

**Informational Item
City of Colfax
Status of NPDES Facility Compliance**

Introduction:

The City of Colfax (Discharger) owns and operates a publicly owned sanitary sewage collection and treatment works (POTW) in the Sierra foothills in Placer County. The facility is located near Interstate 80, approximately 60 miles east of Sacramento, at an elevation of approximately 2700 feet. The wastewater treatment plant is located southeast of Colfax on almost 100 acres of steep mountain terrain. The facility receives wastewater from approximately 1,200 connections.

The plant is at the headwaters of Smuther's Ravine, which is tributary to Bunch Canyon and the North Fork of the American River, as shown in Attachment A. Immediately downstream of the facility, Smuther's Ravine flows through property owned by Allen and Nancy Edwards.

The facility is currently regulated by Waste Discharge Requirements Order No. 5-01-180 (NPDES Permit No. CA0079529) (permit), and Cease and Desist Order No. 5-01-181 (CDO). The Regional Water Board adopted Administrative Civil Liability Order No. R5-2003-0167 (ACL Order) in December 2003, which assessed mandatory penalties for violations of the permit in the amount of \$351,000. The ACL Order allows the City, in lieu of paying the penalty, to complete a project to achieve full compliance with the permit by 14 December 2006. Failure to provide full compliance by the deadline requires the penalty to be paid in full to the Regional Water Board.

The purpose of the informational item is to provide a compliance status report for the facility, and to allow interested parties an opportunity to discuss concerns regarding the facility. The Regional Water Board will take no action.

Background History:

In 1972, due to inadequacies at the wastewater treatment plant, the City of Colfax was issued a NPDES permit with a time schedule to construct a pond treatment and sprinkler irrigation system to provide for 100% land disposal and elimination of discharges to surface waters. In 1977, since the project was still not completed, the Regional Water Board issued an enforcement order with a time schedule to complete construction by 1979.

The City completed construction in 1979. The facility included two aerated oxidation ponds and a sprinkler irrigation system covering 47 acres, intended for land application of wastewater. A large unlined storage pond with a capacity of

approximately 212 acre-feet was also constructed over bedrock to hold excess flows from infiltration and inflow, and storm water runoff from the irrigation area during the winter season. The facility experienced compliance problems since it began operations because the treated but undisinfected wastewater seeped from the base of the storage pond dam into Smuther's Ravine, making 100% land disposal ineffective. The City conducted a study to evaluate the seepage problem. The recommended solution was to collect and pump the seepage back to the storage pond during the recreation season, but due to costs (\$500,000), and the lack of City resources, it was not implemented at that time.

In 1985, the Regional Water Board renewed the NPDES permit for the facility, and allowed a year-round discharge of seepage from the storage pond. The permit included monitoring requirements for the seepage discharge. The monitoring conducted pursuant to this Order showed that the seepage water contained significant concentrations of pathogens.

In 1990, the Regional Water Board renewed the NPDES permit and included new effluent limitations for total coliform organisms and chlorine residual, for the seepage and any effluent that was discharged to surface waters. The permit also included a dry weather influent flow limit. This permit allowed discharges to the receiving water year-round. In response to this Order, the City installed a steel chlorine contact chamber and utilized chlorine tablets to disinfect seepage, but included no dechlorination in the process.

In 1995, the permit was again renewed. The facility continued to experience seepage from the base of the dam, and also was shown to have inadequate capacity to contain wastewater during wet weather flow events. A Notice of Violation was issued in 1996 for (1) discharge of treated but undisinfected wastewater due to a lack of storage capacity, (2) failure to maintain the sprinkler system, and (3) violation of the influent flow limit. In response, the City repaired the sprinkler system and made some improvements to the collection system, however the actions taken were not adequate to correct the capacity issues during wet weather flow events.

In December 2000, staff inspected the facility and found several problems regarding the seepage collection system and treatment system, infiltration and inflow causing exceedances of treatment capacity in the treatment ponds, and overflows of undisinfected effluent from the storage reservoir. Staff also conducted a review of submitted monitoring reports, and found numerous violations related to a lack of capacity and inadequate disinfection. A Notice of Violation was issued in February 2001 for these violations, and noted that a schedule to correct the problems would be included in the renewed NPDES permit, which was out for public review.

In June 2001, the Regional Water Board adopted a renewed NPDES permit and a Cease and Desist Order for the Colfax facility. The permit required the wastewater treatment plant be upgraded by June 2006 to provide tertiary treatment. The CDO included time schedules to cease discharging improperly treated wastes due to inadequate capacity and treatment by either increasing treatment plant capacity or by implementing complete land disposal. The deadline for properly disinfecting all seepage, runoff, and waste over the spillway was 14 June 2002, and the deadline to provide adequate capacity and treatment for all discharges was 14 June 2006.

Mandatory Penalties:

California Water Code (CWC) Section 13385 requires the Regional Water Board to assess mandatory penalties for certain effluent limitation violations, in accordance with procedures outlined in the regulations. The regulations came into effect on 1 January 2000.

CWC Section 13385(k) allows that, in lieu of assessing all or a portion of the mandatory minimum penalties against a POTW serving a small community, the Regional Water Board may elect to require the POTW to spend an equivalent amount toward the completion of a compliance project proposed by the POTW, if it finds all of the following: (1) The compliance project is designed to correct the violations within five years, (2) The compliance project is in accordance with the enforcement policy of the state board, (3) The POTW has demonstrated that it has sufficient funding to complete the compliance project. The City of Colfax is designated as a small community with a financial hardship.

In August 2003, the Executive Officer issued an Administrative Civil Liability (ACL) Complaint for mandatory penalties in the amount of \$351,000, for effluent limitation violations accrued from 1 January 2000 through 31 March 2003. In accordance with Water Code Section 13385(k), the Complaint allowed the City to enter into a Stipulated ACL Order to complete a compliance project in lieu of paying the penalty. ACL Order No. R5-2003-0167 was then adopted by the Regional Water Board in December 2003 (Attachment B). The ACL Order required the City to come into full compliance with the permit and CDO by 14 June 2006, however it allowed the Executive Officer to extend the full compliance deadline by 6 months if reasonable conditions warranted.

Response to ACL Order:

The City proposed a compliance project to discharge all wastewater to Smuther's Ravine. The plant would be upgraded to a conventional tertiary treatment plant, the storage pond would be lined to prevent seepage, and the spray irrigation system would be eliminated. In order to complete the storage pond lining project, it needed to be dewatered. The City installed an interim treatment system to

treat the effluent from Pond 2 and the storage pond prior to discharging the wastewater to Smuther's Ravine. It utilized pumps to move water from the storage pond up to Pond 2, and then treated Pond 2 water by modifying the use of the chlorine contact channel to add coagulants prior to disinfection, then utilized the contact channel simultaneously for sedimentation and disinfection. The wastewater was then filtered and dechlorinated prior to discharge to Smuther's Ravine. The interim treatment plant was operational by August 2005. Attachment C shows the general layout of the interim treatment plant, and Attachment D is a schematic of the interim treatment process.

In March 2006 the storage pond overflowed again due to a high volume of storm water and infiltration and inflow into the collection system. The City determined that the run-off from the previously used irrigation fields flowing into the ponds contributed to the overflow, and began planning to eliminate the run-off from entering the facility. Due to concerns that the facility would not complete the Compliance Project to come into full compliance with the permit and CDO by 14 June 2006, the Regional Water Board requested an update on the compliance status at the facility. By letter dated 24 May 2006 the City requested a 6 month extension to the ACL time schedule, and indicated that, due to high costs and the financial hardship to the community, it would take longer to construct the new wastewater treatment plant, and to line the storage pond, but that the projects could be completed by November 2007. It also proposed additional interim projects intended to bring the interim treatment facility into full compliance with permit limitations such that the interim project could be utilized to offset the ACL penalty. The additional interim projects included constructing a dam seepage pump back system to eliminate the dam seepage treatment facilities, and allow treatment consolidation. The filter capacity was also increased to reduce filter loading rates and improve treatment.

The interim plant utilizes an unusual configuration for a tertiary plant. Effluent from aerated ponds, including the collected dam seepage, is currently dosed with chlorine for disinfection and polymer for coagulation, and the chlorine contact channel is used simultaneously for chlorine contact and secondary sedimentation. The effluent is then passed through sand filters that are more typically used in agricultural operations, and then is dechlorinated prior to discharge. The drainage ditch around the facility was proposed to be lined to eliminate excess stormwater runoff from the surrounding hills from entering the ponds. The City indicated that, by the time full improvements are completed, the overall costs would be approximately \$8,500,000 for a community with 1200 connections.

By letter dated 19 October 2006, the Executive Officer authorized an extension of the time schedule for full compliance to 14 December 2006 (See Attachment E), and expressed concerns that the City would not be able to complete all the necessary interim projects, and that the projects might not bring the facility into

compliance with the NPDES permit by the deadline. A list of additional work needing to be completed by the deadline was included in the letter. Staff is tracking the progress of Colfax to complete the needed work, and will discuss the status at the Regional Water Board meeting, which is one week prior to the compliance deadline. Staff requested the Department of Health Services evaluate the adequacy of the interim treatment facility to protect public health. The result of that evaluation is pending.

Additional Mandatory Penalties:

Staff is in the process of reviewing additional monitoring reports for the facility from the time ACL Order No. R5-2003-0167 was issued, and will provide further update at the Regional Water Board meeting on the amount of additional penalties accrued.

Interested Parties:

Allen and Nancy Edwards own and live on a large parcel of property downstream from the Colfax wastewater treatment facility. Smuther's Ravine runs through their property, adjacent to their home. The Edwards family has on numerous occasions, since at least 1993, submitted letters and provided comments at hearings regarding issues and concerns regarding the Colfax facility. They have expressed concerns regarding time schedule violations, effluent limit violations, seepage disinfection issues, streambed alteration issues from the discharge, laboratory data reporting irregularities, the need for a connection ban, adverse impacts to their property, and opinions that the Regional Water Board had failed to act to protect water quality. Their most recent correspondence is included as Attachment F.

Recent letters have also been received from the Save the American River Association, the American River Natural History Association, and the Motherlode Chapter of the Sierra Club (Attachments G, H, and I, respectively). These organizations have also expressed similar concerns regarding the facility.

Growth Issues:

In its 24 May 2006 letter to the Regional Water Board, the City reported there were 764 connections to the wastewater treatment facility. It projected that it would add 10 more connections through the end of 2006, and 40 more connections during 2007. Much concern has been expressed by interested parties, that continued growth without properly addressing the problems at the wastewater treatment facility would increase the impairment to water quality or the likelihood of violations. Staff have also expressed these concerns to the City. The City Manager recently indicated to staff that additional connections would not be authorized until the compliance issues were resolved, however at this time

there is no legally binding requirement to prohibit additional connections to this facility.

Permit Status:

The permit expired on 14 June 2006, but is administratively extended until the renewed permit is adopted. The CDO also remains in effect. Staff is in the process of drafting tentative Orders for the facility, and the hearing to adopt may be as soon as the January 2007 meeting of the Regional Water Board. Information regarding the permit renewal is not included in this staff report.

Possible Future Actions:

Regional Board staff needs to determine if the City of Colfax is in full compliance with its current permit and CDO. If it is determined that adequate compliance has been achieved by 14 December 2006, then the terms of the current ACL Order have been met and no further action should be required at this time for this matter.

If it is determined that compliance has not been achieved, then the City is liable for payment of \$351,000 to the Regional Water Board. Payment of the liability would be a significant financial burden for the City.

If staff determines that compliance problems are continuing, further enforcement action should be considered, including the possibility of a connection ban.

An ACL Complaint needs to be issued to assess, at a minimum, the additional mandatory minimum penalties accrued by the Discharger. At that time, the Regional Water Board may determine it is appropriate to require the value of the MMP be used to further fund the compliance project to build the new treatment facility proposed to be constructed in 2007.