

Central Valley Regional Water Quality Control Board
30 November, 1-2 December 2011 Board Meeting

**Prosecution Team's
Response to Comments**

Tentative Cease and Desist Order
for the
City of Colfax Wastewater Treatment Plant
Placer County

The following are the Central Valley Regional Water Quality Control Board (Central Valley Water Board) Prosecution Team responses to comments submitted by Designated Parties and Interested Persons regarding the tentative Cease and Desist Order (CDO) for the City of Colfax Wastewater Treatment Plant (WWTP). The Advisory Team extended the public comment deadline from 6 October 2011 to 13 October 2011.

Timely comments were received from the following Designated Parties and Interested Persons:

- The City of Colfax (City)
- The California Department of Fish and Game (DFG)
- Save the American River Association (SARA)
- Friends of the North Fork (FONF)
- Allen Edwards (AE)

Comments are arranged and responded to by issue topic:

- Inflow and infiltration
- Water balance
- Dewatering of Pond 3 and installation of liner
- Concerns about the existing WWTF
- Concerns about the Stress test
- The spring 2011 bypass event caused environmental damage
- Reports Required by CDO
- A connection restriction is needed
- The Order doesn't require compliance with the permit
- Enforceability of the CDO
- Requests for specific changes to the CDO
- CEQA analysis is needed
- Other legal Issues

According to the Hearing Procedures, any rebuttal evidence was to be submitted by 5 pm on 3 November 2011. Rebuttal evidence was submitted timely by the City of Colfax, Friends of

the North Fork, Allen Edwards, and the Prosecution Team.¹ A summary of rebuttal evidence is provided at the end of this Response to Comments.

Background:

In January 2010, the Board adopted a CDO for the City of Colfax that replaced a CDO adopted in 2007. The 2010 CDO was issued to provide a timeline for the City to make improvements to: (a) its collection system to reduce inflow and infiltration (I/I), and (b) the wastewater storage reservoir to cease seepage discharges. The 2010 CDO also included an interim effluent limit for copper and a timeline for compliance with the final copper effluent limit.

Recent developments, which are described in detail in the proposed Findings of the tentative CDO, have shown that the 2010 CDO must be updated. The intent of the tentative Order is to address all outstanding issues at the City's WWTP. These include: (a) the need to continue rehabilitating the sewage collection system to further reduce I/I, (b) the need to provide temporary operational flexibility to allow the City to drain the storage reservoir so that it may be lined and thereby prevent wastewater seepage, and (c) the need to re-evaluate whether the storage reservoir has the capacity to hold all wastewater inflows, precipitation, and I/I generated during a 100-year annual precipitation event.

The specific items required by the tentative CDO are as follows:

- With regard to reducing I/I: the City shall continue rehabilitating its collection system as described in its recently funded grant proposal, implement its private lateral program (Ordinance No. 499), submit annual progress reports, and evaluate the magnitude of I/I reduction by 1 May 2014. If the City's I/I peak factor remains significantly greater than US EPA guidance recommends, then the City shall (a) evaluate whether it is more cost effective to continue to rehabilitate the sewer collection system or to increase the storage and treatment capacity of the wastewater treatment facility, (b) describe which option the City will pursue, and (c) provide a proposed schedule for financing, design, and construction of that option.
- With regard to complying with the WDR requirement to have enough storage capacity to hold a 100 year annual rainfall event and maintain two feet of freeboard: the City shall complete the I/I rehabilitation, storage pond lining, and stress test as required by the Order, and then evaluate whether additional improvements are needed to reduce the volume of wastewater to be stored and/or increase the treatment or disposal

¹ FONF timely delivered hard copies of its rebuttal evidence to the Central Valley Water Board, but failed to timely serve electronic copies on the Prosecution Team as required by the Notice of Hearing Procedures. FONF's rebuttal arguments purporting to address the City's financial health (arguments 6 and 7) and/or object to the Notice of Hearing Procedures (argument 1) are irrelevant and should be disregarded by the Central Valley Water Board as it makes its determinations regarding whether to impose MMPs and apply them towards compliance projects, and whether to adopt, reject or modify the proposed Cease and Desist Order.

capacity.

- With regard to dewatering the storage reservoir: the City shall implement Alternatives 1 (optimize treatment plant performance), 2 (geotechnical evaluation), 3 (enhanced evaporation), and 5 (dam seepage treatment system) as described in its June 2011 *Wastewater Treatment Plant Feasibility Analysis for Alternative Measures to Dewater Pond 3 and Meet Freeboard Requirements* with the additional requirements listed in the Order.
- With regard to lining the storage reservoir: the City shall dewater the reservoir by 31 May 2012 and complete the lining project by 30 November 2012. However, if more than 48 inches of rain falls at gauge CFC during the 2011-2012 water year, then these two dates are automatically extended by one year. The Order requires that all solids in the bottom of the storage reservoir be removed and disposed of properly.
- With regard to the final copper effluent limitation: The Order includes an interim performance-based copper limitation that is in effect until 31 December 2013. The City shall implement its copper pollution prevention plan and fully comply with the final effluent limitation found in the WDRs beginning 1 January 2014.
- With regard to the average dry weather flow limitation: The Order includes an interim average dry weather flow limitation of 0.5 mgd, which is the current design flow. The Order also allows a stress test to be conducted as described in the City's 31 October 2011 document. Depending on the results, the Order allows the Executive Officer to increase the flow limitation up to 0.8 mgd if certain improvements are made to the pumping systems. The Order also contains interim mass loading effluent limits based on the interim average dry weather flow limitation.

Issue No. 1: Infiltration and Inflow

Background: Inflow and infiltration (I/I) is excess water that flows into sewer pipes from storm water and groundwater. Storm water (inflow) flows into sewers through roof drain downspouts, foundation drains, storm drain cross-connections, and holes in manhole covers. Groundwater (infiltration) seeps into sewer pipes through holes, cracks, joint failures, and faulty connections. Most I/I is caused by aging infrastructure that needs maintenance or replacement. Much of the City's original wastewater collection system was built in the early 1900's of clay pipe. During rain events, excessive I/I causes high flows to the wastewater treatment plant, at peaking factors up to 9-10 times higher than dry weather flows.

The City's sewer system consists of approximately 54,000 feet of gravity pipe, 8,000 feet of force main pipe, 15,000 feet of private pipe, and 200 manholes. The Prosecution Team is aware of eight I/I remediation projects undertaken by the City since 1993, as shown in the following table. The City received grant funding for the 2010 work, and just received

additional grant funding for work to begin in late 2011.

I&I Remediation Projects Completed²

Project Year	Description	Approximate Length/Manholes
N/A	Abandon & Reroute Sewer Main from MH32A3 to MH35	550 ft
N/A	Main Rehabilitation from MH43 to MH43A2	690 ft
N/A	Seal Manholes	6 manholes
N/A	Reroute Sewer Main from MH41 to MH 47C1	800 ft
2004	Main Lining MH43A2 to MH43A3	555 ft
2008	Replace Main from MH54A5 to MH54A2 and from MH39A4 to MH39A3	487 ft
2010	Replacement and rehabilitation of numerous main segments and manholes.	7,120 ft 11 manholes
2011-2013	Replacement and rehabilitation of numerous main segments and manholes.	10,182 feet 100 manholes

Comment No. 1: The CDO would allow the City to avoid necessary I/I improvements. The CDO allows the City to cease work on I/I reduction if it completes an analysis showing that increasing the treatment capacity of the treatment plant is more cost effective than further I/I reduction, but there is no requirement that the City then increase the capacity of the treatment plant. (AE 15, 2)

Prosecution Team Response:

In 2008 and 2010, the Discharger used closed circuit television to inspect approximately 87% of all pipe segments. This information was used to determine which segments needed repair or replacement. In 2010-2011, approximately 7,120 linear feet of lines identified during these inspections as needing attention were either replaced or repaired. In addition, 11 manholes were repaired. The Discharger applied for, and just received, \$3,175,000 in additional funding to repair/replace an additional 10,100 feet of pipeline and 100 manholes for work beginning in late 2011. This upcoming I/I work must be completed per the grant funding, and the tasks are simply re-stated in the CDO.

As described in the Findings of the CDO, it is commonly understood that I/I reduction activities can be expensive or ineffective. At some point I/I reduction activities produce diminishing returns and it becomes more cost effective to increase the capacity of the wastewater treatment plant instead of continuing to repair or replace sewer lines. The CDO recognizes this possibility, and after the \$3.1 million I/I project is completed, requires the City to evaluate its I/I peak factor. If the factor is still significantly higher than that recommended by the US EPA, then the City must complete a cost analysis to determine if it is more cost effective to increase the treatment capacity of the WWTP or to continue with I/I reduction efforts. The CDO has been revised to state that the cost analysis must state which option will

² May 2011 Sewage Collection System Inflow & Infiltration Report

be pursued by the City, and must include a proposed schedule for financing, design, and construction of that option. The CDO has also been revised to clearly state that the \$3.1 million project must be completed by the end of 2013.

Comment No. 2: The CDO states that the City's repairs to its sewage collection system have shown an overall decrease in the inflow per inch of precipitation since it began rehabilitation work. This conclusion appears to be in error. The City began its analysis using one rain gauge and then shifted to another gauge that according to the City, shows 35% more rainfall than reported using the original gauge. Shifting to the new gauge has significantly lowered the ratio of I/I flows per inch or rainfall giving the appearance of improvement without reality. (AE 7)

Prosecution Team Response: The Findings in the CDO are taken from the May 2011 Sewage Collection System Inflow and Infiltration Report (I/I Report) which used the same rain gauge for all rainfall measurements³. The I/I Report states "*The 2010 sewer rehabilitation project was completed in spring 2011, therefore the effects on I/I reduction can not be measured until the following year.*" Both Prosecution and City staff acknowledge that since the 2010 sewer rehabilitation project was completed in spring of 2011, more monitoring is needed to determine the significance of I/I reduction; however, it is reasonable to expect that continued collection system rehabilitation will lead to decreased I/I. Based on the information provided in the I/I Report, the conclusion that I/I reduction has been observed since the City began its collection system rehabilitation project, as stated in Finding 14, remains factual. The City is required to submit I/I reduction reports in May 2012, May 2013, and May 2014. The CDO has been revised to require that these reports address the two different gauges used to obtain rainfall data and how that impacts the I/I calculations.

Comment No. 3: The State Water Board's actions on September 19, 2011 [to approve grant funding] and the CDO and ACLO do not adequately address infiltration and inflow. The State Board action violates, and the CDO and the proposed ACLO would violate, Clean Water Act Infiltration and Inflow regulation sections 40 CFR 35.927, 35.927-1 and 35.927-2, e.g., proposed CDO, Paragraph 38. (FONF 4).

Prosecution Team Response: The sections of 40 CFR cited in Comment 3 address requirements for obtaining grant assistance. The State Water Board approved a Preliminary Financing Agreement on 19 September 2011, in part, for approximately \$3 million in repairs to the sewer collection system. Funding for I/I work was approved through a combination of the State Water Resources Control Board's Clean Water State Revolving Fund as well as a grants from the United States Department of Agriculture and from the United States Environmental Protection Agency. In order to receive this funding, a party would need to have already demonstrated compliance with 40 CFR 35.927, 35.927-1 and 35.927-2. State Water Board actions are outside of the scope of this CDO, and this CDO does not provide any grant assistance. Therefore, the cited 40 CFR sections have no bearing on this CDO.

³ The new rain gauge was first used in the May 2011 water balance, not in the May 2011 I/I Report.

Issue No. 2: Water Balance

Background: Water balances are used to model all of the inflows and outflows for a wastewater treatment facility, and to determine the storage volume necessary to prevent overflows using certain assumptions such as effluent flow rate and yearly precipitation. These models employ multifaceted engineering calculations, and as such, Board staff requires that they be completed by California Registered Engineers, follow a specific format, and justify all assumptions.

Because of its high I/I, the City generates a greater influent flow than can be treated and discharged during the winter. Excess flows are diverted to the storage reservoir, and the WDRs require that the reservoir have enough capacity to contain all flows generated during a 100-year, 365-day precipitation event. In March of this year, the City notified the Board that it would need to begin a controlled release of wastewater from the storage reservoir. Because 2010-2011 was not a 100-year annual precipitation event, staff required that the City complete an updated water balance using current conditions to calibrate the model. The City submitted its first water balance in June. This document was reviewed by a Water Board Registered Engineer with experience in completing and reviewing water balances, and the City's engineers were asked to make several revisions and present the data in a different manner. The revised water balance was submitted on 1 August 2011, and contains 27 pages of text describing how the water balance was completed, a water balance using current conditions ("calibration" water balance), and several water balances using different inputs for assumed future conditions ("predictive" water balances). The 1 August 2011 water balance document is acceptable to the Prosecution Team.

Comment No. 1: The water balance model ignores percolation losses from Pond 3 of up to 1.5 million gallons per month. Once the pond is lined, this outflow will be eliminated so a commensurate increase in the volume of Pond 3 is necessary to provide adequate storage for the 100-year, annual precipitation event. (AE 5)

Prosecution Team Response: The revised water balance report submitted by the City acknowledges both groundwater seepage into the pond and percolation losses out of the pond⁴. Although the engineer of record acknowledges that it is not currently possible to separately calculate the seepage inflow rate and the percolation outflow rate, the report establishes a mathematical correlation between monthly precipitation and the difference between actual and modeled storage volumes. This correlation was then used to correct the model. The resulting calibration model shows strong agreement between measured and modeled storage volumes through the 2010-2011 rainy season. This means that the model can be reasonably used to predict conditions through the upcoming winter. However, once the pond has been lined, a new model will need to be developed because pond seepage and percolation rates will be significantly reduced.

⁴ City of Colfax Wastewater Treatment Plant Storage Pond Water Balance, Larry Walker and Associates, 1 August 2011, pages 17-20.

It is not reasonable to expect that the City will be able to refine its water balance immediately after Pond 3 is dewatered and lined. Instead, the CDO requires an updated water balance based on the as-built geometry of the lined Pond 3 and based on the new inflow equations developed after data has been collected. The pond must be lined by 30 November 2012, and the revised water balance is due by 1 May 2014. That date was selected as reasonable because it allows for an analysis of the I/I improvements as well as the wastewater volume changes due to the pond lining project.

Comment No. 2: The 2008 Preliminary Design Report for the Pond 3 liner system states that either an under-drain system or one-way valves in the liner may be needed to prevent liner uplift due to groundwater pressure. Valves would allow groundwater to flow into the lined pond, thereby displacing some of its storage capacity. (AE 6)

Prosecution Team Response: If the final pond design included valves to allow groundwater to enter the pond, then it would be correct to state that there would be less wastewater storage capacity. However, the 5 May 2011 Design Drawings⁵ do not include valves to direct groundwater into Pond 3.

Comment No. 3: Based on a 15 July 2011 letter from the Discharger, the capacity of Pond 3 is less than the capacity used in the water balance because the interior slope of the pond was incorrectly estimated by approximately one million gallons. (AE 6)

Prosecution Team Response: This comment is based on a misunderstanding of the City's 15 July 2011 letter to staff. The letter provides corrected pond freeboard readings for a two-week period in March 2011 and explains that the error was caused by the operator misreading the pond's staff gauge. The confusion apparently arose from the fact that the staff gauge is not a vertical post, but a pipeline that is supported on, and parallel to, the dam slope. The slope of the pipe is known, and the City has marked the pipeline at 10-foot intervals along the slope. The operator can measure the distance from the water line to the next higher mark and then calculate the freeboard based on the pipe slope and the distance along the slope to the point of overflow. As the water level in the pond rose and covered one mark, the operator mistakenly thought that an old mark on the pipe was the next 10-foot mark, when in fact it was only 7.7 feet from the previous mark. This error caused the operator to underestimate the freeboard in the pond and overestimate the volume stored in the pond. It does not represent an error in calculating the volume of wastewater in the pond, and the City has provided corrected values for the two week period. This error in reading the pond freeboard for a two-week period has no bearing on the water balance.

Comment No. 4: Installing the liner will require ballast to hold the liner down and/or fill to prepare the liner subgrade. Either of these would reduce the volume of the lined pond, resulting in a need for increased storage or treatment capacity. (AE 6).

⁵ HDR Engineering, Inc. Design Drawings for City of Colfax WWTP Pond 3 Lining Project

Prosecution Team Response: Comments noted. The final design includes cut/fill grading of the pond prior to installation of the liner, and a two-foot thick soil ballast over the liner. The CDO requires that a revised water balance be prepared, and in doing so, the engineer will need to calculate the storage capacity of Pond 3 based on the new geometry.

Comment No. 5: The CDO underestimates the treatment capacity that is needed. The WWTF needs a capacity of at least 1.23 mgd right now. (AE 2, 13)

Prosecution Team Response: The CDO does not evaluate the final treatment capacity needed since this number will change based on the I/I rehabilitation work, the results of the stress test, and the lining of Pond 3. After the I/I rehabilitation work is finished and the pond is lined, the City is required to re-evaluate its ability to meet the 100-year capacity requirement. If it is determined at that time that the City's treatment capacity needs to be increased, then it will be required to do so. It is also noted that based on the predictive water balance discussed in the CDO, it appears that once the City installs the pond liner, it will need approximately 0.75 mgd of treatment capacity. Prosecution staff is unsure why Mr. Edwards believes 1.23 mgd of treatment capacity will be required, and is unaware of any evidence in the record upon which such a calculation could be based, particularly in light of the uncertainty regarding the impacts on treatment capacity needs that the stress test, I/I rehabilitation, and Pond 3 liner projects will have. Without understanding how these components of the CDO impact the water balance, treatment capacity needs cannot be reliably predicted.

Comment No. 6: The 2008 Preliminary Design Report does not quantify the volume of seepage into Pond 3, and the City identified more extensive seepage problems during the winter of 2011. The liner design may be infeasible. (AE 14)

Prosecution Team Response: The purpose of the Preliminary Design Report was not to quantify the volume of groundwater seepage into Pond 3, but to evaluate the different options for lining the pond. During the winter of 2010-2011, the City determined that high levels of runoff from the hillside to the east of Pond 3 were entering the shot-crete channel and/or Pond 3. The City has since relined the channel and has proposed geotechnical investigations to be conducted this winter. The CDO requires that the geotechnical work be completed, and if physical or operational improvements are identified that will result in less surface water or seepage water entering any of the ponds, then the City shall propose and construct improvements. The liner design drawings were completed in May 2011, after the City identified the seepage from the eastern hillside. The concept of seepage into Pond 3 will be moot once the pond is lined, and the design engineer would have taken this into account. Prosecution staff does not agree that the liner design is infeasible.

Comment No. 7: The City submitted an updated water balance using actual pond conditions at the beginning of October 2011 to refine the estimate of the time required to dewater Pond 3. The water balance also accounts for the ability to separately discharge the pond seepage

beginning in December 2012, as proposed by the tentative CDO. The updated water balance shows if there is 59.4 inches of rain during the winter of 2011-2012, the pond will be emptied by 1 July 2012, which is too late to complete the construction project by the date required by the CDO (30 November 2012). The water balance estimates that the pond can be dewatered by the end of May 2012, in time to allow construction, if 48 inches or less of precipitation falls during the winter of 2011-2012. (City 7-11)

Prosecution Team Response: The City has previously stated that it must dewater Pond 3 by 31 May 2012 in order to finish the pond lining construction project by 30 November 2012. The tentative CDO allowed the Pond 3 lining project to be delayed by one year if 59.4 inches or more of rain falls this winter. However, the City's updated water balance, using current conditions, shows that the pond will not be dewatered until 1 July 2012 if 59.4 inches of rain falls. This would be too late to complete the construction project in 2012. The water balance shows that if 48 inches of rain falls, then it will be able to dewater the pond by 31 May 2012. After reviewing the most up-to-date information available, Prosecution staff agrees that the precipitation-triggered extension should be changed to 48 inches in order to adopt a CDO with requirements that are realistic and achievable based on the most current information. The CDO has been modified to reflect this change.

Comment No. 8: There is substantial leakage out of Pond 3, which is ignored in the City's "predictive model" flow analysis. A simple water balance was completed using data submitted by the City from June and July 2008, a period when the treatment plant did not discharge to surface water and instead routed all flows to the storage ponds. These two one-month water balances indicates that approximately 1.6 million gallons/per month of seepage is not captured in addition to the approximately 3 million gallons/month of seepage from the base of the dam that is captured by the City and returned to Pond 3. (AE 5 and Att. 1)

Prosecution Team Response: Water balances are complicated engineering calculations, and as such, Central Valley Water Board Orders require that they be completed by California Registered Engineers, follow a specific format, and justify all assumptions. The two one-month water balances provided in Appendix A does not meet these criteria. Nevertheless, Prosecution staff reviewed the two-month water balance. Mr. Edwards contends that there is seepage from Pond 3 that is not captured as part of the dam seepage. Prosecution staff believes that Mr. Edwards' point is moot because when Pond 3 is lined next year, the flows into and out of Pond 3 are expected to be substantially eliminated. In any event, as stated earlier, the City is required to update its water balance after the pond is lined.

Issue No. 3: Dewatering of Pond 3 and installation of liner

Background: The City must dewater Pond 3 before the liner can be installed. As described in the Findings of the tentative CDO, the City submitted a June 2011 document titled *Wastewater Treatment Plant Feasibility Analysis for Alternative Measures to Dewater Pond 3 and Meet Freeboard Requirements* (Feasibility Analysis). The City analyzed seven alternatives to dewater Pond 3, and Prosecution staff has identified four of the alternatives

(Alternatives 1, 2, 3, and 5) as being feasible and most protective of water quality. The CDO requires their implementation. Comments were received about Alternatives 1, 3, and 5. No comments were received about Alternative 2, conducting geotechnical investigations.

Sub-issue: Alternative 1. This alternative is to optimize the performance of the wastewater treatment plant by using Pond 1 for equalization of all influent flows; modifying the SCADA system, influent pumps, and effluent pumps to allow for operation above 0.5 mgd; maintaining consistent recycled activated sludge production; improving sludge wasting operations; and making sequencing basin modifications.

Comment No. 1: Optimizing performance of the wastewater treatment plant (Alternative 1) is not a reliable alternative for dewatering. (AE)

Prosecution Team Response: Staff understands that only one of the five items listed in Alternative 1 is directly related to dewatering Pond 3. However, the City has identified several actions that will help to optimize the performance of the treatment plant, and these should be implemented.

Comment No. 2: The CDO should only require implementation of Alternative 1 “if necessary to increase treatment capacity or process stability at flows greater than 0.5 mgd”, and only if the future stress test indicates the need. (City 5-7)

Prosecution Team Response: The City’s Feasibility Study states that four of the five actions are “expected to improve WWTP performance” and will result in improved operational capabilities. Prosecution staff has reviewed the actions and believes they are reasonable and necessary, and therefore the four operational improvements (using Pond 1 for equalization of all influent flows; maintaining consistent recycled activated sludge production; improving sludge wasting operations; and making sequencing basin modifications) remain as proposed in the CDO. The City also proposed to modify the SCADA system, influent pumps, and effluent pumps to allow for operation above 0.5 mgd. Prosecution staff understands that these modifications are not necessary for the stress test, but will be needed if the City proposes a permanent flow rate above 0.5 mgd. Therefore, the CDO has been modified to include the statement “*If a request is made to increase the flow limit, then the Progress Report shall also show that the SCADA system, influent pumps, and effluent pumps have been modified to allow for continuous operation above 0.5 mgd.*” However, the CDO continues to require that the four remaining items be completed prior to submittal of the Second Quarter 2012 Progress Report.

Sub-issue: Alternative 3: This alternative is intended to increase the evaporation rate in Pond 3. A sprinkler system or industrial evaporator will pull water from Pond 3, and then spray it over the pond to increase evaporation, and thus dewater the pond at a faster rate.

Comment No. 3: Increasing the effective evaporation rate of Pond 3 (Alternative No. 3) will not reduce pond levels and may cause odor problems. (AE 10)

Prosecution Team Response:

According to the City's June 2011 Feasibility Analysis, it is estimated that increasing the effective evaporation rate using an evaporation system could reduce pond levels by 0.5 to 1.2 million gallons per month. A number of other dischargers within this region have successfully used evaporator systems to reduce the volume of wastewater in storage ponds, and Prosecution staff has no reason to believe that it would not also be successful at Colfax.

Mr. Edwards states that there were odors in the early 2000's, when effluent was sprayed onto land. However, wastewater was only treated to secondary standards ten years ago, and therefore the effluent was of a poorer quality than is currently stored in Pond 3. The majority of the water that is now in Pond 3 is comprised of storm water runoff or tertiary treated water that was diverted due to relatively minor turbidity exceedances. A smaller portion of the water in the pond is sewage diluted with I/I flows that has been partially treated in Ponds 1 and 2 prior to entering Pond 3. During the 8 September 2011 inspection of the pond, Prosecution staff stood within a few feet of Pond 3 and did not perceive any objectionable odors originating from water in Pond 3. Staff does not anticipate that odors due to an evaporator will be an issue at properties beyond the WWTP boundaries, or approximately one mile away where the Edwards' home is located. Nevertheless, the CDO requires that the City monitor the evaporation system and report the time and duration of operation, wind conditions and direction, and the presence or absence of odors. If objectionable odors are produced by this operation beyond the boundaries of the WWTF, then the City will be in violation of its WDRs and subject to discretionary enforcement.

Comment No. 4: The enhanced evaporation option was intended to only be allowed while Pond 3 is being dewatered. However, the City would like the ability to continue enhanced evaporation after the pond liner is installed as a means of maintaining compliance with the two foot freeboard limitation. (City 7)

Prosecution Team Response: This option can be evaluated as a long-term measure when the NPDES permit is renewed in late 2012 or early 2013. The CDO has been revised to state: *"Enhanced evaporation shall cease once Pond 3 is dewatered unless (a) the Executive Officer allows its use for additional study or emergency dewatering to prevent a spill, or (b) the Board allows its use through a revised NPDES permit."*

Sub-issue: Alternative 5: The water in Pond 3 seeps through the earthen dam and is collected at the base of the dam. Prior to 2006, the collected seepage was tertiary disinfected and discharged directly into the tributary of Smuthers Ravine. Beginning in 2006, the collected seepage was returned into Pond 3 prior to treatment in the wastewater treatment plant. The volume of seepage water can be significant: up to 0.2 mgd is collected when the pond is full. The City has proposed to install a separate, stand-alone treatment system to treat the seepage water directly, instead of collecting it and returning it to Pond 3.

The treated dam seepage water will be discharged at the same point as the effluent from the tertiary treatment plant. The tentative CDO requires (a) that the treated seepage water be blended with the WWTP's tertiary-treated effluent and (b) that the blended discharge meet all permit effluent limitations. The CDO also contains a separate flow limit of 0.2 mgd for the dam seepage discharge.

Comment No. 5: The City originally proposed to treat the seepage water with the formerly retired chlorine contact chamber and sand filters. However, the City now proposes to install a stand-alone ultraviolet disinfection system at the base of the Pond 3 dam, and then blend the treated dam seepage with the WWTP-effluent in the energy dissipater at the end of the effluent pipeline. The City would like the CDO revised to reflect the proposed change to a disinfection system. (City 5, 7)

Prosecution Team Response:

The draft CDO specified that the dam seepage water would be treated using the retired chlorine contact chamber and pressure sand filters. However, a UV disinfection system is also appropriate. Prosecution staff has reviewed the dam seepage water quality data found in the City's 2001 permit (NPDES Order 5-01-180), and believes that ultraviolet disinfection is a viable method for treating seep water to meet effluent limitations. In addition, the City recently collected a water sample from the dam seep in October 2011; the results were comparable or better than to the data in the 2001 permit⁶. The CDO has been simplified so that the manner of compliance is not specified; however, the treatment method must be such that the blended discharge complies with the WDR effluent limitations. The CDO has also been revised to define the monitoring location EFF-001 as "*a point below the blended effluent but upstream of the discharge to the receiving water*". The City is required to comply with all effluent limitations at this point.

The CDO requires that the City monitor EFF-001 as required by the permit's Monitoring and Reporting Program. Prosecution staff understands that, instead of only monitoring the blended effluent at EFF-001, the City may prefer to monitor the effluent from each of the two treatment processes (the WWTF and the dam seepage) as an internal process control. By taking twice the number of samples, the City will be able to better manage the treatment processes. NPDES permits routinely allow calculated values to be reported to determine compliance with effluent limits; therefore, Prosecution staff has modified the CDO to state: "*The City shall monitor EFF-001 as required by Table E.3 of the MRP. Instead of collecting one sample at EFF-001, the City may elect to collect two internal effluent samples upstream of the blended discharge to assess the operational aspects of the two treatment facilities. In that case, and if appropriate for the type of analysis, the City may report a flow-weighted result for EFF-001. The data reported shall include the analytical result and flow for the dam*

⁶ As shown in the Prosecution Team's rebuttal evidence, BOD was not detected, total suspended solids was 3 mg/L, and turbidity was less than 1 NTU. There were low levels of total coliform and no fecal coliform or E.Coli.

seepage, the analytical result and flow for the WWTP effluent, and the calculated result for EFF-001.”

Comment No. 6: Installing a separate treatment system for dam seepage water (Alternative No. 5) will violate the current WDRs and the Federal Court settlement, and will back-slide from previous permits. In addition, it would only provide secondary treatment, would violate the City’s CEQA categorical exclusion for the pond liner project, is inconsistent with the Board’s Order that the facility treat waste to tertiary standards, there is no evidence that the seepage receives treatment from the soil, and the chlorine disinfection system used in the past had numerous violations. (AE 10-11)

Prosecution Team Response:

The purpose of a CDO is to set tasks and a time schedule to bring a discharger back into compliance with its permit. CDOs can allow an interim, temporary change to the permit, as long as the change is designed to achieve compliance. In this case, a separate treatment system for the dam seepage water is a short term change to the permit, and is only in place to allow Pond 3 to be dewatered and lined so that Colfax can comply with Prohibition III.A. The City has updated its plans and will not use a chlorine disinfection system, but will install a UV disinfection system to treat the seepage water.

The CDO requires that the blended effluent meet all permit effluent limits (i.e., tertiary treatment standards). The temporary separate dam seepage treatment system is not considered “back-sliding” from previous permits, as earlier permits required tertiary treatment of the dam seepage water.

The Central Valley Water Board is not a party to any Federal Court settlement with the City, nor is it bound by the terms of such a settlement. *See eg.s Arias v. Superior Court* (2009) 46 Cal.4th 969, 989; *St. Sava Mission Corp. v. Serbian Eastern Orthodox Diocese* (1990) 223 Cal.App.3rd 1354, 1375-1376 [describing the limited exceptions – not applicable here – to the general rule that non-parties to a judgment or agreement are not bound by its terms]. Even if it were, the City only agrees in the cited settlement agreement that it will not use the interim treatment facility once the new WWTP comes on line. The City is no longer proposing to use the interim treatment facility, and the settlement agreement is silent with respect to use of a stand-alone ultraviolet disinfection system. The claim that temporary use of a stand-alone ultraviolet disinfection system will violate the City’s use of a categorical exemption to construct the pond liner project is misplaced. The adoption of a CDO by a regional water board is itself statutorily exempt from CEQA under Water Code section 13389. *Pacific Water Conditioning Assn. v. City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.

Comment No. 7: Once in place, the separate dam treatment system may remain in place indefinitely. (AE 12).

Prosecution Team Response: The CDO only allows use of the temporary system to treat pond seepage until the pond is lined, no later than 30 November 2013 (or 30 November 2014

if the precipitation-trigger extension applies). The CDO states that once the pond is lined, the City will no longer need to collect any dam seepage water, as any water at that point would simply be groundwater.

Comment No. 8: Instead of ordering the separate dam treatment system proposed by the City, the Board should require that a temporary, mobile tertiary treatment system be installed to dewater Pond 3. (AE 13)

Prosecution Team Response: The draft CDO originally re-stated the City's proposal to treat the dam seepage water with a chlorine contact chamber and pressure sand filters. However, the City now intends to use ultraviolet disinfection. Prosecution staff has determined that it is not critical to specify the type of treatment system, but it is critical to specify a performance standard for the level of treatment. It will then be up to the City to install a system that can meet the treatment criteria. The CDO has been revised to require (a) that the treated seepage water be blended with the WWTP's tertiary-treated effluent and (b) that the blended discharge meet all permit effluent limitations.

Sub-issue: Liner Design and Installation

Background: In its 2008 *Preliminary Design Report*, the City evaluated the different options for lining Pond 3. The City has chosen to install a high density polyethylene (HDPE) liner in the pond.

Comment No. 9: Because the liner will be exposed on the sides of the pond, there will be animal damage, wind lift and associated stresses, and UV damage. (AE 14-15) (FONF)

Prosecution Team Response: The final pond liner design anticipates these potential problems and incorporates mitigation for potential animal damage, wind lift, and UV damage. The final design includes an eight-foot tall chain link fence surrounding the entire pond to mitigate for animal damage and a two-foot thick ballast layer of soil to mitigate against wind lift. The design specifies a 60-mil HDPE geomembrane liner manufactured specifically for the purpose of liquid containment in hydraulic structures. All liners are subject to UV damage over time, but the soil ballast layer will help to prevent damage.

Comment No. 10: The CDO should note that installation of the pond liner will require approval of the Division of Safety of Dams and maybe the Army Corps of Engineers. (AE 15)

Prosecution Team Response: By letter dated 26 February 2008, the Department of Water Resources, Division of Safety of Dams, states that a dam alteration application is not necessary for the pond lining project, and that the City should notify the Division prior to starting construction. Prosecution staff is not sure why Mr. Edwards believes that a permit will be required from the Army Corps of Engineers, but it is the City's responsibility to obtain all necessary permits.

Comment No. 11: The dam on Pond 3 is unsafe. (FONF)

Prosecution Team Response: The Department of Water Resources, Division of Safety of Dams, regulates the Pond 3 dam. Division engineers and engineering geologists review and approve plans and specifications for the design of dams, and oversee their construction to ensure compliance with the approved plans and specifications. In addition, Division engineers inspect dams on an almost-yearly schedule to insure they are performing and being maintained in a safe manner. The most recent inspection report⁷ for the Pond 3 dam concludes that “the dam, reservoir and all appurtenances are judged safe for continued use.” Prosecution staff concludes that there is no basis in fact for this comment.

Comment No. 14: The CDO should not allow the pond liner installation to be delayed unless there is an extraordinary precipitation season of over 80 inches of rainfall. A different rain gauge was used last year, which reports rain at 135% higher than measured by the old gauge, and therefore the extension trigger of 59.3 inches of precipitation used in the Federal settlement document should be increased by 35% to 80 inches. (AE 15)

Prosecution Team Response:

Mr. Edwards refers to the November 2010 *Order Re: Compliance with Settlement Agreement* between the City of Colfax and Allen Edwards et al. As stated above, the Central Valley Water Board is not a party to this lawsuit and is not bound by the terms of the Settlement Agreement. Instead, Prosecution staff has proposed a CDO based on the information in the case file and Board Orders, and containing reasonable actions to protect water quality in the shortest practical period.

The 2010 CDO recognizes that under high rainfall conditions, the City may need an extension to dewater and line Pond 3. The Settlement Agreement quantifies “high rainfall” as 59.3 inches, and agrees that if this rainfall value is exceeded, then the City may have a year extension to line Pond 3. The 59.3 inches is taken from the National Oceanic and Atmospheric Administration (NOAA) weather station located near Interstate 80 designated as CFX. NOAA operates a second weather station, designated as CFC, located on the Pond 3 dam. Historically, the CFC gage was only operated from November through April and therefore could not be used to determine a full year’s rainfall. However, recent funding increases has allowed to CFC gauge to be operated throughout the year⁸. A comparison between the two weather stations revealed that the CFC rain gauge consistently records rainfall measurements that are 135% of the CFX gauge measurements⁸. Through discussions with NOAA, the City found that the CFX gauge is partially shaded by trees causing the gauge to under-represent actual rainfall.

⁷ Division of Safety of Dams, *Inspection of Dam and Reservoir in Certified Status*. Inspection date 3 November 2009.

⁸ 1 August 2011 Wastewater Treatment Plant Storage Pond Water Balance, Revised Final, submitted 1 August 2011

The City's August 2011 water balance is calibrated to the CFC precipitation gauge. However, regardless of which gauge is used, the water balance would show the same results and lead to the same extension trigger of 59.3 inches. The water balance compensates for the increased readings of the CFC gauge by modifying the coefficient used to approximate the influent I/I. Most importantly, irrespective of the federal litigation between the City and the Edwards, the City's updated water balance, using current conditions as of 1 October 2011, shows that the pond will not be dewatered until 1 July 2012 if 59.4 inches of rain falls. This would be too late to complete the pond lining project in 2012. The updated water balance shows that if 48 inches of rain falls, then the City will be able to dewater the pond by 31 May 2012. After reviewing the most up-to-date information available, Prosecution staff has modified the extension trigger to 48 inches of precipitation in order to adopt a CDO with requirements that are realistic and achievable. Prosecution staff believes this empirical, evidence-based, up-to-date approach to setting realistic and achievable deadlines for dewatering and lining Pond 3 is superior to previous efforts by the City and/or the Edwards.

Issue No. 4: Concerns about the existing WWTF

Background: The tertiary treatment plant began operation in January 2009. As with many new wastewater treatment facilities, there were a number of issues during the first year. The City subsequently contracted with the more experienced operators of Water Pollution Control Services to manage the facility. In the last 18 months, the operators have added treatment processes to control ammonia and turbidity, and the number of MMPs has decreased.

Comment No. 1: The City has not been able to run the current plant at 0.5 mgd without problems, so why would a flow increase be allowed? (AE 8)

Prosecution Team Response: Monitoring reports reviewed by the Prosecution staff indicate that for the past two years, the City's new wastewater treatment plant has generally been performing well at flow rates of 0.5 MGD. Although the facility still has intermittent turbidity issues, a diversion system is now employed in a manner similar to other wastewater treatment plants to avoid discharges to surface waters during those times. The CDO allows the City to complete a "stress test" to determine the flow at which the WWTP can reliably and consistently treat wastewater. If the stress test shows that this flow rate is greater than 0.5 mgd, then the CDO allows the Executive Officer to increase the flow rate. This higher flow will help to dewater Pond 3, and will also help to meet the storage capacity requirement (i.e., Pond 3 must be able to hold all excess flows generated during a 100-year annual rainfall event).

Comment No. 2: The discharge from the WWTP creates nuisance conditions (foam and odor). (AE 8)

Prosecution Team Response: The Monitoring and Reporting Program of the WDRs requires the City to monitor receiving water conditions. Prosecution staff reviewed the receiving water observations reported by the City since January 2010 and found that the City

reported that the receiving waters were generally clear with no nuisance conditions observed. Occasionally, the City reported that debris or light foaming were observed at the downstream receiving water monitoring location. The City has also reported occasions when fecal coliform weekly sample results from the downstream location were above the receiving water geometric mean limitation of 200 MPN/100 mL; however, the total coliform levels (of which fecal coliform is a subset) in the effluent were in compliance with, and significantly lower than, the daily effluent limitation of 240 MPN/100 mL and therefore the treatment plant discharge can not be the cause of the elevated fecal coliform levels in the receiving water. The monitoring reports do not substantiate the claim that the WWTF creates nuisance conditions, and other than the comments submitted by Mr. Edwards, the case file does not contain any other recent complaints regarding nuisance conditions. Prosecution staff also notes that Mr. Edwards' house is approximately one mile downstream from the discharge point and that there may be other inputs into the receiving water which could contribute to any nuisance conditions which he observes.

Comment No. 3: Since the tertiary plant began operating in January 2009, the plant has had numerous turbidity problems which have caused the effluent to be diverted to Pond 3. (AE 8)

Prosecution Team Response: It is very common for newly upgraded wastewater treatment plants to have upsets which cause effluent to be diverted, and diversions are a method of protecting water quality. In the case of the Colfax WWTP, several of the turbidity issues have been caused by algae in Pond 3 entering the biological/sedimentation portion of the treatment system. The algae interferes with the biological nutrient removal (BNR) treatment process causing solids settling problems which result in high turbidity. The City identified this issue and in 2009 installed an algae filtration unit which is used when transferring water from Pond 3 to Pond 2, prior to entering the BNR system. Between 1 January 2011 and 1 August 2011, the plant discharged on 234 out of a total possible 243 days, over 96% of the time. In September 2011, the plant experienced several power outages which affected the algae filtration system⁹. Algae entered the BNR treatment unit, causing high turbidity, and the City had to divert effluent for 15 days before the BNR unit began operating properly again. The City is completing electrical upgrades to prevent this type of power outage-related issue from recurring. It appears that the City has identified and addressed the turbidity issues, and there should be fewer turbidity-related diversions in the future.

Comment No. 4: Beginning on 11 July 2011, and continuing through late September, there were numerous algae blooms about a half mile downstream of the WWTF. (AE 8)

Prosecution Team Response: The City reported in its monthly monitoring reports that receiving water at the downstream monitoring location was clear in July and August 2011 and did not indicate any algae observations. The monitoring reports indicate that the WWTF was not the cause of the alleged algae conditions, and other than the comments submitted by Mr. Edwards, the case file does not contain any complaints or information regarding algae blooms downstream of the wastewater treatment facility. Prosecution staff also notes that

⁹ 21 October 2011 email from Steve Calderwood

Mr. Edwards' house is approximately one mile downstream from the discharge point and that there may be other inputs into the receiving water contributing to algae blooms.

Comment No. 5: Both the NPDES permit and the draft CDO should consider the impact of WWTP effluent quantity and quality on the tributary to Smuther's Ravine and actively pursue the best interest of the stream resource. (DFG)

Prosecution Team Response: Page F-6 of the Fact Sheet of the WDRs states that the WDRs "contain Effluent Limitations requiring a tertiary level of treatment, or equivalent, which is necessary to protect the beneficial uses of the receiving water." The effluent from the new Colfax wastewater treatment plant is of much improved quality compared to the previous facility and generally complies with the effluent limitations. Current operations at the facility may require diversion of the treated effluent to Pond 3, which may result in reduced flows or no flows in the unnamed tributary to Smuther's Ravine; however, the diversions are necessary to prevent effluent violations that could negatively impact beneficial uses in the tributary and downstream receiving waters. The requirements of the tentative CDO (such as reduction of I/I, the lining of Pond 3, the stress test, and the stabilization of four treatment processes) will likely result in treatment operations that will provide an effluent of more consistent quality and quantity as compared to current conditions. Adoption of the CDO will result in long-term beneficial impacts to the receiving water. The NPDES permit will be renewed in late 2012-early 2013, and at that time, the Board will consider whether any additional actions are needed to protect the beneficial uses of Smuther's Ravine.

Issue No. 5: Concerns about the stress test

Background: The Colfax NPDES permit was adopted in 2007, prior to construction of the tertiary treatment plant. The Fact Sheet of the permit states that the design flow of the new treatment plant will be 0.5 mgd. Now that the facility has been operating for almost three years, the City would like to evaluate whether it can consistently treat wastewater at a higher flow rate. On 31 August 2011, the City submitted a *Capacity Assessment of Wastewater Treatment Processes*. This document evaluates each of the main treatment processes, and states that the most limiting process is the secondary clarifiers, with an estimated treatment capacity of 0.8 mgd. The next step is to conduct a series of "stress tests" in which the facility is run at incrementally higher flows (i.e., 0.6 mgd, 0.7 mgd, 0.8 mgd). Each stress test would last for 2-3 sludge retention times, or approximately 40 days, and the effluent discharged to surface waters must meet the WDR effluent limits. During the stress tests, the City would collect additional water quality data to provide a profile of each treatment process and determine the maximum sustainable flow rate. The data obtained from the stress test is critical for determining the long-term solution to the current lack of storage capacity. For example, if the treatment plant can reliably treat flows greater than the current 0.5 mgd, then it will have less of a storage capacity deficit. The CDO allows the City to conduct the stress tests, and if the City can support a higher flow rate, allows the Executive Officer to authorize

it. It is anticipated that this higher flow rate would also be reflected in the revised NPDES permit, which is scheduled for adoption in late 2012 or early 2013.

Comment No. 1: The City's proposed stress test may not produce representative results because (a) it has to divert effluent flows to avoid turbidity-induced upset and (b) a fall test will not encompass the times of the year when the WWTF has trouble treating the wastewater. It would be better to have one stress test in the winter and one in the summer before the Water Board makes a decision. (AE 9)

Prosecution Team Response: It is appropriate to defer to the City's California Registered Engineers to determine the best manner and time period in which to conduct the stress tests. Importantly, all effluent discharged to surface waters must still meet the WDR effluent limitations, even during the stress test. If effluent does not meet the limitations, then the City will follow its current process of diverting flows to Pond 3. This will ensure that water quality is protected during the stress tests.

Comment No. 2: The City has refined its plan for the stress test. It will start at 0.5 mgd and increase the flow by increments of 0.1 mgd to no more than 0.8 mgd. Incremental increases should minimize the risk of upset but will increase the time span of the test. At each flow increment, the wastewater treatment plant should be allowed to stabilize for two sludge retention times (SRTs). Because the SRT increases in response to cold weather, two SRTs will extend to 40 days or more. The City will submit the finalized stress test protocol in early November. The City would like Findings 43 and 71.f revised. (City 6)

Prosecution Team Response: The City's revised plan for conducting the stress test to determine increases in treatment capacity appears to be sound and practical. Prosecution staff has revised the Findings to reflect the revised stress test plan and has edited the Hereby Ordered section to require that the City conduct the tests during the winter of 2011-2012.

Issue No. 6: The spring 2011 bypass event caused environmental damage

Background: On 16 March 2011, the City notified Board staff that Pond 3 was near capacity, even though the City had attempted to empty it prior to the rainy season. The City stated that approximately 1.9 mgd of wastewater was entering the treatment plant during storm events, but that the plant is only allowed to discharge 0.5 mgd. The remainder of the influent flow was directed to Pond 3. The City stated its concern that rainfall predicted in late March 2011 would cause an uncontrolled overflow from the storage reservoir, potentially causing property damage or creating a health and safety risk. In its 16 March 2011 notice to Board staff, the City identified three alternatives for managing discharges from the storage reservoir to minimize impacts to the public and environment.

By letter dated 18 March 2011, Board staff acknowledged the concerns if an uncontrolled overflow were to occur, and stated that the City should take all steps possible to avoid a bypass. However, if a bypass were necessary, then Board staff recommended that the City implement its Alternative 2 or 3. Between 20 March and 8 April 2011, the City discharged approximately 25 million gallons of wastewater from the storage reservoir. The City proactively implemented Alternatives 2 and 3, and installed a temporary treatment plant. All bypassed water was disinfected by chlorination and then dechlorinated prior to discharge. In addition, the wastewater was filtered using pressure sand filters from 3 April 2011 through 8 April 2011. Samples were collected from the treated bypass water at the same frequency and for the same constituents as required by the permit for the tertiary treated effluent.

Comment No. 1: During March-April 2011, the City discharged 25 million gallons of wastewater in Pond 3 that had been treated by the temporary disinfection/filtration system that is proposed to use in Pond 3 dewatering Alternative 5. During the 20 days of bypass, Smuther's Ravine "was covered in foam and the creek constantly gave off the rank smell of sewage for at least a mile downstream." (AE 12)

Prosecution Team Response: Other than this comment, the case file does not contain documents or evidence relating to foaming or odors in Smuther's Ravine due to the bypass event. The information provided by the commenter does not provide conclusive evidence that the discharge from the wastewater treatment facility caused the alleged foam and odors for the following reasons:

- (a) Although not required to, the City collected samples from the treated bypass water at the same time and frequency as it monitored the treated effluent. The results show that the bypass water met all effluent limitations except for pH and one aluminum result. However, the receiving water pH met the permit limits. For aluminum, Prosecution staff calculated flow weighted-averages of the blended discharge of the tertiary-treated effluent and the partially treated bypass water, and found that the blended discharge met all effluent limits in the permit. These effluent limits have been set to protect all beneficial uses of the receiving water, and therefore it can be presumed that the discharge did not caused the alleged foaming or odors.
- (b) Prosecution staff is aware that storm water which contains a high organic load, such as runoff from a confined animal facility, causes foaming and odors in surface waters, especially when the water cascades over a small elevation drop. Staff believes that people living in the Smuther's Ravine watershed own horses, cattle, and other animals. Storm water containing manure could have caused the alleged odors and foaming.
- (c) The City's receiving water monitoring reports also show that there was higher than normal flows in the receiving water, due to the rain events. The City noted that the upstream monitoring point (above the treatment plant discharge point) contained ammonia, fecal coliform, algae, leaves, floating debris and light brown iron bacteria

formations. It is possible that there was a source upstream of the treatment plant that caused the alleged foaming and odors. In addition, given that the bypass events took place during a period of high rain, and that Mr. Edwards' house is approximately one mile downstream from the treatment plant discharge point, it is highly likely that there were inputs other than the WWTP to Smuther's Ravine, and that these could have impacted water quality.

Accordingly, there is no substantial evidence directly correlating any impacts in Smuther's Ravine to the bypass event. In addition, the City is no longer proposing to use the temporary disinfection/filtration system that it used during the bypass event to treat the seepage water from Pond 3 this winter and spring. As described elsewhere in this document, the City is proposing to install a UV disinfection system.

Issue No. 7: Reports Required by CDO

Comment No. 1: The deadlines in the CDO should be shortened in order to gain compliance/protection of natural resources in a timelier manner. (DFG) (SARA)

Prosecution Team Response:

The deadlines in the CDO are based on staff's experience with similar types of enforcement orders, the summer construction season, and the need to collect data over several winters to determine the effect of I/I reductions. Prosecution staff believes the deadlines are as aggressive as they can be, while still being realistic and achievable. The CDO is extremely detailed and requires that the City submit progress reports each quarter. Prosecution staff will closely review the progress reports to ensure that the City remains on schedule.

Comment No. 2: The CDO implies that the City has until January 2014 to submit a series of reports and that there may be another five years of delay after that. (SARA)

Prosecution Team Response: The CDO does not imply that the City has until 2014 to submit a series of reports. Instead, the CDO requires that the City submit a series of reports showing that physical improvements have been completed. For example, the 30 January 2012 progress report requires that the City document that it has obtained bids for the SCADA upgrades; bids to line pond 3; has implemented Options 3 and 5; and has made progress towards compliance with the copper effluent limit. All of this work must be completed in less than two months after adoption of the CDO. Attachment A of the CDO contains a summary of all due dates in chronological order. The CDO extends for only 2-1/2 years, through May 2014. During this time, the City must, among other items, dewater Pond 3, install the liner, complete I/I improvements, complete a stress test, make progress toward complying with the copper effluent limit, complete a geotechnical investigation, and revise its water balance to determine whether or not it has sufficient capacity to comply with the WDRs. If there is not enough capacity, the City must propose a schedule for financing, design, and construction of the improvements needed to attain it.

Issue No. 8: A connection restriction is needed

Background: Section 2244 of Title 23 of the California Code of Regulations prescribes the Water Board's authority to issue a "restriction on additional discharges to community sewer systems" (i.e., a connection restriction). The purpose of a connection restriction is to prevent an increase in the violations of waste discharge requirements and thereby prevent an increase in unreasonable water quality impairment. Connection restrictions are not to be used as a punitive measure for past violations (23 CCR 2244(d)). A connection restriction is implemented through adoption of a Cease and Desist Order, after an appropriate Public Hearing Notice. Prosecution staff note that the Public Hearing Notice for the 30 November - 1/2 December 2011 Board hearing did not include consideration of a connection restriction.

At the January 2010 hearing for the current Colfax CDO, the Board Chair directed staff to evaluate issuance of a connection restriction for the City. While for reasons stated herein the Prosecution Staff does not recommend that the Central Valley Water Board pursue a connection restriction for the City's WWTP, if it determines to do so, such an action would need to be noticed for a hearing at a future date. Additionally, even if the Central Valley Water Board directs staff to further investigate whether it makes sense to pursue a connection restriction, there is no reason not to adopt the CDO as proposed and seek to amend it as appropriate in a subsequent proceeding.

Comment No. 1: The CDO allows unrestricted sewage hook-ups even though the WWTF fails to comply with the treatment capacity required by the permit. (AE 2)

Prosecution Team Response: The City's average dry weather flow is approximately 0.155 mgd, which is well below the permit's average dry weather flow limit of 0.275 mgd, and below the current design flow of 0.5 mgd. Therefore, the City has plenty of treatment capacity for dry weather flows. As stated earlier in this document, the City experiences excessive I/I flows in the winter. The City is unable to treat all of this flow at once, and stores the excess in Pond 3 until there is treatment capacity. However, Pond 3 does not have enough storage capacity, which resulted in the bypass event in early 2011. The City will conduct a stress test this winter to determine whether it can reliably treat flows greater than 0.5 mgd. If it can, then this will help resolve the capacity issue. Restricting sewage connections will not solve high I/I flows or lack of storage capacity. The Colfax Planning Department¹⁰ expects to receive less than five sewer connection applications in the next three years. These connections will have no appreciable impact on the capacity issue, and do not justify imposing a connection restriction.

Comment No. 2: Water Board inactions have promoted residential and industrial growth that exceeds what Colfax is capable of treating. (FONF 2)

Prosecution Team Response: The City has adequate treatment capacity to treat its average dry weather flow. Since 2009, there has been only one connection to the sewer

¹⁰ 28 October 2011 email from the Colfax Planning Department

system: a church with a flow equivalent to two residential units¹¹. In the past six years, population growth has averaged 1.01% per year.¹² Prosecution staff disagrees that water quality issues at the WWTP have lead to excessive growth. As stated above, the Colfax treatment plant has more than adequate capacity to treat the wastewater generated by its citizens; it is the excessive I/I that creates problems.

Comment No. 3: A moratorium on sewage hookups is needed because (a) the tentative Order would remove the dry weather flow limit, (b) the treatment plant has less capacity than required, and (c) during the 2010 hearing, the Central Valley Water Board directed staff to schedule another hearing to discuss the issue of a hookup moratorium. (AE 3)

Prosecution Team Response:

(a) Dry weather flow limit. The permit defines the dry weather flow limit as the average of the flows for three dry months, typically July, August, and September. The tentative Order does not remove the three-month dry weather flow limit of 0.275 mgd; it simply increases the limit to the design flow of 0.5 mgd for the three month period. This temporary increase will allow Pond 3 to be dewatered. Once the pond is lined, the dry weather flow limit reverts back to the permitted limit of 0.275 mgd.

(b) Treatment Plant Capacity. As discussed elsewhere in this Response to Comments, it is premature to state what the final treatment plant capacity should be. The final capacity will be based on the I/I rehabilitation work, the results of the stress test, and the lining of Pond 3. After the I/I rehabilitation work is finished and the pond is lined, the City is required to re-evaluate its ability to meet the 100-year capacity requirement. If it is determined at that time that the City's treatment capacity needs to be increased, then it will be required to do so. It is also noted that based on the predictive water balance discussed in the CDO, it appears that once the City installs the pond liner, it will need approximately 0.75 mgd of treatment capacity, without accounting for any I/I reductions. The stress test will be conducted at up to 0.8 mgd, so it is possible that increased flow from the WWTP will take care of the storage requirements.

(c) Connection Restriction. This Hearing constitutes Prosecution Staff's response to the Board Chair to discuss a connection restriction for the City. A connection restriction may be an appropriate enforcement tool when an entity is in serious noncompliance with its permit, and does not have a plan or financing to come into compliance (23 CCR 2244). However, a connection restriction is not appropriate in the case of Colfax, because the City has obtained funding to complete additional I/I work and to line Pond 3, and will undertake the stress test this winter, and will also make some operational adjustments to the treatment plant (Alternative 1, discussed above). These actions will result in compliance, or substantial compliance, with the permit. Even if the Water Board were to adopt a connection restriction, Section 2244 of the Title 23 of the California Code of Regulations allows the Board to

¹¹ 28 October 2011 email from Jim Fletter

¹² City of Colfax Adopted Budget for Fiscal Year 2010-2011 and 2011-2012, Gann Appropriation Limit for the year ended 30 June 2011.

approve interim sewage connections if a discharger has demonstrated compliance with the five conditions listed below:

- a. Consistent compliance with requirements can be achieved only by construction of a facility which will take a substantial period of time to complete;
- b. The Discharger has the capacity, authority, and financial resources to complete the corrective measures necessary to achieve compliance and is currently proceeding with such corrective measures;
- c. The corrective measures necessary to achieve compliance will be completed and placed into operation by the Discharger in the shortest practicable time;
- d. All practicable interim repairs and improvements which can be made have been made; and
- e. During the interim period of time until compliance with requirements can be fully achieved, the discharge will be managed, operated, maintained and repaired so as to reduce to a minimum the violations which resulted in the imposition of the connection restriction, and that such minimum violations for the interim period of time involved will not significantly impair water quality or beneficial uses.”

Colfax can demonstrate compliance with all five of these conditions. Therefore, even if a connection restriction was adopted, interim connections could be allowed. Given the current lack of growth within the City, the financing that Colfax has recently acquired for facility improvements, and the fact that Colfax meets the criteria for interim connections, Prosecution staff does not recommend consideration of a connection restriction.

Issue No. 9: The Order doesn't require compliance with the permit

Comment No. 1: The Order does not require that the WWTF have enough treatment and storage capacity to accommodate a 100-year annual rainfall event. Hereby Ordered Item 18 requires an evaluation of WWTF capacity but does not require implementation. The evaluation should begin immediately, not three years from now. (AE 4)

Prosecution Team Response: The City has shown, through its August 2011 water balance, that it does not currently have capacity to meet the 100-year storage requirement. Mr. Edwards states that an evaluation of treatment plant capacity should take place immediately; the CDO already requires that this be accomplished through the stress test to be conducted this winter. The CDO already requires that the *Storage Capacity Evaluation Report* evaluate compliance with the permit requirement to hold all rainfall generated during a 100-year annual rainfall event, and if there is not enough capacity, to provide a plan and timeline for coming into compliance.

Comment No. 2: The Order doesn't require the WWTF to comply with Prohibition III.A. of the WDRs, and doesn't require the City to stop the leakage from Pond 3. (AE 4, 13)

Prosecution Team Response: Prohibition III.A states that “*Discharge of wastewater at a location or in a manner different from that described in the Findings of the WDRs is prohibited*”. This Prohibition applies to any pond seepage that is not collected and returned to the pond, as well as any bypass of the treatment system, such as the March/April 2011 pond bypass. The current WDRs require compliance with Discharge Prohibition III.A. The proposed CDO does not change that requirement, and in fact Hereby Ordered Item 16b requires that “*The pond lining project shall be completed by 30 November 2012 and the City shall be in full compliance with Discharge Prohibition III.A of the WDRs at that time.*”

Issue No. 10: Enforceability of the CDO

Comment No. 1: Why does the CDO rely on submittal of “reports” when more stringent requirements should be put on the City? The City has little to do but file reports with the implicit promise that there is no intention to hold them accountable for a real solution. (SARA)

Prosecution Team Response: The reports must show that the City has made actual, physical improvements or is taking the intermediate steps to construct those improvements. For example, the 30 January 2012 progress report requires that the City document that it has obtained bids for the SCADA upgrades; bids to line pond 3; has implemented Options 3 and 5; and has made progress towards compliance with the copper effluent limit. All of this work must be completed in less than two months after adoption of the CDO. Attachment A of the CDO contains a summary of all due dates in chronological order. The CDO extends for only 2-1/2 years, through May 2014. During this time, the City must, among other items, dewater Pond 3, install the liner, complete I/I improvements, complete a stress test, comply with the copper effluent limit, complete a geotechnical investigation, and revise its water balance to determine whether or not it has sufficient capacity to comply with the WDRs. If there is not enough capacity, the City must propose a schedule for financing, design, and construction of the improvements needed to comply.

Comment No. 2: If work plans are not submitted, significant fines must be collected, not just noted and forgiven. If such a measure fails, accountability must be insured by referral to the Attorney General. (SARA)

Prosecution Team Response: The Prosecution team intends to enforce deadlines contained in the CDO. If work plans are not submitted, staff will recommend discretionary enforcement to the Board, and if appropriate, referral to the Attorney General.

Issue No. 11: Requests for specific changes to the CDO

Comment No. 1: The CDO must be revised to require the City to analyze the feasibility of all alternatives to dewater Pond 3 and to increase treatment plant capacity to meet treatment pond and storage reservoir operating requirements for a 100-year storm event. The CDO

should order the City to analyze alternatives to fix pond leaks and comply with Discharge Prohibition III.A of the WDRs. (AE 2-3)

Prosecution Team Response: Mr. Edwards appears to be recommending that the City be required to conduct more studies instead of conducting actual work that the City has already identified, and the Prosecution staff has reviewed and recommends, as the preferred alternatives for dewatering and lining Pond 3, reducing I/I, and meeting storage capacity requirements. As stated in Finding 42, Prosecution staff has evaluated the alternatives presented by the City for dewatering Pond 3 and identified four alternatives that are practicable and most protective of water quality. As stated in Finding 38, there are known viable options that treatment plants can implement to meet storage requirements during a 100-year storm event. In its 2008 report Preliminary Design Report for Pond No. 3, Liner Retrofit, the City already conducted a feasibility study for several options to line Pond 3. In short, the City has already done the feasibility studies it needs to do and it is time to get down to work.

Prosecution staff's assessment of the City's proposals to come into compliance with the WDRs, which are memorialized in the proposed CDO and would become enforceable if the CDO is adopted, is that they appear to be feasible. The City's proposals are supported by the work of California Registered Engineers and other professionals. There is no substantial evidence in the record to indicate that the approach to achieving compliance with the WDRs set forth in the CDO is not realistic and achievable. To the contrary, substantial record evidence indicates that the combination of reduced I/I, dewatering and lining Pond 3, enhancing WWTP efficiencies and increasing WWTP capacity will result in compliance with the WDRs within a reasonable time. The specific approaches to dewatering Pond 3 and lining it also appear to be feasible and are supported by substantial evidence. While Prosecution staff sympathizes with the past problems Mr. Edwards has had with the WWTP, the City's current proposals have been thoroughly analyzed by staff and stand on their own merits.

Finally, Prosecution staff feels compelled to point out to the Board the internal inconsistencies in Mr. Edwards' argument for further feasibility studies. Mr. Edwards has argued, on the one hand, that the City should be ordered to come into compliance with the WDRs as soon as possible "under a tightly defined and accelerated schedule" (AE comments, p. 2) and, on the other hand, that the Board "should prohibit the City from spending money on either capacity increases or dewatering and lining the pond" until it completes a laundry list of additional feasibility studies (AE comments, p. 4). Further feasibility studies would only serve to further delay the City's ability to comply with the deadline for lining Pond 3 and, ultimately, coming into compliance with the WDRs. It would also serve to unnecessarily divert funding from the work that needs to be done. Moreover, the Prosecution staff understands that the City and Mr. Edwards have agreed in their federal settlement that Pond 3 must be lined by either November 2012, or if there is sufficient rainfall during winter 2011/2012, by no later than November 2013. As already noted, the Central Valley Water Board is in no way bound by the settlement agreement between the City and Mr. Edwards, but it appears Mr. Edwards is presenting recommendations to this Board that conflict with an agreement that he himself has

made with the City, and that could result in a personal award of stipulated penalties to the Edwards. The Board should not be a party to this type of gamesmanship.

Comment No. 2: Finding 54 states that the City is protected from MMPs for exceedance of the dry weather flow rate through 1 December 2012 (the date by which Pond 3 must be lined). The City asks that if there is an extreme wet year and it is granted an additional year to line Pond 3, then the MMP protection also be extended. (City 6)

Prosecution Team Response: Prosecution staff recently asked that the State Water Board's Office of Enforcement review the section regarding MMPs. We have been advised that Finding 54 is in error, and while it is acceptable to temporarily increase the dry weather flow rate to allow for Pond 3 to be dewatered, this does not meet the criteria in CWC section 13385 for an exemption to an MMP. However, based on the Compliance Determination language in the permit, an exceedance of the permitted dry weather flow limit of 0.275 mgd is only subject to one MMP per year. It is noted that if this winter's rainfall is such that the pond can be dewatered by 30 May 2012, then the temporary dry weather flow increase will not be needed and an MMP will not be assessed. However, if the rainfall is such that the pond lining project must be extended to 2013, then the City will need to discharge at the temporarily increased flow rate of 0.5 mgd during the late summer of 2012, and will be subject to one MMP for the entire three-month period. The Finding has been revised.

Comment No. 3: The City requests than any future MMPs be applied toward compliance projects. (City 12)

Prosecution Team Response: The City has been previously determined to be a small community with financial hardship, and therefore CWC section 13385(k) allows MMPs to be applied toward compliance projects. Prosecution staff agrees in concept that future MMPs should be applied to compliance projects, but believes it more appropriate to evaluate each violation as it occurs and the merits of each compliance project on an individual basis as it is proposed.

Comment No. 4: The CDO currently requires that the First Quarter 2012 Progress Report show that the City has advertised for bids to complete the I/I work. The City states that it would like to conduct flow monitoring and CCTV inspections in April and May so that it may quantify and locate high groundwater infiltration. Once this is completed, the City would go to bid. The City is requesting that the bid documents be required three months later, as part of the Second Quarter 2012 Progress Report. (City 7)

Prosecution Team Response: Prosecution staff agrees that flow monitoring and CCTV inspections are important to direct the I/I work to the pipeline segments most in need of repair or replacement. The CDO has been revised per the City's request.

Comment No. 5: The calculation of the copper interim effluent limitation was made assuming a normal distribution of data. However, the data is log-normally distributed which provides a larger standard distribution. The City is requesting edits to Finding 46 and Hereby Ordered Item 23.

Prosecution Team Response: According to the US EPA March 1991 *Technical Support Document for Water Quality-Based Toxics Control*, daily pollutant discharges are generally log-normally distributed. The limited data set used to calculate the interim copper limitation in the 2010 CDO fit both a normally distributed and a log-normally distributed pattern equally; staff chose to use a normal distribution. Water Board staff re-evaluated the data set used for this CDO and confirmed that the data that it follows a log-normal distribution more closely than a normal distribution. The effluent limitation has been re-calculated based on the log-normal distribution as 13.3 ug/l. Since the monitoring and reporting program contained in the WDRs requires monthly effluent sampling for copper, the same limitation of 13.3 ug/l is used for the performance-based average monthly limitation and maximum daily interim limitations.

Comment No. 6: The City asked for clarification to the statement in Finding 19 that “seepage discharges from Pond 3 are a violation of Prohibition III.A of the WDRs.”

Prosecution Team Response: Prohibition III.A states that a discharge in a manner different than that described in the Findings is a violation. Finding II.A states that the discharge includes “collected and treated seepage”. Prosecution staff agrees that a violation would occur only if seepage is discharged directly to receiving waters. There is no evidence of this, and therefore the Finding has been edited.

Comment No. 7: The City states that Finding 41, which discusses the timeline for dewatering of Pond 3, is not quite clear and asked for minor clarifications.

Prosecution Team Response: The changes have been made.

Issue No. 12: CEQA analysis is needed

Comment No. 1: The CDO requires the City to complete projects for which no CEQA analysis has been completed. The Board must comply with CEQA prior to ordering specific projects. (AE 13)

Prosecution Team Response: The City appears to have already analyzed the potentially significant adverse environmental impacts of physical changes to the environment, such as those caused by the WWTP and the lining of Pond 3. Mr. Edwards cites Public Resources Code section 21166(a), and CEQA regulatory guidelines section 15162 and 15163 to support his argument that further CEQA review is required, (AE Comments, p. 13.) But, as California’s Supreme Court instructs, CEQA only requires further review under these sections if there are substantial changes to a project that will create a significant increase in the severity of previously identified impacts. *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist, Agricultural Assn.* (1986) 42 Cal.3d 929, 933-934. Other than these projects, and changes

to the City's discharges resulting from implementation of Pond dewatering alternatives 1, 3 and 5, Mr. Edwards has not identified any other action in the CDO that may require a discretionary permit or qualify as a "project" under CEQA. The argument that further CEQA review is required here fails. The issuance of a CDO by a water board that may cause water quality or water-related impacts is statutorily exempt from CEQA under Water Code section 13389. *Pacific Water Conditioning Assn. v. City of Riverside* (1977) 73 Cal.App.3d 546, 555-556. Mr. Edwards' argument that the adoption of the CDO needs further CEQA review fails because the changes to the WWTP operations or the Pond liner project do not result in a significant increase in environmental impacts, and because impacts that may be caused to water quality need not be analyzed under CEQA pursuant to the statutory exemption from so doing set forth in Water Code section 13389.

Comment No. 3: Increasing the discharge flow to allow for the stress test and for the Pond 3 dam seepage water will require a CEQA analysis. (AE 9). There may be significant impacts to the environment from the continued pollution and from the species-affecting changes in flow rates in Smuther's Ravine, as well as the lack of a connection restriction, and the fact that the Colfax treatment plant hasn't connected to a regional wastewater treatment facility. (FONF)

Prosecution Team Response: The comments address potential changes to the physical environment caused by flow rates. All effluent limitations remain unchanged from those previously analyzed in the WWTP EIR. Accordingly, the stress test is not a substantial change to the WWTP project that would cause a significant increase in environmental impacts and does not qualify for further environmental review under Public Resources Code section 21166. Moreover, the Central Valley Water Board's adoption of a CDO is statutorily exempt from CEQA under Water Code section 13389 for purposes of analyzing water quality impacts. *Pacific Water Conditioning Assn. v. City of Riverside* (1977) 73 Cal.App.3d 546, 555-556

Issue No. 13: Legal Issues

Comment No. 1: The actions by the State Water Board to approve a grant to fund sewer collection system improvements and the Pond 3 liner, and the actions by the Central Valley Water Board regarding the CDO and ACLO, are inseparable for purposes of this hearing. One Board cannot absolve itself of responsibility when the other Board acts. (FONF)

Prosecution Team Response: Prosecution staff acknowledges that the State Board approved a grant to fund sewer collection system improvements and the Pond 3 liner. However, Prosecution staff would be recommending the imposition of MMPs, that the MMPs be applied to compliance projects, and that the City be required to reduce I/I through sewer collections system improvements and install the Pond 3 liner, even if the City had not received the grant. It appears that the City planned well to receive the grant money in time to help meet its compliance obligations.

Comment No. 2: The Board needs to consider the larger context of this item. For example, FONF believes that future issues to be considered include the upcoming NPDES permit renewal, the need for an industrial pre-treatment program, a municipal storm water program, for a non-point source pollution program, and any other State or Regional policy that may apply. The past issues that should be considered are the State Water Board hearing of 19 September 2011, the Federal settlement, last year's CDO hearing, the 2007 NPDES permit hearing, and mandated compliance and enforcement directives. (FONF)

Prosecution Team Response: The City's NPDES Permit is up for renewal in late 2012. The issues raised by the commenter may all pertain to the City's Permit renewal, but are certainly irrelevant to the determination of whether MMPs should be imposed on the City, whether the MMPs should be applied to compliance projects, and/or whether the City should be compelled to perform the specific tasks in accordance with the time schedule in the CDO under threat of civil liability if it does not.

Comment No. 3: The 22 day period in which to submit comments is unreasonable. (FONF).

Prosecution Team Response: The Central Valley Water Board has adopted standard procedures for adjudicatory proceedings such as this. The comment period was already extended by one week beyond that normally allowed in an adjudicatory proceeding at Friends' request. Friends was able to submit extensive comments on the proposed orders that go well beyond the topics that are at issue in the proceeding. Accordingly, the comment period is adequate.

Comment No. 4: The State Water Board's approval of the grant package, as well as the CDO and ACLO, fail to protect endangered and threatened species. (FONF)

Prosecution Team Response: While it is difficult to ascertain for certain, the Prosecution staff interprets this comment to be a claim that additional CEQA analysis should be performed focusing on impacts to endangered and threatened species. As already noted, an EIR was prepared for the WWTP and CEQA analysis was performed for the Pond 3 liner project. The ACLO is not a project with any potential to impact the environment. There is no substantial evidence in the record to indicate that the WWTP and Pond 3 liner projects already analyzed under CEQA have changed in a substantial way that causes a significant and previously unidentified impact to endangered and/or threatened species. See Public Resources Code section 21166; *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist, Agricultural Assn.* (1986) 42 Cal.3d 929, 933-934. Moreover, the adoption of a CDO is statutorily exempt from CEQA under Water Code section 13389. *Pacific Water Conditioning Assn. v. City of Riverside* (1977) 73 Cal.App.3d 546, 555-556.

Comment No. 5: The State Water Board and Central Valley Water Board have failed to consider that the viability of Colfax is in question. (FONF)

Prosecution Team Response: The State Board reviewed the City's *financial* viability in the context of approving the grant and loan re-financing agreements. The Prosecution staff's recommendation that MMPs be applied to compliance projects is, in part, based on the City's financial condition, but there is no evidence in the record that could support a finding that the City is financially insolvent or incapable of operating its WWTP. Even if there were, the Prosecution staff has no discretion to waive MMPs, and would still be recommending that the City implement the requirements of the CDO.

Comment No. 6: The Central Valley Water Board should require that Colfax implement an industrial pre-treatment program. (FONF)

Prosecution Team Response: Whether and the extent to which the City should be required to implement an industrial pre-treatment program is best determined in the context of the City's upcoming NPDES Permit renewal process.

Comment No. 7: The State Water Board and Central Valley Water Board cannot base decisions on a federal case settlement. (FONF)

Prosecution Team Response: While it may be relevant or important to be aware of the terms of a settlement agreement, whether state or federal, such an agreement does not bind the Central Valley Water Board and cannot compel it to exercise its discretion in any particular manner.

Comment No. 8: The State can't rely on everything in a report just because a registered professional engineer signed and stamped it. The State can't rely on matters outside the professional competence of the certifier or on matters with no supporting documentation. (FONF)

Prosecution Team Response: Without substantial evidence to the contrary, or evidence to indicate that a registered professional engineer has somehow acted improperly, the Central Valley Water Board is entitled to rely on the reports of competent experts, including registered professional engineers. In fact, expert opinions are themselves substantial evidence and can be the sole basis for a finding. "Substantial evidence" means facts, reasonable assumptions based on facts and expert opinions supported by facts. *Friends of Davis v. City of Davis* (2000) 83 Cal.App.4th 1004, 1019. Of course, an opinion expressed by an expert that is outside that person's area of expertise, or an opinion not based on facts, may not constitute substantial evidence, but the Prosecution staff is unaware of any such opinions being expressed and/or relied upon by staff in this matter.

Comment No. 9: The State failed to anticipate that the I/I measures would fail, that the pond liner would fail to be installed in a timely manner, that the pond lining itself would fail, and that the City itself would fail. (FONF)

Prosecution Team Response: Substantial evidence in the record indicates that the I/I measures will reduce I/I, that the pond liner will be installed in a timely manner and perform as intended and, based on the State Board's review and approval of the grant and loan re-financing, that the City will not fail financially. There is no substantial evidence in the record to the contrary on any of these issues. Importantly, once the I/I measures are implemented, Pond 3 is lined and the WWTP's operational capacity is optimized, in the unlikely event the City is still out of compliance with its WDRs, the CDO requires the City to present a plan to come into compliance.

Comment No. 10: The standard for a referral to the Attorney General for criminal matters needs to be identified, as well as the standard for a referral for water quality violations. (FONF)

Prosecution Team Response: The Central Valley Water Board has broad discretion to refer civil matters to the California Attorney General. The Central Valley Water Board may not prosecute criminal matters, and all criminal matters must be prosecuted by the California Attorney General or a District Attorney's Office.

Comment No. 11: "All issues raised in our communications to the State (9/15/11, 9/19/11 e-mails to comment letters) and Regional boards including but not limited to in 2010 and 2011 are at issue in this hearing." (FONF)

Prosecution Team Response: The only matters at issue in this proceeding are: (1) how many MMPs should be issued to the City of Colfax; (2) whether the MMPs should be applied to compliance projects; and (3) whether the Central Valley Water Board should issue, decline to issue or modify the proposed CDO. Other matters are not properly noticed for the Board's consideration.

Rebuttal Evidence

Rebuttal evidence was submitted by the Prosecution Team, Friends of the North Fork, Allen Edwards, and the City of Colfax. A summary of each document is provided:

Prosecution Team: The Prosecution Team submitted a rebuttal evidence list with documents that were used to prepare the Response to Comments.

Friends of the North Fork

- The City's comments to the draft CDO are simply requests to be allowed to complete a series of studies instead of investing in permanent fixes that will be much cheaper in the long run. (Prosecution Team : The CDO requires the City to make permanent improvements designed to come into compliance with the Board Orders.)

- The City must be mandated to take all actions to prevent I/I and the Board cannot postpone this. I/I correction should be the priority instead of the other activities in the CDO. (Prosecution Team: The CDO does not allow the I/I repairs to be postponed. Some of the non-compliance issues are not related to I/I, and the other activities required by the CDO are also permanent improvements that will lead to full compliance with the permit. These improvements should proceed concurrently with the City's efforts to reduce its I/I.)
- Pond 3 should not be used in the future as the liner project will fail, the dam is unsafe, improvements are problematic, and the City has not provided documentation about settlement of the dam material. (Prosecution Team: There is no evidence to support the first three statements. Several more recent inspection reports from DWR indicate the dam is safe for use as intended. The last statement is a new argument and is improper as rebuttal. Accordingly, the argument should be stricken from the record.
- Chlorination and ultraviolet disinfection create problematic substances, and a UV facility should be considered inappropriate and antiquated. (Prosecution Team: Chlorination is not used to disinfect the wastewater at this facility. UV disinfection is used extensively at wastewater treatment facilities, including this one, and there is no evidence that the process is "antiquated".)
- Friends of the North Fork also brought up three issues (items 1, 6, and 7) that are considered "new argument " and are not offered to rebut the Designated Parties' initial arguments. Therefore the Prosecution Team hereby requests that these be stricken from the record as untimely arguments. Importantly, the arguments appear to be leveled at the Notice of Hearing Procedures (argument 1), which has already been extensively discussed and ruled on by the Advisory Team, and the City's financial health (arguments 6 and 7), which are not only irrelevant to the subject matter of these proceedings, but wholly unsubstantiated by any evidence.

Allen Edwards: This rebuttal is directed toward the City of Colfax's comments on the draft CDO.

- The City has not "made great strides in meeting discharge requirements". The City should have known about problems with the size of Pond 3. The treatment facility is too small. (Prosecution Team: We do not disagree that there is a long history of violations at this facility, but it is appropriate to evaluate compliance for purposes of this CDO beginning in January 2009, when the permanent tertiary treatment plant began operations).
- The City's statement that the new contract operators, Water Pollution Control Services, have brought the treatment plant to a higher level of performance is not true. There have been hundreds of violations over the last two years and a 25 million gallon bypass in spring 2011. (Prosecution Team: A review of the hundreds of alleged violations shows that only a small number are real violations, and that since WPCS was hired, those violations have almost ceased.)

- The City should have conducted studies to determine if all seepage was collected. (Prosecution Team: We are not certain what additional studies were warranted, but the point is moot because Pond 3 will be lined shortly and seepage should no longer be an issue).
- The City refers to plans, specifications, and bids which are not in the case file. (Prosecution Team: These documents are on the Prosecution Team's rebuttal evidence list and are included in the City's rebuttal).
- The City makes comments regarding the stress of the ongoing litigation with the Edwards, and that the litigation process was used to delay adoption of the financing package. Mr. Edwards disagrees and states "The principal objective of the litigation is to bring the City into compliance within the shortest practical timeframe". (Prosecution Team: That is also the goal of the CDO).
- The City states that it is nearly impossible to dewater Pond 3. However, the City has created its own problems. (Prosecution Team; The CDO sets forth realistic actions with achievable deadlines for dewatering Pond 3.)
- The Board should not grant the City flexibility in the CDO, and the City should not prioritize activities by cost effectiveness. (Prosecution Team: The CDO contains specific requirements and timelines by which improvements must be constructed).
- The City's claim that there are no known seepages from Pond 3 that are not collected is false and the City's request for clarification of Prohibition III.A must be denied. (Prosecution Team: These issues are already discussed earlier in this Response to Comments).
- Alternative 1 may not be viable. Plant improvements must be made before considering higher treatment flow levels. (Prosecution Team: There appears to be a misunderstanding of Alternative 1. We believe that it is viable. The stress test is being conducted to determine if plant improvements are needed before the effluent flow rate can be permanently increased.)
- The dam seepage treatment system must treat effluent to full tertiary standards. (Prosecution Team: The CDO requires that the blended discharge meet the permit effluent limits).
- Permit limits must be in effect during the stress test. (Prosecution Team: We agree, and the CDO has been revised to clearly reflect this).
- There is concern about the appropriate rainfall "trigger" to allow the Pond 3 lining project to be delayed by one year. (Prosecution Team: This issue is addressed earlier in this Response to Comments. The CDO contains a rainfall trigger based on the accepted water balance and the volume of water in Pond 3 as of October 2011).

- It is not a good idea to only collect one sample of the blended discharge of treatment plant effluent and treated dam seepage. It would be better to collect one sample from each stream in order to detect any problems. (Prosecution Team: The City agrees, and the CDO has been modified to allow samples to be taken from each treatment stream).
- The enhanced evaporation system may cause odors. (Prosecution Team: This issue has been addressed earlier in this Response to Comments).
- In regard to the five water balances submitted with the City's comments: the Board should realize that Alternative 5 is only temporary, and that the models will not be representative of water levels after the pond is lined. (Prosecution Team: Agreed. The CDO requires that a new water balance be completed after the pond is lined).
- The City shows that Pond 3 can be dewatered by May 2012 only if the precipitation is 48 inches or less. It appears "virtually certain" that the pond will not be dewatered unless measures beyond those in the draft CDO are taken. The Board should order much more aggressive pond dewatering and treatment capacities including: install a tertiary treatment system to dewater pond 3 and treat excess winter flows, impose a connection restriction, design and implement a plant expansion. (Prosecution Team: It is gratifying to note that Mr. Edwards is now endorsing pond dewatering options, as opposed to some of his earlier comments seeking to defer and engage in further studies. In order to dewater the pond faster, the Board may wish to consider a higher flow limitation for the treated dam seepage water. Prosecution staff does not recommend a connection restriction, as discussed earlier in this Response to Comments. Prosecution staff believe that the timeline for designing, financing, and constructing a plant expansion will be much longer than for dewatering and lining pond 3, and the result of the activities required by the CDO may negate the need for a plant expansion.)

City of Colfax: This rebuttal is directed toward both Mr. Edwards' and the Friends of the North Fork's comments on the draft CDO.

- The City has demonstrated significant progress toward compliance with Board orders since the tertiary treatment plant was completed in January 2009, and remains committed to full compliance. The document contains a list of examples of that commitment. (Prosecution Team: We agree that the City has made significant progress towards compliance since the tertiary treatment plant was completed in January 2009, but there is still significant improvement needed).
- The Edwards' objection to the Pond 3 liner and the contents of the CDO is contrary to their stated position in federal court. The Edwards repeatedly demanded the Pond 3 liner in federal court. To date, the City has met every obligation set forth in the November 2010 federal court settlement. The only outstanding items are dewatering and lining Pond 3. (Prosecution Team: The Central Valley Water Board is not privy to the federal court proceedings in this matter, and the proposed requirements in the CDO stand on their own

merits).

- A sewage connection restriction is not warranted. (Prosecution Team: Agreed).
- Additional CEQA analysis is not needed for effluent flows up to 1 mgd. (Prosecution Team: Agreed).
- It is appropriate to re-evaluate the required treatment plant capacity after completing the tasks required by the CDO. The document contains a discussion of the approximate volume of water seeping into and out of Pond 3. To protect the Pond 3 liner, pressure relief valves may be installed which would only open when there is higher pressure under the liner than over it. The treatment plant has had upsets during the sewer collection line cleaning work, and during power failures when the algae removal system was disrupted. As part of the recently funded I/I work, the City will conduct extensive flow monitoring of the collection system to determine the locations that most need rehabilitation or replacement. (Prosecution Team: Comments noted).
- The CDO allows the City to dewater the storage reservoir in a timely manner so that it can be lined. Additional information is provided regarding the stress test. Enhanced evaporation should not cause odors. Additional analytical results are provided to support the installation of a UV disinfection system to treat the dam seepage water and the City contends that the treated effluent would meet permit limits. (Prosecution Team: Comments noted).
- The Pond 3 liner design follows standard design practices. During a geotechnical evaluation in October 2007, seepage was found at two feet below the bottom of the pond in one test pit. The other five pits did not contain evidence of groundwater or seepage. The pond design includes an 8-foot high fence to prevent deer intrusion and a 2-foot thick "ballast" layer to counteract wind lift. The manufacturer's warranty for the 60-mil HDPE liner is 20 years, while a recent white paper estimates a 36-year lifespan for the liner. (Prosecution Team: Comments noted).
- The CDO allows an appropriate adjustment to the schedule to line Pond 3 if there is excessive rainfall this winter. Additional information is provided about the water balance and the difference between the two rainfall gauging stations. (Prosecution Team: Comments noted).
- The City is committed to substantial I/I work. The grant funds are to be used to rehabilitate over 10,000 feet of sewer line and 100 manholes, as well as conduct flow monitoring and smoke testing. (Prosecution Team: The City's I/I work is required by the grant and the CDO and should enhance its system as compared to current operations).
- The dam creating Pond 3 is safe. (Prosecution Team: DWR documents and inspection reports conclude that the Pond 3 dam is safe for use as intended).

- The CDO does not allow unrestricted new connections and does not need to require an industrial pre-treatment program. (Prosecution Team: Agreed).
- The Phase 2 municipal stormwater program does not include Colfax and has no bearing on the NPDES permit or the CDO for the wastewater treatment facility. (Prosecution Team: Agreed).