11	BLNALM	DIGITAL ENABLED	HS_0420A8 BASIN 1 MIXERS	5	1	N/A	N/A	
680	CP3031	C_STATUS	BL12	BLNALM	DIGITAL ENABLED	HS_0472D_AU MLR PUMP 4 AUTO	5	1	N/A	N/A	
681	CP3031	C_STATUS	BL13	BLNALM	DIGITAL ENABLED	HS_0420C1 BASIN 3 MIXERS	5	1	N/A	N/A	
682	CP3031	D_STATUS	BL1	BLNALM	DIGITAL ENABLED	CP_0110B_RM BARSCREEN 2 CONTROLLER REMOTE	5	1	N/A	N/A	
683	CP3031	D_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_0171A GRIT PUMP 1 ON	5	1	N/A	N/A	
684	CP3031	D_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0210A PRIMARY CLARIFIER 1 ON	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
685	CP3031	D_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0271B_AU PRI SCUM PUMP 2 AUTO	5	1	N/A	N/A	
686	CP3031	D_STATUS	BL5	BLNALM	DIGITAL ENABLED	QL_0272C PRI SLUDGE PUMP 3 ON	5	1	N/A	N/A	
687	CP3031	D_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1310A_AU SLUDGE GRINDER 1 AUTO	5	1	N/A	N/A	
688	CP3031	D_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0120_AU SCREENINGS CONVEYOR AUTO	5	1	N/A	N/A	
689	CP3031	D_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0132B_AU CLASSIFIER 2 AUTO	5	1	N/A	N/A	
690	CP3030	CP1ALMS	EFF_FILTER3	BLNALM	DIGITAL ENABLED	FILTER LOADING FILTER #2 OFFLINE	2	2	N/A	N/A	
691	CP3030	SBS	SBS_ALARMS1	BLNALM	DIGITAL ENABLED	SBS OUTFALL PUMP OUTFALL PUMP STARTED	1	1	N/A	N/A	
692	CP3030	CP1ALMS	EFF_FILTER1	BLNALM	DIGITAL ENABLED	LAHH_0630 BW RETURN STATION HI-HI LEVEL	1	1	N/A	N/A	
693	CP3030	CP1ALMS	SEC_CLAR1	BLNALM	DIGITAL ENABLED	XA_0571B SEC SCUM WELL #2 LEVEL HIGH	2	1	N/A	N/A	
694	CP3030	CP1ALMS	SEC_CLAR2	BLNALM	DIGITAL ENABLED	NAH_0510C CLARIFIER 3 HIGH TORQUE	1	1	N/A	N/A	
695	CP3030	CP1ALMS	MISC_SYS1	BLNALM	DIGITAL ENABLED	LAL_2661 DIESEL FUEL DAY TANK LEVEL LOW	5	2	N/A	N/A	
696	CP3030	CP1ALMS	CHEM_SYS1	BLNALM	DIGITAL ENABLED	LAHH_1113B POLYMER DAY TANK 2 HI-HI LEVEL	1	1	N/A	N/A	
697	CP3030	CP1ALMS	CHLOR_CONT1	BLNALM	DIGITAL ENABLED	AAH_0730 OUTFALL CL2 RESIDUAL HIGH	5	1	N/A	N/A	
698	CP3030	CP1ALMS	CHLOR_CONT2	BLNALM	DIGITAL ENABLED	CP1ALMS:TIME_DELAY.BO01 Fault	5	1	N/A	N/A	
699	CP3030	RECLAIM	ALARMS	BLNALM	DIGITAL ENABLED	RECLAIM:DI3.CIN_4 Fault	1	1	N/A	N/A	
700	CP3030	A_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_1114B_AU MADE-UP WATER VALVE 2 AUTO	5	1	N/A	N/A	
701	CP3030	A_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_1271A #3 WATER PUMP 1 RUNNING	5	1	N/A	N/A	
702	CP3030	A_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_1172A_AU POLYMER SOLUTION PUMP 1 AUTO	5	1	N/A	N/A	
703	CP3030	A_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_2671A_SL AIR COMPRESSOR DUTY SELECT 1	5	1	N/A	N/A	
704	CP3030	A_STATUS	BL5	BLNALM	DIGITAL ENABLED	QL_1271B #3 WATER PUMP 2 RUNNING	5	1	N/A	N/A	
705	CP3030	A_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1271A_LD #3 WATER PUMP SELECT 1	5	1	N/A	N/A	
706	CP3030	A_STATUS	BL7	BLNALM	DIGITAL ENABLED	QL_1132B POLYMER FEEDER 2 RUNNING	5	1	N/A	N/A	
707	CP3030	A_STATUS	BL8	BLNALM	DIGITAL ENABLED	QL_0674A BACKWASH WATER PUMP 1 ON	5	1	N/A	N/A	
708	CP3030	B_STATUS	BL1	BLNALM	DIGITAL ENABLED	CP_1071A1_RM AERATION BLOWERS REMOTE	5	1	N/A	N/A	
709	CP3030	B_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0571B_AU SEC SCUM PUMP 2 AUTO	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
710	CP3030	B_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0510B SECONDARY CLARIFIER 2 ON	5	1	N/A	N/A	
711	CP3031	D_ALM	BL5	BLNALM	DIGITAL ENABLED	LCP8 ANNUN. ALARM AT CHLORINE BLDG. (LCP8)	1	1	N/A	N/A	
712	CP3031	CP2ALMS	AERATION1	BLNALM	DIGITAL ENABLED	PAH_0471B SPR PUMP 2 DISCH PRESSURE	1	1	N/A	N/A	
713	CP3031	CP2ALMS	SLDG_XFER1	BLNALM	DIGITAL ENABLED	UA_1371A SLUDGE TRANS PUMP 1 VALVE FAIL	1	1	N/A	N/A	
714	CP3031	CP2ALMS	PRI_CLAR1	BLNALM	DIGITAL ENABLED	LAHH_0215A PRI SCUM PIT 1 HI-HI LEVEL	2	2	N/A	N/A	
715	CP3031	CP2ALMS	PRI_CLAR2	BLNALM	DIGITAL ENABLED	PAH_0272C PRI SLUDGE PMP 3 DISCH PRESS HI	1	1	N/A	N/A	
716	CP3031	CP2ALMS	PRE_TREAT1	BLNALM	DIGITAL ENABLED	PAH_0171A DISCHARGE PRESSURE 1 HIGH	1	1	N/A	N/A	
717	CP3031	CP2ALMS	PRE_TREAT2	BLNALM	DIGITAL ENABLED	PH NORMAL HI/LO PH	1	1	N/A	N/A	
718	CP3031	ODOR_D	SYS_B	BLNALM	DIGITAL ENABLED	SUMP 1 LEVEL LOW	5	1	N/A	N/A	
719	CP3031	ODOR_D	SYS_C	BLNALM	DIGITAL ENABLED	SUMP 2 LEVEL LOW	5	1	N/A	N/A	
720	CP3031	C_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0420D2 BASIN 4 MIXERS	5	1	N/A	N/A	
721	CP3031	C_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0420E4 BASIN 5 MIXERS	5	1	N/A	N/A	
722	CP3031	C_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0381B_RM PRI. EFFLUENT GATE 2 REMOTE	5	1	N/A	N/A	
723	CP3031	C_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0471A_AU SPR PUMP 1 AUTO	5	1	N/A	N/A	
724	CP3031	C_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0420F4 BASIN 6 MIXERS	5	1	N/A	N/A	
725	CP3031	C_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_0430B_RM BASIN 2 REMOTE	5	1	N/A	N/A	
726	CP3031	C_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0371B_AU PRI EFFLUENT PUMP 2 AUTO	5	1	N/A	N/A	
727	CP3031	C_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0371C_LD PRI EFFLUENT PUMP 3 LEAD SELECT	5	1	N/A	N/A	
728	CP3031	C_STATUS	BL9	BLNALM	DIGITAL ENABLED	HS_0472B_RM MLR PUMP 2 REMOTE	5	1	N/A	N/A	
729	CP3031	C_STATUS	BL10	BLNALM	DIGITAL ENABLED	HS_0420A1 BASIN 1 MIXERS	5	1	N/A	N/A	
730	CP3031	C_STATUS	BL11	BLNALM	DIGITAL ENABLED	HS_0420A9 BASIN 1 MIXERS	5	1	N/A	N/A	
731	CP3031	C_STATUS	BL12	BLNALM	DIGITAL ENABLED	QL_0472D MLR PUMP 4 ON	5	1	N/A	N/A	
732	CP3031	C_STATUS	BL13	BLNALM	DIGITAL ENABLED	HS_0420C2 BASIN 3 MIXERS	5	1	N/A	N/A	
733	CP3031	D_STATUS	BL1	BLNALM	DIGITAL ENABLED	QL_0110B BARSCREEN 2 ON	5	1	N/A	N/A	
734	CP3031	D_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0171A_AU GRIT PUMP 1 AUTO	5	1	N/A	N/A	
735	CP3031	D_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0210B PRIMARY CLARIFIER 2 ON	5	1	N/A	N/A	
736	CP3031	D_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0272A_RM PRI SLUDGE PUMP 1 REMOTE	5	1	N/A	N/A	
737	CP3031	D_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0272C_AU PRI SLUDGE PUMP 3 AUTO	5	1	N/A	N/A	
738	CP3031	D_STATUS	BL6	BLNALM	DIGITAL ENABLED	CP_1310A_RM SLUDGE GRINDER 1 REMOTE	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
739	CP3031	D_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0131A_RM GRIT DRIVE REMOTE	5	1	N/A	N/A	
740	CP3031	D_STATUS	BL8	BLNALM	DIGITAL ENABLED	QL_0132B CLASSIFIER 2 ON	5	1	N/A	N/A	
741	CP3030	CP1ALMS	EFF_FILTER3	BLNALM	DIGITAL ENABLED	FILTER LOADING FILTER #3 OFFLINE	2	2	N/A	N/A	
742	CP3030	SBS	SBS_ALARMS1	BLNALM	DIGITAL ENABLED	OUTFALL SAMPLE PUMP SAMPLE PUMP FAIL	1	1	N/A	N/A	
743	CP3030	CP1ALMS	EFF_FILTER1	BLNALM	DIGITAL ENABLED	FILTER #2 FILTER #2 IN BACKWASH	3	2	N/A	N/A	
744	CP3030	CP1ALMS	SEC_CLAR1	BLNALM	DIGITAL ENABLED	PAH_0571B SEC SCUM PUMP 2 DISCH PRESS	1	1	N/A	N/A	
745	CP3030	CP1ALMS	SEC_CLAR2	BLNALM	DIGITAL ENABLED	NAHH_0510C CLARIFIER 3 TORQUE SHUTDOWN	1	1	N/A	N/A	
746	CP3030	CP1ALMS	MISC_SYS1	BLNALM	DIGITAL ENABLED	LAH_2679 POND PUMP SYSTEM LEVEL HIGH	1	1	N/A	N/A	
747	CP3030	CP1ALMS	CHEM_SYS1	BLNALM	DIGITAL ENABLED	LAH_1122 ALUM STORAGE TANK LEVEL HIGH	1	1	N/A	N/A	
748	CP3030	CP1ALMS	CHEM_SYS2	BLNALM	DIGITAL ENABLED	LALL_1122 ALUM STORAGE TANK LEVEL LOW-LOW	1	1	N/A	N/A	
749	CP3030	CP1ALMS	CHLOR_CONT1	BLNALM	DIGITAL ENABLED	OUTFALL SAMPLER OUTFALL ISCO SAMPLER FAIL	2	1	N/A	N/A	
750	CP3030	CP1ALMS	CHLOR_CONT2	BLNALM	DIGITAL ENABLED	OUT_DISCH OUTFALL GATE IS OPEN	5	1	N/A	N/A	
751	CP3030	RECLAIM	ALARMS	BLNALM	DIGITAL ENABLED	RECLAIM:POTABLE.LAIND Fault	1	1	N/A	N/A	
752	CP3030	A_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_1118_AU W3 SOLENOID VALVE AUTO	5	1	N/A	N/A	
753	CP3030	A_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_1271A_AU #3 WATER PUMP 1 AUTO	5	1	N/A	N/A	
754	CP3030	A_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_1172A POLYMER SOLUTION PUMP 1 ON	5	1	N/A	N/A	
755	CP3030	A_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_2671B_SL AIR COMPRESSOR DUTY SELECT 2	5	1	N/A	N/A	
756	CP3030	A_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_1271B_AU #3 WATER PUMP 2 AUTO	5	1	N/A	N/A	
757	CP3030	A_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1271B_LD #3 WATER PUMP SELECT 2	5	1	N/A	N/A	
758	CP3030	A_STATUS	BL7	BLNALM	DIGITAL ENABLED	QL_0610 MIXER	5	1	N/A	N/A	
759	CP3030	A_STATUS	BL8	BLNALM	DIGITAL ENABLED	QL_0674B BACKWASH WATER PUMP 2 ON	5	1	N/A	N/A	
760	CP3030	B_STATUS	BL1	BLNALM	DIGITAL ENABLED	PIC_1030_AU ALP CONTROL AUTO	5	1	N/A	N/A	
761	CP3030	B_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_0571C SEC SCUM PUMP 3 ON	5	1	N/A	N/A	
762	CP3030	B_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0510C SECONDARY CLARIFIER 3 ON	5	1	N/A	N/A	
763	CP3031	D_ALM	BL5	BLNALM	DIGITAL ENABLED	LCP3/LCP10 SECONDARY TREATMENT FAILURE	1	1	N/A	N/A	
764	CP3031	CP2ALMS	AERATION1	BLNALM	DIGITAL ENABLED	PAH_0472A MLR PUMP 1 DISCH PRESSURE	1	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
765	CP3031	CP2ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	C_DIO:DI7.CIN_4 Fault	1	1	N/A	N/A	
766	CP3031	CP2ALMS	SLDG_XFER1	BLNALM	DIGITAL ENABLED	PAH_1371B SLUDGE TRANS PUMP 2 HI PRESSURE	1	1	N/A	N/A	
767	CP3031	CP2ALMS	PRI_CLAR1	BLNALM	DIGITAL ENABLED	LALL_0215B PRI SCUM PIT 2 LOW-LOW LEVEL	1	1	N/A	N/A	
768	CP3031	CP2ALMS	PRI_CLAR2	BLNALM	DIGITAL ENABLED	LAHH_0279 SLDG. XFER SUMP SYS. LVL HI HI	1	1	N/A	N/A	
769	CP3031	CP2ALMS	PRE_TREAT1	BLNALM	DIGITAL ENABLED	FAL_0171B SEAL WATER 2 LOW FLOW	1	1	N/A	N/A	
770	CP3031	CP2ALMS	PRE_TREAT2	BLNALM	DIGITAL ENABLED	EC NORMAL HI/LO EC	1	1	N/A	N/A	
771	CP3031	C_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0420D3 BASIN 4 MIXERS	5	1	N/A	N/A	
772	CP3031	C_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0420E5 BASIN 5 MIXERS	5	1	N/A	N/A	
773	CP3031	C_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_0381C_AU PRI. EFFLUENT GATE 3 AUTO	5	1	N/A	N/A	
774	CP3031	C_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_0471A SPR PUMP 1 ON	5	1	N/A	N/A	
775	CP3031	C_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0420F5 BASIN 6 MIXERS	5	1	N/A	N/A	
776	CP3031	C_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_0430C_AU BASIN 3 AUTO	5	1	N/A	N/A	
777	CP3031	C_STATUS	BL7	BLNALM	DIGITAL ENABLED	QL_0371B PRI EFFLUENT PUMP 2 ON	5	1	N/A	N/A	
778	CP3031	C_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0472A_LD MLR PUMP 1 LEAD	5	1	N/A	N/A	
779	CP3031	C_STATUS	BL9	BLNALM	DIGITAL ENABLED	HS_0472B_AU MLR PUMP 2 AUTO	5	1	N/A	N/A	
780	CP3031	C_STATUS	BL10	BLNALM	DIGITAL ENABLED	HS_0420A2 BASIN 1 MIXERS	5	1	N/A	N/A	
781	CP3031	C_STATUS	BL11	BLNALM	DIGITAL ENABLED	HS_0420A10 BASIN 1 MIXERS	5	1	N/A	N/A	
782	CP3031	C_STATUS	BL12	BLNALM	DIGITAL ENABLED	HS_0420B1 BASIN 2 MIXERS	5	1	N/A	N/A	
783	CP3031	C_STATUS	BL13	BLNALM	DIGITAL ENABLED	FA_0450 FIC-0450 IN AUTO	5	1	N/A	N/A	
784	CP3031	D_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0110B_DF BARSCREEN 2 DIFFERENTIAL	5	1	N/A	N/A	
785	CP3031	D_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0171A_RM GRIT PUMP 1 REMOTE	5	1	N/A	N/A	
786	CP3031	D_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_1371B SLUDGE TRANSFER PUMP 2 RUNNING	5	1	N/A	N/A	
787	CP3031	D_STATUS	BL4	BLNALM	DIGITAL ENABLED	QL_0272A PRI SLUDGE PUMP 1 ON	5	1	N/A	N/A	
788	CP3031	D_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_1305_ST STOP SLUDGE TRANSFER PUMPING	5	1	N/A	N/A	
789	CP3031	D_STATUS	BL6	BLNALM	DIGITAL ENABLED	QL_1310B SLUDGE GRINDER 2 RUNNING	5	1	N/A	N/A	
790	CP3031	D_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0131A_AU GRIT DRIVE AUTO	5	1	N/A	N/A	
791	CP3031	D_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0135A_AU CLASSIFIER 1 WATER AUTO	5	1	N/A	N/A	
792	CP3030	CP1ALMS	EFF_FILTER1	BLNALM	DIGITAL ENABLED	FILTER #3 FILTER #3 IN BACKWASH	3	2	N/A	N/A	
793	CP3030	CP1ALMS	SEC_CLAR1	BLNALM	DIGITAL ENABLED	XA_0571C SEC SCUM WELL #3 LEVEL HIGH	2	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
794	CP3030	CP1ALMS	SEC_CLAR2	BLNALM	DIGITAL ENABLED	LALL_0515A SEC SCUM PIT LOW-LOW LEVEL	1	1	N/A	N/A	
795	CP3030	CP1ALMS	CHEM_SYS1	BLNALM	DIGITAL ENABLED	UA_1173A ALUM PUMP 1 FAIL	1	1	N/A	N/A	
796	CP3030	CP1ALMS	CHEM_SYS2	BLNALM	DIGITAL ENABLED	UA_1132A POLYMER FEEDER 1 FAIL	1	1	N/A	N/A	
797	CP3030	CP1ALMS	CHLOR_CONT1	BLNALM	DIGITAL ENABLED	AAH_0767 EFFLUENT TURBIDITY HIGH/LOW	1	1	N/A	N/A	
798	CP3030	CP1ALMS	CHLOR_CONT2	BLNALM	DIGITAL ENABLED	OUT_DISCH OUTFALL GATE CLOSED	5	1	N/A	N/A	
799	CP3030	RECLAIM	ALARMS	BLNALM	DIGITAL ENABLED	RECLAIM:DI1A.CIN_5 Fault	1	1	N/A	N/A	
800	CP3030	A_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_1173A_AU ALUM PUMP 1 AUTO	5	1	N/A	N/A	
801	CP3030	A_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_1271B_RM #3 WATER PUMP 2 REMOTE	5	1	N/A	N/A	
802	CP3030	A_STATUS	BL3	BLNALM	DIGITAL ENABLED	SCU_1172B_RM POLYMER SOLUTION PUMP 2 REMOTE	5	1	N/A	N/A	
803	CP3030	A_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_1271C_RM #3 WATER PUMP 3 REMOTE	5	1	N/A	N/A	
804	CP3030	A_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_2671A_AU AIR COMPRESSOR 1 AUTO	5	1	N/A	N/A	
805	CP3030	A_STATUS	BL7	BLNALM	DIGITAL ENABLED	QL_0620A FILTER 1 ON	5	1	N/A	N/A	
806	CP3030	A_STATUS	BL8	BLNALM	DIGITAL ENABLED	QL_0674C BACKWASH WATER PUMP 3 ON	5	1	N/A	N/A	
807	CP3030	B_STATUS	BL1	BLNALM	DIGITAL ENABLED	QL_1071A AERATION BLOWER 1 RUNNING	5	1	N/A	N/A	
808	CP3030	B_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0571C_AU SEC SCUM PUMP 3 AUTO	5	1	N/A	N/A	
809	CP3030	B_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0512A SCUM COLLECTOR 1 ON	5	1	N/A	N/A	
810	CP3031	D_ALM	BL5	BLNALM	DIGITAL ENABLED	LCP_10 BLOWER MCC BUILDING ALARM	1	1	N/A	N/A	
811	CP3031	CP2ALMS	AERATION1	BLNALM	DIGITAL ENABLED	PAH_0472B MLR PUMP 2 DISCH PRESSURE	1	1	N/A	N/A	
812	CP3031	CP2ALMS	PRI_EFF1	BLNALM	DIGITAL ENABLED	C_DIO:DI7.CIN_7 Fault	5	1	N/A	N/A	
813	CP3031	CP2ALMS	SLDG_XFER1	BLNALM	DIGITAL ENABLED	ALARM XFER RP2 ALARM XFER SWITCH ON	1	1	N/A	N/A	
814	CP3031	CP2ALMS	PRI_CLAR1	BLNALM	DIGITAL ENABLED	LAHH_0215B PRI SCUM PIT 2 HI-HI LEVEL	2	1	N/A	N/A	
815	CP3031	CP2ALMS	PRE_TREAT1	BLNALM	DIGITAL ENABLED	PAL_0171B SUCTION PRESSURE 2 LOW	1	1	N/A	N/A	
816	CP3031	C_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0420D4 BASIN 4 MIXERS	5	1	N/A	N/A	
817	CP3031	C_STATUS	BL2	BLNALM	DIGITAL ENABLED	HS_0420E6 BASIN 5 MIXERS	5	1	N/A	N/A	
818	CP3031	C_STATUS	BL3	BLNALM	DIGITAL ENABLED	QL_0381C PRI. EFFLUENT GATE 3 OPEN/CLS	5	1	N/A	N/A	
819	CP3031	C_STATUS	BL4	BLNALM	DIGITAL ENABLED	SCU_0471B_RM SPR PUMP 2 REMOTE	5	1	N/A	N/A	
820	CP3031	C_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_0420F6 BASIN 6 MIXERS	5	1	N/A	N/A	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
821	CP3031	C_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_0430C_RM BASIN 3 REMOTE	5	1	N/A	N/A	
822	CP3031	C_STATUS	BL7	BLNALM	DIGITAL ENABLED	HS_0371B_RM PRI EFFLUENT PUMP 2 REMOTE	5	1	N/A	N/A	
823	CP3031	C_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0472B_LD MLR PUMP 2 LEAD	5	1	N/A	N/A	
824	CP3031	C_STATUS	BL9	BLNALM	DIGITAL ENABLED	QL_0472B MLR PUMP 2 ON	5	1	N/A	N/A	
825	CP3031	C_STATUS	BL10	BLNALM	DIGITAL ENABLED	HS_0420A3 BASIN 1 MIXERS	5	1	N/A	N/A	
826	CP3031	C_STATUS	BL11	BLNALM	DIGITAL ENABLED	HS_0420A11 BASIN 1 MIXERS	5	1	N/A	N/A	
827	CP3031	C_STATUS	BL12	BLNALM	DIGITAL ENABLED	HS_0420B2 BASIN 2 MIXERS	5	1	N/A	N/A	
828	CP3031	D_STATUS	BL1	BLNALM	DIGITAL ENABLED	HS_0110B_TM BARSCREEN 2 TIME	5	1	N/A	N/A	
829	CP3031	D_STATUS	BL2	BLNALM	DIGITAL ENABLED	QL_0171B GRIT PUMP 2 ON	5	1	N/A	N/A	
830	CP3031	D_STATUS	BL3	BLNALM	DIGITAL ENABLED	HS_1371B_AU SLUDGE TRANSFER PUMP 2 AUTO	5	1	N/A	N/A	
831	CP3031	D_STATUS	BL4	BLNALM	DIGITAL ENABLED	HS_0272A_AU PRI SLUDGE PUMP 1 AUTO	5	1	N/A	N/A	
832	CP3031	D_STATUS	BL5	BLNALM	DIGITAL ENABLED	HS_1305A1_SL SELECT SLUDGE PIT 1 ALARM	5	1	N/A	N/A	
833	CP3031	D_STATUS	BL6	BLNALM	DIGITAL ENABLED	HS_1310B_AU SLUDGE GRINDER 2 AUTO	5	1	N/A	N/A	
834	CP3031	D_STATUS	BL7	BLNALM	DIGITAL ENABLED	QL_0131A GRIT DRIVE ON	5	1	N/A	N/A	
835	CP3031	D_STATUS	BL8	BLNALM	DIGITAL ENABLED	HS_0135B_AU CLASSIFIER 2 WATER AUTO	5	1	N/A	N/A	
836	CP3030	SHUTDN	CT_ALM	REALM	LO ALM	CONTACT BASIN LOW CT &	2	1	460	N/A	
837	CP3030	SHUTDN	CT_ALM1	REALM	LO ALM	LO CT SHUTDN RECLAIM VALVE &	1	1	450	N/A	
838	CP3030	SHUTDN	DT_ALM	REALM	HI&LO ALM	CONTACT BASIN LOW DETENTION TIME &	1	1	90	50000	
839	CP3030	SHUTDN	OUTCL2	REALM	HI&LO ALM	&	5	5	0	5.1	
840	CP3030	A_AIO	SO2_ALM	REALM	HI&LO ALM	& LOW SBS IN OUTFALL	:HIGH_SO2_CLC.RO02	1	0	4.75	
841	CP3030	A_AIO	HIGH_SO2	REALM	HI&LO ALM	EXCESSIVE SBS IN OUTFALL &	:HIGH_SO2_CLC.RO02	1	0.2	100	
842	CP3030	B_AIO	BLWR_SHUTDN	REALM	HI ALM	&	5	5	N/A	:BLWR_CALC.RO01	
843	CP3030	CHLORINATION	CL2_DOS_ALM	REALM	HI&LO ALM	LOW TOTAL CL2 DOSE & HIGH TOTAL CL2 DOSE	5	1	9	20	
844	CP3030	WATER	LEAD_SW	REALM	HI&LO ALM	START LEAD PUMP & STOP LEAD PUMP	5	2	66	85	
845	CP3030	WATER	LAG_SW	REALM	HI&LO ALM	START LAG PUMP & STOP LAG PUMP	5	2	60	70	
846	CP3030	WATER	PMP3_SW	REALM	HI&LO ALM	START PUMP 3 &	5	2	58	76.5	
847	CP3030	WATER	PMP4_SW	REALM	HI&LO ALM	START PUMP 4 &	5	2	52	76	
848	CP3030	RECLAIM	TST_LOW	REALM	HI&LO ALM	&	5	3	40	5000	

COUNT	CP	COMPOUND	BLOCK	TYPE	ALM TYPE	ALM TEXT	ALARM PRIORITY	ALARM GROUP	LOW LEVEL LIMIT	HIGH LEVEL LIMIT	COMMENTS
849	CP3030	RECLAIM	RECLVLV	REALM	HI&LO ALM	POTABLE WATER ON TO RESERVOIR & RECLAIM WATER LEVEL HIGH	5	2	10	23	
850	CP3030	RECLAIM	POTABLE	REALM	HI&LO ALM	RESV LO LEVEL-POTABLE OPEN & POTABLE WATER VALVE CLOSED	5	2	14	14.5	
851	CP3030	RECLAIM	SHTDNALM	REALM	HI&LO ALM	LOW LOW LOW LEVEL (PUMPS OFF) &	1	1	8	100	
852	CP3030	RECLAIM	EFFL_FLW_ALM	REALM	HI&LO ALM	&	5	2	1	100	
853	CP3030	RECLAIM	FSWCH1	REALM	HI&LO ALM	RECLAIM LEAD PUMP LOW FLOW &	5	1	-200	10001	
854	CP3030	RECLAIM	PSWCH1	REALM	HI&LO ALM	&	5	3	110	140	
855	CP3030	RECLAIM	PSWCH3	REALM	HI&LO ALM	LAG1 PUMP START & LAG1 PUMP STOP	5	5	110	:VLVCTRL.RO02	
856	CP3031	C_AIO	MHOVFLW	REALM	HI&LO ALM	MANHOLE LOW & MANHOLE FLOWING TO EMERG POND	1	1	-1	6.63	
857	CP3031	D_AIO	AI_0169A	REALM	HI&LO ALM	LOW EC & HI-HI EC	2	2	300	2500	
858	CP3031	PEPUMPS	PELEAD	REALM	HI&LO ALM	&	5	3	2.3	3	
859	CP3031	PEPUMPS	PE_LAG	REALM	HI&LO ALM	&	5	3	3.5	4.5	
860	CP3031	PEPUMPS	TMP_LVLL	REALM	HI&LO ALM	&	5	1	2.5	100	
861	CP3031	PEPUMPS	RAS_FLW	REALM	HI&LO ALM	&	5	1	2.5	100	
862	CP3031	PEPUMPS	RAS_PNTS	REALM	HI&LO ALM	&	5	1	2.2	4.2	
863	CP3031	PRI_EFF	WELL_LEV	REALM	HI&LO ALM	& STRT LAG PMP	5	2	3	5	
864	CP3031	MIXLQR	PUMP_TIMER	REALM	HI ALM	& PUMP STOP	5	5	N/A	6	
865	CP3030	SHUTDN	CT_ALM	REALM	HIHI ALM	BELOW 450 CT ALARM & CT TOTAL MIN HOLD	5	5	N/A	450	
866	CP3030	SHUTDN	DT_ALM	REALM	HIHI ALM	& DT TOTAL MIN IN HOLD	5	5	N/A	90	
867	CP3030	SHUTDN	OUTCL2	REALM	HIHI&LOLO ALM	& HIGH CL2 PLNT SHTDN 30 MIN DELAY	5	5	0	9.5	
868	CP3030	B_AIO	BLWR_SHUTDN	REALM	HIHI ALM	&	5	5	N/A	:BLWR_CALC.RO02	
869	CP3030	RECLAIM	POTABLE	REALM	LOLO ALM	POTABLE WATER VALVE OPEN &	1	1	12	N/A	
870	CP3030	RECLAIM	SHTDNALM	REALM	HIHI&LOLO ALM	LOW LOW LOW LOW LEVEL &	1	1	7.5	100	
871	CP3030	RECLAIM	PSWCH1	REALM	HIHI&LOLO ALM	&	5	3	100	150	
872	CP3030	RECLAIM	PSWCH2	REALM	HIHI&LOLO ALM	&	1	1	50	150	
873	CP3030	RECLAIM	PSWCH3	REALM	HIHI&LOLO ALM	LAG2 PUMP START & LAG2 PUMP STOP	5	5	100	:VLVCTRL.RO03	
874	CP3031	MIXLQR	PUMP_TIMER	REALM	HIHI ALM	& PUMP START	5	5	N/A	20	
875	CP3031	PRELIM	LY_0105	REALM	HI&LO DEV ALM	& HI DIFFERENTIAL	5	1	100	1.7	

Appendix D

Carbon Canyon Water Recycling Facility

Recycled Water Users and Demands

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Chino Recycled Water Usage in AF

FY 2013/2014

9/20/2013

Date Range: 9/1/2012 - 9/1/2013

Customer	Site Address	Segment	Type	Meter #	PrZone	Demand	Status	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Total AF
AGAVE NEIGHBORHOOD ASSOCIATION		8100 W PRESERVE LOOP #SPR-RC		Bickmore AveLandscape Residential237741				800	1.00	Current	1.57	0.90	0.99	0.26	0.06	0.40	0.66	0.96	0.80	1.32 1.29
All Coast Forest Products	13880 Monte Vista Ave #RC	CCWRF Distr. Line	Landscape Commercial	194239	930	12.00	Current	2.02	0.98	1.23	0.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**4.71**
American Power Conversion	14875 Monte Vista Ave #SPR-RC	CCWRF Distr. Line	Landscape Commercial	199850	930	5.00	Current	0.59	0.96	0.74	0.04	0.12	0.19	0.34	0.41	1.00	0.61	0.78	0.00	**5.78**
American Power Conversion	14725 Monte Vista Ave #SPR-RC	CCWRF Distr. Line	Landscape Commercial	199869	930	5.00	Current	1.25	1.00	0.79	0.03	0.17	0.23	0.42	0.55	1.05	0.92	1.20	0.00	**7.60**
BOBERG ENGINEERING	HYDRANT METER	Bickmore Ave	Landscape Residential	195979	930	6.00	Current	0.00	6.91	0.00	0.71	0.05	0.01	0.34	0.09	0.85	0.00	0.15	0.00	**9.13**
BOBERG ENGINEERING	HYDRANT METER			221266			Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.31	0.00	**9.31**
BOBERG ENGINEERING	HYDRANT METER			236881			Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	**0.18**
C W FARMS IV	REMINGTON/WALKER NORTH #SPR		TP-1 Outfall	Agricultural Farm	231076	800	1,000.00	Current	195.45	96.17	1.82	21.46	0.07	22.30	25.67	31.98	37.65	25.41	24.77	0.00 **482.**
Cal Poly Pomona	Kimball Ave/Magnolia Channel#RC		Bickmore Ave	Agricultural Farm	219376	800	850.00	Current	210.07	52.77	15.66	36.15	0.00	0.00	11.83	71.03	37.21	65.00	43.85	0.00 **543.**
Cal Poly Pomona	14515 Central Ave #A SPR/R	Edison Ave Main A	Agricultural Farm	233956	800	500.00	Current	92.37	16.79	45.14	0.00	0.00	0.00	17.07	59.61	0.00	0.00	54.98	0.00	**285.96**
Cal Poly Pomona	4575 Eucalyptus Ave #SPR-RC	CCWRF Distr. Line	Landscape Residential	234606	930	3.00	Current	0.16	0.13	0.12	0.06	0.07	0.08	0.13	0.11	0.14	0.10	0.11	0.00	**1.19**
Cal Trans	Chino Hills Pkwy/71 #SPR-RC	CCWRF Distr. Line	Landscape StreetScape	204765	930	16.00	Current	1.64	1.40	1.35	0.14	0.17	0.23	1.68	0.90	0.21	1.04	0.84	0.00	**9.61**
Calif Cogeneration	5605 COLLEGE PARK AVE #RC	Edison Ave Main A	Industrial cooling	237776	930	100.00	Current	7.95	4.07	3.42	10.68	5.09	3.34	8.70	10.85	8.08	10.96	12.28	0.00	**85.43**
Central Business Owners Assoc	13931-13965 Central Ave	Edison Ave Main A	Landscape Commercial	228206	930	5.00	Current	0.57	0.48	0.47	0.09	0.02	0.38	0.43	0.56	0.30	0.81	0.77	0.00	**4.87**
Central Park Industrial PTNRS	14760 Central Ave	Edison Ave Main A	Landscape Commercial	201340	930	8.00	Current	0.00	0.00	0.04	0.07	0.22	0.17	0.49	0.40	0.81	0.66	0.78	0.00	**3.63**
Central Park Industrial PTNRS	14602-14698 Central Ave	Edison Ave Main A	Landscape Commercial	208612	930	27.00	Current	1.47	1.31	1.39	0.09	0.16	0.14	0.53	0.34	0.93	0.51	0.73	0.00	**7.61**
Central Park Industrial PTNRS	14091 Twelfth St.	Edison Ave Main A	Landscape Commercial	218656	930	3.00	Current	0.41	0.25	0.41	0.07	0.02	0.04	0.05	0.19	0.21	0.52	0.33	0.00	**2.50**
Central Park Industrial PTNRS	14508 Central Ave	Edison Ave Main A	Landscape Commercial	220791	930	9.00	Current	0.81	0.70	0.56	0.09	0.12	0.28	0.64	0.46	0.67	0.52	0.85	0.00	**5.71**
Chaffey College	5897 College Park Ave #SPR-RC	Edison Ave Main A	Landscape School	236281	800	2.50	Current	0.79	0.55	0.28	0.16	0.00	0.23	0.20	0.49	0.52	0.69	0.55	0.00	**4.45**
CHAFFEY COLLEGE	5890 COLLEGE PARK AVE	Edison Ave Main A	Landscape School	237386	800	5.00	Current	0.99	0.53	0.33	0.20	0.00	0.22	0.30	0.46	0.65	1.02	0.85	0.00	**5.54**
Chandler Real Properties	15342 El Prado Rd #SPR-RC	El Prado	Landscape Commercial	230156	800	8.00	Current	0.51	0.45	0.27	0.01	0.03	0.09	0.09	0.00	0.05	0.56	0.75	0.00	**2.81**
Chino Development Corporation	Wetlands Project	Bickmore Ave	Landscape Commercial	221381	800	50.00	Current	15.16	6.95	7.47	1.88	0.22	0.32	0.87	6.11	6.20	11.38	11.08	0.00	**67.63**
Chino Development Corporation	PRESERVE/RINCON MW HYD-R	Bickmore Ave	Landscape Commercial	222351	800	1.00	Current	0.02	0.00	0.00	0.00	0.19	0.00	0.00	0.00	3.12	3.18	1.09	0.00	**7.59**
Chino Hills Ford	4480 Chino Hills Pkwy #SPR-RC	CCWRF Distr. Line	Landscape Commercial	152781	930	10.00	Current	1.00	1.08	1.48	0.16	0.31	0.47	0.58	0.87	1.22	1.41	1.74	0.00	**10.32**
Chino Industrial Commons	5505 Daniels St. #SPR-RC	Edison Ave Main A	Landscape Commercial	221356	930	2.00	Current	0.72	1.12	0.22	0.07	0.00	0.07	0.08	0.21	0.19	0.37	0.29	0.00	**3.34**
Chino Industrial Commons-Owners	5625 Daniels St. #SPR-RC	Edison Ave Main A	Landscape Commercial	221371	930	3.00	Current	1.01	0.60	0.35	0.03	0.00	0.12	0.11	0.31	0.34	0.60	0.50	0.00	**3.97**
CITRUS COMMONS	PARKSIDE/WEST PRES #SPR RC	Bickmore Ave	Landscape Commercial	224836	930	8.00	Current	1.35	0.78	0.45	0.26	0.03	0.25	0.31	0.62	0.79	0.97	0.69	0.00	**6.49**
City of Chino	Edison Ave Bike Trail	Edison Ave Main A	Landscape StreetScape	183539	930	40.00	Current	3.77	2.15	1.78	0.45	0.11	0.74	0.48	1.74	0.00	2.49	2.19	0.00	**15.90**
City of Chino	5604 COLLEGE PARK AVE #SPR-RC		Edison Ave Main A	Landscape StreetScape	236471	930	8.00	Current	34.22	30.73	41.03	29.63	17.77	24.79	25.68	38.04	0.00	43.73	34.71	0.00
City of Chino Ayala Park	5301 Edison Ave	Edison Ave Main A	Landscape Park	189677	800	85.00	Current	6.34	3.49	7.39	0.54	0.34	1.46	1.73	4.45	6.78	7.97	5.75	0.00	**46.24**
CITY OF CHINO AYALA PARK	5301 Edison Ave	Edison Ave Main A	Landscape Park	189685	930	90.00	Current	8.61	5.25	6.19	1.42	0.31	1.66	1.88	4.80	0.00	9.09	7.19	0.00	**46.40**
Cleveland Farm	HYDRANT METER		Agricultural Other	100168		80.00	Current	10.66	0.00	0.00	0.00	0.00	0.00	0.00	20.85	4.44	0.00	0.00	0.00	**35.95**
Cleveland Farm	HYDRANT METER		Agricultural Farm	204811		80.00	Current	79.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**79.91**
Cleveland Farm	HYDRANT METER		Agricultural Farm	218138		80.00	Current	73.69	31.11	1.24	0.00	0.00	0.00	0.00	14.39	7.25	0.00	0.00	0.00	**127.67**
Cleveland Farm	7550 BICKMORE AVE #SPR-RC	Bickmore Ave	Agricultural Farm	237816	800	500.00	Current	19.11	0.00	5.31	0.00	0.00	0.00	5.89	6.49	0.00	11.49	13.73	0.00	**62.00**
CLEVELAND FARM #1	Bickmore East of Euclid#SPR-RC	Bickmore Ave	Agricultural Farm	202517	930	400.00	Current	53.16	15.66	17.66	16.22	0.00	0.00	3.16	32.37	38.98	50.10	51.81	0.00	**279.13**
COLLEGE PARK COMMUNITES	6524 WHEATON #SPR-RC	Edison Ave Main A	Landscape Residential	228216	930	10.00	Current	0.78	0.56	0.18	0.22	0.00	0.13	0.17	0.17	0.13	0.31	0.46	0.00	**3.12**
COLLEGE PARK COMMUNITES	6572 WHEATON	Edison Ave Main A	Landscape Residential	232821	930	5.00	Current	0.82	0.60	0.39	0.22	0.00	0.08	0.12	0.14	0.20	0.47	0.55	0.00	**3.60**
College Park Community Assoc	Eucalyptus/San Antonio #SPR	Edison Ave Main A	Landscape Residential	224291	930	10.00	Current	2.98	2.01	1.60	0.54	0.00	0.35	0.56	1.47	0.91	0.00	0.01	0.00	**10.44**
College Park Community Assoc	San Antonio A/Standford #SPR-RC		Edison Ave Main A	Landscape Residential	224991	930	10.00	Current	1.09	0.48	0.39	0.28	0.00	0.13	0.12	0.25	0.44	0.73	0.98	0.00
College Park Community Assoc	Eucalyptus/Fern #SPR-RC	Edison Ave Main A	Landscape Residential	225001	930	10.00	Current	1.39	1.12	0.70	0.22	0.00	0.12	0.15	0.42	0.55	0.80	1.10	0.00	**6.57**
College Park Community Assoc	6975 EDINBORO ST #SPR-RC	Edison Ave Main A	Landscape Residential	236266	930	10.00	Current	0.14	0.16	0.14	0.07	0.00	0.03	0.03	0.05	0.08	0.10	0.12	0.00	**0.93**
College Park Community Assoc	6623 CLEMSON ST #SPR-RC	Edison Ave Main A	Landscape Residential	236876	930	10.00	Current	1.11	1.22	1.04	0.71	0.16	0.33	0.24	0.43	0.33	1.61	0.99	0.00	**8.17**
College Park Community Assoc	EUCALYPTUS	Edison Ave Main A	Landscape Residential	237876	930	10.00	Current	0.58	0.53	0.37	0.16	0.03	0.09	0.10	0.24	0.57	0.36	0.40	0.00	**3.43**
College Park Community Assoc	EUCALYPTUS #SPR-RC	Edison Ave Main A	Landscape Residential	237881	930	10.00	Current	1.71	1.31	0.86	0.85	0.00	0.66	0.68	0.80	0.68	1.07	1.55	0.00	**10.17**
College Park Community Assoc	6555 EUCALYPTUS	Edison Ave Main A	Landscape Residential	237931	930	10.00	Current	0.64	0.83	0.54	0.36	0.01	0.23	0.15	0.42	0.46	0.56	0.47	0.00	**4.68**
College Park Community Assoc 1	Clemson/Tuskegee So #SPR-RC	Edison Ave Main A	Landscape Residential	224301	930	10.00	Current	1.53	0.90	0.33	0.19	0.00	0.22	0.29	0.34	0.29	0.50	0.92	0.00	**5.51**
College Park Communty Assoc 2	Clemson/Tuskegee No #SPR-RC	Edison Ave Main A	Landscape Residential	224996	930	10.00	Current	1.41	1.00	0.64	0.45	0.01	0.52	0.26	0.54	0.56	0.85	0.91	0.00	**7.13**
Collins Company	5470 Daniels St.	Edison Ave Main A	Landscape Commercial	202487	930	3.00	Current	0.19	0.21	0.15	0.09	0.09	0.06	0.12	0.30	0.14	0.17	0.14	0.00	**1.67**
Colonial Electric	14981 Telephone Ave	CCWRF Distr. Line	Landscape Commercial	132160	930	1.00	Current	0.04	0.03	0.04	0.06	0.08	0.07	0.08	0.07	0.10	0.06	0.08	0.00	**0.72**

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Chino Recycled Water Usage in AF

FY 2013/2014

9/20/2013

Date Range: 9/1/2012 - 9/1/2013

Customer	Site Address	Segment	Type	Meter #	PrZone	Demand	Status	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Total AF	
CP BUSINESS PARK PARTNERS LP	CENTRAL/CHINO HILLS PK SPR-RC		Edison Ave Main A	Landscape Commercial		219311	930	3.00	Current	1.17	1.23	1.49	0.22	0.15	0.44	0.70	0.58	0.81	0.62	1.33	0.00
CT Storage-Chino LLC	13855 Central Ave #SPR-RC	Edison Ave Main A	Landscape Commercial	232256	930	6.00	Current	0.72	0.60	0.63	0.74	0.58	0.59	0.59	0.74	0.57	0.70	0.28	0.00	**6.74**	
CW Farms	S Pine/W of W Preserve Loop #RC		Pine Ave	Agricultural Farm	204943	800	560.00	Current	280.22	188.48	75.50	0.04	0.00	10.78	9.95	104.60	10.51	0.39	91.07	0.00	**771.**
CW Farms II	Pine Ave W/of Grove #RC	Outfall Ext	Agricultural Farm	217700	800	100.00	Current	21.44	24.62	0.00	0.00	0.00	9.92	13.65	13.41	13.24	0.00	14.10	0.00	**110.38**	
CW Farms III	Remington/Walker Ave. #RC	TP-1 Outfall	Agricultural Farm	218356	800	320.00	Current	135.38	43.94	33.50	11.69	1.78	4.74	1.01	28.97	62.88	81.75	54.72	0.00	**460.35**	
DBRS Medical System	13820 Benson Ave	Edison Ave Main A	Landscape Commercial	206687	930	1.00	Current	0.14	0.11	0.08	0.01	0.00	0.00	0.00	0.04	0.09	0.11	0.14	0.00	**0.73**	
Dept. of Corrections State	14515 Central Ave #B SPR/R	Edison Ave Main A	Landscape Commercial	233961	930	15.00	Current	0.47	0.68	0.71	0.44	0.41	0.38	1.10	1.38	0.00	3.11	1.11	0.00	**9.78**	
DO + ABLE Product	5150 Edison Ave	Edison Ave Main A	Landscape Commercial	143316	930	6.00	Current	0.66	0.65	0.60	0.00	0.14	0.15	0.57	0.29	0.57	0.64	0.69	0.00	**4.96**	
DOWNING CONSTRUCTION INC	Mountain/Bickmore			100258	800	2.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.19	-0.02	0.17	0.00	0.03	0.00	**0.37**	
DR Horton	HYDRANT METER	1299 E Pipeline	Agricultural Commercial	190152	800	1.00	Current	0.00	0.00	0.00	0.00	0.11	0.02	0.00	0.00	0.00	0.00	0.00	0.00	**0.13**	
DR Horton	14569 Purdue	Edison Ave Main A	Landscape Residential	231021	930	1.00	Current	0.59	0.50	0.38	0.12	0.03	0.12	0.22	0.31	0.39	0.46	0.40	0.00	**3.53**	
DSC Logistics	5116 Chino Hills Parkway	Edison Ave Main A	Landscape Park	197475	930	5.00	Current	0.98	1.32	1.67	0.19	0.40	0.49	1.07	0.84	1.09	1.05	1.44	0.00	**10.56**	
El Prado Rd Business Owners	15278 EL PRADO RD	El Prado	Landscape Commercial	221436	800	6.00	Current	0.83	0.80	0.65	0.12	0.00	0.39	0.49	0.45	0.44	0.31	0.64	0.00	**5.13**	
EQUIPMENT WHOLESALERS	Daniels Ave #SPR-RC	Edison Ave Main A	Landscape Commercial	223456	930	3.00	Current	0.12	0.10	0.10	0.12	0.10	0.11	0.11	0.14	0.11	0.14	0.10	0.00	**1.25**	
EVERBLOOM ENTERPRISE LLC	13975 CENTRAL AVE	Edison Ave Main A	Landscape Commercial	100019	930	5.00	Current	0.45	0.38	0.38	0.48	0.34	0.45	0.39	0.51	0.51	0.64	0.46	0.00	**5.00**	
Evergreen at The Preserve	15731 Earhart Ct #SPR-RC	Bickmore Ave	Landscape Residential	221271	800	2.00	Current	1.14	0.79	0.56	0.44	0.45	0.28	0.27	0.79	1.15	1.24	1.14	0.00	**8.25**	
Evergreen at the Preserve (222671-2)		8200 Garden gate ct #SPR-RC		Bickmore Ave	Landscape Residential	222671		800	2.00	Current	0.25	0.14	0.06	0.05	0.00	0.01	0.04	0.08	0.08	0.20	0.19
Excel INC	14701 Yorba CT	CCWRF Distr. Line	Landscape Commercial	195766	930	7.00	Current	0.31	0.46	0.46	0.04	0.06	0.05	0.20	0.47	0.86	0.63	0.72	0.00	**4.25**	
Farrand Enterprises	14375 Monte Vista Ave #SPR-RC	Edison Ave Main A	Landscape Commercial	103918	930	2.00	Current	0.22	0.27	0.20	0.00	0.03	0.03	0.13	0.19	0.27	0.17	0.21	0.00	**1.72**	
FIRST INDUSTRIAL	6185 KIMBALL AVE			100337	800		Discontinued	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.98	1.62	1.15	0.00	**3.74**	
Funding Resources	13960 Benson Ave	Edison Ave Main A	Landscape Commercial	218081	930	4.00	Current	1.26	0.17	0.11	0.05	0.07	0.05	0.07	0.16	0.17	0.20	0.26	0.00	**2.56**	
FUSION 5 CONDO ASSOCIATION	15804 MCINTOSH AVE	Bickmore Ave	Landscape Commercial	236491	930	3.00	Current	0.13	0.50	0.17	0.17	0.05	0.10	0.07	0.09	0.20	0.37	0.49	0.00	**2.34**	
Garrett Concrete	14923 Telephone Ave	CCWRF Distr. Line	Landscape Commercial	142794	800	4.00	Current	0.17	0.14	0.17	0.08	0.09	0.15	0.15	0.07	0.09	0.07	0.08	0.00	**1.26**	
Garrett Concrete	14920 Telephone Ave	CCWRF Distr. Line	Landscape Commercial	190012	800	2.00	Current	0.00	0.12	0.17	0.03	0.03	0.05	0.12	0.07	0.16	0.16	0.15	0.00	**1.07**	
GILBERT WEST	16133 S FERN AVE	Edison Ave Main A	Landscape Commercial	237216	800	2.50	Current	1.84	1.26	1.12	0.42	0.09	0.42	0.72	1.16	1.09	1.46	1.24	0.00	**10.84**	
GMC ENGINEERING INC	HYDRANT METER			100205		0.01	Current	0.00	0.00	0.00	0.15	0.01	0.00	0.00	0.16	0.00	0.10	0.00	0.00	**0.42**	
Gro-Power Inc	15065 Telephone Ave	CCWRF Distr. Line	Landscape Commercial	103365	800	1.00	Current	0.25	0.26	0.24	0.11	0.08	0.12	0.21	0.19	0.25	0.16	0.17	0.00	**2.06**	
H PLACENICIA NURSERY	8005 PINE AVENUE	Outfall Ext	Landscape Other	100007	800	15.00	Current	2.87	2.23	1.89	2.02	1.01	1.23	1.99	3.13	4.07	5.58	4.09	0.00	**30.11**	
HERMAN WEISSKER INC	HYDRANT METER	1299 E Pipeline	Agricultural Commercial	205117	930	1.00	Current	1.95	0.00	2.78	0.13	0.03	0.18	0.10	0.93	0.53	0.45	0.17	0.00	**7.26**	
HILL PHOENIX INC	14680 MONTE VISTA AVE	CCWRF Distr. Line	Landscape Commercial	198811	930	5.00	Current	0.77	0.77	0.42	0.00	0.09	0.12	0.41	0.34	0.87	0.66	0.86	0.00	**5.31**	
HYUNDAI-KIA AMERICA	14011 TWELFTH ST #SPR-RC	Edison Ave Main A	Landscape Commercial	218651	930	2.00	Current	0.35	0.29	0.17	0.11	0.00	0.00	0.02	0.05	0.12	0.25	0.19	0.00	**1.55**	
INSTITUFORM TECHNOLOGIES INC	HYDRANT METER		Unknown StreetScape	100078	930	0.00	Discontinued	0.00	0.00	0.00	0.00	2.00	0.33	0.19	1.95	0.00	0.00	0.00	0.00	**4.47**	
Jasmine Willows HOA	Begonia & Holland Park #SPR	Bickmore Ave	Landscape Residential	233296	800	1.00	Current	0.37	0.26	0.15	0.10	0.00	0.10	0.09	0.18	0.19	0.33	0.22	0.00	**1.99**	
K-8 SCHOOL (PRESERVE)	8150 GARDEN PARK SCHOOL #SPR		Edison Ave Main A	Landscape School	228201	930	15.00	Current	3.22	2.28	0.57	0.20	0.00	0.00	0.49	1.94	2.08	2.92	3.39	0.00	**17.0**
KB Homes	8090 PINE AVE	Outfall Ext		100147	800	1.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	39.59	2.13	2.96	3.08	0.00	**47.75**	
KB Homes	7988 PINE AVE	TP-1 Outfall	Landscape Other	100148	800	7.00	Current	0.00	0.00	0.00	0.00	10.98	0.55	0.16	0.62	0.52	0.77	1.17	0.00	**14.77**	
KB Homes	HYDRANT METER	1299 E Pipeline	Landscape Residential	221711	930	3.00	Current	0.33	0.20	0.00	0.08	0.05	0.01	0.00	0.09	0.03	0.27	0.59	0.00	**1.65**	
KB Homes	BICKMORE/HUNTINGTON GARDEN		Landscape Residential	235086	800	2.00	Current	0.54	0.53	0.20	0.18	0.02	0.06	0.14	0.19	0.15	0.33	0.45	0.00	**2.78**	
Kinfine USA Inc	13824 YORBA AVE	Edison Ave Main A	Landscape Park	136123	930	2.00	Current	0.49	0.47	0.32	0.25	0.30	0.20	0.30	0.22	0.45	0.37	0.34	0.00	**3.71**	
La Brucherie Farms	Kimball & Rincon Meadows #RC	Bickmore Ave	Agricultural Farm	223811	800	50.00	Current	60.97	44.86	19.94	19.44	5.42	9.22	19.61	30.49	28.24	29.73	39.20	0.00	**307.10**	
LENNAR HOMES OF CA	6287 EUCALYPTUS AVE	Edison Ave Main A	Landscape Commercial	100169	1050	0.82	Current	0.19	0.19	5.64	0.35	0.17	0.59	0.88	3.43	1.99	2.05	1.19	0.00	**16.69**	
LENNAR HOMES OF CA	6069 EUCALYPTUS AVE	Edison Ave Main A	Landscape Commercial	100170	1050	1.23	Current	0.24	0.24	7.19	0.79	0.14	0.78	0.35	1.09	1.07	1.72	1.23	0.00	**14.83**	
LENNAR HOMES OF CA	5981 EUCALYPTUS AVE	Edison Ave Main A	Landscape Commercial	100171	1050	0.66	Current	0.19	0.14	5.22	0.65	0.64	1.12	0.59	1.41	1.16	1.48	1.99	0.00	**14.60**	
LENNAR HOMES OF CA	6088 SATTERFIELD		Landscape StreetScape	100174		4.10	Current	0.00	0.00	0.35	0.28	0.00	0.49	0.50	0.69	0.52	0.73	0.63	0.00	**4.18**	
LENNAR HOMES OF CA	6291 SATTERFIELD		Landscape StreetScape	100175		5.70	Current	0.00	0.00	0.48	0.57	0.75	1.06	0.93	1.13	0.92	1.15	1.35	0.00	**8.33**	
LENNAR HOMES OF CA	6287 SHEFFIELD ST	Edison Ave Main A		100186	930	1.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.05	0.06	0.05	0.00	**0.24**	
LENNAR HOMES OF CA	6019 Appalachian		Landscape StreetScape	100187	1630	6.40	Current	0.00	0.00	0.54	0.05	0.02	0.36	0.56	1.89	1.81	2.47	1.58	0.00	**9.27**	
LENNAR HOMES OF CA	14687 APPALACHIAN ST			100190		10.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.27	0.18	0.12	0.00	**1.38**	
LENNAR HOMES OF CA	14549 APPALACHIAN ST			100191		3.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.44	0.42	0.99	0.00	**2.10**	

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Chino Recycled Water Usage in AF

FY 2013/2014

9/20/2013

Date Range: 9/1/2012 - 9/1/2013

Customer	Site Address	Segment	Type	Meter #	PrZone	Demand	Status	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Total AF
LENNAR HOMES OF CA	LENNAR HOMES OF CALIFORNIA		Landscape Other	100199		7.00	Current	0.00	0.00	0.00	0.02	0.03	0.24	0.28	0.15	0.18	0.30	0.27	0.00	**1.46**
LENNAR HOMES OF CA	6084 APPALACHIAN ST			100327			Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	**0.27**
LENNAR HOMES OF CA	HYDRANT METER	1299 E Pipeline	Landscape Residential	218324	930	1.00	Discontinued	0.00	0.00	0.00	0.00	0.00	0.14	0.04	0.02	0.00	0.00	0.00	0.00	**0.21**
LENNAR HOMES OF CA	HYDRANT METER			221691			Current	0.00	0.00	0.00	0.00	0.00	2.00	0.15	0.08	0.50	0.62	0.44	0.00	**3.80**
LENNAR HOMES OF CA	HYDRANT METER	1299 E Pipeline	Landscape Residential	221911	930	1.00	Current	0.79	0.24	0.17	0.00	0.00	0.00	0.52	0.44	0.48	0.55	0.45	0.00	**3.64**
LENNAR HOMES OF CA	14123 OAKS AVE	Edison Ave Main A	Landscape Residential	235036	930	1.00	Current	2.03	1.55	1.01	1.04	0.58	1.44	1.52	1.86	1.47	1.88	1.54	0.00	**15.94**
LENNAR HOMES OF CA	14124 OAKS AVE	Edison Ave Main A	Landscape Residential	235041	930	1.00	Current	0.84	2.39	0.69	0.73	1.19	2.93	0.85	0.36	0.34	0.50	1.10	0.00	**11.92**
Lewis Operating Corp	Main St/Kimball Ave, Hydrant Meter		Bickmore Ave	Landscape Residential		185752	930	1.00	Current	0.83	0.95	0.00	1.90	0.96	1.21	2.16	4.61	3.06	2.63	3.16 0.00
Lewis Operating Corp	16100 Rincon Meadows	Bickmore Ave	Landscape Residential	221281	800	6.00	Current	1.65	5.82	0.16	0.09	0.00	0.01	0.11	0.37	0.62	1.01	1.32	0.00	**11.17**
LW INCOME PROPERTIES	5051 EDISON AVE #SPR-RC	Edison Ave Main A	Landscape Commercial	130176-2	930	2.00	Discontinued	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**
Majestic Management	14510-70 Monte Vista Ave #SPR	CCWRF Distr. Line	Landscape Commercial	198803	930	7.00	Current	1.15	0.96	0.59	0.04	0.19	0.26	0.68	0.44	1.03	0.87	1.19	0.00	**7.39**
MEF Realty LLC	5220-5228 Edison Ave #SPR-RC	Edison Ave Main A	Landscape Residential	165271	930	1.00	Current	0.25	0.24	0.31	0.03	0.10	0.00	0.09	0.08	0.17	0.35	0.20	0.00	**1.83**
MESA CONTRACTING CORP	SOUTH/E OF COLLEGE BLDG #RC	Edison Ave Main A	Agricultural Commercial	237686	930	3.00	Current	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.15**
MONTE VISTA #3	14720 MONTE VISTA AVE #SPR-RC		CCWRF Distr. Line	Landscape StreetScape		199737	930	5.00	Current	0.79	0.80	0.57	0.00	0.09	0.09	0.25	0.42	0.80	0.87	1.04 0.00
MONTE VISTA #3	14880 MONTE VISTA AVE #SPR-RC		CCWRF Distr. Line	Landscape StreetScape		199745	930	5.00	Current	0.12	0.59	0.52	0.00	0.10	0.15	0.37	0.53	0.92	0.74	0.90 0.00
National Distribution Center	16045 MOUNTAIN AVE	Bickmore Ave	Landscape Commercial	228431	800	5.00	Current	2.75	1.41	2.04	0.47	0.29	0.49	0.52	0.84	1.12	2.98	2.08	0.00	**14.99**
National Distribution Center	16045 MOUNTAIN AVE #SPR-RC	Bickmore Ave	Landscape Commercial	237946	800	2.00	Current	4.63	2.41	2.39	0.83	0.19	1.02	1.38	1.99	1.73	2.60	2.51	0.00	**21.69**
NEXGRILL INDUSTRIES INC	5270 EDISON AVE	Edison Ave Main A	Landscape Commercial	163112	930	5.00	Current	0.46	0.47	0.28	0.03	0.05	0.02	0.15	0.17	0.40	0.42	0.42	0.00	**2.90**
NORCO INJECTION MOLDING	14286 Monte Vista	Edison Ave Main A	Landscape Commercial	188336	930	5.00	Current	0.39	0.38	0.51	0.07	0.05	0.10	0.11	0.09	0.19	0.20	0.34	0.00	**2.42**
NORCO INJECTION MOLDING	5500 DANIELS AVE #SPR-RC	Edison Ave Main A	Landscape Commercial	237681	800	5.00	Current	0.33	0.04	0.05	0.06	0.05	0.05	0.05	0.07	0.05	0.07	0.05	0.00	**0.88**
NORCO INJECTION MOLDING	14325 MONTE VISTA AVE	Edison Ave Main A	Landscape Commercial	33294	800	5.00	Current	0.44	0.50	0.40	0.26	0.20	0.32	0.71	0.80	1.20	0.83	0.97	0.00	**6.63**
Nyenhius Dairy	8711 Remington Ave #AGR	TP-1 Outfall	Agricultural Dairy	236291	800	150.00	Current	129.70	121.93	56.26	39.24	20.77	34.51	44.88	77.36	0.00	108.71	70.06	0.00	**703.43**
Oltmans Construction	15970 MOUNTAIN AVE			100338	800		Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.46	0.00	**0.70**
OMNIA ITALIAN DESIGN	4950 Edison Ave #SPR-RC	Edison Ave Main A	Landscape Commercial	179310	930	7.00	Current	1.47	0.77	0.81	0.05	0.12	0.53	0.68	0.53	0.81	0.64	0.72	0.00	**7.13**
ORANGE COUNTY WATER DISTRICT	HYDRANT METER 1	1299 E Pipeline	Agricultural Commercial	210048	800	1.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.11	0.00	0.00	0.00	**0.75**
Panattoni Construction	4565 Eucalyptus Ave #SPR-RC	CCWRF Distr. Line	Landscape Residential	234611	930	5.00	Current	0.75	0.68	0.98	0.08	0.16	0.15	0.23	0.30	0.76	0.55	0.46	0.00	**5.11**
Panattoni Construction	14559 Ramona Ave #MED-RC	CCWRF Distr. Line	Landscape Residential	234616	930	4.00	Current	0.20	0.24	0.23	0.00	0.03	0.02	0.07	0.09	0.25	0.20	0.21	0.00	**1.56**
Panattoni Construction	14607 Ramona Ave #SPR-RC	CCWRF Distr. Line	Landscape Residential	234621	930	9.00	Current	0.68	0.68	0.50	0.09	0.17	0.06	0.20	0.24	0.38	0.38	0.42	0.00	**3.82**
Panattoni Construction	14609 Ramona Ave #SPR-RC	CCWRF Distr. Line	Landscape Residential	234626	930	4.00	Current	0.70	0.71	0.49	0.00	0.06	0.04	0.11	0.16	0.70	0.45	0.48	0.00	**3.89**
Panattoni Construction	4685 EUCALYPTUS AVE #SPR-RC	CCWRF Distr. Line	Landscape Residential	236751	930	3.00	Current	0.48	0.41	0.03	0.00	0.00	0.00	0.01	0.06	0.39	0.30	0.33	0.00	**2.01**
PARKCREST CONSTRUCTION INC	7105 KIMBALL AVE	Bickmore Ave	Construction Temporary	100075	800	1.00	Current	0.50	0.28	0.59	0.54	0.05	0.14	0.12	0.29	0.44	0.44	0.55	0.00	**3.93**
PARKCREST CONSTRUCTION INC	15709 EUCLID AVE	Bickmore Ave	Construction Commercial	100106	800	2.00	Current	0.47	0.36	0.30	0.24	0.00	0.10	0.00	0.05	0.23	0.28	0.31	0.00	**2.33**
PARKCREST CONSTRUCTION INC	EUCLID AVE/KIMBALL AVE	Bickmore Ave	Construction Temporary	236881_old	800	1.00	Discontinued	0.00	0.00	0.00	1.92	1.47	2.42	1.24	22.96	0.00	0.99	0.00	0.00	**30.99**
Portrait Construction, Inc.	Portrait Construction, Inc.	Bickmore Ave	Construction Other	100077	800	2.00	Current	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.44	0.55	0.42	0.71	0.00	**2.31**
Preserve Maintenance Corp	8273 KIMBALL AVE #SPR-RC	Bickmore Ave	Landscape Residential	221811	800	2.00	Current	0.67	0.63	0.24	0.13	0.00	0.05	0.12	0.23	0.39	0.54	0.43	0.00	**3.44**
Preserve Maintenance Corp	15702 Meadow Valley #SPR-RC	Bickmore Ave	Landscape Residential	223461	800	2.00	Current	0.90	0.58	0.22	0.22	0.00	0.11	0.06	0.25	0.36	0.45	0.38	0.00	**3.53**
Preserve Maintenance Corp	15703 Meadow Valley #SPR-RC	Bickmore Ave	Landscape Residential	223471	800	1.00	Current	0.33	0.42	0.02	0.16	0.00	0.03	0.00	0.11	0.22	0.40	0.50	0.00	**2.19**
Preserve Maintenance Corp	8595 Forest Park #SPR-RC	Bickmore Ave	Landscape Residential	223491	800	5.00	Current	0.53	0.45	0.20	0.09	0.04	0.05	0.02	0.22	0.27	0.35	0.32	0.00	**2.55**
Preserve Maintenance Corp	8381 Kimball Ave #SPR-RC	Bickmore Ave	Landscape Residential	224126	800	2.00	Current	0.71	0.73	0.46	0.24	0.01	0.12	0.27	0.51	0.30	0.72	0.65	0.00	**4.70**
Preserve Maintenance Corp	7703 Kimball Ave #SPR-RC	Bickmore Ave	Landscape Residential	224136	800	4.00	Current	1.21	1.03	0.40	0.16	0.03	0.16	0.17	0.42	0.59	1.29	1.41	0.00	**6.85**
Preserve Maintenance Corp	15990 Nature Trail #SPR-RC	Bickmore Ave	Landscape Residential	225546	800	12.00	Current	3.20	1.91	0.78	0.84	0.00	0.11	0.65	0.94	0.83	1.24	1.29	0.00	**11.78**
Preserve Master Community	15779 Starfighter Ave #SPR-R	Bickmore Ave	Landscape Residential	218456	800	10.00	Current	0.26	0.14	0.13	0.05	0.00	0.01	0.03	0.12	0.09	0.25	0.22	0.00	**1.29**
Preserve Master Corp	7920 Bickmore Ave #SPR-RC	Bickmore Ave	Landscape Residential	218451	800	7.00	Current	0.96	0.96	0.38	0.20	0.00	0.06	0.17	0.47	0.62	0.76	0.77	0.00	**5.37**
Preserve Master Corp	8704 Bridle Path ST #A #SPR	Bickmore Ave	Landscape Residential	222011	800	5.00	Current	3.56	2.08	0.62	1.39	0.01	0.79	0.50	1.58	1.32	1.82	1.88	0.00	**15.53**
PRESERVE MASTER MAINTENANCE	7973 KIMBALL AVE #SPR-RC	Bickmore Ave	Landscape Residential	218416	800	3.00	Current	1.23	0.71	0.33	0.14	0.00	0.07	0.15	0.13	0.39	0.60	0.50	0.00	**4.24**
PRESERVE MASTER MAINTENANCE	8456 E PRESERVE LOOP #SPR-RC	Bickmore Ave	Landscape Residential	218431	800	7.00	Current	1.47	1.02	0.47	0.25	0.00	0.11	0.20	0.41	0.89	1.12	0.71	0.00	**6.65**
PRESERVE MASTER MAINTENANCE	8344 FOREST PARK ST #SPR-RC	Bickmore Ave	Landscape Residential	218436	800	4.00	Current	0.76	0.62	0.25	0.13	0.04	0.09	0.08	0.30	0.42	0.89	0.96	0.00	**4.54**
PRESERVE MASTER MAINTENANCE	8473 FOREST PARK ST #SPR-RC	Bickmore Ave	Landscape Residential	218441	800	3.00	Current	0.57	0.44	0.23	0.13	0.00	0.09	0.12	0.23	0.24	0.37	0.52	0.00	**2.95**
PRESERVE MASTER MAINTENANCE	8100 W PRESERVE LOOP #SPR-RC		Bickmore Ave	Landscape Residential		218481	800	5.00	Current	1.84	1.42	0.31	0.15	0.00	0.05	0.17	0.48	0.80	0.58	0.65 0.00

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Customer	Site Address	Segment	Type	Meter #	PrZone	Demand	Status	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Total AF
PRESERVE MASTER MAINTENANCE	8179 KIMBALL AVE #SPR-RC	Bickmore Ave	Landscape Residential	224141	800	1.00	Current	0.25	0.47	0.19	0.09	0.00	0.06	0.10	0.16	0.23	0.35	0.28	0.00	**2.19**
PRESERVE MASTER MAINTENANCE	15750 MILL CREEK #SPR-RC	Bickmore Ave	Landscape Residential	224146	800	3.00	Current	0.67	0.93	0.30	0.25	0.00	0.11	0.12	0.22	0.34	0.74	0.64	0.00	**4.33**
PRESERVE MASTER MAINTENANCE	7714 BICKMORE AVE SPR-RC	Bickmore Ave	Landscape Residential	224151	800	7.00	Current	1.57	1.43	0.75	0.43	0.20	0.35	0.56	0.82	0.95	1.27	1.49	0.00	**9.83**
PRESERVE MASTER MAINTENANCE	8151 WEST PRESERVE LOOP-PARK		Bickmore Ave	Landscape Residential		228196	800	25.00	Current	3.70	2.55	1.30	1.14	0.12	0.40	0.89	2.96	2.27	3.96	4.02	0.00
PRESERVE MASTER MAINTENANCE	16343 MEADOWHOUSE AVE #SPR-RC		Bickmore Ave	Landscape Residential		236891	800	9.00	Current	0.79	0.63	0.39	0.51	0.02	0.30	0.37	0.62	0.70	0.64	1.05	0.00
PRESERVE MASTER MAINTENANCE	8383 KIMBALL AVE #SPR-RC	Bickmore Ave	Landscape Residential	237186	800	2.00	Current	0.20	0.17	0.13	0.06	0.00	0.03	0.06	0.22	0.15	0.21	0.17	0.00	**1.39**
PRESERVE MASTER MAINTENANCE	7585 BICKMORE AVE #SPR-RC	Bickmore Ave	Landscape Residential	237286	800	2.00	Current	0.54	0.21	0.20	0.05	0.01	0.02	0.00	0.08	0.06	0.08	0.07	0.00	**1.33**
PRESERVE MASTER MAINTENANCE	15591 RETREAT #SPR-RC	Bickmore Ave	Landscape Residential	237446	800	2.00	Current	0.68	0.48	0.49	0.08	0.11	0.11	0.22	0.49	0.43	0.67	0.62	0.00	**4.38**
Quetico Schaefer Properties	5610 Daniels St.#SPR/RC	Edison Ave Main A	Landscape Commercial	207624	930	4.00	Current	0.73	0.83	0.59	0.33	0.03	0.15	0.22	0.39	0.39	0.54	0.45	0.00	**4.64**
Redbuilt LLC	5088 EDISON AVE #SPR-RC	Edison Ave Main A	Landscape Commercial	190691	930	3.00	Current	0.20	0.21	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.41	0.00	**1.38**
Redwood Business Center	13851-97 Redwood Ave#SPR-RC	Edison Ave Main A	Landscape Commercial	220186	930	4.00	Current	0.68	0.39	0.29	0.10	0.11	0.11	0.11	0.17	0.41	0.95	0.77	0.00	**4.07**
Repet Inc	14207 MONTE VISTA AVE	Bickmore Ave	Landscape Park	175250	930	1.00	Current	1.24	1.65	1.89	1.35	1.20	1.80	3.38	2.13	2.76	2.42	2.34	0.00	**22.17**
Richardson, Don	Kimball & Rincon Meadows #RC	Bickmore Ave	Agricultural Dairy	223806	800	40.00	Current	10.97	8.26	6.43	2.39	1.31	2.32	2.74	7.47	8.15	12.74	8.17	0.00	**70.96**
SADDLE CREEK CORPORATION	5026 CHINO HILLS PARKWAY	CCWRF Distr. Line	Landscape Commercial	197653	930	5.00	Current	0.85	0.91	0.30	0.05	0.09	0.10	0.16	0.32	1.00	0.58	0.93	0.00	**5.30**
San Bdno County Fairgrounds	5410 Edison Ave #SPR-RC	Edison Ave Main A	Landscape Other	191825	930	10.00	Current	1.35	0.96	0.64	0.59	0.07	0.47	0.61	0.78	1.10	1.86	1.70	0.00	**10.14**
San Bdno County Fairgrounds	5410 Edison Ave, HYD-RC	Edison Ave Main A	Landscape Other	191833	930	2.00	Current	0.03	0.07	0.02	0.01	0.00	0.00	0.00	0.02	0.09	0.09	0.20	0.00	**0.53**
SCOTT ENGINEERING	5051 EDISON AVE #SPR-RC	Edison Ave Main A	Landscape Commercial	130176	930	1.00	Current	0.10	0.13	0.09	0.05	0.04	0.03	0.00	0.04	0.29	0.14	0.25	0.00	**1.17**
SEACOUNTRY HOMES	15777 MC INTOSH AVE	Bickmore Ave	Landscape Residential	100074	800	4.00	Current	0.54	1.17	0.67	0.50	0.51	0.35	0.16	1.08	1.10	2.30	2.13	0.00	**10.53**
Shamrock Marketing	5445 Daniels St	Edison Ave Main A	Landscape Commercial	196819	930	1.00	Current	0.09	0.10	0.08	0.06	0.00	0.02	0.08	0.07	0.09	0.08	0.09	0.00	**0.74**
SOUTHERN CALIFORNIA EDISON	14005 BENSON AVE	Edison Ave Main A	Landscape Other	237961	930	1.00	Current	0.11	0.08	0.10	0.06	0.02	0.00	0.01	0.03	0.04	0.05	0.04	0.00	**0.55**
Standard Pacific	6632 EUCALYPTUS AVE	Edison Ave Main A	Landscape Other	100105	1050	2.00	Current	0.00	0.00	0.00	0.07	0.11	0.11	0.17	0.06	0.07	0.19	0.21	0.00	**0.99**
Standard Pacific	6615 EUCALYPTUS AVE	Edison Ave Main A		100262	930	2.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.48	0.06	0.54	0.00	**1.23**
Standard Pacific	0 HYD MTR 04074614	1299 E Pipeline	Agricultural Commercial	218586	800	2.00	Current	0.00	0.00	0.00	0.00	0.00	0.46	0.00	0.00	0.00	0.44	0.00	0.00	**0.90**
Standard Pacific	15784 Canopy Ave #SPR-RC-Park	TP-1 Outfall Relocation		Landscape Commercial		236896	800	2.00	Current	1.56	1.02	0.42	0.24	0.02	0.22	0.20	0.62	1.08	1.50	1.61	0.00
STICE COMPANY INC	Pine/Euclid NW Corner	Outfall Ext	Construction Other	100259	800	45.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.75	4.24	4.43	1.97	0.00	**14.38**
STICE COMPANY INC	Pine/Euclid NW Corner	Outfall Ext		100260	800	12.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.97	3.25	4.29	4.40	0.00	**12.90**
SUKUT CONSTRUCTION INC	8600 Chino Corona Rd.	TP-1 Outfall	Construction Commercial	100202	800	2.00	Current	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.21**
Sundance Spas	14525 Monte Vista Ave #SPR-RC	Edison Ave Main A	Landscape Commercial	194808	930	6.00	Current	0.88	1.06	0.62	0.02	0.09	0.13	0.31	0.49	0.96	0.88	1.04	0.00	**6.49**
Sundance Spas	14675 Monte Vista Ave #SPR-RC	Edison Ave Main A	Landscape Commercial	194883	930	10.00	Current	0.71	0.84	0.62	0.01	0.07	0.10	0.27	0.36	0.48	0.54	0.68	0.00	**4.68**
Superior Sod	PINE & HELLMAN #SPR-RC	TP-1 Outfall Relocation		Industrial Process		236921	800	200.00	Current	32.88	22.12	13.33	3.92	3.56	9.84	14.47	40.71	32.33	47.28	21.28	0.00	**241.**
Superior Sod	CHINO CORONA RD #SPR-RC	Outfall Ext	Industrial Process	237361	800	200.00	Current	26.93	14.10	12.75	2.55	1.12	3.95	5.80	14.46	16.15	14.09	15.11	0.00	**127.02**
Superior Sod	CHINO CORONA RD	Outfall Ext	Industrial Process	237871	800	200.00	Current	42.74	24.88	10.62	2.50	0.72	1.47	1.98	5.38	7.72	10.22	6.25	0.00	**114.47**
Superior Sod #4	8545 PINE AVE - RC	TP-1 Outfall	Industrial Process	100091	800	55.00	Current	28.33	20.03	12.30	5.50	3.37	5.08	9.58	0.00	35.73	34.25	19.43	0.00	**173.58**
Superior Sod #4	8900 Bickmore Ave.	Outfall Ext	Agricultural Farm	100166	800	4.00	Current	0.00	0.00	0.26	0.17	0.03	0.15	0.14	0.52	0.62	0.35	0.00	0.00	**2.25**
SUPERIOR SOD AIRPORT #1	KIMBALL AVE/WALKER AVE			100261	800	80.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	15.24	41.24	32.05	0.00	**88.54**
Tetherwinds Neighborhood	158519 LINDBERGH AVE	TP-1 Outfall Relocation		Landscape Residential		224166	800	3.00	Current	0.80	0.89	0.60	0.27	0.00	0.21	0.26	0.48	0.42	0.53	0.78	0.00
Tetherwinds Neighborhood	15850 Lindbergh Ave #SPR-RC	Bickmore Ave	Landscape Residential	224171	800	25.00	Current	0.76	0.42	0.52	0.27	0.00	0.10	0.14	0.34	0.34	0.42	0.57	0.00	**3.88**
Tetherwinds Neighborhood	158519 LINDBERGH AVE	TP-1 Outfall Relocation		Landscape Residential		224176	800	3.00	Current	0.51	0.67	0.41	0.31	0.03	0.08	0.11	0.47	0.37	0.44	0.77	0.00
Tetherwinds Neighborhood	15754 Lindbergh Ave #SPR-RC	Bickmore Ave	Landscape Residential	224191	800	5.00	Current	0.65	0.41	0.37	0.18	0.00	0.26	0.18	0.62	0.70	0.59	0.65	0.00	**4.61**
The Campus Owners Corp	14091 TWELFTH ST B-SPR	Edison Ave Main A	Landscape Commercial	218676	930	6.00	Current	0.81	0.74	0.71	0.14	0.04	0.09	0.09	0.21	0.44	1.12	0.87	0.00	**5.27**
The Preserve Master Community	15871 Main Street #SPR-RC	Bickmore Ave	Landscape Residential	218386	800	10.00	Current	1.73	1.24	0.43	0.39	0.29	0.27	0.45	0.52	1.06	0.97	0.88	0.00	**8.21**
The Preserve Master Community	EAST HUNTINGTON GARDEN #SPR-RC		Bickmore Ave	Landscape Residential		218396	800	6.00	Current	1.86	1.29	0.69	0.29	0.00	0.21	0.25	1.18	1.03	1.67	1.35	0.00
The Preserve Master Community	8122 Garden Park St #SPR-RC	Bickmore Ave	Landscape Residential	218446	800	6.00	Current	1.17	0.89	0.29	0.26	0.00	0.17	0.20	0.52	0.84	1.38	1.54	0.00	**7.26**
The Preserve Master Community	15784 CANOPY AVE #SPR-RC PARK		Bickmore Ave	Landscape Residential		236846	800	10.00	Current	0.39	0.26	0.09	0.05	0.02	0.04	0.00	0.25	0.18	0.25	0.36	0.00
Trammel Crow So Cal Inc	14651 Yorba Ct SPR-RC	CCWRF Distr. Line	Landscape Commercial	195790	930	4.00	Current	0.38	0.65	0.19	0.04	0.10	0.09	0.19	0.58	0.81	0.68	0.81	0.00	**4.52**
Trammel Crow So Cal Inc	14575 Yorba Ct	CCWRF Distr. Line	Landscape Commercial	195820	930	5.00	Current	0.21	0.39	0.36	0.02	0.05	0.04	0.14	0.29	0.39	0.34	0.41	0.00	**2.64**
Trammel Crow So Cal Inc	4775 Eucalyptus Ave	CCWRF Distr. Line	Landscape Commercial	195839	930	1.00	Current	0.29	0.37	0.27	0.00	0.02	0.00	0.12	0.24	0.64	0.50	0.56	0.00	**3.00**
Trammel Crow So Cal Inc	YORBA/EUCALYPTUS (SW) #SPR-RC		CCWRF Distr. Line	Landscape Commercial		195871	930	1.00	Current	0.08	0.13	0.08	0.00	0.01	0.00	0.04	0.08	0.18	0.14	0.15	0.00
Trammel Crow So Cal Inc	14525 YORBA AVE #SPR RC	CCWRF Distr. Line	Landscape Commercial	195898	930	3.00	Current	0.22	0.40	0.27	0.00	0.02	0.00	0.09	0.20	0.45	0.36	0.41	0.00	**2.42**

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Valbruna	13930-13950 Benson Ave #SPR-RC		Edison Ave Main A	Landscape Commercial		216917	930	3.00	Current	0.37	0.22	0.15	0.11	0.00	0.00	0.00	0.17	0.15	0.18	0.15	0.00
Viaverde Nursery	MAIN ST/FORREST PARK #SPR-RC		Bickmore Ave	Landscape Other	237756	800	13.00	Current	5.98	4.57	3.33	1.53	1.31	1.90	2.73	4.48	0.00	5.21	5.01	0.00	**36.0**
Viaverde Nursery	15801 E PRESERVE LOOP #SPR-RC		Bickmore Ave	Landscape Other	237761	800	13.00	Current	1.34	1.01	0.72	0.39	0.34	0.63	0.89	1.62	1.42	2.03	2.33	0.00	**12.7**
Viaverde Nursery	15800 E PRESERVE #SPR-RC	Bickmore Ave	Landscape Other	237766	800	13.00	Current	6.12	4.76	3.83	2.09	1.04	1.86	2.62	4.83	3.78	6.12	5.20	0.00	**42.27**	
VIRAMONTES EXPRESS	8600 CHINO CORONA RD #HYD-RC		Outfall Ext	Landscape Commercial		192570	800	65.00	Current	1.54	0.65	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
W L Homes	Kimball/Preserve #HYD	Bickmore Ave	Landscape Residential	192600	800	10.00	Current	0.00	0.03	0.00	0.00	0.04	0.00	0.00	0.03	0.00	0.02	0.00	0.00	**0.12**	
Warehouse Technology	5065 Eucalyptus Ave	CCWRF Distr. Line	Landscape Commercial	191272	930		Current	0.81	0.99	0.51	0.07	0.14	0.10	0.25	0.24	0.66	0.53	0.68	0.00	**4.97**	
Warehouse Technology	5151 Eucalyptus	CCWRF Distr. Line	Landscape Commercial	191302	930	8.00	Current	0.57	1.05	0.45	0.06	0.06	0.05	0.32	0.44	0.91	0.90	1.05	0.00	**5.87**	
WATSON LAND COMPANY	6911 BICKMORE AVE #SPR-RC	Bickmore Ave	Landscape Commercial	237231	800	3.00	Current	2.05	1.20	1.17	0.38	0.11	0.52	0.67	0.90	1.20	1.60	1.48	0.00	**11.28**	
WESTSTEYN DAIRY	8300 PINE AVE	Outfall Ext	Agricultural Dairy	237966	800	65.00	Current	128.91	109.06	52.80	42.75	0.50	12.36	37.13	108.08	0.00	134.53	114.12	0.00	**740.25**	
Woodbury Neighborhood Association		7034 EDINBORO AVE	Edison Ave Main A	Landscape Residential		231016	930	25.00	Current	0.84	0.70	0.45	0.22	0.06	0.24	0.40	0.49	0.59	0.58	0.75	0.00
Yin, Zhihua	13860 Benson Ave. #SPR-RC	Edison Ave Main A	Landscape Commercial	218601	930	2.00	Current	0.25	0.17	0.17	0.11	0.01	0.12	0.19	0.17	0.21	0.28	0.24	0.00	**1.92**	
Yorba Industrial Center	13901 Yorba Ave #SPR-RC	CCWRF Distr. Line	Landscape Commercial	152544	930	5.00	Current	0.81	1.08	0.69	0.00	0.10	0.09	0.36	0.41	0.92	0.73	0.88	0.00	**6.08**	
Yorba Industrial Center	14670 YORBA CT	CCWRF Distr. Line	Landscape Commercial	235051	930	5.00	Current	0.98	0.80	0.68	0.03	0.22	0.18	0.41	0.53	0.78	0.75	0.98	0.00	**6.34**	
Yoshimura R&D	5420 Daniels St #SPR-RC	Edison Ave Main A	Landscape Commercial	202495	930	3.00	Current	0.38	0.30	0.21	0.12	0.08	0.08	0.10	0.21	0.20	0.29	0.23	0.00	**2.21**	
Yoshimura Racing LLC	5411 Daniels St #SPR-RC	Edison Ave Main A	Landscape Commercial	196800	930	1.00	Current	0.04	0.04	0.03	0.01	0.00	0.00	0.02	0.04	0.03	0.05	0.06	0.00	**0.32**	
Yoshimura Racing LLC	5411 Daniels St #HYD/RC	Edison Ave Main A	Landscape Commercial	201464	930	1.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	
City of Chino	**Billing Total**					**6,922.92**		**1,853.95**	**1,015.21**	**549.48**	**291.98**	**97.22**	**205.99**	**324.65**	**898.80**	**494.34**	**907.62**	**907.86**	**0.00**	**7,547.08**	
Grand Total						**6,922.92**		**1,853.95**	**1,015.21**	**549.48**	**291.98**	**97.22**	**205.99**	**324.65**	**898.80**	**494.34**	**907.62**	**907.86**	**0.00**	**7,547.08**	

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15870 Soquel Canyon Pkwy	15870 Soquel Canyon Pkwy	CCWRF Dist. Line	Landscape StreetScape	5428979	930	4.00	Current	0.75	0.45	0.51	0.16	0.01	0.06	0.07	0.11	0.23	0.41	0.55	0.00	**3.31**
15872 Soquel Canyon Pkwy	15872 Soquel Canyon Pkwy	CCWRF Dist. Line	Landscape StreetScape	4279474	930	1.00	Current	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	**0.04**
16343 Canyon Rim Dr	16343 Canyon Rim Dr	CCWRF Dist. Line	Landscape StreetScape	4358820	930	2.00	Current	0.46	0.34	0.37	0.08	0.09	0.07	0.11	0.79	1.26	1.24	0.68	0.00	**5.49**
16370 Vista Ct	16370 Vista Ct	CCWRF Dist. Line	Landscape StreetScape	5427676	930	13.00	Current	1.51	1.76	0.75	0.28	0.21	0.04	0.90	1.93	3.28	0.81	2.18	0.00	**13.67**
3550 Woodview Rd.	3550 Woodview Rd.	CCWRF Dist. Line	Landscape StreetScape	4357197	930	2.00	Current	0.40	0.49	0.29	0.00	0.00	0.01	0.17	0.37	0.39	0.31	0.69	0.00	**3.13**
4670 Soquel Cyn Pkwy	4670 Soquel Cyn Pkwy	CCWRF Dist. Line	Landscape StreetScape	4357573	930	4.00	Current	0.53	0.66	0.17	0.00	0.02	0.00	0.37	0.16	0.47	0.47	0.78	0.00	**3.62**
5771 Pine Ave (5651 Pine Ave, LLC)	5771 Pine Ave	1299 E Pipeline	Agricultural Commercial	5747427	930	8.00	Current	0.36	0.39	0.37	0.16	0.00	0.13	0.14	0.18	0.33	0.08	0.18	0.00	**2.32**
6085 Butterfield ranch road	6085 Butterfield Ranch Road	CCWRF Dist. Line	Landscape StreetScape	5428992	930	30.00	Current	1.43	1.40	0.40	0.00	0.00	0.00	0.89	1.18	1.74	2.21	1.56	0.00	**10.82**
6087 Butterfield ranch road	6087 Butterfield Ranch Road	CCWRF Dist. Line	Landscape StreetScape	4357204	930	35.00	Current	1.02	1.18	0.43	0.00	0.00	0.00	0.79	1.04	1.35	1.91	1.18	0.00	**8.90**
7-Eleven (15450 Fairfield Ranch Rd)	15450 Fairfield Ranch Rd	CCWRF Dist. Line	Landscape Commercial	5356337	930	6.00	Current	0.45	0.41	0.48	0.38	0.01	0.01	0.00	0.05	0.44	0.37	0.42	0.00	**3.02**
Albertsons	4999 Soquel Canyon Parkway	CCWRF Dist. Line	Landscape Commercial	5399000	930	6.00	Current	0.89	0.71	0.86	0.72	0.09	0.59	0.75	0.64	1.50	0.92	0.96	0.00	**8.64**
Artisan	16594 Slate east (3190159)	CCWRF Dist. Line	Landscape Commercial	3190159	930	17.00	Current	2.76	2.14	2.10	0.28	2.33	0.16	1.54	1.81	1.76	1.88	2.09	0.00	**18.87**
Artisan	16302 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape Commercial	3275339	930	25.00	Current	0.81	0.72	0.51	0.19	0.02	0.21	0.39	0.59	0.97	0.99	1.16	0.00	**6.55**
Artisan	16308 Butterfield Ranch Rd (14551-1)		CCWRF Dist. Line	Landscape Commercial	3275480	930	25.00	Current	0.56	0.70	0.36	0.16	-0.05	0.08	0.20	0.42	1.29	0.94	0.92	0.0
Artisan	16675 C State Dr	CCWRF Dist. Line	Landscape Commercial	432182453	930	3.00	Current	0.87	0.53	0.29	0.12	-0.03	0.08	0.17	0.29	0.35	0.44	0.47	0.00	**3.58**
Big League Dreams	16333 Fairfield Ranch Rd	CCWRF Dist. Line	Landscape Park	4706124	930	60.00	Current	0.01	0.00	0.00	0.00	20.66	1.95	2.61	1.66	5.08	6.72	6.75	0.00	**45.45**
BRR HOA	16780 Quail Country Ave	CCWRF Dist. Line	Landscape Residential	4357780	930	12.00	Current	1.78	1.49	1.50	1.38	0.00	0.00	0.03	0.08	1.24	3.23	1.48	0.00	**12.22**
BRR HOA	16804 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape Residential	5581627	930	6.00	Current	1.22	1.14	1.37	0.80	0.00	0.15	0.04	0.44	0.87	0.78	0.73	0.00	**7.53**
BRR HOA	16572 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape Residential	5683774	930	10.00	Current	1.60	1.65	2.05	0.83	0.00	0.38	0.26	0.35	0.68	0.81	2.16	0.00	**10.77**
C.U.S.D.	5130 Riverside Dr, Chino, CA 91710		CCWRF Dist. Line	Landscape School	6201073	930	30.00	Current	6.52	5.40	4.26	1.62	0.00	1.12	0.77	1.66	2.52	3.55	3.05	0.00	**30.**
C.U.S.D.	5130 Riverside Dr	CCWRF Dist. Line	Landscape School	6203135	930	0.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.70	1.94	0.00	**6.65**
CalTrans	East of Mesa Oak Ave	CCWRF Dist. Line	Landscape StreetScape	1636151	930	36.00	Current	1.94	1.81	1.80	1.23	0.57	0.20	0.19	0.20	0.42	0.58	0.27	0.00	**9.20**
CalTrans	1 Monte Vista Ave	CCWRF Dist. Line	Landscape StreetScape	6983423	930	36.00	Current	0.94	1.13	1.03	0.92	0.01	0.25	0.22	0.24	0.24	0.25	0.23	0.00	**5.47**
Centex	High View at Opal (3177799)	CCWRF Dist. Line	Landscape Residential	3177799	930	1.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**
Centex	x from 5008 Glen View (3181307)		CCWRF Dist. Line	Landscape Residential	3181307	930	1.00	Current	0.02	0.02	0.02	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.02	0.0
Centex	4937 Glen View (3187716)	CCWRF Dist. Line	Landscape Residential	3187716	930	15.00	Current	1.13	0.87	1.09	0.31	-0.07	0.08	0.24	0.87	1.39	1.91	2.14	0.00	**9.97**
Centex	16857 Verbana (3160264)	CCWRF Dist. Line	Landscape Residential	3190264	930	0.00	Discontinued	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Centex	16857 Verbana east	CCWRF Dist. Line	Landscape Residential	3206124	930	15.00	Current	2.18	2.56	1.96	0.42	0.11	0.12	0.07	0.91	2.57	3.91	4.10	0.00	**18.91**
Centex	5044 Glen View (3212515)	CCWRF Dist. Line	Landscape Residential	3212515	930	1.00	Current	0.10	0.04	0.03	0.03	-0.02	0.02	0.02	0.02	0.02	0.04	0.05	0.00	**0.34**
Centex	5139 Glen View (3212754)	CCWRF Dist. Line	Landscape Residential	3212754	930	10.00	Current	0.56	1.18	0.74	0.29	-0.19	0.04	0.12	0.87	1.25	1.27	0.57	0.00	**6.71**
Centex	Highview & Glenview (3452614)	CCWRF Dist. Line	Landscape Residential	3452614	930	10.00	Current	2.51	2.80	1.38	0.69	-0.35	0.14	5.31	4.28	0.91	1.13	0.89	0.00	**19.69**
Centex	16679 High View	CCWRF Dist. Line	Landscape Residential	3453252	930	0.00	Discontinued	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Centex	High View /buckwheat (3453402)		CCWRF Dist. Line	Landscape Residential	3453402	930	6.00	Current	0.54	0.51	0.49	0.15	-0.08	0.02	0.09	0.23	0.39	0.61	0.79	0.0
Centex	High View west (3453563)	CCWRF Dist. Line	Landscape Residential	3453563	930	5.00	Current	0.62	0.66	0.48	0.11	-0.06	0.04	0.08	0.22	0.51	0.61	0.73	0.00	**3.99**
Chapparral Elem. School (4342912)	4849 E Bird Farm Rd (Chaparral School)		CCWRF Dist. Line	Landscape School	4848649	930	12.00	Current	1.78	1.49	0.44	0.66	0.84	0.34	0.55	1.48	3.83	0.00	0.95	0.00 **12.**
Chino Hills Business Park	15360 E Fairfield Ranch Rd (3384301)		CCWRF Dist. Line	Landscape Commercial	3384301	930	8.00	Current	0.88	0.76	0.88	0.40	0.02	0.06	0.19	0.35	0.53	0.61	0.83	0.0
Chino Hills Business Park	15330 A Fairfield Ranch Rd	CCWRF Dist. Line	Landscape Commercial	5213476	930	6.00	Current	0.88	0.66	0.78	0.47	0.00	0.04	0.04	0.13	0.34	0.38	0.30	0.00	**4.02**
Chino Hills Business Park	15315 E Fairfield Ranch Rd	CCWRF Dist. Line	Landscape Commercial	5723794	930	15.00	Current	1.32	0.97	0.62	0.19	0.02	0.07	0.14	0.23	0.51	0.71	0.95	0.00	**5.72**
Chino Hills Business Park	15325 E Fairfield Ranch Rd	CCWRF Dist. Line	Landscape Commercial	5984610	930	10.00	Current	1.04	0.73	0.52	0.23	0.01	0.06	0.13	0.25	0.50	0.62	0.89	0.00	**5.00**
Chino Hills Car Wash	15969 Los Serranos Country Club Dr		CCWRF Dist. Line	Landscape Commercial	99528051	930	0.00	Discontinued	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Chino Hills Storage	15315 Los Serranos Road	CCWRF Dist. Line	Landscape Commercial	3445517	930	1.00	Current	0.13	0.04	0.02	0.00	0.00	0.07	0.20	0.02	0.04	0.04	0.03	0.00	**0.58**
Chino Valley Fire	5551 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape Other	3178102	930	2.00	Current	0.19	0.11	0.64	0.08	0.01	0.13	0.02	0.16	0.08	0.15	0.16	0.00	**1.71**
City of Chino Hills	5005 Soquel Canyon Pkwy	CCWRF Dist. Line	Landscape StreetScape	11151441	930	5.00	Current	0.38	0.38	0.21	0.00	0.00	0.00	0.00	0.16	0.18	0.21	0.23	0.00	**1.75**
City of Chino Hills	15695 Fairfield Ranch Rd (Danbury Park)		CCWRF Dist. Line	Landscape Commercial	11152825	930	16.00	Current	1.49	1.28	0.46	0.00	0.00	0.03	1.13	1.21	1.86	1.81	1.62	0.0
City of Chino Hills	15697 Fairfield Ranch Rd (Danbury Park)		CCWRF Dist. Line	Landscape StreetScape	11154731	930	15.00	Current	1.23	1.15	0.46	0.00	0.00	0.00	0.73	0.96	1.50	1.53	1.18	0.0
City of Chino Hills	5331 Picasso Dr	CCWRF Dist. Line	Landscape StreetScape	11216602	930	1.00	Current	0.08	0.09	0.08	0.01	0.00	0.00	0.06	0.08	0.08	0.09	0.10	0.00	**0.67**
City of Chino Hills	4639 Chino Hills Pkwy	CCWRF Dist. Line	Landscape StreetScape	11216672	930	1.00	Current	0.14	0.17	0.15	0.04	0.00	0.06	0.14	0.07	0.23	0.28	0.30	0.00	**1.58**
City of Chino Hills	4792 Sapphire Rd	CCWRF Dist. Line	Landscape StreetScape	4357771	930	5.00	Current	0.73	1.02	0.07	0.00	0.00	0.00	0.30	0.39	0.41	0.53	0.64	0.00	**4.10**
City of Chino Hills	16343 Fairfield Ranch Rd	CCWRF Dist. Line	Landscape StreetScape	4357784	930	30.00	Current	2.27	2.24	1.12	0.07	0.17	1.25	1.22	2.12	3.47	2.86	2.91	0.00	**19.70**
City of Chino Hills	5901 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape StreetScape	4358293	930	2.00	Current	0.15	0.18	0.07	0.00	0.00	0.00	0.11	0.16	0.18	0.21	0.18	0.00	**1.24**
City of Chino Hills	17350 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape StreetScape	5082171	930	10.00	Current	1.05	1.24	0.46	0.18	0.56	0.11	0.71	0.97	1.08	1.33	1.32	0.00	**9.02**
City of Chino Hills	1 Pine Ave	CCWRF Dist. Line	Landscape StreetScape	5142069	930	3.00	Current	0.23	0.35	0.42	0.08	0.00	0.00	0.00	0.00	0.25	0.45	0.35	0.00	**2.14**

Inland Empire Utilities Agency
A MUNICIPAL WATER DISTRICT

Chino Hills Recycled Water Usage in AF

FY 2013/2014

9/20/2013

Date Range: 9/1/2012 - 9/1/2013

Customer	Site Address	Segment	Type	Meter #	PrZone	Demand	Status	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Total AF	
City of Chino Hills	15941 Fairfield Ranch Rd	1299 E Pipeline	Agricultural Commercial	5387831	930	1.00	Current	0.16	0.18	0.10	0.00	0.00	0.00	0.06	0.14	0.27	0.41	0.23	0.00	**1.55**	
City of Chino Hills	City of Chino Hills	CCWRF Dist. Line	Landscape StreetScape	5395524	930	7.00	Current	1.17	1.15	1.27	0.78	0.00	0.46	0.20	0.16	0.28	0.51	0.46	0.00	**6.46**	
City of Chino Hills	Elinver Dr	CCWRF Dist. Line	Landscape StreetScape	5427752	930	8.00	Current	0.69	0.92	0.72	0.26	0.67	0.03	0.00	0.05	1.69	0.05	0.00	0.00	**5.09**	
City of Chino Hills	0 Butterfield Ranch C Rd	CCWRF Dist. Line	Landscape StreetScape	5427757	930	15.00	Current	1.35	1.39	0.63	0.01	0.08	0.05	0.89	1.37	1.35	1.66	1.34	0.00	**10.13**	
City of Chino Hills	16200 Slate Dr.	CCWRF Dist. Line	Landscape StreetScape	5429551	930	20.00	Current	1.27	1.30	0.62	0.00	0.00	0.00	0.85	1.05	1.95	1.98	1.90	0.00	**10.93**	
City of Chino Hills	0 Butterfield Ranch D Rd	CCWRF Dist. Line	Landscape StreetScape	5429573	930	15.00	Current	1.36	1.40	0.63	0.01	0.00	0.00	0.90	1.39	1.38	1.69	1.37	0.00	**10.13**	
City of Chino Hills	16980 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape StreetScape	5579566	930	8.00	Current	0.56	0.75	0.33	0.00	0.01	0.00	0.53	0.69	0.72	1.01	1.00	0.00	**5.60**	
City of Chino Hills	16186 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape StreetScape	5579662	930	10.00	Current	0.73	0.89	0.39	0.08	0.17	0.21	0.57	0.73	0.87	1.37	1.45	0.00	**7.46**	
City of Chino Hills	16886 Butterfield Ranch Rd	1299 E Pipeline	Agricultural Commercial	5586108	930	1.00	Current	0.33	0.43	0.19	0.00	0.00	0.00	0.30	0.41	0.49	0.65	0.46	0.00	**3.27**	
City of Chino Hills	6060 Natalie Rd (Hunter Hill Park)		CCWRF Dist. Line	Landscape StreetScape		5744740	930	20.00	Current	2.32	1.54	0.47	0.00	0.00	0.01	0.85	1.44	2.45	2.44	2.19	0.0
City of Chino Hills	16464 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape StreetScape	5755743	930	12.00	Current	0.59	0.72	0.44	0.00	0.00	0.00	0.44	0.62	0.84	1.21	0.87	0.00	**5.73**	
City of Chino Hills	1 Hunters Hill Dr	CCWRF Dist. Line	Landscape StreetScape	6168923	930	4.00	Current	0.40	0.52	0.17	0.00	0.00	0.00	0.31	0.46	0.39	0.43	0.48	0.00	**3.17**	
Country Club Market Place II	15948 Los Serranos Country Club D		1299 E Pipeline	Agricultural Commercial		5397081	930	0.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
Country Club Villa	15447 B Pomona Rincon Rd	CCWRF Dist. Line	Landscape Golf Course	5429395	930	1.00	Current	0.00	0.00	0.00	0.00	0.06	0.37	0.14	0.17	0.21	0.29	0.32	0.00	**1.56**	
Dennys	Fairfield Ranch Rd & Central Ave	CCWRF Dist. Line	Landscape Commercial	11143437	930	6.00	Current	0.68	0.76	0.47	0.31	0.05	0.09	0.11	0.21	0.22	0.42	0.37	0.00	**3.68**	
EGM Management	4641 Chino Hills Pkwy	CCWRF Dist. Line	Landscape Commercial	11146712	930	10.00	Current	1.20	1.94	0.85	0.48	-0.03	0.31	0.94	0.88	0.93	1.18	1.39	0.00	**10.06**	
EGM Management	4635 Chino Hills Pkwy	CCWRF Dist. Line	Landscape Commercial	11152913	930	10.00	Current	1.09	1.91	1.25	0.33	0.12	0.30	0.70	1.21	1.72	1.93	1.57	0.00	**12.13**	
EGM Management	4631 Chino Hills Pkwy	CCWRF Dist. Line	Landscape Commercial	5428166	930	10.00	Current	1.86	1.63	1.65	0.61	0.64	0.29	0.51	1.21	0.92	1.85	1.40	0.00	**12.56**	
Fairfield Ranch HOA	15966 Fairfield Ranch Rd (West @ Victoria Falls)		CCWRF Dist. Line	Landscape Residential		5059685	930	8.00	Current	1.41	1.14	1.40	1.16	0.01	0.75	0.20	0.26	0.50	0.64	0.60	0.0
Fieldstone	4022 Soquel Canyon Rd. (Fieldstone)		CCWRF Dist. Line	Landscape Residential		4357185	930	2.00	Current	0.13	0.21	0.13	0.22	0.00	0.00	0.16	0.11	0.14	0.18	0.42	0.0
Higgins Ranch Community	3 Heritage Dr	CCWRF Dist. Line	Landscape Residential	5259357	930	5.00	Current	0.52	0.38	0.44	0.12	0.00	0.12	0.13	0.25	0.53	0.68	0.64	0.00	**3.80**	
Higgins Ranch Community	1 Heritage Dr.	CCWRF Dist. Line	Landscape Residential	5311248	930	5.00	Current	0.87	0.63	1.02	0.37	0.06	0.31	0.29	0.45	0.73	1.08	0.91	0.00	**6.72**	
Higgins Ranch Community	2 Heritage Dr	CCWRF Dist. Line	Landscape Residential	5350625	930	5.00	Current	0.60	0.39	0.49	0.15	0.00	0.12	0.08	0.17	0.30	0.54	0.48	0.00	**3.32**	
Higgins Ranch Community	16110 Butterfield Ranch Rd	CCWRF Dist. Line	Landscape Residential	5581404	930	1.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	
Hyoung Corp	15380 Fairfield Ranch Rd	CCWRF Dist. Line	Landscape Commercial	11154713	930	5.00	Current	0.46	0.28	0.25	0.32	0.09	0.04	0.02	0.08	0.20	0.36	0.33	0.00	**2.43**	
Lexington	4915 Torrey Pines Dr. (Lexington HOA)		CCWRF Dist. Line	Landscape Commercial		4282527	930	2.00	Current	0.26	0.23	0.23	0.08	0.00	0.00	0.05	0.07	0.11	0.08	0.10	0.0
Los Serranos Golf Course	Pinehurst Tract 14427	CCWRF Dist. Line	Landscape Golf Course	70027142	930	340.00	Current	22.57	8.34	14.83	0.00	0.06	2.18	15.44	27.22	33.91	9.11	19.74	0.00	**153.40**	
Los Serranos Golf Course	15656 Yorba Ave	CCWRF Dist. Line	Landscape Golf Course	8044180	930	340.00	Current	4.72	8.39	15.83	0.44	9.27	2.34	11.88	23.51	29.35	40.69	39.10	0.00	**185.50**	
Los Serranos Ranch Comm. Assoc.	4249 Soquel Cyn Pkwy	CCWRF Dist. Line	Landscape Residential	4357429	930	5.00	Current	1.83	1.43	1.52	0.31	0.51	0.00	0.26	1.08	0.96	0.95	1.12	0.00	**9.98**	
Monte Vista Farmer (1)		CCWRF Dist. Line	Agricultural Farm	66321397	930	65.00	Current	1.40	2.80	3.69	1.76	0.75	1.81	3.65	4.65	4.35	4.30	3.60	0.00	**32.76**	
New Vellano			Landscape Residential	4357142	930	7.00	Current	1.29	0.83	0.57	0.00	0.02	0.04	0.55	0.56	1.07	1.11	1.61	0.00	**7.65**	
New Vellano			Landscape Residential	4358480	930	3.00	Current	1.10	0.51	0.23	0.00	0.01	0.02	0.21	0.36	0.53	0.47	0.44	0.00	**3.87**	
New Vellano			Landscape Residential	5060085	930	1.00	Current	0.26	0.30	0.19	0.00	0.00	0.00	0.15	0.29	0.34	0.29	0.34	0.00	**2.17**	
New Vellano			Landscape Residential	5237957	930	209.00	Current	51.95	53.42	19.65	9.07	-0.37	4.25	17.54	22.96	38.89	66.16	81.13	0.00	**364.65**	
New Vellano			Landscape Residential	5362726	930	1.00	Current	0.38	0.21	0.11	0.00	0.00	0.00	0.10	0.14	0.16	0.14	0.16	0.00	**1.40**	
Pine Corp Center (4274439)	5825 Pine Avenue	CCWRF Dist. Line	Landscape Commercial	4274439	930	9.00	Current	1.26	0.80	0.60	0.36	0.00	0.19	0.15	0.33	0.58	0.76	0.82	0.00	**5.84**	
Pine Corp Center (4279489)	5825 Pine Avenue	CCWRF Dist. Line	Landscape Commercial	4279489	930	9.00	Current	2.13	1.32	1.28	0.49	0.03	0.30	0.16	0.42	0.84	1.34	1.35	0.00	**9.64**	
Ridgegate HOA		CCWRF Dist. Line	Landscape Residential	4358011	930	7.00	Current	1.64	1.27	1.00	0.23	0.61	0.49	1.10	0.89	0.81	1.10	1.43	0.00	**10.56**	
Ridgegate HOA	16359 Canyon Rim Dr	CCWRF Dist. Line	Landscape Residential	4358223	930	2.00	Current	0.92	0.66	0.60	0.12	0.14	0.11	0.02	0.02	0.81	1.32	0.68	0.00	**5.40**	
Ridgegate HOA	3989 Golden Terrace Ln	CCWRF Dist. Line	Landscape Residential	4358796	930	2.00	Current	0.74	0.47	0.39	0.12	0.09	0.14	0.37	0.75	0.62	1.04	1.06	0.00	**5.80**	
Ridgegate HOA	3987 Golden Terrace Ln	CCWRF Dist. Line	Landscape Residential	4359308	930	2.00	Current	1.53	1.38	0.69	0.17	0.16	0.17	0.46	1.36	1.88	1.94	1.06	0.00	**10.81**	
Ridgegate HOA	16361 Canyon Rim Dr.	CCWRF Dist. Line	Landscape Residential	4359313	930	2.00	Current	2.87	1.72	1.20	0.17	0.34	0.11	0.14	0.17	1.70	2.22	1.32	0.00	**11.97**	
Ridgegate HOA	16341 Canyon Rim Dr.	CCWRF Dist. Line	Landscape Residential	4359346	930	7.00	Current	2.19	1.40	0.50	0.16	-0.10	0.42	1.14	1.98	1.99	1.45	2.25	0.00	**13.38**	
Rincon Park	16202 Pinehurst Drive	CCWRF Dist. Line	Landscape Park	4357668	930	21.00	Current	2.00	1.55	0.57	0.00	0.35	1.00	0.94	1.18	2.45	3.12	2.33	0.00	**15.50**	
Rincon Park	16202 Pinehurst Drive	CCWRF Dist. Line	Landscape Park	5427639	930	1.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**	
Standard Pacific	5641 Tipu Tree (4369857)	CCWRF Dist. Line	Landscape Commercial	4369857	930	10.00	Current	1.82	1.50	1.18	1.11	0.00	0.29	0.17	0.41	1.54	2.24	1.13	0.00	**11.39**	
Standard Pacific	5381 Tipu Tree (61613321)	CCWRF Dist. Line	Landscape Commercial	61613321	930	10.00	Current	1.59	2.38	0.79	0.68	0.00	0.42	0.32	0.42	1.30	2.31	1.58	0.00	**11.79**	
Standard Pacific	5488 Pine (62078505)	CCWRF Dist. Line	Landscape Commercial	62078505	930	5.00	Current	0.92	0.73	0.71	0.13	0.00	0.48	0.04	0.21	0.48	0.76	1.50	0.00	**5.96**	
Standard Pacific	5331 Buttonwood (62078507)	CCWRF Dist. Line	Landscape Commercial	62078507	930	8.00	Current	1.22	1.58	1.17	0.28	0.00	0.19	0.09	0.17	0.43	0.34	0.47	0.00	**5.94**	
Standard Pacific	5378 Pine (98650539)	CCWRF Dist. Line	Landscape Commercial	98650539	930	10.00	Current	1.90	1.47	1.36	1.38	0.00	0.04	0.00	0.00	1.03	1.32	1.21	0.00	**9.72**	
Standard Pacific	16791 Morning Glory (99528055)		CCWRF Dist. Line	Landscape Commercial		99528055	930	8.00	Current	1.15	1.38	1.20	0.09	0.00	0.46	0.54	0.74	1.11	1.71	1.35	0.0

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Customer	Site Address	Segment	Type	Meter #	PrZone	Demand	Status	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Total AF
Standard Pacific	5361 Ebony (999001111)	CCWRF Dist. Line	Landscape Commercial	999001111	930	7.00	Current	1.71	1.26	0.80	0.50	0.00	0.34	0.41	0.63	0.79	1.32	1.03	0.00	**8.80**
Standard Pacific	5393 Carob (99900120)	CCWRF Dist. Line	Landscape Commercial	99900120	930	10.00	Current	2.42	1.90	1.56	0.95	0.00	0.31	0.23	0.35	1.15	2.80	2.54	0.00	**14.20**
Sterling Downs Apartments	16011 Butterfield Ranch Rd - (Sterling Downs Apts)	CCWRF Dist. Line	Landscape Commercial	5210884	930	7.00	Current	0.63	0.66	0.38	0.19	0.01	0.10	0.16	0.29	0.43	0.52	0.54	0.0	
Sterling Downs Apartments	16011 Butterfield Ranch Rd - (Sterling Downs Apts)	CCWRF Dist. Line	Landscape Residential	5986757	930	7.00	Current	0.46	0.50	0.28	0.14	0.00	0.07	0.12	0.21	0.32	0.39	0.39	0.0	
Taylor Woodrow	16675 Slate (3185134)	CCWRF Dist. Line	Landscape Residential	3185134	930	8.00	Current	0.82	0.70	0.42	0.25	-0.07	0.23	0.17	0.48	0.61	0.78	0.84	0.00	**5.23**
Taylor Woodrow	5181 Fox Hall (3275266)	CCWRF Dist. Line	Landscape Residential	3275266	930	25.00	Current	0.94	0.68	0.45	0.15	0.10	0.07	0.33	0.52	0.63	0.67	0.89	0.00	**5.43**
Taylor Woodrow	5221 High View (3533362)	CCWRF Dist. Line	Landscape Residential	3533362	930	1.00	Current	0.25	0.28	0.23	0.06	0.21	0.10	0.15	0.20	0.24	0.20	0.20	0.00	**2.14**
Vellano	3230 Venezia Terrace	CCWRF Dist. Line	Landscape Golf Course	4336624	930	147.00	Current	0.00	0.53	0.00	0.11	-0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.53**
Vellano	3199 Woodview Rd	CCWRF Dist. Line	Landscape Golf Course	4357209	930	5.00	Current	1.04	0.81	0.51	0.12	-0.04	0.00	0.00	0.28	0.50	0.41	0.76	0.00	**4.39**
Vellano Golf Course	15100 Fairfield Ranch Rd	1299 E Pipeline	Agricultural Commercial	11143626	930	7.00	Current	2.27	1.73	1.54	0.97	-0.10	1.63	1.87	2.46	3.35	3.64	4.00	0.00	**23.36**
Vellano Homeowner	16525 Palmero Dr		Landscape Residential	4276537	930	1.00	Current	0.17	0.13	0.12	0.04	0.16	0.06	0.08	0.32	0.23	0.19	0.32	0.00	**1.82**
Vellano Homeowner	2535 Venazia Ter	930 W RW PL	Landscape Residential	4282479	930	3.00	Current	0.48	0.46	0.37	0.13	0.12	0.01	0.40	0.32	0.61	0.57	0.54	0.00	**4.01**
Vellano Homeowner	13875 Catena Dr	930 W RW PL	Landscape Residential	4357008	930	0.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Vellano Homeowner	16626 Catena Dr	930 W RW PL	Landscape Residential	4357069	930	3.00	Current	0.81	0.77	0.24	0.17	-0.07	0.00	0.01	0.08	0.54	1.18	0.92	0.00	**4.66**
Vellano Homeowner	2491 Milano Terr	930 W RW PL	Landscape Residential	4357190	930	4.00	Current	1.27	1.26	0.77	0.22	-0.02	0.00	0.19	0.33	0.71	0.35	0.41	0.00	**5.49**
Vellano Homeowner	16797 Palermo Dr		Landscape Residential	4357202	930	3.00	Current	0.98	0.45	0.42	0.11	0.06	0.13	0.36	0.51	0.69	0.44	0.61	0.00	**4.76**
Vellano Homeowner	16327 Aviano Ln	930 W RW PL	Landscape Residential	4357472	930	0.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Vellano Homeowner	3015 Aviano Ct	930 W RW PL	Landscape Residential	4357562	930	12.00	Current	0.74	0.64	0.64	0.42	-0.08	0.00	0.00	0.56	1.38	0.91	0.36	0.00	**5.57**
Vellano Homeowner	16318 Aviano Ln	930 W RW PL	Landscape Residential	4357566	930	5.00	Current	0.46	0.42	0.28	0.11	0.08	0.17	0.18	0.22	0.27	0.46	0.42	0.00	**3.06**
Vellano Homeowner	16685 Palermo Dr		Landscape Residential	4357576	930	4.00	Current	0.67	0.55	0.47	0.12	0.02	0.03	0.27	0.38	0.57	0.46	0.89	0.00	**4.41**
Vellano Homeowner	2960 Venezia Ter	930 W RW PL	Landscape Residential	4357577	930	6.00	Current	0.76	0.64	0.56	0.23	-0.03	0.02	0.22	0.56	1.20	0.97	0.69	0.00	**5.82**
Vellano Homeowner	3233 Venezia Ter	930 W RW PL	Landscape Residential	4357632	930	4.00	Current	0.66	1.06	1.07	0.19	0.31	0.78	1.02	0.50	0.70	1.41	0.81	0.00	**8.51**
Vellano Homeowner	16311 Aviano Ln	930 W RW PL	Landscape Residential	4357774	930	3.00	Current	1.31	1.03	0.70	0.14	0.02	0.00	0.32	0.35	0.71	0.85	1.16	0.00	**6.60**
Vellano Homeowner	2983 Aviano Ct	930 W RW PL	Landscape Residential	4358013	930	2.00	Current	0.43	0.37	0.34	0.06	-0.03	0.00	0.00	0.06	0.20	0.22	0.13	0.00	**1.79**
Vellano Homeowner	2425 Milano Ter	930 W RW PL	Landscape Residential	4358123	930	3.00	Current	0.52	0.84	2.93	0.13	0.57	0.41	0.32	0.60	0.65	0.26	0.39	0.00	**7.62**
Vellano Homeowner	2421 Milano Ter	930 W RW PL	Landscape Residential	4358992	930	1.00	Current	0.13	0.12	0.10	0.09	-0.08	0.01	0.06	0.06	0.08	0.10	0.11	0.00	**0.77**
Vellano Homeowner	2850 Venezia Ter	930 W RW PL	Landscape Residential	4359220	930	4.00	Current	0.90	0.82	0.88	0.14	0.16	0.06	0.25	0.50	1.21	0.94	0.76	0.00	**6.63**
Vellano Homeowner	3066 Venezia Ter	930 W RW PL	Landscape Residential	4359221	930	5.00	Current	1.16	1.55	0.80	0.27	-0.09	0.02	0.34	0.48	0.86	0.78	0.74	0.00	**6.91**
Vellano Homeowner	16622 Catena Dr	930 W RW PL	Landscape Residential	4359317	930	1.00	Current	0.18	0.17	0.05	0.04	-0.03	0.00	0.00	0.01	0.10	0.27	0.21	0.00	**1.01**
Vellano Homeowner	16401 Aviano Ln	930 W RW PL	Landscape Residential	4359348	930	4.00	Current	0.78	0.74	0.84	0.10	0.04	0.00	0.00	0.14	0.53	0.52	0.46	0.00	**4.15**
Vellano Homeowner	16337 Aviano Ln	930 W RW PL	Landscape Residential	4359495	930	5.00	Current	2.13	0.85	0.52	0.27	-0.19	0.00	0.22	0.00	0.00	0.86	0.81	0.00	**5.48**
Vellano Homeowner	2753 Woodview Rd	930 W RW PL	Landscape Residential	5353940	930	2.00	Current	0.63	0.43	0.36	0.08	0.04	0.00	0.15	0.01	0.22	0.31	0.31	0.00	**2.53**
Vellano Homeowner	2977 Versnate Ter	930 W RW PL	Landscape Residential	5357148	930	2.00	Current	0.55	0.59	0.47	0.11	0.07	0.13	0.23	0.40	0.58	0.42	0.36	0.00	**3.90**
Vellano Homeowner	2681 Vellano Club Dr	930 W RW PL	Landscape Residential	5392044	930	3.00	Current	1.06	0.74	0.71	0.15	0.98	0.59	0.93	1.05	1.12	0.92	0.83	0.00	**9.07**
Vellano Homeowner	2308 Vellano Club Dr	930 W RW PL	Landscape Residential	5397983	930	2.00	Current	0.29	0.31	0.15	0.17	-0.08	0.04	0.25	0.11	0.54	0.54	0.31	0.00	**2.64**
Vellano Homeowner	2316 Vellano Club Dr	930 W RW PL	Landscape Residential	5398346	930	2.00	Current	0.29	0.31	0.15	0.17	-0.08	0.04	0.25	0.12	0.54	0.54	0.31	0.00	**2.66**
Vellano Homeowner	2312 Vellano Club Dr	930 W RW PL	Landscape Residential	5399204	930	2.00	Current	0.23	0.25	0.12	0.14	-0.07	0.03	0.21	0.10	0.46	0.46	0.28	0.00	**2.22**
Vellano Homeowner	2999 Woodview Rd	CCWRF Dist. Line	Landscape Residential	5408126	930	5.00	Current	0.74	0.73	0.45	0.00	-0.13	0.00	0.37	0.34	0.50	0.53	0.53	0.00	**4.06**
Vellano Homeowner	2975 Woodview Rd	930 W RW PL	Landscape Residential	5427944	930	3.00	Current	0.52	0.51	0.32	0.18	-0.08	0.00	0.15	0.12	0.19	0.50	0.50	0.00	**2.90**
Vellano Homeowner	2925 Woodview Rd	930 W RW PL	Landscape Residential	5429219	930	0.00	Current	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Vista San Juan/ C.C. Medical Center	15944 Los Seranos C.C. Dr,	1299 E Pipeline	Agricultural Commercial	5057853	930	1.00	Current	0.16	0.15	0.10	0.04	0.00	0.03	0.01	0.09	0.14	0.13	0.14	0.00	**0.99**
Wickman Elem	16250 Pinehurst Ave	CCWRF Dist. Line	Landscape School	3238139	930	10.00	Current	2.58	1.48	1.96	0.12	0.00	0.01	0.19	0.54	2.21	2.05	2.59	0.00	**13.73**
City of Chino Hills	**Billing Total**					**2,181.00**		**209.97**	**189.94**	**140.56**	**43.69**	**40.36**	**32.51**	**97.33**	**148.05**	**220.61**	**252.63**	**267.82**	**0.00**	**1,643.48**
Grand Total						**2,181.00**		**209.97**	**189.94**	**140.56**	**43.69**	**40.36**	**32.51**	**97.33**	**148.05**	**220.61**	**252.63**	**267.82**	**0.00**	**1,643.48**