

**STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

STAFF REPORT FOR REGULAR MEETING OF MAY 12, 2006

Prepared on March 3, 2006

ITEM NUMBER: 15

SUBJECT: Rescission of Waste Discharge Requirements Order No. 87-146, for Prunetree Shopping Center, Monterey County and Coverage under the Statewide General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment Systems (Order No. 97-10-DWQ)

KEY INFORMATION

Discharger: Prunetree Shopping Center
Location: Highway 101 and 17601 Vierra Canyon Road, Prunedale
Discharge Type: Treated Wastewater
Treatment: Septic Tank Collection System, Grinder, Flow Metering, Sequencing Batch Reactor, Sludge Aeration, and Leachfields (20 trenches at 100 feet long, 4 trenches at 50 feet long, all are 1.5 feet wide by 13 feet deep each, geotextile lined with 1-1/2 inch drain rock)
Design Capacity: 16,500 gallons per day
Discharge Volume: 13,150 gallons per day (average flow rate for the six dry weather months in years 2004-2005)
Recycling: None
Existing Order: 87-146
This Action: Rescind Waste Discharge Requirements Order No. 87-146

SUMMARY

On October 9, 1987, the Regional Board adopted Waste Discharge Requirements Order 87-146 to regulate sanitary wastewater discharge from the Prunetree Shopping Center. After reviewing the Discharger's case history and recent (March 2005) Report of Waste Discharge application, Regional Board staff recommends rescinding Order 87-146 and regulating the discharge using the Statewide General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment Systems (Order 97-10-DWQ).

DISCUSSION

The Prunetree Shopping Center (hereafter, PSC or Discharger) is located seven miles north of Salinas, California at the intersection of U.S. Highway 101 and State Route 156 in the community of Prunedale in northern Monterey County. It consists of 38 commercial spaces and approximately 860 parking spaces. Major (PSC) tenants include Safeway, Longs Drugs, Auto Zone, McDonald's, and Taco Bell. There are no industrial or categorical dischargers at the PSC.

Vierra Creek, an intermittent tributary to the Tembladero Slough, borders the southern edge of the PSC property. Drinking and irrigation water is provided by two on-site water supply wells, located

approximately 150 feet up gradient of the effluent leachfields. Depth to groundwater is approximately 22 feet below ground surface as measured in the downgradient monitoring well. An upgradient monitoring well is 43.8 feet deep but has been dry since its date of installation.

Flow Rates

The wastewater disposal system includes a common septic tank collection system, grinder, flow meter, sequencing batch reactor, sludge aeration, and leachfields. The leachfields consist of twenty 100 foot and four 50-foot trenches that are 1.5 feet wide by 13 feet deep, geotextile lined, and filled with 1-1/2 inch rock. Total design loading capacity is 16,500 gallons per day (gpd). Actual flow rates for the last two years indicate an average effluent flow rate during the six dry weather months as 13,150 gpd with a peak monthly influent flow of 16,100 gpd in July 2004.

The 13,150 gallons per day assumes maximum occupancy; however, as is common in the industry, the PSC is frequently not at maximum occupancy. At the time of staff's drafting of the report, six of the 38 commercial spaces were available for lease.

Existing Monitoring Requirements

Under existing Order 87-146, the Discharger is required to perform annual water supply, semi-annual effluent and groundwater, and weekly septic tank and leachfield monitoring. Staff revised Monitoring and Reporting Program No. 87-146 on May 20, 2003, to remove annual effluent sampling for purgeable halocarbons. Water supply samples are collected from the on-site supply wells. Effluent samples are grab samples collected from the sequencing batch reactor discharge line. Aerated sludge is hauled off weekly for disposal at the Watsonville Wastewater Treatment Plant. Septic tank monitoring consists of weekly visual inspections of scum and sludge distances from the outlet device. Leachfield monitoring consists of weekly inspections of the disposal areas for evidence of surfacing effluent. Groundwater samples are collected from the downgradient monitoring well. Leachfield, water supply well and monitoring well locations are shown on Attachment 1.

Annual water supply well data from 2002 to 2005 indicates the water supply is of relatively high quality.

As of 2002, weekly leachfield inspections have not revealed surfacing effluent.

Maintenance was performed on the sequencing batch reactor's steel treatment tank in 2004 which included sandblasting and recoating the inside of the tank.

The Discharger has consistently reported effluent data. Average concentrations for select constituents are included in Table 1.

Table 1 - Average¹ Concentrations (mg/L)

Parameter	Supply	Effluent	Downgradient Monitoring Well
TDS	NR	456	NR
Sodium	45.9	105	NR
Chloride	44.9	121	NR
Nitrate	5.8	4.3	5.22
Ammonia	NR	4.0	0.77
Total Nitrogen	NR	9.4	NR
pH	NR	6.95	6.25
COD	<2	45	26.75

NR - Not Reported or Analyzed

1. Average from reporting years 2002 - 2005

Groundwater Quality

Annual groundwater data are available since November 1998. The Discharger's (nitrate, ammonia, and pH) monitoring data indicates the discharge is not affecting groundwater quality.

Chloride and nitrate are often used as an indicator of negative wastewater impacts to beneficial uses. Chloride data at the wastewater treatment plant indicate effluent concentrations higher than the supply well and there are no downgradient data points, so it is difficult to assess whether elevated downgradient concentrations are present. The average wastewater chloride concentrations are 70

mg/l greater than average water supply concentrations. However, the average chloride effluent concentrations are significantly lower than the drinking water standard [USEPA and California Department of Health Services' (DHS) Maximum Contaminant Levels] set at 250 mg/l for chloride. Water softeners can contribute to chloride loading in wastewater. The PSC does not soften its water supply but individual commercial merchants may have softeners. Regional Board staff will continue to monitor the chloride discharge.

Effluent nitrate concentrations are on average lower than the water supply levels. Additionally, nitrate concentrations in the supply, effluent, and down gradient monitoring well are considerably less than the USEPA and DHS Maximum Contaminant Level of 10 mg/L (as Nitrogen).

Historically, groundwater in this subbasin flows southwest towards the Tembladero Slough. Depth to groundwater in the downgradient monitoring well was 22 feet bgs indicating a vertical separation of greater than 9 feet exists between the leachfields and first encountered groundwater.

Beneficial Uses

Beneficial uses of groundwater in the Salinas River - Langley Area Sub-basin are designated for municipal, domestic, agricultural, and industrial uses.

Compliance History

Staff issued a Notice of Violation (NOV) to the Discharger on April 22, 2002, due to a secondary effluent overflow. A detailed analysis of the leach fields' hydraulic loading capacity and time schedule to implement necessary long-term repairs of the leach fields was submitted by the PSC according to the Regional Board's request. Ever since the time of the overflow incident, Regional Board files indicate the Discharger, under new operations and maintenance management, has provided responsible and qualified services and has remained in compliance. Annual Facilities Inspection Reports routinely note no violations. The Discharger's past compliance history supports the proposed action.

Order 97-10-DWQ

Order 97-10-DWQ (enclosed), which is titled Statewide General Waste Discharge Requirements for Discharges to Land by Small Domestic Wastewater Treatment Systems, states:

Discharges to land from small domestic wastewater treatment and disposal systems have certain common characteristics, such as similar constituents, concentration of constituents, disposal techniques, flow ranges and they require the same or similar treatment standards. These types of discharges are more appropriately regulated under general Waste Discharge Requirements.

Shopping centers are not specifically listed as a typical facility for which Order 97-10-DWQ is applicable but the PSC does meet the stated criteria for a small domestic wastewater treatment system. Order 97-10-DWQ implements applicable Regional Board standards, prohibitions, and requirements to protect water quality. It is limited in applicability to facilities with maximum average daily domestic wastewater flow rates of 20,000 gallons or less.

Monitoring requirements under Order 97-10-DWQ are fairly limited in scope for septic tank/leachfield systems. The Discharger would be required to estimate flow in gallons per day on a monthly basis. Septic tanks would need to be inspected on an annual basis, unless pumped annually. Given that the Discharger has been required to perform annual effluent monitoring under existing Order 87-146, Regional Board staff believes a convenient sampling location is available.

Regional Board staff believes it appropriate to limit the Discharger's monitoring requirements to those included in Order 97-10-DWQ. This Discharger would therefore discontinue annual water supply and groundwater sampling and analyses. Regional Board staff believes that monitoring data demonstrates that the PSC's wastewater disposal system has not impacted groundwater quality. Therefore, to maintain consistency among similar dischargers, Regional Board staff recommends reducing monitoring to that required by Order 97-10-DWQ.

In summary, staff believes that the PSC's discharge volume, continuity, and character are consistent with those allowed under Order 97-10-DWQ. Rather than revise existing Order 87-146, staff believes it appropriate to regulate the PSC via Order 97-10-DWQ. If the discharge is regulated under the General Order, individual Waste Discharge Requirements would not be necessary, and Order 87-146 can be rescinded. If approved by the Regional Board, the Executive Officer would authorize by letter coverage under Order 97-10-DWQ.

ENVIRONMENTAL SUMMARY

Waste Discharge Requirements for existing facilities are exempt from provisions of the California Environmental Quality Act (Public Resource Code, Section 21100 et seq.) in accordance with Section 15301, Chapter 3, Title 14 of the California Administrative Code.

COMMENTS

The following parties were notified by letter dated March 6, 2006 of staff's recommendation to rescind Waste Discharge Requirements Order 87-146 and approve coverage via the General Order. These parties were invited to submit written comments by April 11, 2006.

Roy Owens, GMS Five, LLC – Property Owner and Management Company
No comments received.

Monterey County Planning and Building Department No comments received

Monterey County Environmental Health Department No comments received.

Monterey County Water Resources Agency No comments received.

RECOMMENDATION

Rescind Order No. 87-146 and enroll facility in Order No. 97-10-DWQ.

ATTACHMENTS

1. Prunetree Shopping Center Site Map
2. Existing Waste Discharge Requirements Order 87-146
3. State Board Waste Discharge Requirements Order 97-10-DWQ