STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION

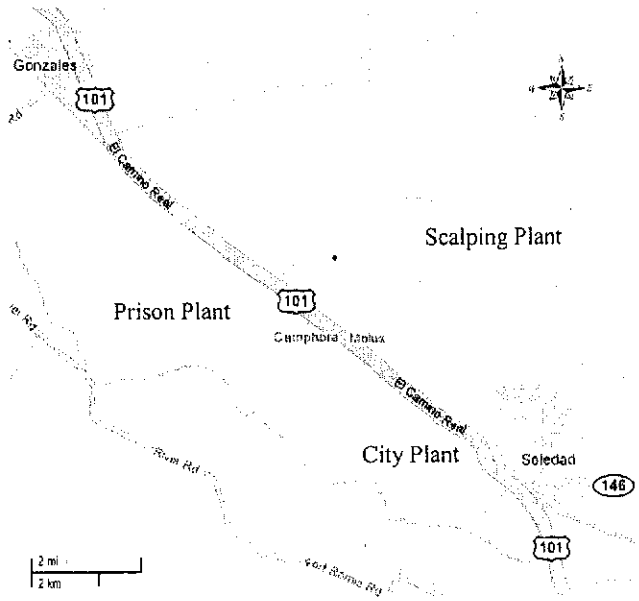
STAFF REPORT FOR REGULAR MEETING OF JULY 11, 2008
Prepared on April 4, 2008

ITEM NUMBER: 11

SUBJECT: **Master Reclamation Permit for the City of Soledad, Monterey County – Order No. R3-2008-0042**

KEY INFORMATION

Location ..... Treatment/disposal locations shown in adjacent figure. Reuse occurs throughout greater Soledad area
Discharge Type..... Treated municipal sanitary wastewater
Design Flow..... 5.5 million gallons per day
Type of Treatment Disinfected Tertiary
Disposal Method ... Rapid Infiltration Basins (when not recycling)
Recycling ..... As allowed under Title 22 for disinfected tertiary, including food crops and unrestricted access
Solid Wastes..... Disposal/reuse must be in a manner approved by the Executive Officer and consistent with Title 27
Existing Orders ..... Waste Discharge Requirements Order No. R3-2005-0074



This Action ..... Adoption of Supplier and Distributor Master Reclamation Requirements

SUMMARY

This proposed Order would culminate a difficult era of Soledad-area sewage regulation. In the mid-1990s, the City of Soledad agreed to accept sewage from adjacent prisons, allowing the prisons to decommission their wastewater treatment plant. Since that time, prison wastewater flows exceeded predicted rates and the City's population surged beyond growth estimates. Those factors made another City sewer expansion critical. In 2005, the Central Coast Water Board expedited Waste Discharge Requirements (WDRs) to allow a City wastewater treatment plant expansion, provided that the City work diligently towards improved treatment, long-term disposal capacity upgrades, and water recycling. The City has done so. It proposes to upgrade its existing wastewater treatment plant to meet tertiary standards, build an additional "scalping"

tertiary treatment plant, use the decommissioned prison percolation ponds for additional disposal capacity, and implement a water recycling program. The City wishes to control its water recycling program. Therefore, the City requested a California Water Code §13523.1 master reclamation permit. This Order proposes such a permit.

DISCUSSION

In the Soledad area, there are two population centers that generate sanitary wastewater; 1) the City of Soledad, and 2) two California correctional facilities. Prior to the mid-1990s, each population center processed their own sanitary wastewater. In the early 1990s, each population center realized that they needed to expand their wastewater facilities. Instead of doing so independently, the population centers consolidated wastewater processing; the City of Soledad agreed to accept sewage from the prisons, which allowed the prisons to decommission their wastewater treatment plant. The consolidation necessitated a City wastewater facility expansion to accommodate prison flows, as well as projected City flows. Unfortunately, the City based their expansion on inaccurate data and projections. The City approached capacity much sooner than projected and needed WDRs to allow a facilitated expansion. The Water Board accommodated the City, issuing requirements contained in the Order Number R3-2005-0074. That order gave the City a tight timeline to transition from secondary treatment and disposal to tertiary treatment with recycling and disposal. The City has diligently pursued that timeline and now needs revised WDRs to implement the planned upgrade. This proposed order permits that to occur.

The proposed order would set requirements for municipal wastewater recycling and disposal, incorporating relevant regulations, plans, and guidelines to protect water quality and public health. This staff report discusses the relevant regulations, plans, and guidelines as they relate to the specific needs of the greater Soledad area.

Water Recycling -- Regulatory Considerations

Water Code

The California Water Code provides the Water Board authority to regulate water recycling in order to protect water quality. Relevant water recycling regulations are as follows:

California Water Code Section	Language
13576(e)	The use of recycled water has proven to be safe from a public health standpoint and that the State Department of Health Services is updating regulations for the use of recycled water.
13510	The people of the state have a primary interest in the development of facilities to recycle water containing waste to supplement existing surface and underground water supplies and to assist in meeting the future water requirements of the state.
13512	It is the intention of the legislature that the State undertake all possible steps to encourage development of water recycling facilities so that recycled water may be made available to help meet the growing water demands of the State.

13523.1	Provides that (a) Each regional board, after consulting with, and receiving the recommendations of, the California Department of Public Health and any party who has requested in writing to be consulted, with the consent of the proposed permittee, and after any necessary hearing, may, in lieu of issuing waste discharge requirements pursuant to Section 13263 or water reclamation requirements pursuant to Section 13523 for a user of reclaimed water, issue a master reclamation permit to a supplier or distributor, or both, of reclaimed water. A master reclamation permit shall include, at least, all of the following: 1. Waste discharge requirements, adopted pursuant to Article 4 (commencing with Section 13260) of Chapter 4. 2. A requirement that the permittee comply with the uniform statewide reclamation criteria established pursuant to Section 13521. Permit conditions for a use of reclaimed water not addressed by the uniform statewide water reclamation criteria shall be considered on a case-by- case basis. 3. A requirement that the permittee establish and enforce rules or regulations for reclaimed water users, governing the design and construction of reclaimed water use facilities and the use of reclaimed water, in accordance with the uniform statewide reclamation criteria established pursuant to Section 13521. 4. A requirement that the permittee submit a quarterly report summarizing reclaimed water use, including the total amount of reclaimed water supplied, the total number of reclaimed water use sites, and the locations of those sites, including the names of the hydrologic areas underlying the reclaimed water use sites. 5. A requirement that the permittee conduct periodic inspections of the facilities of the reclaimed water users to monitor compliance by the users with the uniform statewide reclamation criteria established pursuant to Section 13521 and the requirements of the master reclamation permit. 6. Any other requirements determined to be appropriate by the regional board

After the regional water board issues a master reclamation permit, Section 13522.5(e) exempts any such user of recycled water from the requirement to file a report with a regional water board related to any material change in the character of the recycled water or its use, except when requested by the regional water board.

California Code of Regulations

The California Code of Regulations (CCR) provides the California Department of Public Health the authority to regulate water recycling in order to protect public health.

The Twain

On February 20, 1996, a Memorandum of Agreement (MOA) was executed between the California Department of Public Health (formerly the California Department of Health Services) and the State Water Resources Control Board (State Water Board), on behalf of the State Water Board and nine California Regional Water Quality Control Boards. The MOA allocates primary areas of responsibility and authority between these agencies. The MOA provides methods and mechanisms necessary to assure ongoing and continuous future coordination of activities relative to the use of recycled water in California.

Wastewater Disposal -- Regulatory Considerations

The Water Board regulates wastewater discharges under California Water Code authority, according to the Water Quality Control Plan for the Central Coast Basin (Basin Plan).

Basin Plan
The Basin Plan was adopted by the Water Board on November 19, 1989, and approved by the State Water Resources Control Board (State Board) on August 16, 1990. The Water Board approved amendments to the Basin Plan on February 11, 1994, and September 8, 1994. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State Waters. This Order implements the Basin Plan.

The Basin Plan designates the existing and anticipated beneficial uses of groundwater in the vicinity of the land discharge to include:

1. Municipal and Domestic Water Supply;
2. Agricultural Water Supply
3. Industrial Process Supply; and,
4. Industrial Service Supply.

The Basin Plan specifies median water quality objectives for certain groundwater basins, which are intended to serve as a baseline for evaluating water quality management in the basin. The objectives are, at best, representative of gross areas only, and are as follows for the Lower Forebay aquifer sub-area of the Salinas River groundwater basin beneath the Facility and recycled water irrigation reuse areas:

Median Groundwater Objectives for the Lower Forebay Aquifer Groundwater Sub-basin/Sub-area

Parameter	Concentration (mg/L)
Total Dissolved Solids (TDS)	1500
Chloride (CL)	250
Sulfate	850
Boron	0.5
Sodium	150
Nitrate as N	8

Excerpted from Table 3-8, page III-16 of the Basin Plan

The Salinas River is the closest surface water body to the Facility and reuse areas. The Basin Plan designates existing and anticipated beneficial uses of the Salinas River along the reach adjacent to the Facility and reuse areas (Chualar to Nacimiento River) that could be affected by the discharge to include:

a. Municipal and Domestic Supply;
b. Agricultural Water Supply;
c. Industrial Process Supply;

d. Industrial Service Supply;
e. Groundwater Recharge;
f. Water Contact Recreation;
g. Non-Contact Water Recreation;
h. Wildlife Habitat;
i. Cold Freshwater Habitat;
j. Warm Freshwater Habitat;
k. Migration of Aquatic Organisms;
l. Spawning, Reproduction, and/or Early Development
m. Rare, Threatened, or Endangered Species
n. Commercial and Sport Fishing.

The Basin Plan specifies water quality objectives for certain surface waters, which are intended to serve as a baseline for evaluating water quality management in the basin. The objectives are, at best, representative of gross areas only, and are based on preservation of existing quality or water quality enhancement believed attainable following control of point sources. Water quality objectives are as follows for the Salinas River above Spreckles.

Surface Water Quality Objectives for the Salinas River (Above Spreckles)

Parameter	Concentration (mg/L)
Total Dissolved Solids (TDS)	600
Chloride (Cl)	80
Sulfate	125
Boron	0.2
Sodium	70

Excerpted from Table 3-7, page III-13 of the Basin Plan

Municipal and domestic water supply beneficial use designations are applied to receiving waters in accordance with the provisions of State Water Resources Control Board Resolution No. 88-63. Resolution 88-63 designates all surface and groundwater within the State as suitable or potentially suitable for municipal or domestic supply except where:

- TDS exceeds 3,000 mg/L (5,000 uS/cm electrical conductivity);
- Contamination exists, that cannot reasonably be treated for domestic use; or,
- The source is not sufficient to supply an average sustained yield of 200 gallons per day.

Pursuant to Resolution 88-63, the Basin Plan designates all groundwater throughout the Central Coast Basin, except for that found in the Soda Lake Sub-basin, suitable for agricultural supply, municipal and domestic water supply, and industrial use.

Numeric inorganic constituent guidelines and water quality objectives for agricultural supply beneficial use are listed in Basin Plan Tables 3-3 and 3-4 on pages III-8 and III-9, respectively.

Section II.A.4. (Objectives for Groundwater) of the Basin Plan contains both narrative and numeric groundwater quality objectives for the protection of municipal and domestic water

supply beneficial uses. The numeric water quality objectives include primary and secondary Maximum Contaminant Levels (MCLs) for drinking water supply.

MCLs for various constituents are set forth in California Code of Regulations, Title 22, Division 4, Chapter 15.

The narrative groundwater objectives found on page III-14 of the Basin Plan state, "Groundwater shall not contain taste or odor producing substances at concentrations that adversely affect beneficial uses." The Department of Public Health has established secondary MCLs for certain substances that will cause adverse taste and/or odor in drinking water. Secondary MCLs are generally presented as recommended, upper, and short-term water supply limits based on consumer acceptance levels. "Recommended" concentrations are desirable for a higher degree of consumer acceptance. "Upper" concentrations are acceptable if it is neither reasonable nor feasible to provide more suitable waters for supply. "Short-term" concentrations are acceptable only for existing systems on a temporary basis pending construction of treatment facilities or development of acceptable new water sources.

There are no narrative or numeric water quality objectives specific to the protection of the industrial supply beneficial use in the Basin Plan. Acceptable constituent levels for industrial use vary significantly from one industry to the next. For example, excessive salinity in industrial supply waters may impair beneficial use through such factors as scaling and corrosion or elevated salt concentrations for food processing industries. Certain industries may require extremely low salinity levels only achievable through pretreatment prior to use, even in cases where supply water has low salinity in comparison to other standards. In general protection of agricultural, municipal and domestic supply beneficial uses will be reasonably protective of most industrial uses.

Anti-Degradation

When issuing WDRs, the Water Board must consider State Water Board Resolution 68-16. State Water Board Resolution No. 68-16 – "Statement of Policy With Respect to Maintaining High Quality of Waters in California" requires the Water Board in regulating the discharge of waste to maintain high quality waters of the State (i.e., background water quality) until it is demonstrated that any change in quality will be consistent with maximum benefit to the people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Water Board's policies (e.g., quality that exceeds water quality objectives). Resolution 68-16 requires that any discharge to existing high quality water be required to meet waste discharge requirements which will result in the best practicable treatment or control (BPTC) of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the state will be maintained.

The application of disinfected tertiary recycled water to appropriately sited, designed and managed reuse areas as authorized by this Order will not cause degradation of receiving waters including Salinas River, and groundwater. This permit requires that recycled water meeting California Code of Regulations Title 22 criteria for disinfected tertiary recycled water be applied to applicable reuse areas at times and rates which do not result in surface runoff and minimizes the leaching of water, nutrients, and minerals to groundwater. In addition, this Order requires that no waste constituents be discharged at concentrations that exceed Basin Plan water quality objectives or background conditions in the groundwater basin or that exceed the assimilative

capacity of the groundwater basin. Although the prescribed effluent limits are in excess of applicable surface water quality objectives for the Salinas River, any incidental runoff from reuse areas will not constitute an appreciable flow or constituent contribution to the Salinas River.

Wastewater reclamation is being implemented at this Facility to maximize the potable water supply. The reclamation project directly and incidentally provides a net environmental benefit by minimizing potable water supply usage that would otherwise be utilized for routine landscape irrigation and by reducing seawater intrusion into the Salinas River groundwater basin by decreasing the amount of groundwater pumping within inland portions of the basin.

The Water Board finds that the application of disinfected tertiary recycled water for irrigation purposes will not degrade receiving water quality. Even if it did cause degradation the discharge would not cause or contribute to receiving water quality that is less than necessary to protect existing and potential beneficial uses. Any water quality degradation that may be authorized under this Order is necessary to accommodate important economic or social development and is consistent with the maximum benefit to the people of the State.

Total Maximum Daily Loads

Section 303(d) of the Clean Water Act requires states to identify and prepare lists of water bodies that do not meet water quality standards and to establish Total Maximum Daily Loads (TMDL) for listed water bodies.

The Salinas River and several of its tributaries are on the 303(d) list as impaired due to elevated concentrations of nutrients and pathogens. Waste load and load allocations will be developed for sources of nutrients and pathogens in the Salinas River, as well as other water bodies within the Salinas River watershed. If the Water Board determines that discharges from the Facility are causing or contributing to nutrient or fecal coliform related water quality impairment, waste discharges described in this Order may be modified to meet the allocations described in any proposed future TMDL.

Biosolids Handling and Disposal

Municipal wastewater treatment generates biosolids. 40 CFR Part 503 sets forth the United States Environmental Protection Agency (USEPA) final rule for the use and disposal of biosolids, or sewage sludge, and governs the final use or disposal of biosolids. The intent of this Federal program is to ensure that sewage sludge is used or disposed of in a way that protects both human health and the environment

The promulgated regulations require that producers of sewage sludge meet certain reporting, handling, and disposal requirements. As the USEPA has not delegated the authority to implement the sludge program to the State of California, the enforcement of sludge requirements that apply to the Discharger remains under USEPA's jurisdiction at this time. USEPA, not this Water Board, will oversee compliance with 40 CFR Part 503.

Sanitary Sewer Overflows

The Supplier's sanitary sewer system collects wastewater using pipes, pumps, and/or other conveyance systems, and directs the raw sewage to the wastewater treatment facility. A "sanitary sewer overflow" is defined as a discharge to ground or surface water from the sanitary sewer system at any point upstream of the wastewater treatment facility. Temporary storage and conveyance facilities (such as wet wells, regulated impoundments, tanks, highlines, etc.) may be part of a sanitary sewer system, and discharges to these facilities are not considered sanitary

sewer overflows provided that the waste is fully contained within these temporary storage/conveyance facilities.

Sanitary sewer overflows can consist of varying mixtures of domestic sewage, industrial wastewater, and commercial wastewater. The mixture generally depends on the pattern of land use in the sewage collection system area tributary to an overflow location. The chief causes of sanitary sewer overflows include, but are not limited to, line blockages due to grease, roots, or debris, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, lack of capacity, and contractor-related incidents.

Sanitary sewer overflows often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, and other pollutants. Sanitary sewer overflows can pose a threat to public health, cause temporary exceedances of applicable water quality objectives, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area.

The State Water Board adopted Statewide General Waste Discharge Requirements for sanitary sewer systems and the associated monitoring and reporting program by issuing Order No. 2006-0003 (General Order) on May 2, 2006.

All federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California are required to apply for coverage under and comply with the terms of the General Order. The City of Soledad is covered under the General Order.

PROPOSED ORDER

Pursuant to authority in Sections 13263 and 13523.1 of the California Water Code, the proposed order sets requirements to govern the production, distribution, storage, and use of reclaimed wastewater, as well as the disposal of treated wastewater. The requirements have been developed considering:

- Best Professional Judgment of Regional Water Quality Control Board Staff
- The Discharger's Report of Waste Discharge
- Title 40 Code of Federal Regulations
- State Water Board Resolution 68-16
- Central Coast Regional Water Quality Control Plan
- California Department of Public Health
- Title 22 CCR, Division 4, Chapter 3, Water Reclamation Criteria
- Porter-Cologne Water Quality Control Act (California Water Code)

The proposed Order substantially revises and updates the existing order and associated monitoring and reporting program. The proposed Order is divided into Supplier and Distributor

specific requirements with general prohibitions, specifications and provisions applicable to both parties.

The proposed Order is organized as follows:

- Prohibitions
- Specification
- Supplier Requirements
  - Flow and Effluent Limitations
  - Disinfected Tertiary Recycled Water Limitations
  - Reclamation Facility Operational Requirements
  - Off-Specification Effluent Contingency Plan
  - General Requirements
  - Sanitary Sewer Overflows/Sewer System Management Plan Requirements
- Distributor/User Requirements
  - Reclamation Distribution System Requirements
  - Groundwater Limitations
  - Groundwater Monitoring Well Work Plan
  - Nutrient Management Plan
  - Salts Management Plan
  - Individual Recycled Water Use Permits
- Provisions

Significant changes from the existing Order include:

Supplier Requirements

- **Wastewater Flow**s are increased from 4.1 MGD to 5.5 MGD.

- **Disinfected Tertiary Recycled Water Limitations** – new turbidity, coliform, and disinfection requirements excerpted from Title 22 of the California Code of Regulations for disinfected tertiary recycled water were added.

- **Reclamation Facility Operational Requirements** – Detailed reclamation facility requirements excerpted from Title 22 were added to the proposed Order for the operation and maintenance of the treatment facility.

- **Off-Specification Contingency Plan** – Requirements for the implementation of a contingency plan, (provided as part of the Distributor's ROWD application package) in the event effluent that does not meet the criteria, for disinfected tertiary recycled water is discharged to the effluent storage basins were added to the proposed Order.

- **Sanitary Sewer Overflows/Sewer System Management Plan Requirements** – Requirements for the implementation of a sewer system management plan were added to the proposed Order to establish procedures to track, mitigate and prevent overflows from the Supplier's collection system.

Distributor and User Requirements

- **Reclamation Distribution System Requirements** - Detailed distribution system and use area requirements excerpted from Title 22 were added to the proposed Order for the design, operation and maintenance of the distribution system and application areas.

- **Groundwater Monitoring Plan** – The proposed Order requires the Distributor to submit a Groundwater Monitoring Plan capable of determining the impact of treated wastewater and recycled water upon underlying groundwaters.

- **Nutrient Management Plan** – Specific requirements were added to the proposed Order requiring the Distributor to develop and implement a nutrient management plan for the application of recycled water to ensure it is applied at agronomic rates and will not result in the leaching of nitrogen to the groundwater basin.

- **Salt Management Plan** - Specific requirements were added to the proposed Order requiring the Distributor to develop and implement a salts management plan to document salt loading and to evaluate and implement reduction measures as practicable to reduce salt loading to the groundwater basin.

- **Individual Recycled Water Use Permits** – The proposed Order requires the Distributor to develop a set of rules and regulations for the Users and apply them via Recycled Water User Permits for each individual User.

MONITORING AND REPORTING PROGRAM

The proposed Monitoring and Reporting Program requirements are organized as follows:

- Supplier Requirements
  - Water Supply Monitoring
  - Influent Monitoring
  - Effluent Monitoring
  - Storage Facility Monitoring
  - Solids/Biosolids Monitoring
  - Reporting
- Distributor Requirements
  - Recycled Water Use Area Monitoring
  - Groundwater Monitoring
  - Reporting
- Supplier and Distributor Requirements
  - Provisions
  - Implementation

Significant changes from the existing Monitoring and Reporting Program include:

Supplier Requirements

- **Water Supply Monitoring** – Boron was added to water supply monitoring parameters.
- **Flow Monitoring** – Effluent flow monitoring replaced influent flow monitoring.

- **Influent Monitoring** – Biochemical Oxygen Demand (BOD), Total Suspended Solids (TSS), and Settleable Solids (SS), monitoring frequency was increased from monthly to weekly; monthly TDS, sodium, chloride, sulfate, and boron monitoring was changed to quarterly. Monthly ammonia sampling was added.
- **Effluent Monitoring** – Continuous Turbidity and Total Chlorine Residual was added, and daily Coliform monitoring was added. Monthly nitrogen monitoring was changed to quarterly.
- **Storage Facility Monitoring** – The proposed monitoring and reporting program requires the Supplier to conduct daily visual monitoring of the recycled water storage ponds and to provide weekly electronic updates to the Distributor and Users regarding the amount of available water and storage within the ponds.
- **Solids/Biosolids Monitoring** – The proposed Monitoring and Reporting Program requires the Supplier to provide an annual report of the amount of solids generated at the facility, with a description of the disposal methods.

Distributor Requirements

- **Recycled Water Use Area Monitoring** – the proposed monitoring requirements require the Users (or Distributor) to conduct weekly metering of irrigation flows to each irrigation area receiving recycled water and weekly visual monitoring and record keeping documenting the application of recycled water is being conducted in accordance with the Order. In addition, the Distributor is required to conduct quarterly visual monitoring of the application areas. The Users are required to provide quarterly updates to the Distributor regarding daily irrigation flow rates, proposed system modifications, system peculiarities, and to verify employee training. These requirements also require annual testing of backflow prevention devices and cross-connection testing.
- **Groundwater Monitoring** – The Distributor is required to conduct groundwater monitoring from all monitoring wells (existing and required) on a quarterly frequency for depth to water, total nitrogen, nitrate, nitrite, pH, TDS, sodium, chloride, sulfate, and boron.
- **Reporting** – The Distributor is required to submit quarterly monitoring reports summarizing reclaimed water use. The Distributor is also required to submit annual monitoring reports compiling the previous years worth of irrigation flow, groundwater, and visual inspection data along with the required nutrient management plan and salt management program evaluations.

COMPLIANCE HISTORY/STATUS

The Water Board adopted Existing Order No. R3-2005-0074 in May 2005 to address on-going chloride and flow violations. Since the adoption of Order No. R3-2005-0074, the City has been in compliance with chloride and flow limits.

Order No. R3-2005-0074 also added, for the first time, BOD and total suspended solids limits on the City's effluent. The BOD and total suspended solids limits were intended to address a disposal area deficiency; shallow groundwater. Staff reasoned that the disposal area soils provided insufficient treatment prior to groundwater discharge, making additional "upstream" treatment necessary. Order No. R3-2005-0074 included the following new effluent limits requiring organic treatment prior to disposal:

Constituent	Maximum Jan. 2006 (mg/l)	Maximum Jan. 2010 (mg/l)
BOD_5	30	10
TSS	30	10
Ammonia (as N)	--	5

Water Board staff thought that the City's oxidation pond system could meet the 30/30 mg/L limits and a new tertiary treatment plant could meet the 10/10 mg/L limits. Staff expected a new tertiary treatment plant to be in place by January 2010.

Generally, oxidation ponds 1) have limited ability to reduce organics, and 2) produce high suspended solids in the form of algae. Typical oxidation pond effluent BODs range from 70 to 100 mg/L. Achieving a consistent 30 mg/L BOD effluent from the City's oxidation ponds did not occur, despite the City's best efforts.

Like BOD, 30 mg/L total suspended solids limits were not consistently met, despite the City's best efforts. Oxidation ponds provide an environment conducive to algae production. Algae are a desirable component of an oxidation pond system because algae convert carbon dioxide to oxygen, which support the oxidizing bacteria. Suspended algae contribute to effluent total suspended solids. The City tried to cover some of their ponds to reduce sunlight, which algae need. The City tried to flocculate and settle suspended solids in a deepened pond; however, this was not successful.

In hindsight, expecting an oxidation pond system to achieve conventional secondary effluent limits was unrealistic. Although the City routinely violated the new 30 mg/L BOD and total suspended solids limits, pursuing enforcement for the violations seemed counterproductive to the greater goal of recycling tertiary-treated water, which was also a goal of Order No. R3-2005-0074. The City has diligently pursued that path and needs these proposed requirements to move forward.

POTENTIAL PROBLEMS

The facility poses the usual problems associated with municipal wastewater treatment, disposal, and recycling. Construction of two new treatment plants, a distribution system, and other appurtenances may have start-up problems. New treatment plant construction will affect existing treatment efficiencies during the construction, when some existing treatment facilities will be taken out of service to make way for new construction. However, the transition has been planned and seems reasonable.

ENVIRONMENTAL SUMMARY

The City of Soledad certified a final Environmental Impact Report on September 21, 2005 in accordance with the California Environmental Quality Act (Public Resources Code, Section 21000 et seq.) and the California Code of Regulations.

COMMENTS & RESPONSES

Comments, received from the City of Soledad and the California Department of Public Health, are as follows:

City of Soledad

1. The current facility can not treat the effluent to the new requirements. The City's current WDR has a requirement for tertiary treatment to be attained by January 1, 2010. It would be consistent with the current WDR to adopt the new discharge requirements effective January 1, 2010.

   Staff Response: That seems fair. The proposed Order has been modified accordingly.

2. Please consider revising the 1.3 MGD scalping plant capacity to 2.6 MGD. The reason for the additional capacity is to allow for adequate irrigation to the future golf course and still have sufficient recycle water left over for irrigation of the other types of uses described in the proposed WDR such as residential front yards, public landscape areas, school yards and commercial landscape areas. The other reason to allow 2.6 MGD is to prevent the need to submit yet another ROWD for expansion of the capacity at the scalping plant when it would be built with an ultimate expandable capability of 2.6 MGD.

   Staff Response: The more recycled water, the better. Staff revised the limit to 2.6 MGD.

3. The proposed WDR only allows storage/percolation at the City plant and the prison plant. To move some storage/percolation away from the river, storage/percolation should be allowed at the scalping plant site. The idea was to hold the future development responsible for supplying that storage/percolation pond disposal. This works well with a golf course as they need to provide storage to have the adequate volume of water needed to irrigate and when not able to irrigate the ponds can be designed to percolate when they reach a certain volume to minimize the number of acres required for winter storage.

   Staff Response: The proposed WDR has been modified to include a provision allowing additional percolation at the scalping plant.

California Department of Public Health

1. All references to the Department of Health Services and DHS should be revised to reflect the agency's new name; the Department of Public Health, or DPH.

   Staff Response: That seems appropriate. The Order has been modified accordingly.

2. Footnote 3, which refers to Prohibition 7 on page 5, should reference CCR Title 17, Table 1 Section (c)(3).

   Staff Response: Staff revised the footnote.

3. Because Soledad will use UV disinfection and not chlorine disinfection, Item 10 on page 7 should require compliance with the Water Research Institute's (NWRI) "UV Disinfection Guidelines for Wastewater Reclamation in California."

Staff Response: Staff agrees and modified the item accordingly.

4. Item 10 on page 7 should be stricken because DPH is does not apply to the proposed discharge.

   Staff Response: Staff agrees and modified the item accordingly.

5. Prior to the initial delivery of recycled water to each use site, the Producer should submit piping plans for that site to CDPH for approval.

   Staff Response: Staff agrees and added a new provision requiring the requested information.

6. For any extension or expansion of the recycled water system or use areas not covered by the Title 22 report, the Producer shall submit to CDPH an addendum to the Title 22 report for approval.

   Staff Response: Staff agrees and added a new provision requiring the requested information.

RECOMMENDATION

Adopt Order No. R3-2008-0042 as proposed.

ATTACHMENTS

1. Master Reclamation Requirements Order No. R3-2008-0042
2. Monitoring and Reporting Program Requirements Order No. R3-2008-0042

TJK
City of Soledad WWTP
126-01
S:\WDR\WDR Facilities\Monterey Co\City of Soledad WWTP\Reclamation Requirements\2008 Staff Report.doc