

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

**STAFF REPORT FOR REGULAR MEETING OF FEBRUARY 9, 2007**

Prepared on November 14, 2006

**ITEM NUMBER: 17**

**SUBJECT: Rescission of Waste Discharge Requirements Order No. 99-09, for Dreisbach Enterprises, Inc. – Hilltop Cold Storage Facility, Monterey County and Coverage under the Central Coast Region General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste (Order No. R3-2004-0066)**

**KEY INFORMATION**

Discharger: Dreisbach Enterprises, Inc.-Hilltop Cold Storage Facility

Location: 1276 Highway 1, Watsonville

Discharge Type: Food Processing and Domestic Wastewater

Treatment: Process Wastewater: Particle screening, pH stabilization, and facultative and aerated lined ponds.  
Domestic Wastewater: Septic tank and seepage pits

Design Capacity: Process Wastewater: 0.25 million gallons per day (MGD)  
Domestic Wastewater: 2,500 gallons per day (gpd)

Discharge Volume: Process Wastewater: 0.175 million gallons per day (average flow rate for the food processing season from April through September in years 2005-2006). Approximately 0.06 MGD is discharged during the off-season (January through March).  
Domestic Wastewater: Approximately 335 gpd (22 max. employees x 15 gpd plus minor dock pad wash water)

Recycling: Process Wastewater: Spray disposal to 20.2 acres of grass fields  
Domestic Wastewater: None

Existing Order: 99-09

This Action: Rescind Waste Discharge Requirements Order No. 99-09

**SUMMARY**

On April 9, 1999, the Regional Board adopted Waste Discharge Requirements (WDR) Order 99-09 to regulate food processing wastewater discharge and domestic wastewater from the

Dreisbach Inc., - Hilltop Cold Storage (hereafter, "Discharger") facility in Monterey County. After reviewing the Discharger's case history and recent (May 2006) Notice of Intent application, Water Board staff recommends rescinding Order 99-09 and regulating the fruit

wash wastewater using the Central Coast Region General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste (Order No. R3-2004-0066). The low volume domestic wastewater from this facility is more appropriately regulated through a County of Monterey Environmental Health Department sanitary wastewater permit.

## DISCUSSION

The Discharger operates a strawberry processing and storage facility (Hilltop Cold Storage), located in north Monterey County. Fresh fruit is picked, washed, and placed in cold storage prior to shipment. During the primary operating season the facility processes approximately 30,000 tons of strawberries. Process wastewater flow averages 175,000 gpd with a peak flow of 250,000 gpd. Process wastewater treatment consists of screening, pH stabilization, and aeration in holding ponds. Aeration ponds have a hydraulic retention time of 1.5 days and are designed for only partial mixing, therefore functioning in both a facultative and aerobic manner. Final disposal of process wastewater is by spray disposal onto 20.2 acres of grass fields. The majority of the processing season occurs between April and September, during which the facility operates with two shifts in a 24-hour period. During the off-season (January through March), the facility produces a strawberry juice concentrate created from the strawberries that were harvested and frozen during the strawberry season. The frozen strawberries are defrosted and then cooked to create a juice concentrate. Wastewater produced during the off-season consists of equipment wash-down wastewater. Current wastewater discharges are permitted through WDR Order 99-09.

Domestic wastewater is disposed of in a separately piped system and discharged to a septic tank that spills into a one of two series of seepage pits. Each set of discharge pits consists of three 60-foot deep seepage pits, filled with gravel, containing a perforated pipe down the center. Typical flow to the septic system during the fruit processing season is approximately 335 gallons per day. Discharge

prohibitions, requirements, limitations, and provisions for the domestic wastewater is more appropriately regulated through a County of Monterey Environmental Health Department sanitary wastewater permit.

## Surface Hydrology

There are no surface water bodies within 100-feet of the spray disposal fields. The 100-year flood plain along the Pajaro River in the Watsonville area is at an elevation of 46 feet above mean sea level (msl). The minimum elevation at the disposal fields is 50-feet msl. Therefore, there is no problem from flooding.

## Groundwater and Water Supply

The Discharger's facility is located within the Pajaro River – Watsonville groundwater sub-basin. Beneficial uses of groundwater in the sub-basin are designated for municipal and agricultural uses. Groundwater occurs at 180feet and 400 feet below ground surface. Recharge to the shallow aquifer occurs through rainfall, percolation of irrigation water, and flow from adjacent groundwater areas. Historically, groundwater in this sub-basin flows west towards the Pacific Ocean. Chemical characteristics of the 180-foot and 400-foot aquifers are presented in Table 1.

Water supply is provided by an existing well located 1,000 feet north and cross-gradient of the spray disposal area. The well is screened at the 400-foot aquifer. The historical water quality characteristics of the well are listed in Table 1 below:

**TABLE 1 – DREISBACH, INC. – HILLTOP COLD STORAGE FACILITY WATER SUPPLY CHARACTERISTICS**

CONSTITUENT (mg/l)	180-Foot Aquifer	400-Foot Aquifer			
	1986	1986	Oct 2004	Apr 2005	Apr 2006
Sodium	110	28	34	32	56
Sulfate	50	49	57	57	60
Chloride	200	44	37	39	38
Nitrogen (as N)	66	2.0	<0.23	<0.2	<0.23
Total Dissolved Solids	690	510	410	420	410
Nitrate (as N)	--	--	<0.23	<0.2	<0.23

Annual water supply well data from 1986 to 2006 indicates the water supply is of relatively high quality.

#### Flow Rates

The Discharger processes fruit primarily during the non-rainy season (April through September). The average wastewater flow rate during the fruit processing season is 0.175 million gallons per day (MGD). This flow includes evaporative cooler condensate discharge. During the off-season (January through March) equipment wash-down from the fruit concentrate process generates approximately 60,000 gpd. Process flows from the Hilltop Cold Storage facility discharge to three aerated and lined holding ponds (Pond A, Pond B, or Pond C) that flow in series. Pond capacities are approximately 300,000 gallons for Pond A, 500,000 gallons for Pond B, and 770,000 gallons for Pond C. See Attachment 2 for discharge pond configuration. WDR Order 99-09 limits process wash-water flow to 0.27 MGD. The spray disposal area is approximately 20 acres of grass fields. The wastewater is applied to the disposal fields via a fixed type sprinkler head mounted on portable aluminum pipe. The wastewater is applied at a rate that prevents the occurrence of runoff from the site.

#### Existing Monitoring Requirements

Under existing Order 99-09, the Discharger is required to perform quarterly water supply and effluent monitoring. Flow monitoring requires daily metered volumes with monthly maximum and mean daily flow calculations reported. The disposal area inspection site is required to be inspected on a weekly basis.

Water supply samples are collected from the on-site supply wells. Effluent samples are grab samples collected at a point just prior to discharge to holding pond or disposal fields. Solid particles are removed via a 0.04-inch screen. The screenings, consisting of skins, twigs, and leaves are removed and disposed of at a sanitary landfill permitted to accept the solid waste.

The Discharger has consistently reported effluent data. Average concentrations for select constituents are included in Table 2.

**TABLE 2 – DREISBACH, INC. – HILLTOP COLD STORAGE FACILITY WASTEWATER CHARACTERISTICS**

CONSTITUENT (mg/l)	Apr 2003	May 2004	Apr 2005	Apr 2006	AVG
TDS	510	460	510	450	483
Sodium	54	51	56	67	57
Chloride	110	63	73	68	79
Sulfate	54	70	73	70	67
Boron	0.17	0.28	<0.1	0.15	0.16
Total Nitrogen	37	10	17	21	21
Nitrate (as N)	<0.23	0.27	1.3	0.84	0.63
pH	5.3	6.7	6.9	7.2	6.53
COD	1060	3000	1200	1100	1590

With the exception of chemical oxygen demand concentrations, the Discharger's monitoring data indicates the effluent is comparable or better than constituents reported in 1986 for the 180-foot shallow groundwater aquifer and is therefore not affecting groundwater quality. A single three-horsepower aeration pump in each pond provides the required oxygen loading to reduce biological and chemical oxygen demands prior to discharge to the disposal fields. Overall, effluent constituent concentrations are considerably less than the US Environmental Protection Agency (US EPA) and California Department of Health Services (DHS) Maximum Contaminant Levels.

#### Compliance History

The Discharger has a history of late reporting and pH violations. Staff issued a Notice of Violation (NOV) to the Discharger on March 8, 2002, due to effluent pH concentrations falling outside the permitted range of 6.5 to 8.4 during the October 2001 and January 2002 monitoring events. The Discharger stated the pH violation occurred due to the strawberry juice in the effluent. The Discharger corrected the violation by analyzing the pH of the effluent water daily to ensure that it stayed with acceptable ranges. If the levels were low the Discharger added water to aid in neutralizing the pH. If the pH was measured high the Discharger added citric acid to the effluent to reduce the pH. Since this

time, six other pH violations have occurred from 2002 to 2006. Late reporting violations have always been corrected by the Discharger submitting the required monitoring data.

Annual Facilities Inspection Reports routinely note no violations. The Discharger's past compliance history supports the proposed action to enroll the facility into General Order No. R3-2004-0066, which requires weekly pH monitoring of the effluent. Currently, the Discharger's monitoring and reporting program (MRP) No. 99-09 requires pH analysis on a quarterly basis.

#### **Order R3-2004-0066:**

Order R3-2004-0066 (enclosed), entitled Central Coast Region General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste, Finding 1 states:

In accordance with California Water Code Section 13263(i), fruit and vegetable processing facilities covered under these General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste (hereafter "General WDRs"), (a) produce waste by similar operations, (b) involve similar types of waste, (c) require similar treatment standards, and (d) are more appropriately regulated under General WDRs than individual WDRs.

The Hilltop Cold Storage facility processes strawberries in a manner that is specifically listed as a typical fruit and vegetable facility for which Order R3-2004-0066 is applicable. Order R4-2004-0066 implements applicable Water Board standards, prohibitions, and requirements to protect water quality. It is limited in applicability to facilities defined as creating a byproduct of the cutting, cleaning, cooling, drying, sorting, juicing, or packaging of fruits or vegetables, excluding waste from wineries and mushroom farms.

Monitoring requirements under Order R4-2004-0066 are based on tiered effluent flow rates. The Discharger is required to monitor water supply, production, chemical usage, influent, pond(s), effluent, disposal area, solid waste,

and groundwater. Given that the Discharger has been required to perform quarterly water supply and effluent monitoring, and weekly disposal area inspections under existing Order 99-09, convenient sampling locations and observation routines are available and are regular practices associated with the Dischargers day-to-day operations.

Historical monitoring data demonstrates that the Discharger's wastewater disposal system has not impacted groundwater quality. Therefore, to maintain consistency among similar dischargers, Water Board staff recommends establishing monitoring as required by Order R3-2004-0066.

In summary, the Discharger's wastewater volume, continuity, and character are consistent with those allowed under Order R3-2004-0066. Rather than revise existing Order 99-09, it is appropriate to regulate the Discharger via Order R3-2004-0066. If the discharge is regulated under the General Order, individual WDRs would not be necessary, and Order 99-09 can be rescinded. If approved by the Water Board, the Executive Officer would authorize by letter coverage under Order R3-2004-0066.

#### **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 December 20, 2006 of staff's recommendation to rescind Waste Discharge Requirements Order 99-09 and approve coverage via General Order R3-2004-0066. These parties were invited to submit written comments by January 9, 2007.

**Monterey County Planning and Building  
Department**

**Monterey County Environmental Health  
Department**

**RECOMMENDATION**

Rescind Order No. 99-09 and concur with the Executive Officer's proposed enrollment of the facility in Order No. R3-2004-0066.

**ATTACHMENTS**

1. Dreisbach, Inc. – Hilltop Cold Storage Facility Site Map
2. Dreisbach, Inc. – Hilltop Cold Storage Pond Configuration
3. Existing Waste Discharge Requirements Order 99-09
4. Waste Discharge Requirements Order R3-2004-0066
5. Monitoring and Reporting Program No. R3-2004-0066 modified for Dreisbach Enterprises, Inc. – Hilltop Cold Storage Facility