

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

ORDER NO. R5-2004-0153

NPDES NO. CA0004995

WASTE DISCHARGE REQUIREMENTS
FOR
CITY OF CORNING AND ECO RESOURCES INC.
CORNING WASTEWATER TREATMENT PLANT
TEHAMA COUNTY

The California Regional Water Quality Control Board, Central Valley Region, (hereafter Regional Board) finds that:

BACKGROUND

1. The City of Corning and ECO Resources Inc. (hereafter collectively referred to as Discharger) submitted a Report of Waste Discharge, dated 28 May 2003, and applied for a permit revision to discharge waste under the National Pollutant Discharge Elimination System (NPDES) from its Wastewater Treatment Plant. Supplemental information was submitted on 1 December 2003 and on 24 February 2004, completing the application.
2. The City of Corning owns and ECO Resources Inc. operates a wastewater collection, treatment, and disposal system, providing sewerage service to the Corning in Tehama County. The treatment facility is in Section 20, T24N, R2W, MDB&M, as shown on Attachment A, a part of this Order. The property (Assessor's Parcel Nos. 75-290-02, 75-290-15, and 75-290-16) is owned by the City of Corning. Treated municipal wastewater is discharged to the Sacramento River, a water of the United States, at latitude N 39° 54' 24"; and longitude W 122° 05' 13" (Discharge 001) in the Red Bluff Hydrologic Area No. 504.20 as depicted on interagency hydrologic maps prepared by the Department of Water Resources in August 1986. The outfall is shared with Bell-Carter Olive Company Inc. (Bell-Carter), which directly discharges treated olive processing wastewater from its industrial wastewater treatment plant. Bell-Carter formerly discharged up to 0.38 million gallons per day (mgd) of pretreated olive processing wastewater to the Corning Wastewater Treatment Plant (WWTP). As of June 2004, Bell-Carter no longer discharges pretreated olive wastewater to the Corning WWTP but treats all of its own wastewater and discharges directly to the Sacramento River.
3. The treatment system consists of headworks, an oxidation ditch, two clarifiers, a sludge thickener, sludge-drying beds, chlorination/dechlorination, and a lined equalization basin, which is used for wintertime sludge storage. After dewatering, sludge is dried on-site to less than 50 percent moisture and transported to Ostrom Road Landfill, or another approved facility, for final disposal. The Report of Waste Discharge describes the discharge as follows:

Annual Average Flow:	1.07 million gallons per day (mgd)
Lowest Monthly Average Flow:	0.843 mgd
Highest Monthly Average Flow:	1.29 mgd
Facility Design Flow:	1.38 mgd
1.0 mgd municipal	
0.38 mgd industrial (Bell-Carter)	

<u>Constituent</u>	<u>mg/L</u>	<u>lbs/day</u>
BOD ¹	28	254 ²
Total Suspended Solids	10	91 ²
Total Dissolved Solids	2,271	20,600 ²

¹ 5-day, 20EC biochemical oxygen demand.

² Based on an average flow of 1.07 mgd.

4. The Discharger plans to use the capacity relinquished by Bell-Carter to increase the amount of municipal wastewater it is capable of treating, from 1.0 mgd to 1.40 mgd (monthly average daily dry weather flow). The Discharger stated in the Report of Waste Discharge that the following improvements must be made to the WWTP to provide the added capacity:

- Construction of screenings removal and washing facilities.
- Addition of mechanical aerators to the existing oxidation ditch.
- Construction of a new secondary clarifier.
- Replacement and upgrade of the sludge and scum collection mechanisms in the two existing clarifiers.
- Installation of a new standby generator and other electrical modifications.
- Construction of additional sludge drying beds.

Once the above improvements have been completed, the Discharger may discharge up to 1.40 mgd (average daily dry weather flow). Until then, flows will be limited to 1.0 mgd.

5. The Discharger has developed and implemented a pretreatment program. The United States Environmental Protection Agency (USEPA) has determined the program does not require USEPA's approval.
6. The Regional Board adopted a *Water Quality Control Plan*, Fourth Edition, for the Sacramento River Basin and the San Joaquin River Basin (hereafter Basin Plan). The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve water quality objectives for all waters of the Basin. These requirements implement the Basin Plan.

STORM WATER

7. Federal Regulations for storm water discharges were promulgated by USEPA on 16 November 1990 (40 CFR Parts 122, 123, and 124). The regulations require specific categories of facilities, which discharge storm water associated with industrial activity (storm water), to obtain NPDES permits and to implement Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology to reduce or eliminate industrial storm water pollution.
8. The State Water Resources Control Board (SWRCB) adopted Order No. 97-03-DWQ (General Permit No. CAS000001), on 17 April 1997, specifying waste discharge requirements for discharge of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by those industries named in the general permit. Because the Corning WWTP has a treatment capacity of 1.0 mgd or more and storm water language in the existing permit is not included in this Order, the Discharger is required to obtain coverage under the general permit.

BENEFICIAL USES

9. The beneficial uses of the Sacramento River downstream of the discharge as identified in Table II-1 of the Basin Plan are:
 - a. Municipal and domestic supply (MUN)
 - b. Agricultural irrigation (AGR)
 - c. Agricultural stock watering (AGR)
 - d. Industrial service supply (IND)
 - e. Hydropower generation (POW)
 - f. Body contact water recreation (REC-1)
 - g. Non-body contact water recreation (REC-2)
 - h. Warm freshwater aquatic habitat (WARM)
 - i. Cold freshwater aquatic habitat (COLD)
 - j. Warm fish migration habitat (MIGR)
 - k. Cold fish migration habitat (MIGR)
 - l. Warm spawning habitat (SPWN)
 - m. Cold spawning habitat (SPWN)
 - n. Wildlife habitat (WILD)
 - o. Navigation (NAV)
10. The beneficial uses of underlying groundwater are municipal and domestic supply, agricultural supply, industrial service supply, and industrial process supply.

EFFLUENT LIMITATIONS AND REASONABLE POTENTIAL

11. The USEPA adopted the *National Toxics Rule* (NTR) on 5 February 1993 and the *California Toxics Rule* (CTR) on 18 May 2000. These Rules contain water quality standards applicable to this discharge. The SWRCB adopted the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (known as the State Implementation Policy), which contains guidance on implementation of the *National Toxics Rule* and the *California Toxics Rule*.

12. Effluent limitations and toxic and pretreatment effluent standards established pursuant to Sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 304 (Information and Guidelines), and 307 (Toxic and Pretreatment Effluent Standards) of the *Clean Water Act* (CWA) and amendments thereto are applicable to the discharge.
13. Section 13263.6(a), Water Code, requires that *“the regional board shall prescribe effluent limitations as part of the waste discharge requirements of a POTW for all substances that the most recent toxic chemical release data reported to the state emergency response commission pursuant to Section 313 of the Emergency Planning and Community Right to Know Act of 1986 (42 U.S.C. Sec. 11023) [EPCRA] indicate as discharged into the POTW, for which the state board or the regional board has established numeric water quality objectives, and has determined that the discharge is or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to, an excursion above any numeric water quality objective.”*
14. A search of the EPCRA Toxic Release Inventory database, maintained by USEPA (<http://www.epa.gov/enviro>), found no toxic chemicals, for which the Basin Plan has numeric water quality objectives, being discharged to the Corning WWTP. Therefore, effluent limitations based on EPCRA and Water Code Section 13263.6(a) are not proposed for this discharge.
15. The Discharger was issued a letter under authority of Water Code Section 13267 on 28 February 2001, requesting that effluent and receiving water be monitored for priority pollutants in accordance with the State Implementation Policy. Effluent and receiving water samples were collected four times in 2001 and 2002. Subsequent review of the monitoring data by Regional Board staff suggested that Bell-Carter’s waste stream was directly or indirectly affecting levels of some priority pollutants in the Discharger’s effluent. For example, higher than expected concentrations of cyanide and trihalomethanes in the Discharger’s effluent are thought to be due to the increased chlorine usage needed to overcome a relatively high chlorine demand in Bell-Carter’s wastewater. Currently, the chlorine usage is only 5 to 10 percent of what it was when Bell-Carter discharged to the WWTP. Other priority pollutants may also have been affected by Bell-Carter’s waste stream. The Regional Board therefore finds that existing priority pollutant data for the Discharger’s effluent is not representative of the present discharge. Requiring dry and wet season priority pollutant sampling prior to adoption of a permit would delay adoption for at least six months. As a result, this Order does not contain effluent limitations for priority pollutants. The Discharger is instead required to conduct quarterly effluent monitoring, for one year, for priority pollutants listed in the CTR and NTR. This Order contains a reopener clause for establishing effluent limitations based on the additional effluent monitoring data.
16. Federal regulations require effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause, or contribute to an in-stream excursion above a narrative or numerical water quality

standard. Based on information submitted as part of the application, in studies, and as directed by monitoring and reporting programs, the Regional Board finds that the discharge does have a reasonable potential to cause or contribute to an in-stream excursion above a water quality objective for chlorine, pathogens, and pH.

17. Chlorine (total residual) - The Basin Plan prohibits the discharge of toxic materials in toxic concentrations. Chlorine is commonly used as a disinfection agent in the treatment of wastewater. Proper disinfection ensures destruction of pathogens prior to discharge to the surface waters. The Discharger uses chlorine for disinfection of the wastewater at the treatment plant. Because chlorine poses a threat to human health and is especially harmful to organisms living in water, dechlorination is necessary. Inadequate dechlorination may result in the discharge of chlorine to the receiving water and cause toxicity to aquatic life. The Basin Plan prohibits the discharge of toxic substances in toxic concentrations.

USEPA has developed Ambient Water Quality Criteria for the protection of freshwater aquatic life. The recommended maximum one-hour average and four-day average concentrations for total residual chlorine are 0.019 mg/L and 0.011 mg/L, respectively. Final effluent limitations for total residual chlorine are included in this Order and are based on the Basin Plan narrative toxicity objective. The existing Order includes a chlorine residual daily maximum effluent limitation of 0.1 mg/L. The Discharger currently lacks the capability of continuously monitoring and recording chlorine at levels needed to demonstrate compliance with the 0.01 mg/L chlorine limitations. This Order gives the Discharger until 1 June 2005 to install the equipment needed to continuously monitor and record chlorine at 0.01 mg/L or less.

18. Pathogens - This Order requires a monthly median total coliform limitation of 23 MPN/100 mL and a daily maximum limitation of 500 MPN/100 mL for effluent discharged to the Sacramento River. The Regional Board finds that the wastewater must be adequately treated and disinfected to prevent disease and be adequately protective of beneficial uses, specifically municipal and domestic supply, agricultural (irrigation) supply, and body contact water recreation, and is consistent with the existing order.
19. pH - The Basin Plan includes numeric water quality objectives that the pH “...*not be depressed below 6.5 nor raised above 8.5. Changes in normal ambient pH levels shall not exceed 0.5 in fresh waters with designated COLD or WARM beneficial uses.*” The Sacramento River is designated as having both COLD and WARM beneficial uses. Effluent Limitations for pH included in this Order are based on “The Secondary Treatment Regulation” (40 CFR Section 133.102(c)) and are considered adequately protective of Basin Plan objectives for pH.

COLLECTION SYSTEM

20. The Discharger's sanitary sewer system collects wastewater using sewers, pipes, pumps, and/or other conveyance systems and directs this raw sewage to the wastewater treatment plant. A "sanitary sewer overflow" is defined as a discharge to ground or surface water from the sanitary sewer system at any point upstream of the wastewater treatment plant. Temporary storage and conveyance facilities (such as wet wells, regulated impoundments, tanks, highlines, *etc.*) may be part of a sanitary sewer system and discharges to these facilities are not considered sanitary sewer overflows, provided that the waste is fully contained within these temporary storage/conveyance facilities.
21. Sanitary sewer overflows consist of varying mixtures of domestic sewage, industrial wastewater, and commercial wastewater. This mixture depends on the pattern of land use in the sewage collection system tributary to the overflow. The chief causes of sanitary sewer overflows include grease blockages, root blockages, debris blockages, sewer line flood damage, manhole structure failures, vandalism, pump station mechanical failures, power outages, storm or groundwater inflow/infiltration, lack of capacity, and contractor caused blockages.
22. Sanitary sewer overflows often contain high levels of suspended solids, pathogenic organisms, toxic pollutants, nutrients, oxygen demanding organic compounds, oil and grease, and other pollutants. Sanitary sewer overflows can cause temporary exceedances of applicable water quality objectives, pose a threat to public health, adversely affect aquatic life, and impair the public recreational use and aesthetic enjoyment of surface waters in the area.
23. The Discharger is expected to take all necessary steps to adequately maintain and operate its sanitary sewer collection system. This Order requires the Discharger to prepare and implement a Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Response Plan.

GENERAL

24. State Water Resources Control Board Resolution No. 68-16 (hereafter Resolution 68-16) requires the Regional Board in regulating discharge 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 people of the State, will not unreasonably affect beneficial uses, and will not result in water quality less than that described in the Regional Board's policies (e.g., quality that exceeds water quality objectives). Resolution 68-16 requires that the discharge be regulated to meet best practicable treatment or control to assure that pollution or nuisance will not occur and the highest water quality consistent with the maximum benefit to the people of the State be maintained.

25. Monitoring is required by this Order for the purposes of assessing compliance with permit limitations and water quality objectives and gathering information to evaluate the need for additional limitations.
26. Section 13267 of the California Water Code states, in part, “(a) A regional board, in establishing...waste discharge requirements... may investigate the quality of any waters of the state within its region” and “(b) (1) In conducting an investigation..., the regional board may require that any person who... discharges... waste...that could affect the quality of waters within its region shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires. The burden, including costs, of these reports shall bear a reasonable relationship to the need for the report and the benefits to be obtained from the reports.” The attached Monitoring and Reporting Program is issued pursuant to California Water Code Section 13267. The groundwater monitoring and reporting program required by this Order and the attached Monitoring and Reporting Program are necessary to assure compliance with these waste discharge requirements. The Discharger is responsible for the discharges of waste at the facility subject to this Order.
27. The Regional Board has considered the information in the attached Information Sheet in developing the Findings of this Order. The Information Sheet is a part of this Order.
28. The discharge is currently governed by Waste Discharge Requirements Order No. 98-234, adopted by the Regional Board on 11 December 1998.
29. The USEPA and the Regional Board have classified this discharge as a major discharge.
30. On 27 April 2004, the City of Corning approved a mitigated negative declaration in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000, et seq.), and the State CEQA Guidelines. The United States Department of Agriculture, on 23 September 2004, published a Finding of No Significant Impact (FONSI) for the project.

The Regional Board has considered the mitigated negative declaration and FONSI and concurs that the project as proposed will not have a significant impact on water quality.

31. The Regional Board has notified the Discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for this discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
32. The Regional Board, in a public meeting, heard and considered all comments pertaining to the discharge.

33. This Order shall serve as an NPDES permit pursuant to Section 402 of the CWA, and amendments thereto, and shall take effect upon the date of hearing, provided USEPA has no objections.

IT IS HEREBY ORDERED that Order No. 98-234 is rescinded and the City of Corning and ECO Resources Inc., their agents, successors and assigns, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions:

1. Discharge of wastewater at a location or in a manner different from that described in the Findings is prohibited.
2. The by-pass or overflow of wastes to surface waters is prohibited, except as allowed by Standard Provision A.13. [*See attached Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)*].
3. The discharge of materials, other than storm water as described in the Findings, that are not otherwise permitted by this Order to surface waters or surface water drainage courses is prohibited.

B. Effluent Limitations:

1. Effluent shall not exceed the following limits:

<u>Constituents</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Weekly Average</u>	<u>Monthly Median</u>	<u>4-day Average</u>	<u>Daily Maximum</u>
BOD ¹	mg/L	30 ²	45 ²	---	---	90 ²
	lb/day ³	250/350	375/525	---	---	750/1,050
Total Suspended Solids	mg/L	30 ²	45 ²	---	---	90 ²
	lb/day ³	250/350	375/525	---	---	750/1,050
Total Coliform Organisms	MPN/100mL	---	---	23	---	500
Chlorine Residual	mg/L				0.01	0.02 ⁴

¹ 5-day, 20°C biochemical oxygen demand

² 24-hour composite

³ Based upon a design treatment capacity of 1.0 mgd, pre-expansion/1.40 mgd post-expansion, as discussed in the Findings and addressed in Effluent Limitation B.4 and Provision G.10.

⁴ This limitation applies to discrete samples analyzed in the laboratory or a 1-hour average from a continuous monitoring system.

2. The arithmetic mean of 20°C BOD (5-day) and total suspended solids in effluent samples collected over a monthly period shall not exceed 15 percent of the arithmetic mean of the values for influent samples collected at approximately the same times during the same period (85 percent removal).
3. The discharge shall not have a pH less than 6.0 nor greater than 9.0.
4. The average daily dry weather (May through October) discharge flow shall not exceed 1.0 mgd or, after completing the facility modifications described in the Findings and approval of the report mentioned in Provision G.10, 1.40 mgd.
5. The peak daily wet weather (November through April) discharge flow shall not exceed 6.0 mgd.
6. Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

Minimum for any one bioassay.....70%
Median for any three or more consecutive bioassays90%

C. Sludge Disposal:

1. Collected screenings, sludges, and other solids removed from liquid wastes shall be disposed of in a manner approved by the Executive Officer, and consistent with *Consolidated Regulations for Treatment, Storage, Processing, or Disposal of Solid Waste*, as set forth in Title 27, CCR, Division 2, Subdivision 1, Section 20005, *et seq.*
2. Any proposed change in sludge use or disposal practice from a previously approved practice shall be reported to the Executive Officer and USEPA Regional Administrator at least **90 days** in advance of the change.
3. Use and disposal of sewage sludge shall comply with existing Federal and State laws and regulations, including permitting requirements and technical standards included in 40 CFR 503.

If the SWRCB and the Regional Water Quality Control Boards are given the authority to implement regulations contained in 40 CFR 503, this Order may be reopened to incorporate appropriate time schedules and technical standards. The Discharger must comply with the standards and time schedules contained in 40 CFR 503 whether or not they have been incorporated into this Order.

4. The Discharger is encouraged to comply with the *Manual of Good Practice for Agricultural Land Application of Biosolids* developed by the California Water Environment Association.

D. Receiving Water Limitations:

Receiving Water Limitations are based upon water quality objectives contained in the Basin Plan. As such, they are a required part of this permit.

The discharge shall not cause the following in the receiving water:

1. Concentrations of dissolved oxygen to fall below:
 - a. 9.0 mg/L from 1 June to 31 August. When natural conditions lower dissolved oxygen below this level, the concentrations shall be maintained at or above 95 percent of saturation.
 - b. 7.0 mg/L from 1 September to 31 May. The monthly median of the mean daily dissolved oxygen concentration shall not fall below 85 percent of saturation in the main water mass, and the 95 percentile concentration shall not fall below 75 percent of saturation.
2. Oils, greases, waxes, or other materials to form a visible film or coating on the water surface or on the stream bottom.
3. Oils, greases, waxes, floating material (liquids, solids, foams, and scums) or suspended material to create a nuisance or adversely affect beneficial uses.
4. Chlorine to be detected in the receiving water.
5. Aesthetically undesirable discoloration.
6. Fungi, slimes, or other objectionable growths.
7. The turbidity to increase as follows:
 - a. More than 1 Nephelometric Turbidity Units (NTUs) where natural turbidity is between 0 and 5 NTUs.
 - b. More than 20 percent where natural turbidity is between 5 and 50 NTUs.
 - c. More than 10 NTUs where natural turbidity is between 50 and 100 NTUs.
 - d. More than 10 percent where natural turbidity is greater than 100 NTUs.

In determining compliance with the above limits, appropriate averaging periods may be applied provided that beneficial uses will be fully protected.
8. The ambient pH to fall below 6.5, exceed 8.5, or change by more than 0.5 units.

In determining compliance with the above limitation, appropriate averaging periods may be applied.

9. The ambient temperature to increase more than 5°F.
10. Deposition of material that causes nuisance or adversely affects beneficial uses.
11. Radionuclides to be present in concentrations that exceed maximum contaminant levels specified in the California Code of Regulations, Title 22; that harm human, plant, animal or aquatic life; or that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life.
12. Aquatic communities and populations, including vertebrate, invertebrate, and plant species, to be degraded.
13. Toxic pollutants to be present in the water column, sediments, or biota in concentrations that adversely affect beneficial uses; that produce detrimental response in human, plant, animal, or aquatic life; or that bioaccumulate in aquatic resources at levels which are harmful to human health.
14. Violation of any applicable water quality standard for receiving waters adopted by the Regional Board or the SWRCB pursuant to the CWA and regulations adopted thereunder.
15. Taste or odor-producing substances to impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin or to cause nuisance or adversely affect beneficial uses.
16. The fecal coliform concentration in any 30-day period to exceed a geometric mean of 200 MPN/100 mL or cause more than 10 percent of total samples to exceed 400 MPN/100 mL.
17. Upon adoption of any applicable water quality standard for receiving waters by the Regional Board or the SWRCB pursuant to the CWA and regulations adopted thereunder, this permit may be reopened and receiving water limitations added.

E. Groundwater Limitations:

The discharge shall not cause the underlying groundwater to be degraded.

F. Pretreatment Provisions:

1. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the necessary legal authorities, programs, and controls to ensure that the following

incompatible wastes are not introduced to the treatment system, where incompatible wastes are:

- a. Wastes which create a fire or explosion hazard in the treatment works;
 - b. Wastes which will cause corrosive structural damage to treatment works, but in no case wastes with a pH lower than 5.0, unless the works is specially designed to accommodate such wastes;
 - c. Solid or viscous wastes in amounts which cause obstruction to flow in sewers, or which cause other interference with proper operation or treatment works;
 - d. Any waste, including oxygen demanding pollutants (BOD, etc.), released in such volume or strength as to cause inhibition or disruption in the treatment works, and subsequent treatment process upset and loss of treatment efficiency;
 - e. Heat in amounts that inhibit or disrupt biological activity in the treatment works, or that raise influent temperatures above 40°C (104°F), unless the Regional Board approves alternate temperature limits;
 - f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts that will cause interference or pass through;
 - g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the treatment works in a quantity that may cause acute worker health and safety problems; and
 - h. Any trucked or hauled pollutants, except at points pre-designated by the Discharger.
2. The Discharger shall implement, as more completely set forth in 40 CFR 403.5, the legal authorities, programs, and controls necessary to ensure that indirect discharges do not introduce pollutants into the sewage system that, either alone or in conjunction with a discharge or discharges from other sources:
- a. Flow through the system to the receiving water in quantities or concentrations that cause a violation of this Order; or
 - b. Inhibit or disrupt treatment processes, treatment system operations, or sludge processes, use, or disposal and either cause a violation of this Order or prevent sludge use or disposal in accordance with this Order.

3. The Discharger shall:
 - a. Update the Industrial Waste Survey annually;
 - b. Provide the requisite funding and personnel to perform the pretreatment functions; and
 - c. Conduct adequate sampling and inspections of significant industrial users (as defined in 40 CFR 403.3(t)) to assure compliance with the legal authority.
4. The Discharger shall notify industrial users subject to the Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N, of their discharge effluent limits. These limits must be at least as stringent as the pretreatment standards contained in the applicable federal category. If the Discharger can show cause, the Discharger may develop more stringent technically based limits. The Discharger shall notify the Regional Board if an industrial user violates its discharge effluent limits.

G. Provisions:

1. The treatment facilities shall be designed, constructed, operated, and maintained to prevent inundation or washout due to floods with a 100-year return frequency.
2. The Discharger shall comply with Monitoring and Reporting Program No. R5-2004-0153, which is part of this Order, and any revisions thereto as ordered by the Executive Officer.

When requested by USEPA, the Discharger shall complete and submit Discharge Monitoring Reports. The submittal date shall be no later than the submittal date specified in the Monitoring and Reporting Program for Discharger Self Monitoring Reports.

3. The Discharger shall not allow pollutant-free wastewater to be discharged into the collection, treatment, and disposal system in amounts that significantly diminish the system's capability to comply with this Order. Pollutant-free wastewater means rainfall, groundwater, cooling waters, and condensates that are essentially free of pollutants.
4. The Discharger shall conduct the chronic toxicity testing specified in Monitoring and Reporting Program No. R5-2004-0153. If the testing indicates that the discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the water quality objective for toxicity, the Discharger initiate a Toxicity Identification Evaluation (TIE) to identify the causes of toxicity. Upon completion of the TIE, the Discharger shall submit a work plan to conduct a

Toxicity Reduction Evaluation (TRE) and, after Regional Board evaluation, conduct the TRE. This Order will be reopened and a chronic toxicity limitation included and/or a limitation for the specific toxicant identified in the TRE included. Additionally, if a chronic toxicity water quality objective is adopted by the SWRCB, this Order may be reopened and a limitation based on that objective included.

5. The Discharger shall collect and analyze samples of its effluent quarterly for priority pollutants, as defined by the CTR and NTR, according to the following time schedule:

<u>Task</u>	<u>Sample by:</u>	<u>Report Results by:</u>
1 st Quarterly Sample	31 March 2005	15 May 2005
2 nd Quarterly Sample	30 June 2005	15 August 2005
3 rd Quarterly Sample	30 September 2005	15 November 2005
4 th Quarterly Sample	31 December 2005	15 February 2006

Each report of results shall be submitted in accordance with requirements for priority pollutant monitoring as specified in Monitoring and Reporting Program No. R5-2004-0153.

Previous dioxin and asbestos results were well below levels of concern; therefore, dioxin and asbestos analyses are not required.

6. **By 15 July 2006**, the Discharger shall submit a report based on the data collected in accordance with Provision G.5 and containing the information needed for Regional Board staff to:
 - a. Determine reasonable potential in accordance with Section 1.3 of the State Implementation Policy.
 - b. Calculate final effluent limitations in accordance with Section 1.4, et seq., of the State Implementation Policy.

Translator and mixing zone studies may be needed for a complete report.

7. If, after sampling and reporting in the manner described in Provisions G.5 and G.6, final effluent limitations are required for any priority pollutant, the Regional Board may reopen this permit to establish such final effluent limitations.
8. **By 1 September 2005** the Discharger shall submit to the Regional Board a Sanitary Sewer System Operation, Maintenance, Overflow Prevention, and Overflow Response Plan (SSS Plan) that describes the actions designed to prevent or

minimize the potential for sanitary sewer overflows. The Discharger shall amend the SSS Plan as necessary. The Discharger shall ensure that the up-to-date SSS Plan is readily available to maintenance personnel at all times and that personnel are familiar with the plan.

At a minimum, the Operation and Maintenance portion of the SSS Plan shall contain or describe the following:

- a. Plans of the sewer system, identifying sewer mains, manholes, cleanouts, any air relief valves, and any other specific critical equipment or infrastructure;
 - b. A listing of equipment and elements to be inspected, a description of inspection procedures and inspection frequency, and sample inspection forms;
 - c. A schedule for routine inspection and testing of manholes, sewer system piping, valves, and other key system components, and rehabilitation procedures to be followed in the case that such rehabilitation is necessary;
9. At a minimum, the Overflow Prevention and Response portion of the SSS Plan shall contain or describe the following:
- a. Response procedures for sanitary sewer overflows. Procedures shall minimize the volume of sewage that may enter surface waters, and minimize the adverse effects of sewer overflows on water quality and public health. Procedures shall also ensure that all overflows are properly identified, responded to and reported; and
 - b. A plan to notify the Tehama County Environmental Health Department and a public notification plan, in which any posting of areas contaminated with sewage is performed at the direction of the Tehama County Environmental Health Department. All parties with a reasonable potential for exposure to an overflow event shall be notified. Any spill in excess of 1,000 (one thousand) gallons to a surface water must also be immediately reported to the State of California Office of Emergency Services. Failure to report such a spill in accordance with the above laws and regulations is a misdemeanor punishable by fine and imprisonment.
10. After completing the facility expansion described in the Findings and prior to increasing discharge flows above 1.0 mgd (average daily dry weather flow), the Discharger shall submit a report, for approval by the Executive Officer, including a description of work done during the expansion and “as built” drawings signed and stamped by a California Registered Civil Engineer.

11. **By 1 December 2005**, the Discharger shall install equipment needed to continuously measure and record effluent chlorine concentrations at a level of 0.01 mg/L or less.
12. **By 1 December 2004**, the Discharger shall submit a Notice of Intent and filing fee to the Regional Board for coverage under the General Permit for storm water associated with industrial activities, excluding construction.
13. The Discharger shall use the best practicable treatment or control technique currently available to limit mineralization to no more than a reasonable increment.
14. The Discharger shall comply with all the items of the *Standard Provisions and Reporting Requirements for Waste Discharge Requirements (NPDES)*, dated 1 February 2004, which are part of this Order. This attachment and its individual paragraphs are referred to as "Standard Provisions."
15. This Order expires on **1 October 2009** and the Discharger must file a Report of Waste Discharge in accordance with Title 23, CCR, not later than **180 days** in advance of such date in application for renewal of waste discharge requirements if it wishes to continue the discharge.
16. In the event of any change in control or ownership of land or waste discharge facilities presently owned or controlled by the Discharger, the Discharger shall notify the succeeding owner or operator of the existence of this Order by letter, a copy of which shall be immediately forwarded to this office.

To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, address and telephone number of the persons responsible for contact with the Regional Board and a statement. The statement shall comply with the signatory paragraph of Standard Provision D.6 and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer shall be approved or disapproved in writing by the Executive Officer.

I, THOMAS R. PINKOS, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Central Valley Region, on 15 October 2004.

THOMAS R. PINKOS, Executive Officer

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION

MONITORING AND REPORTING PROGRAM NO. R5-2004-0153

NPDES NO. CA0004995

FOR
CITY OF CORNING AND ECO RESOURCES INC.
CORNING WASTEWATER TREATMENT PLANT
TEHAMA COUNTY

This Monitoring and Reporting Program is issued pursuant to California Water Code Sections 13383 and 13267. The Discharger shall not implement any changes to this Monitoring and Reporting Program unless and until the Regional Board or Executive Officer issues a revised Monitoring and Reporting Program.

All samples shall be representative of the volume and nature of the discharge or material sampled. The time, date, and location of each sample shall be recorded on a chain of custody form for the sample.

All water quality sampling and analyses shall be performed in accordance with the Monitoring and Reporting Requirements as outlined in the Standard Provisions of this Order. Water quality sample collection, storage, and analyses shall be performed according to 40 CFR Part 136, or other methods approved and specified by the Executive Officer. Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health Services (DHS), except when a certified laboratory is not reasonably available to the Discharger, in which case a non-certified laboratory operating in compliance with an approved Quality Assurance-Quality Control program may be used.

Field test instruments (such as those used to test pH, dissolved oxygen, or other constituents amenable to such instrumentation) may be used provided that:

1. The operator is trained in proper use and maintenance of the instruments;
2. The instruments are calibrated in accordance with the manufacturers recommendations and the calibration method has been accepted by Regional Board Staff;
3. Instruments are serviced and/or calibrated by the manufacturer at the recommended frequency; and
4. Field calibration reports are submitted as described in the "Reporting" section of this MRP.

INFLUENT MONITORING

Influent samples shall be collected at approximately the same time as effluent samples and should be representative of the influent for the period sampled. Influent monitoring shall include at least the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Daily Flow	mgd	Continuous	Daily
20°C, BOD ₅	mg/L, lbs/day	8-hour Composite	Weekly
Suspended Solids	mg/L, lbs/day	8-hour Composite	Weekly
Total Metals ¹	µg/L	8-hour Composite	Annually

¹ Cadmium, chromium, copper, lead, nickel, and zinc

EFFLUENT MONITORING

Effluent samples shall be collected downstream from the last connection through which wastes can be admitted into the outfall and upstream of Bell Carter's connection to the outfall. Effluent samples should be representative of the volume and quality of the discharge. Time of collection of a grab sample shall be recorded. Effluent monitoring shall include at least the following:

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Daily Flow	mgd	Continuous	Daily
Chlorine Residual	mg/L	Continuous	Continous ¹
pH	pH units	Grab	Daily
20°C, BOD ₅	mg/L, lbs/day	24-hour Composite	Weekly
Suspended Solids	mg/L, lbs/day	24-hour Composite	Weekly
Total Coliform Organisms	MPN/100 mL	Grab	Weekly
Electrical Conductivity ²	µmhos/cm	Grab	Monthly
Temperature	°F	Grab	Monthly
Ammonia ^{3,4}	mg/L	Grab	Monthly
Total Dissolved Solids	mg/L	Grab	Quarterly
Acute Toxicity ^{5,6}	% Survival	Static Renewal	Quarterly

<u>Constituent</u>	<u>Unit</u>	<u>Type of Sample</u>	<u>Sampling Frequency</u>
Chronic Toxicity ⁷	---	24-hour Composite	Once during permit cycle
Priority Pollutants ⁸	µg/L	Grab	Quarterly for one year ⁹

¹ Report peak 1-hour average for each day and peak 4-day average for the month.

² Sample shall be taken at the same time as total dissolved solids sample.

³ Concurrent with biotoxicity monitoring.

⁴ Report as both total and un-ionized ammonia.

⁵ The acute bioassay samples shall be analyzed using EPA/821-R-02-12, Fifth Edition, or later amendment with Regional Board approval. Temperature and pH shall be recorded at the time of bioassay sample collection and reported. Test species shall be salmonids, with no pH adjustment unless approved by the Executive Officer. Sample concurrent with ammonia sampling. Effluent shall be monitored in accordance with procedures for Acute Toxicity Monitoring described below.

⁶ As an alternative to quarterly 96-hour acute bioassays, the Discharger may conduct quarterly continuous flow-through 96-hour acute bioassays with one annual concurrent acute bioassay at a certified laboratory (using rainbow trout).

⁷ Effluent shall be monitored in accordance with procedures for Chronic Toxicity Monitoring described below.

⁸ Concurrent with receiving water priority pollutant monitoring.

⁹ In accordance with the time schedule in Provisions G.5 and G.6 and the Priority Pollutant Monitoring section.

RECEIVING WATER MONITORING

All receiving water samples shall be grab samples and are not required to be taken when high flows in the Sacramento River would make sample collection unsafe or when the boat ramp at Woodson Bridge is closed. Receiving water samples shall be taken from the following stations in the Sacramento River:

<u>Station</u>	<u>Description</u>
R-1	Immediately upstream from the point of discharge
R-2	50 feet downstream from the point of discharge
R-3	One-quarter mile downstream from the point of discharge

The following shall constitute the receiving water monitoring program:

<u>Constituent</u>	<u>Unit</u>	<u>Station</u>	<u>Sampling Frequency</u>
pH	pH units	R-1, R-2, R-3	Monthly
Specific Conductance	µmhos/cm	R-1, R-2, R-3	Monthly
Dissolved Oxygen	mg/L	R-1, R-2, R-3	Monthly
Turbidity	NTU	R-1, R-2, R-3	Monthly
Temperature	°F	R-1, R-2, R-3	Monthly
Hardness	mg/L	R-1	Monthly ¹
Receiving Water Conditions	safe/unsafe	R-1, R-2, R-3	Monthly
Boat Ramp Condition	open/closed	not applicable	Monthly
Priority Pollutants ^{2, 3}	µg/L	R-1	Quarterly for one year ⁴

¹ Monthly for 12 consecutive months.

² Concurrent with and in the same manner as priority pollutant monitoring of effluent.

³ Receiving water hardness and pH to be monitored concurrently.

⁴ In accordance with the time schedule in Provision G.5.

In conducting the receiving water sampling, a log should be kept of the receiving water conditions throughout the reach bounded by Stations R-1, R-2, and R-3. Attention shall be given to the presence or absence of:

- | | |
|----------------------------------|---|
| a. Floating or suspended matter. | e. Visible films, screens or coatings. |
| b. Discoloration. | f. Fungi, slimes, or objectionable growths. |
| c. Bottom deposits. | g. Potential nuisance conditions. |
| d. Aquatic life. | |

Notes on receiving water conditions shall be summarized in the monitoring report.

ACUTE TOXICITY MONITORING

Acute bioassay samples shall be collected quarterly. If any acute toxicity bioassay test result is less than 70 percent survival, or the results of the three previous samples indicate a median survival of less than 90 percent, the Discharger shall conduct three additional tests over a six-week period. The Discharger shall ensure that results of a failing acute toxicity test are received

within 24 hours of the completion of the test, and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the Discharger may resume regular testing. If the results of any two of the three accelerated tests are less than 90 percent survival, however, then the Discharger shall submit a workplan to conduct a Toxicity Reduction Evaluation (TRE) **within 90 days of that determination** and upon Executive Officer review conduct the TRE **within 180 days**. After completion of the TRE this Order will be reopened and a toxicity limitation included and/or a limitation for the specific toxicant identified in the TRE included.

CHRONIC TOXICITY MONITORING

Chronic toxicity screening shall be conducted once during the life of the permit to determine whether the effluent is contributing toxicity to the Sacramento River. The screening shall be conducted as specified in *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Water to Freshwater Organisms*, EPA 600/4-91-002, or latest edition. Chronic toxicity samples shall be collected at the discharge of the plant prior to its entering the Sacramento River and upstream of Bell-Carter's connection. Twenty-four-hour composite samples shall be representative of the volume and quality of the discharge. Time of collection samples shall be recorded. The screening test shall be performed on the undiluted effluent samples. Chronic toxicity screening shall include the following:

Species: Pimephales promelas, Ceriodaphnia dubia, and Selenastrum capricornutum

Frequency: Annually

If the results of the chronic toxicity screening indicate the waste stream may cause in-stream toxicity, the Discharger will be required to implement an effluent toxicity monitoring program in accordance with the procedures outlined in the document referenced in the above paragraph and *Technical Support Document for Water Quality-Based Toxics Control*, EPA 505/2-90-001. Appropriate deadlines for this program will be established if and when it is determined that a toxicity monitoring program is required.

PRIORITY POLLUTANT MONITORING

The State Implementation Policy (SIP) requires periodic testing for the toxic priority pollutants established by the CTR at 40 CFR 131.38. The Discharger shall conduct priority pollutant monitoring quarterly for one year in accordance with Provision Nos. G.5 and G.6 and this Monitoring and Reporting Program. Grab samples shall be collected from the effluent discharge and upstream of the effluent discharge at receiving water station R-1 and analyzed for the pollutants identified in Attachment B. The Discharger is not required to perform dioxin or asbestos monitoring.

Effluent and upstream samples must be analyzed for pH and hardness in order to calculate translators, which are needed for metals that have hardness and/or pH dependent water quality goals. All analyses shall be performed at a laboratory certified by the California Department of Health Services. The laboratory is required to submit the Minimum Level (ML) and the Method Detection Limit (MDL) with the reported results for each of the constituents. Laboratory methods and limits shall be as described in the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (2000), unless a variance has been approved by the Executive Officer. If, after a review of the monitoring results, it is determined that the discharge causes, has the reasonable potential to cause, or contributes to in-stream excursions above water quality objectives, this Order will be reopened and limitations based on those objectives will be included. Additionally, if pollutants are detected, but insufficient information exists to establish an effluent limit or determine if an effluent limit is necessary, then additional monitoring will be required to provide sufficient information.

All organic analyses shall be by Gas Chromatography/Mass Spectrometry (GCMS), Method 8260B for volatiles and Method 8270C for semi-volatiles. Pesticides shall be analyzed by Method 8081A. If organic analyses are run by Gas Chromatography (GC) methods, any detectable concentrations are to be confirmed by GCMS.

Metals shall be analyzed by the US EPA methods listed below. Alternative analytical procedures may be used with approval by the Regional Board, if the alternative method has the same or better detection level than the method listed.

1. Method Description	EPA Method	Constituents
Inductively Coupled Plasma/Mass Spectrometry (ICP/MS)	1638	Antimony, Beryllium, Cadmium, Copper, Lead, Nickel, Selenium, Silver, Thallium, Total Chromium, Zinc
Cold Vapor Atomic Absorption (CVAA)	1631	Mercury
Gaseous Hydride Atomic Absorption (HYDRIDE)	206.3	Arsenic
Flame Atomic Absorption (FAA)	218.4	Chromium VI
Colorimetric	335./ 2 or 3	Cyanide

The laboratory is required to submit the Minimum Level (ML) and the Method Detection Limit (MDL) with the reported results for each constituent. The MDL should be as close as practicable to the U.S. EPA MDL determined by the procedure found in 40 CFR Part 136. The results of

analytical determinations for the presence of chemical constituents in a sample shall use the following reporting protocols:

- a. Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory.
- b. Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.
- c. For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration." Numerical estimates of data quality may be by percent accuracy (+ or – a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- d. Sample results that are less than the laboratory's MDL shall be reported as "Not Detected" or ND.

SLUDGE MONITORING

A composite sample(s) of sludge shall be collected **at least 60 days** prior to disposal in accordance with USEPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, and tested for *percent moisture* and the following metals:

Cadmium	Copper	Nickel	Chromium	Lead	Zinc
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The quantity of sludge to be disposed of, in pounds (dry weight), and disposal location shall be included with the above sludge results.

Sampling records shall be retained for a minimum of 5 years. A log shall be kept of sludge quantities generated, and handling and disposal activities. The frequency of entries is discretionary; however, the log should be complete enough to serve as a basis for part of the annual report.

The Discharger shall submit annually by **1 February**:

1. Annual sludge production in dry tons and percent solids.
2. A schematic diagram showing sludge-handling facilities and a solids flow diagram.
3. Depth of application and drying time for sludge-drying beds.

4. A description of disposal methods, including the following information related to the disposal methods used at the facility. If more than one method is used, include the percentage of annual sludge production disposed by each method.
 - a. For **landfill disposal**, include (1) the Regional Board's waste discharge requirement numbers that regulate the landfill(s) used, (2) the present classification of the landfill(s) used, and (3) the names and locations of the facilities receiving sludge.
 - b. For **land application**, include (1) the location of the site(s), (2) the Regional Board's waste discharge requirement numbers that regulate the site(s), (3) the application rate in lbs/acre/year (specify wet or dry), and (4) subsequent uses of the land.
 - c. For other disposal methods, include (1) the location of the site(s) and (2) the Regional Board's waste discharge requirement numbers that regulate the site(s).

REPORTING

Monitoring results shall be submitted to the Regional Board by the **first day of the second month** following sample collection.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, and the concentrations are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages and medians, and removal efficiencies (%) for BOD and suspended solids, should be determined and recorded.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

By **1 February of each year**, the Discharger shall submit a written report to the Executive Officer containing the following:

- a. The names, certificate grades, and general responsibilities of all persons employed at the WWTP (Standard Provision A.5).
- b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.

- c. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).
- d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the wastewater treatment plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

The Discharger may also be requested to submit an annual report to the Regional Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request will be made in writing. The report shall discuss the compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

The Discharger shall implement the above monitoring program on the first day of the month following effective date of this Order.

Ordered by: _____
THOMAS R. PINKOS, Executive Officer

15 October 2004
(Date)

INFORMATION SHEET

ORDER NO. R5-2004-0153
CITY OF CORNING AND ECO RESOURCES INC.
CORNING WASTEWATER TREATMENT PLANT
TEHAMA COUNTY

BACKGROUND INFORMATION

The City of Corning and ECO Resources Inc. (hereafter referred to collectively as Discharger) collects and treats municipal wastewater and discharges to the Sacramento River under a National Pollutant Discharge Elimination System (NPDES) permit. The municipal wastewater collection, treatment and disposal facilities are owned by the City of Corning and operated by ECO Resources Inc. Only the City of Corning has been listed as the discharger in past NPDES permits, however, pursuant to 40 CFR 122.21(b), Eco Resources, Inc. must be named on the permit as the operator.

According to a California Department of Finance estimate (2003), Corning has 6,825 residents. The wastewater treatment plant (WWTP) is four miles southeast of Corning, in the southeast ¼ of Section 20, T24N, R2W, MDB&M. Immediately adjacent to the Corning WWTP, Bell-Carter Olive Company, Inc. (Bell-Carter) operates seven Class II surface impoundments (totaling 27 acres) for treatment of industrial wastewater from its two olive processing plants located in Corning. The City of Corning and Bell-Carter both discharge to the Sacramento River through the City's outfall line.

The Corning WWTP currently consists of a headworks, an oxidation ditch, two clarifiers, a sludge thickener, sludge-drying beds, chlorination/dechlorination facilities, and an equalization basin. The average influent flow is 1.07 million gallons per day (mgd) and the design influent flow (average daily dry weather flow) is 1.38 mgd, 1.0 mgd being municipal wastewater and another 0.38 mgd pretreated olive processing wastewater from Bell-Carter. The flow Bell-Carter has been allowed to discharge to the Corning WWTP has varied over the years. The most recent flow limitations imposed by the Regional Board for discharge to the Corning WWTP, Order No. 95-134, were 0.35 mgd as a monthly average and 0.38 mgd as a daily maximum.).

From the late 1980s to 1995, Bell-Carter discharged pretreated olive processing wastewater to the Corning WWTP and did not discharge directly to the Sacramento River. In 1995, Bell-Carter was issued an NPDES permit (Order No. 9-113) for direct discharge of 0.4 mgd (monthly average) to the Sacramento River, while continuing to discharge 0.35 mgd to the Corning WWTP. Bell-Carter recently constructed, tested, and is now operating a micro-filtration system that, in conjunction with the ponds, is capable of treating its entire waste stream. In December 2003, Bell-Carter requested that the Regional Board increase its flow limitation for direct discharge to the Sacramento River by 0.35 mgd. The request was reviewed and a Special Order amending Bell-Carter's NPDES permit to allow the increased discharge flow was adopted by the Regional Board in June 2004. Bell-Carter has ceased discharge to the Corning WWTP and now discharges all of its treated wastewater directly to the Sacramento River.

The Corning WWTP currently consists of a headworks, an oxidation ditch, two clarifiers, a sludge thickener, sludge-drying beds, chlorination/dechlorination facilities, and an equalization basin. Due in part to the withdrawal of Bell-Carter's waste stream, the Discharger has proposed increasing the WWTP's municipal wastewater treatment capacity from 1.0 to 1.40 mgd. To accommodate additional flows, the following modifications are planned:

- Construction of screenings removal and washing facilities.
- Addition of mechanical aerators to the existing oxidation ditch.
- Construction of a new secondary clarifier.
- Replacement and upgrade of the sludge and scum collection mechanisms in the two existing clarifiers.
- Installation of a new standby generator and other electrical modifications.
- Construction of additional sludge drying beds.

RECEIVING WATER BENEFICIAL USES

The beneficial uses of the Sacramento River downstream of the discharge as identified in Table II-1 of the Basin Plan are:

- | | |
|--|---|
| a. Municipal and domestic supply (MUN) | i. Cold freshwater aquatic habitat (COLD) |
| b. Agricultural irrigation (AGR) | j. Warm fish migration habitat (MIGR) |
| c. Agricultural stock watering (AGR) | k. Cold fish migration habitat (MIGR) |
| d. Industrial service supply (IND) | l. Warm spawning habitat (SPWN) |
| e. Hydropower generation (POW) | m. Cold spawning habitat (SPWN) |
| f. Body contact water recreation (REC-1) | n. Wildlife habitat (WILD) |
| g. Non-body contact water recreation (REC-2) | o. Navigation (NAV) |
| h. Warm freshwater aquatic habitat (WARM) | |

CALIFORNIA TOXICS RULE (CTR) SAMPLING AND DETERMINATION OF REASONABLE POTENTIAL

The Discharger conducted CTR sampling for priority pollutants in 2001 and 2002, in accordance with the State Implementation Policy (SIP). Regional Board staff reviewed the data in accordance with SIP Section 1.3, and determined that several priority pollutants would require effluent limitations. However, Bell-Carter has since eliminated its discharge to the Corning WWTP. The CTR sampling results, which include Bell-Carter's waste stream, are not representative of the Corning WWTP's present discharge. Rather than calculate effluent limitations based on non-representative data, this Order requires the Discharger to sample its

effluent for priority pollutants (with the exception of dioxins which were not detected in earlier analyses) over four consecutive calendar quarters. Based on the sampling results, this Order may be reopened to include effluent limitations.

BASIS OF PERMIT CONDITIONS

Effluent Limitations

Biochemical Oxygen Demand (BOD) and Suspended Solids (SS):

Federal regulations, 40 CFR, part 133, provide technology based effluent limitation for BOD and TSS. Pursuant to the regulations at 40 CFR Sections 133.102(a), and (b), the BOD and SS 30-day average discharge limitation for secondary treatment systems shall not exceed 30 mg/L, the 7-day average shall not exceed 45 mg/L, and the 30-day BOD percent removal shall not be less than 85 percent. The previous permit called for monthly average effluent limitations for BOD and TSS of 30 mg/L, weekly average limitations of 45 mg/L, daily maximum limitations of 90 mg/L, and a monthly average removal rate of 85 percent. These limitations remain unchanged in this Order.

Settleable Solids:

The previous Order contained monthly average and daily maximum settleable solids limitations of 0.1 mL/L and 0.2 mL/L, respectively. Suspended solids limitations are in place and measure a similar parameter that is of greater concern to water quality. This Order eliminates the settleable solids limitations. With suspended solids limitations in place, the settleable solids limitations may be eliminated without a significant reduction in water quality protection.

Total Residual Chlorine:

The Basin Plan prohibits the discharge of toxic substances in toxic concentrations. Chlorine, a substance toxic to freshwater aquatic life, is used to disinfect of the effluent. Chlorine can cause toxicity to aquatic organisms when discharged to surface waters. USEPA recommends, in its *Ambient Water Quality Criteria for the Protection of Fresh Water Aquatic Life*, that chlorine concentrations not exceed 0.02 mg/L as a 1-hour average and 0.01 mg/L as a 4-day average. The use of chlorine as a disinfectant in the wastewater treatment process presents a reasonable potential that it could be discharged in toxic concentrations. An effluent limitation for chlorine has been included in the Order to protect the receiving stream aquatic life beneficial uses. The effluent limitation has been established at the USEPA recommended ambient water quality criteria for chlorine. Compliance may be based on a one-hour average or by averaging discreet samples. This compliance method allows for continuous monitoring anomalies while protecting aquatic organisms against toxicity.

In the effluent limitations and monitoring requirements, chlorine is referred to as “total residual chlorine” to remove any ambiguity about whether to measure for “free residual chlorine,” “combined residual chlorine,” “total residual chlorine.” Any approved test method capable of quantifying total residual chlorine at 0.01 mg/L or less is acceptable.

Total Coliform Organisms:

The Basin Plan establishes that fecal coliform in waters with a beneficial use of contact recreation may not exceed a geometric mean of 200 MPN/100 mL with no more than 10 percent of samples exceeding 400 MPN/100 mL. The limitation is based on a minimum of five samples collected over a 30-day period. This Order requires a monthly median total coliform limitation of 23 MPN/100 mL and a daily maximum limitation of 500 MPN/100 mL for effluent discharged to the Sacramento River. This level is thought to be adequately protective of receiving water beneficial uses and is consistent with the previous Order.

pH:

The Basin Plan provides that the pH of surface waters shall not be depressed below 6.5 nor raised above 8.5 nor shall the discharge alter pH of the receiving water more than 0.5 units. Federal regulations at 40 CFR 133.102(c) require that the pH of secondary treatment remain in the range of 6.0 to 9.0 pH units. Accordingly, this Order requires the pH of the effluent to be maintained within the limits of 6.0 and 9.0 pH units.

Flow:

The existing Order limits the 30-day average daily dry weather discharge flow to 1.38 million gallons. Treatment capacity is 1.0 mgd municipal wastewater and an additional 0.38 mgd industrial wastewater from Bell-Carter (see explanation of Bell-Carter flows under *Background Information* on page 1). The Discharger plans to upgrade its municipal treatment capacity to 1.40 mgd.

Toxicity Limitations:

The Basin Plan requires that all waters be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal, or aquatic life. This Order contains an acute toxicity effluent limitation which states, "Survival of aquatic organisms in 96-hour bioassays of undiluted waste shall be no less than:

Minimum for any one bioassay.....70%
Median for any three or more consecutive bioassays90%"

The monitoring and reporting program requires analysis for pH, ammonia, and temperature to be performed concurrent with each semi-annual acute toxicity bioassay. This Order also requires monitoring for chronic toxicity once during the life of the permit.

SLUDGE DISPOSAL

This Order contains provisions requiring the Discharger to comply with current federal and state laws and regulations for disposal of sewage sludge. The Discharger is required to report any proposed change in sludge use or disposal practice 90 days in advance of change. The Discharger currently stores sludge onsite; therefore, this Order requires that the Discharger submit a sludge disposal plan.

RECEIVING WATER LIMITATIONS

The receiving water limitations contained in this Order are based on water quality objectives contained in the Basin Plan for the Sacramento River.

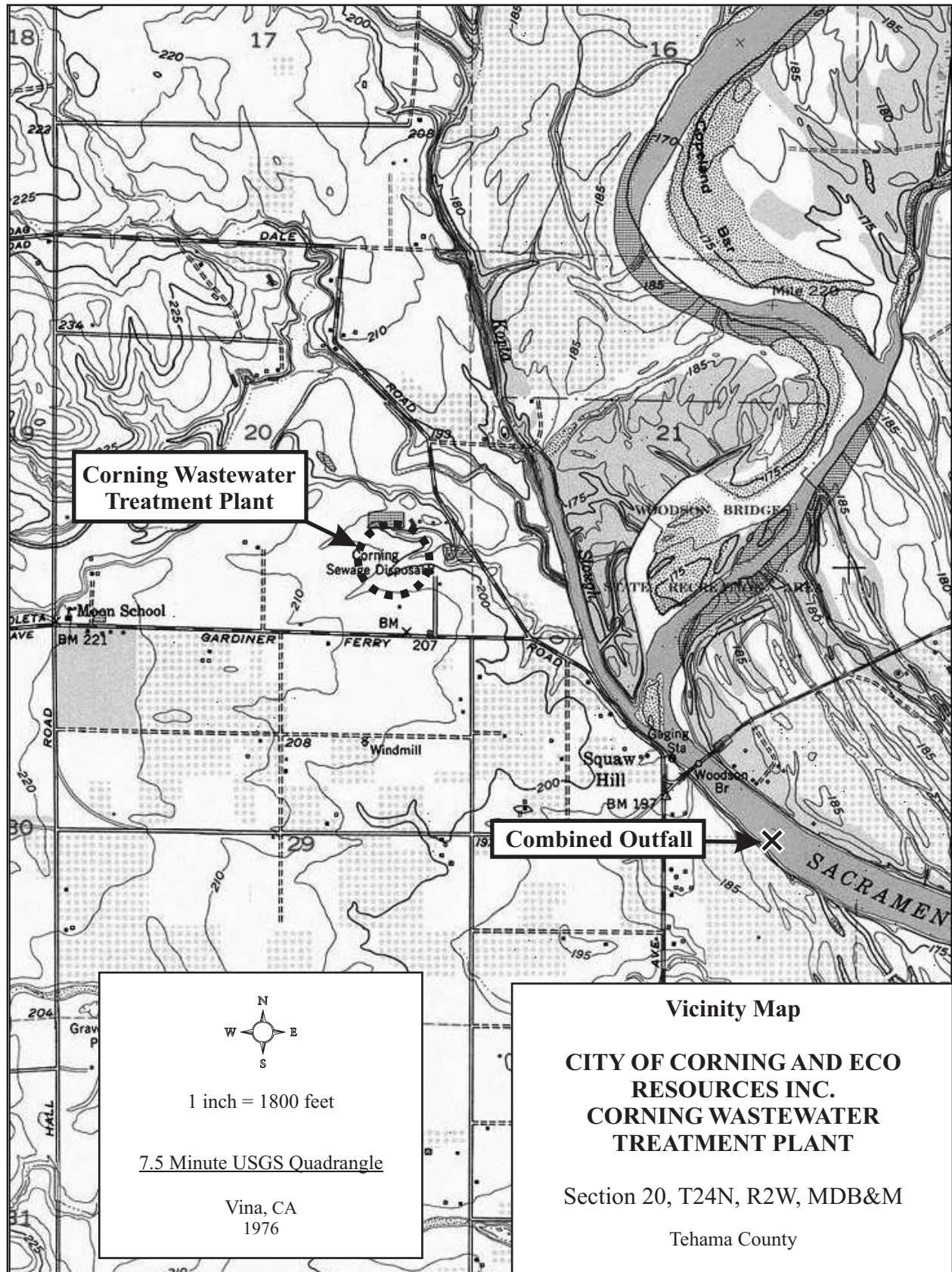
PROCEDURES ON REACHING FINAL DECISION ON DRAFT PERMIT

The tentative waste discharge requirements have been sent to the Discharger and interested parties for review (at least 30 days) prior to formal presentation to the Regional Board. Any contested items on the Order will be heard and considered for change prior to formal adoption at the Board Meeting.

FOR FURTHER INFORMATION

For further information or questions regarding the NPDES permit, contact Ray Bruun at the Regional Water Quality Control Board in Redding at (530) 224-3249.

RB: sae



Corning Wastewater Treatment Plant

Corning Sewage Disposal

Combined Outfall

N
W E
S

1 inch = 1800 feet

7.5 Minute USGS Quadrangle

Vina, CA
1976

Vicinity Map

CITY OF CORNING AND ECO RESOURCES INC.

CORNING WASTEWATER TREATMENT PLANT

Section 20, T24N, R2W, MDB&M

Tehama County

List of Priority Pollutants

1	Antimony	41	1,1,1-Trichloroethane	80	Dimethyl phthalate
2	Arsenic	42	1,1,2-Trichloroethane	81	Di-n-Butyl Phthalate
3	Beryllium	43	Trichloroethylene (TCE)	82	2,4-Dinitrotoluene
4	Cadmium	44	Vinyl chloride	83	2,6-Dinitrotoluene
5a	Chromium (III)	45	2-Chlorophenol	84	Di-n-Octyl Phthalate
5b	Chromium (VI)	46	2,4-Dichlorophenol	85	1,2-Diphenylhydrazine
6	Copper	47	2,4-Dimethylphenol	86	Fluoranthene
7	Lead	48	2-Methyl-4,6-Dinitrophenol	87	Fluorene
8	Mercury			88	Hexachlorobenzene
9	Nickel	49	2,4-Dinitrophenol	89	Hexachlorobutadiene
10	Selenium	50	2-Nitrophenol	90	Hexachlorocyclopentadiene
11	Silver	51	4-Nitrophenol	91	Hexachloroethane
12	Thallium	52	3-Methyl-4-Chlorophenol	92	Indeno(1,2,3-c,d)pyrene
13	Zinc	53	Pentachlorophenol	93	Isophorone
14	Cyanide	54	Phenol	94	Naphthalene
15	[asbestos testing not required]	55	2,4,6-Trichlorophenol	95	Nitrobenzene
16	[dioxin testing not required]	56	Acenaphthene	96	N-Nitrosodimethylamine
17	Acrolein	57	Acenaphthylene	97	N-Nitrosodi-n-Propylamine
18	Acrylonitrile	58	Anthracene	98	N-Nitrosodiphenylamine
19	Benzene	59	Benzidine	99	Phenanthrene
20	Bromoform	60	Benzo(a)Anthracene	100	Pyrene
21	Carbon tetrachloride	61	Benzo(a)pyrene	101	1,2,4-Trichlorobenzene
22	Chlorobenzene	62	Benzo(b)fluoranthene	102	Aldrin
23	Chlorodibromomethane	63	Benzo(g,h,i)perylene	103	alpha-BHC
24	Chloroethane	64	Benzo(k)fluoranthene	104	beta-BHC
25	2-Chloroethylvinyl Ether	65	Bis(2-chloroethoxy)methane	105	gamma-BHC (Lindane)
26	Chloroform	66	Bis(2-chloroethyl) ether	106	delta-BHC
27	Dichlorobromomethane	67	Bis(2-chloroisopropyl) ether	107	Chlordane
28	1,1-Dichloroethane	68	Bis(2-Ethylhexyl) phthalate	108	4,4'-DDT
29	1,2-Dichloroethane			109	4,4'-DDE
30	1,1-Dichloroethylene	69	4-Bromophenyl phenyl ether	110	4,4'-DDD
31	1,2-Dichloropropane			111	Dieldrin
32	1,3-Dichloropropylene	70	Butylbenzyl Phthalate	112	alpha-Endosulfan
33	Ethylbenzene	71	2-Chloronaphthalene	113	beta-Endosulfan
34	Methyl Bromide	72	4-Chlorophenyl Phenyl Ether	114	Endosulfan Sulfate
35	Methyl Chloride			115	Endrin
36	Methylene Chloride	73	Chrysene	116	Endrin Aldehyde
37	1,1,2,2-Tetrachloroethane	74	Dibenzo(a,h)Anthracene	117	Heptachlor
38	Tetrachloroethylene (PCE)	75	1,2-Dichlorobenzene	118	Heptachlor epoxide
39	Toluene	76	1,3-Dichlorobenzene	119	Polychlorinated biphenyls (PCBs)
40	1,2-Trans-Dichloroethylene	77	1,4-Dichlorobenzene	-125	
		78	3,3'-Dichlorobenzidine	126	Toxaphene
		79	Diethyl phthalate		