

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

STAFF REPORT FOR REGULAR MEETING OF JULY 6, 2007

Prepared on June 6, 2007

ITEM NUMBER: 20

SUBJECT: Rescission of Waste Discharge Requirements Order No. 99-99, for Natural Selection Foods Inc., DBA Earthbound Farm, San Benito 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: Natural Selection Foods Inc. DBA Earthbound Farm
Location: 1721 San Juan Highway, San Benito, CA 95045
Discharge Type: Food Processing Wastewater
Treatment: Particle removal by gravity fine screen and settling at a lined pond. A portion of the process wastewater [up to 100,000 gallons per day (GPD)] may be discharged to the City of San Juan Bautista domestic wastewater treatment plant.
Design Capacity¹: 100,000 GPD to City of San Juan Bautista domestic wastewater treatment plant
190,000 to 380,000 GPD to irrigate non-fodder, non-food crops
Total estimated design capacity of 290,000 to 480,000 GPD
Discharge Volume: 176,000 to 465,000 GPD (range of flow rate for the food processing season from April through September in 2006). Approximately 175,000 GPD is discharged during the off-season (December through March).
Recycling: Spray disposal to approximately 67 acres of non-fodder, non-food crops
Existing Order: Waste Discharge Requirements Order No. 99-99
This Action: Rescind Waste Discharge Requirements Order No. 99-99

SUMMARY

On October 22, 1999, the Regional Board adopted Waste Discharge Requirements (WDR) Order No. 99-99 to regulate food processing wastewater discharge and domestic wastewater from the Natural Selection Foods, Inc., DBA Earthbound Farm (hereafter, "Discharger" or "EBF") facility in San Benito County. On July 10, 2006, the Discharger submitted a Notice of Intent (NOI) to be enrolled into the Central Coast Region General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste (Order No. R3-2004-0066). Based on past violations and the current need to enroll the Discharger into a WDR that properly monitors their increasing process wastewater characteristics, Water Board staff recommends rescinding Order 99-99 immediately and regulating the process wastewater using the Central Coast Region General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste (Order No. R3-2004-0066). Order No. R3-2004-0066 will more comprehensively regulate the facility than the existing individual order.

¹ Total process wastewater disposal design capacity is dependent on rainy or dry seasons.

DISCUSSION

On July 10, 2006, the Discharger submitted a Notice of Intent (NOI) requesting enrollment into the Central Coast Region General Waste Discharge Requirements for Discharges of Fruit and Vegetable Processing Waste (Order No. R3-2004-0066). Staff requested the NOI for the following reasons:

- To regulate wastewater discharges consistently with other fruit and vegetable processors in the Central Coast, which include Christopher Ranch, Costa Family Farms, D'Arrigo Brothers, Fresh Innovations, Pride of San Juan, Hollister Veg-Pac and Gilroy Veg-Pac;
- To improve and update waste discharge requirements, including prohibitions – the General Order requires monitoring of production, chemical usage, influent, pond(s), effluent, disposal area, solid waste, and groundwater, which existing WDR Order NO. 99-99 does not provide.

The Discharger produces ready-to-eat, organic, spring mix salads at the San Benito County facility. Product varieties are mixed, washed in filtered re-circulated water, dried utilizing centrifugal dryers, weighed, and packaged into sealed bags or plastic trays. Facility-generated wastewater comes from two processes within the Discharger's facility: wash water removed through the centrifugal drying process and wastewater generated through the production facility sanitation process. The wastewater contains chlorine and citric acid that is added for disinfection of the lettuce, vegetables, equipment, and floors.

The majority of the processing season occurs between April and November, during which the facility operates with three 8-hour shifts. Process wastewater flow averages 274,000 GPD with a peak flow of 465,000 GPD (2006 operating season data). During the off-season (December through March), a single shift of vegetable processing and equipment wash-down will generate approximately 175,000 GPD. Process flows from the Discharger's facility are treated through gravity fine screen particle removal and settling at a lined pond. The pond capacity is approximately 850,000 gallons allowing for two feet of freeboard. Process wastewater is disposed of by spraying onto approximately 67 acres of grass (non-fodder, non-food) fields and up to 100,000 GPD may be discharged to the City of San Juan Bautista's domestic wastewater treatment plant. To minimize the potential for spills to the adjacent San Juan Creek, the Discharger has constructed a berm at the western end of the irrigation fields and has implemented a 250-foot buffer covering about nine acres between the grass crop irrigation areas and San Juan Creek.

Table 1 below presents concentration data for select process wastewater constituents.

TABLE 1 – EBF FACILITY PROCESS WASTEWATER CHARACTERISTICS

CONSTITUENT (mg/L) / YEAR SAMPLED	Oct 2005	May 2006	Sept 2006	Oct 2006	CA DHS MCLs
TDS (fixed)	1300	1348 (1084)	1244	--	500
Chloride	220	220	208	--	250
Sodium	180	276	220	--	--
Nitrite (as N)	--	<0.1	0.3	--	1
Nitrate (as N)	--	10.3	45.7	--	45
Total Nitrogen	--	15.8	166.6	--	--
pH	7.42	7.71	7.85	--	--
BOD	---	142	--	178	--
TSS	--	--	--	56	--

The Discharger's monitoring data indicates elevated concentrations of TDS, nitrate, chloride, and sodium in the process wastewater effluent as compared to the water supply characteristics. This is expected due to soils washed from the produce and the addition of some sodium hypochlorite used for disinfection. Dirt and vegetable pieces not removed by the screening process attribute for concentrations of total suspended solids (TSS) and levels of biological oxygen demand (BOD). The discharge has caused a significant increase in groundwater nitrate concentrations. The Discharger is addressing the high levels of turbidity, suspended solids, and total nitrogen with the installation of a sequencing batch reactor (SBR). The SBR will process up to 500,000 GPD of process wash water capable of producing an effluent with an average turbidity less than 4 NTU, suspended solids less than 10 mg/L, and total nitrogen less than 10 mg/L.

Compliance History

Since adoption of WDR Order No. 99-99, the Discharger has submitted three monitoring reports covering the periods of 2000, 2005, and 2006. Administrative Civil Liability Complaint No. R3-2007-0015 (ACL) presents alleged violations due to lack of monitoring, reporting, and an illegal discharge into San Juan Creek an adjacent surface water body. Distribution of the penalty imposed by the ACL is not pending Water Board review of a proposed supplementary environmental project (SEP). Attachment 5 contains a copy of the ACL.

Discussion Summary

The Discharger will need to install a minimum of two shallow downgradient monitoring wells and reduce nitrate loading in the effluent in order to meet the requirements of Order No. R3-2004-006. Installation of an SBR will reduce the nitrate effluent concentrations and therefore provide a wastewater volume, continuity, and character consistent with those allowed under Order No. R3-2004-0066. If the Water Board regulates the discharge under the General Order, individual WDRs would not be necessary, and Order 99-99 can be rescinded. If approved by the Water Board, the Executive Officer will authorize enrollment and coverage under Order No. R3-2004-0066 by letter to the Discharger.

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

Water Board staff notified the following parties by letter dated June 8, 2007 of staff's recommendation to rescind Waste Discharge Requirements Order 99-99 and approve coverage via General Order No. R3-2004-0066. Water Board staff invited the following interested parties to submit written comments by June 29, 2007.

**San Benito County Water District
City of San Juan Bautista
San Benito County Environmental Health
San Benito County Planning and Building Department**

RECOMMENDATION

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

ATTACHMENTS

1. Earthbound Farms Site Map
2. Existing Waste Discharge Requirements Order 99-99
3. Waste Discharge Requirements Order No. R3-2004-0066
4. Monitoring and Reporting Program No. R3-2004-0066
5. Administrative Civil Liability Complaint No. R3-2007-0015