

**The City of Soledad 2007  
Annual Discharger  
Self Monitoring Report**

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January 30, 2008

Mr. Roger Briggs, Executive Officer  
Central Coast Region  
California Regional Water Quality Control Board  
895 Aerovista Place, Suite 101  
San Luis Obispo, CA 93401

Subject: City of Soledad 2006 Annual Report

Attention: Mr. Tom Kukol

Dear Mr. Briggs:

Enclosed is the **City of Soledad 2007 Annual Discharger Self Monitoring Report** and supporting documents in compliance with **Order No. R3-2005-0074**.

If you have any questions, please call me at 831-223-5187.

Sincerely,



Edward N. Vaughn,  
Utilities Supervisor – City of Soledad Public Works

Enclosure

c: Noelia Chapa, City Manager  
Clif Price, Director Public Works

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**2007 Annual Report**  
**City of Soledad Wastewater Treatment Plant**

**A. Purpose of This Report**

The City of Soledad Wastewater Treatment Plant is operated and maintained in accordance with **Order No.R3-2005-0074, Water Discharge Requirements for City of Soledad Sewage Treatment Plant, Monterey County** issued on May 13, 2005 by the Central Coast Region of the California Regional Water Quality Control Board.

The plant influent and effluent are monitored daily, monthly, and seasonally according to requirements stipulated in the Waste Discharge Order. This order requires the submittal of an annual report addressing the following:

- Description of treatment plant facility
- Summary of previous year monitoring data
- Compliance record and corrective actions taken, or needed, to bring discharge into full compliance
- List of operating personnel and grades of certification
- Last date Operation and Maintenance manual for Facility was reviewed, and statement whether manual is complete and valid for facility
- List of Laboratories used to monitor compliance
- Summary of performance of plant
- Major reconstruction work performed previous year
- Salts Management Report
- Engineering Technical Report

**B. General Description**

The City of Soledad utilizes two (2) separate Wastewater Treatment Plants; the City Plant (A), located westerly of the City along the easterly banks of the Salinas River, and the Prison Plant (B), which is located to the west of the prison situated on the east bank of the Salinas River.

The plant design capacity, at the City Plant is 3.0 million gallons per day (MGD) and 1.1 million gallons is allocated to the Prison Plant.

Flows are measured separately at the City, Prison Headwork's, and Prison Diverter Valve.

Secondary treatment consists of parallel flow through:

- Three (3) separate aeration ponds (each with seven 25 hp aerators regulated to continuously supply approximately 1 – 2 mg/l dissolved oxygen over approximately 7 days detention time), and
- Two (2) facultative sedimentation ponds with an average detention time of approximately 4.8 days.
- One (1) polishing pond averaging 2.2 days of detention time.

Disposal is by means of eight (8) percolation basins covering approximately 94 acres.

### C. Summary of Monitoring Data

The tables and graphs following provide a summary of data obtained while monitoring in 2007. The highest dry month (April) average daily total flow of Plant (A) in 2007 was 2.20 MGD, which was 73.33% of Regional Water Quality Control Board (RWQCB) discharge permit capacity. In 2007 Plant (B) average daily, dry month (July), flow was 1.100MGD, which was 100% of RWQCB discharge permit capacity.

The WWTPs have had incidents that exceeded permit discharges in terms of; 5-day biochemical oxygen demand, nitrate, and total suspended solids. The permitted levels of BOD and TSS are 30 mg/l and nitrate 5 mg/l respectively. Plant (A) had an average BOD of 61.1 mg/l and 43.8 mg/l average TSS during 2007. Plant (B) had an average BOD of 61.5 mg/l and 65.1 mg/l average TSS during 2007.

### D. Compliance

Effluent is being discharged from the WWTP with chloride concentration in excess of 208.2 mg/L, which is approaching the maximum stipulated in the discharge order, 250 mg/l. Staff is working with RWQCB staff to address this issue.

In 2007 the City Council approved the Black and Veatch Engineering design for upgrades to the City's wastewater facilities and is planning to proceed to bid in January 2008 to achieve Title 22 Reclamation quality effluent.

Shown below is a comparison of effluent limitations compared to City WWTP and Prison WWTP performances:

<u>Effluent Characteristic</u>	<u>Permit Limit*</u>	<u>Plant Average</u>
<b>Plant (A) Flow</b>	3.0 MGD	2.20 MGD highest dry month-April 2.23 MGD highest wet month-September
<b>Plant (B) Flow</b>	1.1 MGD	1.100 MGD highest dry month-July 1.100 MGD highest wet month-January
<b>Plant (A):</b>		
Total Dissolved Solids	990 mg/L	851.25 mg/L
Sodium	175 mg/L	140.2 mg/L
Chloride	250 mg/L	194.83 mg/L
Sulfate	205 mg/L	145.3 mg/L
Nitrate	5 mg/L	<1 mg/L

**Plant (B):**

Total Dissolved Solids	990 mg/L	719.5 mg/L
Sodium	175 mg/L	124.8 mg/L
Chloride	250 mg/L	189.1 mg/L
Sulfate	205 mg/L	130.3 mg/L
Nitrate	5 mg/L	4.7 mg/L

**Compliance continued:****Plant (A):**

TDS>Water Supply	578 mg/L	452 mg/L (2007 CCR Report)
pH	6.5 to 8.4	7.4
Pond Freeboard	2 feet	OK
Extraneous Drainage	Excluded	OK
Irrigation Mode		Modified pending tertiary
Disposal to Ponds	Measurable	OK
Well Separation		OK
Screening Disposal		OK
Modified compliance with groundwater limitations		

**Plant (B):**

TDS>Water Supply	578 mg/L	452 mg/L (2007 CCR Report)
pH	6.5 to 8.4	7.4
Pond Freeboard	2 feet	OK
Extraneous Drainage	Excluded	OK
Irrigation Mode		Modified pending tertiary
Disposal to Ponds	Measurable	OK
Well Separation		OK
Screening Disposal		OK

**E. Operating Personnel**

The City of Soledad Wastewater Treatment Plant requires a Grade 1 Operator. During 2007 the plant was operated by four operators. The four operators are shown below:

**Soledad Wastewater Operators in 2007**

<b>Name</b>	<b>Grade</b>
Edward N. Vaughn	Grade III
Gamiel Romero	Grade I
Mark Gunter	Grade II
David Romero	OIT
Aureliano Aguayo	OIT

## **F. Operation and Maintenance Manual**

The Operation and Maintenance manual for the treatment plant was revised concurrent with the installation of the treatment upgrades in 2005 and it was updated in 2006. The current manual was reviewed in 2007 and is valid and adequate.

## **G. Laboratory**

During 2007 water and wastewater influent and effluent samples were analyzed by the following laboratories:

Monterey County Consolidated Chemistry Laboratory      ELAP # 1395  
1270 Natividad Road  
Salinas, CA 93906

Monterey Bay Analytical Services      ELAP # 2385  
121 Hitchcock Canyon Rd.  
Carmel Valley, CA 93924

BSK Analytical Laboratories      ELAP # 1180  
1414 Stanislaus Street  
Fresno, CA 93907-1623

## **H. Wastewater Reclamation**

No wastewater reclamation was accomplished during this year.

## **I. Performance of Facility**

Overall, the wastewater treatment plants are operating within standards. Performance will need to continue being enhanced with respect to TSS and BOD at both facilities. Plant (A) has improved to the point that both standards are mostly being met. Plant (B) is showing improvement to the point that it is mostly within standards.

## **J. Major Construction Previous Year**

No major construction was performed at the plant during 2007.

## **K. Salts Management Report**

<b>Salts Management Data</b>					<b>Combined</b>
<b>Ave. g/kg</b>	<b>West St.</b>	<b>City</b>	<b>Dole</b>	<b>Prison</b>	<b>Q GPM</b>
<b>Set 1</b>	0.52	0.75	0.69	1.11	4250
<b>Set 2</b>	0.68	0.79	0.71	1.01	1200
<b>Set 3</b>	0.85	0.92	0.80	0.93	430
<b>Average</b>	0.68	0.82	0.73	1.02	700

This report complies testing during, high, mid, and low flow periods and shows a trend of higher concentration at low flow except for the Prison flow. Updates will be provided as the year progresses.