

ITEM:

SUBJECT: Bell-Carter Olive Company, Inc and City of Corning, Industrial Wastewater Treatment Plant, Tehama County

BOARD ACTION: Consideration of NPDES Permit Renewal

BACKGROUND: Bell Carter Olive Company, Inc. owns and operates an industrial wastewater treatment plant to treat olive processing wastewater. The property is owned by the City of Corning. The treatment system consists of an influent pump station, influent metering and sampling equipment, a two stage extended aeration lagoon system (configured as Class II Surface Impoundments and regulated by separate WDRs in Order No. 5-00-114), followed by an ultrafiltration membrane solids separation process prior to being discharged to the Sacramento River. On a regular basis, the solids are removed utilizing a floating hydraulic dredge for centrifuge dewatering. Dewatered solids are then trucked to a suitable landfill.

The discharge of saline olive processing wastes in the Corning area has a highly contentious history. In the 1970s, olive wastes were conveyed to the City's treatment facility where the wastes were only screened to remove solids and then discharged with the City's poorly treated (pond) effluent directly to the Sacramento River. A NPDES permit in 1974 required the City to improve domestic sewage treatment to full secondary standards and prohibited discharge of combined domestic/industrial wastewater to land or the river that contained TDS above 650 mg/L. The City and industry sought a Clean Water Grant (87.5% grant funds) to comply with the NPDES permit. C&D Orders were adopted in 1977 and 1979 requiring the City to comply. Treatment options considered for funding included total evaporation of domestic and olive wastewater, blending and biological treatment of both wastes and partial evaporation of olive wastes with full biological treatment of domestic wastes and the remaining olive wastes. Public hearings conducted during the EIR process for the grant project resulted in overwhelming opposition from residents in the area regarding construction of a new facility that proposed evaporation ponds (no discharge to the river or to land). The USEPA and the SWRCB, in response to this opposition and the increased land and construction costs, selected a project that provided for all domestic and olive wastes to be discharged to the river after receiving full biological treatment. The USEPA and SWRCB in approving discharge to the river, stated that there is no acute toxicity associated with either waste stream and the TDS and chloride increases in the river are and would be insignificant due to substantial dilution. The original grant limited olive industry flow to 42 million gallons annually (0.2 MGD).

New C&D Orders were issued in 1982 and 1985 as it was determined that industrial and domestic flows increased beyond the design capacity of the approved grant for the new treatment plant. The 1982 C&D included a connection ban on new industrial dischargers and the 1985 C&D placed a connection ban on new domestic connections. The grant was revised in 1986 to allow the industrial olive flow to increase to 75 million gallons annually (0.4 MGD) and provided for increased domestic flows. The grant also limited the TDS and chloride discharge to a monthly average of 47,000 and 17,000 lbs/day respectively. In order to meet these discharge limitations, Bell Carter, at the time the major olive producer in Corning, switched from using a salt brine solution to store olives to an acetic acid solution. Salt use prior to the switch in storage was 117 lbs of salt per ton of olives processed. Production data over the last 9 years indicates that salt usage today has been reduced to approximately 31 lbs per ton. Bell Carter also reduced the volume of wastewater discharged to meet the grant restrictions. To provide additional treatment effectiveness and increased evaporation Class II Surface impoundments were constructed by the olive industry on the same site in 1987.

In 1990, Bell Carter purchased the remaining olive producer in Corning and determined that additional capacity was needed to meet production demands. The City decided to increase its domestic sewage treatment capacity at the same time. The City completed a CEQA review and requested a permit revision to increase industrial flow to their domestic facility from 0.21 to 0.38 MGD and to increase domestic flow to 1.0 MGD. The NPDES permit was revised in 1990 to allow the flow increase. However, the 1990 permit **did not allow** an increase in the mass loading limits for TDS and chlorides. In 1993 Bell Carter purchased Lindsay Olives and as a result partnered with the City to complete an EIR for expansion of both the domestic and industrial facilities. The EIR concluded that even with the increased industrial flow, TDS and chloride concentrations in the Sacramento River downstream of the outfall would not significantly increase. The NPDES permit was revised in 1995 to allow an increase in average annual flow to 0.75 MDG and an increase in maximum daily TDS and chloride loading to 87,600 and 31,000 lbs/day respectively in accordance with the approved EIR. The NPDES permits for Bell Carter and the City were again renewed in 2000. The 2000 permit limited the average annual flow to that of the 1995 permit, 0.75 MGD. However, the allowable maximum daily discharge load (lbs/day) of TDS and chlorides in the 2000 NPDES permits **were reduced approximately 10 percent** based upon observed influent and effluent levels.

The discharge to surface waters is currently regulated by the latest NPDES permit adopted on 16 June 2000 and Special Order No. R5-2004-0074 adopted on 4 June 2004. The industrial facility was originally conceived as a pretreatment facility, but process improvements,

including the ultrafiltration separation (Zenon) process, have allowed the conversion to a direct discharge to surface waters, capable of meeting stringent surface water effluent limits. After installation of the Zenon system, it became evident that diverting a portion of the industrial waste to the City's domestic facility did not provide additional reduction in pollutants. Special Order No. R5-2004-0074 was adopted by the Regional Board to allow all treated industrial wastewater to be directly discharged to the Sacramento River. The Special Order maintained the existing average annual flow limit and TDS and chloride limits.

The City of Corning owns the outfall structure that both Bell Carter Olive Company, Inc. and the City of Corning Wastewater Treatment Plant (WWTP) discharge from. During periods of high rainfall or river flows, the City of Corning restricts the flow that Bell Carter Olive Company, Inc. is allowed to discharge to the outfall because of its configuration and size.

The technology-based effluent limitations for BOD, TSS, pH, chloride and TDS are being carried forward from the previous permit. All effluent limitations are at least as stringent as in the existing permit. The USEPA has promulgated daily maximum, 30-day average and annual average limitations for BOD and TSS for olive processing. The annual average effluent limitations for BOD and TSS in the draft permit are based on these limitations; however, the average monthly and daily maximum limitations for these parameters are more restrictive than those required by USEPA. These more restrictive limitations are based on Best Professional Judgment of Regional Water Board staff and are reflective of the pollutant reduction achievable by the Discharger. There are new water quality based effluent limitations for ammonia in the draft permit. Bell carter can meet the proposed ammonia limitation.

The draft permit requires the Discharger to prepare and submit a Treatment Feasibility Study to examine the feasibility, costs and benefits of potentially varying the volume of effluent discharged in relation to river flows and reducing discharge when there are critical salinity issues in downstream waters including the Sacramento/San Joaquin Delta. This study will focus on minimizing salinity impacts to the receiving water and determine if such variable discharges will impact the combined outfall with the City of Corning. In addition, the Discharger shall examine the effects of color in the discharge and focus on minimizing the impacts of effluent color to the receiving water.

The draft permit also requires the Discharger to prepare and submit Salinity/EC Site-Specific studies to determine appropriate salinity/EC levels necessary to protect downstream beneficial uses. The studies shall recommend site-specific numeric values for Salinity/EC that fully protect the Sacramento River's agricultural irrigation use designation. The

Regional Water Board will evaluate the recommendations, select appropriate values, reevaluate reasonable potential for Salinity/EC, and reopen the permit, as necessary, to include appropriate effluent limitations for these constituents. Although, the TDS loading from this industrial facility is substantial, the impact on the river immediately downstream of the outfall is generally not measurable. The data cited in the Fact Sheet even indicates a reduction in TDS/EC values downstream of the outfall as compared to values upstream. However, considering the maximum daily discharge rate for TDS and chlorides staff believes there could be some actual small increase in downstream TDS chloride concentrations that are not measurable. The Sacramento River near Corning is considered a very low salinity water body as EC values rarely exceed 130 umhos/cm. Because of the very high river flow in the discharge area and below, the discharge from Bell Carter does not cause and will not cause an exceedence of EC or chloride limits specified in the Basin Plan for the Colusa Basin Drain area (first downstream designated location) and all other downstream designated locations.

ISSUES

This item is uncontested.

RECOMMENDATION: Adopt the proposed order.

Mgmt. Review \_\_\_\_\_

Legal Review \_\_\_\_\_

6 December 2007 Region 5 Board Meeting  
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