

## INFORMATION SHEET

ORDER NO. R5-2014-XXXX  
CONAGRA FOODS, INC., AND MADDOX FARMS, LLC  
HELM TOMATO PROCESSING FACILITY  
FRESNO COUNTY

ConAgra Foods, Inc., (ConAgra) owns and operates a tomato processing facility (Facility) at 16429 West Kamm Avenue about a half mile east of the community of Helm in Fresno County. Wastewater generated from the processing of tomatoes into tomato paste is discharged to 2,646 acres of farmlands owned by Maddox Farms, LLC (Maddox Farms).

### Background

In 1996, Hunt Wesson, Inc., was issued Waste Discharge Requirements (WDRs) Order 96-268 that allow an average daily discharge of 3.0 million gallons per day (mgd) during the processing season (July through October), and an average daily discharge of 0.2 mgd during the remainder of the year. The wastewater was discharged to up to 2,396 acres of farmland owned by Britz, Inc. In 2000, the Facility name was changed to ConAgra Grocery Products Company, which has since been renamed ConAgra Foods, Inc. The farmland or land application areas (LAAs) were purchased by Maddox Farms in 2000.

### Existing Discharge

The Facility is on about 49-acres and contains three main buildings (two warehouses for product storage and a processing building) and associated parking and storage areas. The LAAs consist of 36 individual parcels that range in size from 22 to 132 acres in size and collectively contain 2,646 acres for the recycling of wastewater. The LAAs are planted rotationally with crops such as alfalfa, wheat, cotton, corn, and beets. Wastewater is generated from the processing of tomatoes and from the cleaning of the processing equipment. Wastewater is delivered via pipeline to a 500,000 gallon unlined storage pond on the eastern portion of the property. Effluent quality in 2013 is summarized in the following table.

<u>BOD (mg/L)</u>	<u>EC (umhos/cm)</u>	<u>Total Nitrogen (mg/L)</u>	<u>TDS (mg/L)</u>
978	1202	52	917
(560-2000)	(700 – 2600)	(23 – 91)	(520 – 1500)

The large amount of land available for the reuse of wastewater results in loading estimates that are all very low. In 2013, BOD loading was estimated to be about 11 pounds per acre per day (lbs/ac/day); nitrogen loading about 18 pounds per acre per year (lbs/ac/yr); and salt loading, based on the average TDS results, was about 310 lbs/ac/yr. Based on the loading estimates, the discharge should not unreasonably degrade the underlying groundwater quality.

The average EC of the effluent slightly exceeds the Basin Plan effluent limit for industrial discharges that limits the increase in EC of a point source discharge to 500 umhos/cm (source was 550 umhos/cm in 2013, resulting limit would be 1,050 umhos/cm using this method), but the discharge qualifies for the exception in the Basin Plan that allows an exception for food processing industries that exhibit a disproportionate increase in EC in the discharge over the

EC of the source water due to unavoidable concentrations of organic dissolved solids. The exception is already granted in the existing WDRs. The following table summarizes a few EC and TDS results from three of the effluent samples collected in 2013.

<u>Date</u>	<u>EC (umhos/cm)</u>	<u>TDS (mg/L)</u>
18 July 2013	1,500	1,300
15 August 2013	700	910
3 October 2013	1,500	1,400

In the results presented above, TDS results constitute from 86 to 130 percent of the EC result. Monthly averages also indicate the discharge is high in dissolved organic solids. In July 2013, the average EC of the discharge was 1,448 umhos/cm, and the average TDS was 1,400 mg/l, or 97 percent of the EC result. In similar fashion, the average TDS of the discharge in October 2013 was 978 mg/L, and the average EC was 1,076 umhos/cm, which is about 91 percent of the EC result.

### Groundwater Conditions

The existing WDR 96-268 does not contain groundwater monitoring requirements, but there are several nearby sites and regional wells that can be used for reviewing groundwater quality for the Helm area.

An agricultural products facility owned by J.R. Simplot is present about 4 miles northwest of the Facility and the property has a groundwater monitoring well network. Monitoring reports for the site indicate there are four potential water bearing units above the Corcoran Clay, that are divided into A (shallow), B, C and D (deepest) units. The A-Zone reportedly went dry back in the mid 1990's. The depths of the water bearing zones are shown in the table below.

<u>Aquifer</u>	<u>Depth (feet bgs)</u>
A-Zone	~110 - 140
B-Zone	~170 - 190
C-Zone	~230 - 280
D-Zone	~300 to 500

The depth to water in the B-Zone wells in 2013 ranged from about 150 to 175 feet bgs and the direction of groundwater flow was to the southeast. Results from four wells are presented in the following table. MW-12 is an upgradient well for the J.R. Simplot site and MW-4 and MW-14 are downgradient wells with MW-4 about a mile upgradient and MW-14 about three quarters of a mile upgradient of the ConAgra Facility. The Helms Store well is a domestic well at the intersection of West Kamm Avenue and Highway 145 about a half a mile west of the ConAgra Facility. The average EC and sulfate concentrations in these four wells since 2008 are summarized in the following table.

<u>Well Number</u>	<u>Well Depth/Zone (feet bgs)</u>	<u>EC (umhos/cm)</u>	<u>Sulfate (mg/L)</u>
MW-12 (background)	192, B-Zone	1,474 (1,342 – 1,574)	405 (390 – 420)
MW-4	190, B-Zone	1,106 (937 – 1,240)	185 (170 – 220)

(table continued next page)

<u>Well Number</u>	<u>Well Depth/Zone (feet bgs)</u>	<u>EC (umhos/cm)</u>	<u>Sulfate (mg/L)</u>
MW-14	185, B-Zone	1,155 (897 – 1,572)	80 (77 – 82)
MW-14	285, C-Zone	949 (938 – 1,013)	160 (110 – 200)
MW-14	415, D-Zone	635 (625 – 647)	65 (63 – 66)
MW-HS (Helm Store)	400, C & D Zone	785 (694 – 907)	91 (65 – 130)

United States Geological Survey (USGS) monitoring wells have EC values ranging from about 750 to 1,900 umhos/cm in 19 wells present within a five mile radius of the Facility. The 750 umhos/cm value was from a 300-foot well about three-miles southeast of the Facility, while the 1,900 value was from a well sampled in 1968 about 1.5 miles east of the Facility.

### Source Water

Source water for the Facility is surface water obtained from the Westlands Water District. Source water quality since 2011 is presented in the following table.

<u>EC umhos/cm</u>	<u>Arsenic mg/L</u>	<u>Chloride mg/L</u>	<u>Iron mg/L</u>	<u>Manganese mg/L</u>	<u>Sodium mg/L</u>	<u>Sulfate mg/L</u>
385 (220 - 550)	0.0022 (nd – 0.0022)	60 (25 – 89)	0.7 (0.16 -1.6)	0.54 (nd – 0.54)	46 (22 – 56)	29 (17 – 35)

### Basin Plan, Beneficial Uses, and Regulatory Considerations

The Water Quality Control Plan for the Tulare Lake Basin, Second Edition, revised January 2004 (the “Basin Plan”) designates beneficial uses, establishes narrative and numerical water quality objectives, contains implementation plans and policies for protecting all waters of the Basin, and incorporates, by reference, plans and policies of the State of California Water Quality Control Board. The beneficial uses for the groundwater in the Facility area are municipal and domestic supply, agricultural supply, industrial process and service supply. The beneficial uses for the surface water in the Facility area (Fresno Slough) are agricultural supply, industrial process supply, industrial service supply, water contact recreation, non-contact water recreation, warm freshwater habitat, wildlife habitat, rare and endangered species habitat, and groundwater recharge.

### Antidegradation

State Water Resources Control Board Resolution 68-16 (“Policy with Respect to Maintaining High Quality Waters of the State”) (hereafter Resolution 68-16) prohibits degradation of groundwater unless it has been shown that:

- a. The degradation will not unreasonably affect present and anticipated future beneficial uses.

- b. The degradation does not result in water quality less than that prescribed in State and regional policies, including violation of one or more water quality objectives, and
- c. The discharger employs best practicable treatment or control (BPTC) to minimize degradation.
- d. The degradation is consistent with the maximum benefit to the people of the State.

As discussed in the preceding existing discharge section, the average EC of the effluent slightly exceeds the Basin Plan effluent limit for industrial discharges that limits the increase in EC of a point source discharge to 500 umhos/cm, but the discharge qualifies for the exception in the Basin Plan for food processing industries that exhibit a disproportionate increase in EC in the discharge over the EC of the source water due to unavoidable concentrations of organic dissolved solids. The exception is already granted in the existing WDRs.

The Discharger screens solids from the waste stream prior to discharge to the wastewater retention pond. The WDRs include Provisions F.11 and F.12 that require the Discharger to submit Salinity and Nutrient Management Plans to further evaluate and implement measures to improve the quality and management of its discharge.

The Basin Plan incorporates the State's Antidegradation Policy. The Antidegradation Policy requires the Central Valley Water Board in regulating discharges of waste to maintain high quality waters of the State 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 Central Valley Water Board's policies (e.g., quality that exceeds water quality objectives). Resolution 68-16 requires that the constituents contributing to degradation be regulated to meet best practicable treatment or control (BPTC) to assure that pollution or nuisance will not occur and that the highest water quality consistent with the maximum benefit to the people of the State will be maintained.

With wastewater application at the loading rates authorized by this Order, appropriate application and resting periods, the discharge will not cause impermissible degradation of the underlying groundwater.

Degradation of groundwater by some of the typical waste constituents released with discharge from a food processing facility after effective source reduction is consistent with maximum benefit to the people of the State. Con-Agra contributes to the economic prosperity of the region by directly employing 30 to 100 workers at the Plant depending upon the season, provides incomes for numerous surrounding tomato growers and associated trucking firms, and provides a tax base for local and county governments. Economic prosperity of valley communities and associated industry is of maximum benefit to the people of the State, and therefore sufficient reason to accommodate growth and groundwater degradation provided terms of the Basin Plan are met.

The Order establishes effluent limits and groundwater limits for the Facility that will not unreasonably threaten present and anticipated beneficial uses or result in groundwater quality

that exceeds water quality objectives set forth in the Basin Plan. The Order contains requirements for groundwater monitoring to assure that the highest water quality consistent with the maximum benefit to the people of the State will be achieved.

### **Title 27**

Title 27 of the California Code of Regulations, section 20005 et seq (Title 27) contains regulations to address certain discharges to land. Title 27 establishes a waste classification system, specifies siting and construction standards for full containment of classified waste, requires extensive monitoring of groundwater and the unsaturated zone for any indication of failure of containment, and specifies closure and post-closure maintenance requirements. Generally, no degradation of groundwater quality by any waste constituent in a classified waste is acceptable under Title 27 regulations.

Unless exempt, release of designated waste is subject to full containment pursuant to Title 27 requirements. Title 27 Section 20090(b) exempts discharges of designated waste to land from Title 27 containment standards and other Title 27 requirements provided the following conditions are met:

- a. The applicable regional water board has issued waste discharge requirements, or waived such issuance;
- b. The discharge is in compliance with the applicable basin plan; and
- c. The waste is not hazardous waste and need not be managed according to Title 22, CCR, Division 4.5, Chapter 11, as a hazardous waste.

The discharge from ConAgra's Helm Facility meets the above requirements and is, therefore, exempt from Title 27.

### **CEQA**

For the existing Facility, the County of Fresno adopted a Negative Declaration on 23 February 1996 in accordance with the California Environmental Quality (CEQA) (Public Resources Code Section 21000, et seq.) and State CEQA guidelines. The Facility has been in use as a tomato processing facility continuously since 1996. This Order for the current facility does not authorize any additional construction activities and imposes regulatory requirements that are protective of the underlying groundwater quality. As a result, the existing discharge is exempt from the requirements of CEQA in accordance with California Code of Regulations, title 14, section 15301.

## **Proposed Order Terms and Conditions**

### **Discharge Prohibitions, Effluent Limitations, Discharge Specifications, and Provisions**

The proposed Order would prohibit discharge to surface waters and water drainage courses.

The proposed Order would limit the monthly average daily discharge flow limit at 3.0 mgd during the processing season (July through October) and 0.2 mgd the remainder of the year.

The discharge requirements regarding dissolved oxygen and freeboard are consistent with Central Valley Water Board policy for the prevention of nuisance conditions, and are applied to all such facilities.

The proposed WDRs would prescribe groundwater limitations that implement water quality objectives for groundwater from the Basin Plan. The limitations require that the discharge not cause or contribute to exceedance of these objectives or natural background water quality, whichever is greatest.

### **Monitoring Requirements**

Section 13267 of the CWC authorizes the Central Valley Water Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the State. Water Code Section 13268 authorizes assessment of civil administrative liability where appropriate.

The proposed Order includes effluent, groundwater, pond, source water, and solids monitoring. The monitoring is necessary to evaluate the extent of the potential degradation from the discharge.

### **Reopener**

The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. The proposed Order would set limitations based on the information provided thus far. If applicable laws and regulations change, or once new information is obtained that will change the overall discharge and its potential to impact groundwater, it may be appropriate to reopen the Order.