

Appendix C
Response to Comments

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION**

RESPONSE TO WRITTEN COMMENTS
on Tentative Cease and Desist Order for
City of Calistoga Dunaweal Wastewater Treatment Plant
1100 Dunaweal Lane, Calistoga, Napa County

The Regional Water Board received written comments on a tentative cease and desist order (CDO) distributed for public comment from the following parties:

1. City of Calistoga
2. California Fisheries and Water Unlimited
3. Citizens for a Green Community
4. Forest Unlimited
5. Napa County Farm Bureau
6. Napa Valley Grapegrowers
7. Mr. Bill Dyer
8. Mr. Geoff Ellsworth
9. Mr. Joe Matthews
10. Mr. Hal Huffsmith
11. Ms. Anne Scott
12. Mr. Carl Sherrill

The tentative CDO would enforce Order Nos. R2-2010-0104 (Permit) and R2-1996-0011 (General Water Reuse Order).

Regional Water Board staff has summarized the comments shown below in *italics* (paraphrased for brevity) and followed each comment with staff's response. For the full content and context of the comments, please refer to the comment letters.

All revisions to the tentative CDO are shown with underline text for additions and strikethrough ~~text~~ for deletions.

1. CITY OF CALISTOGA (CITY)

City Comment 1: The City favors adoption of the tentative CDO, stating that the tentative CDO acknowledges the fiscal and time constraints on improving the City's wastewater infrastructure, and sets forth a manageable implementation schedule.

Response to Comment 1.

No response is necessary.

2. CALIFORNIA FISHERIES AND WATER UNLIMITED (CF&WU)

***CF&WU Introductory Comment:** CF&WU states that it has standing in regard to pollution of the Napa River by the City of Calistoga Dunaweal Wastewater Treatment Plant, citing to a number of prior communications and submissions.*

Response to Introductory Comment: We acknowledge that CF&WU has corresponded previously with Regional Water Board staff concerning the City of Calistoga's (City's) wastewater treatment plant and its discharges to the Napa River. Because those prior communications and submissions preceded the tentative CDO, and therefore do not comment on the tentative CDO, we do not address them here.

***CF&WU Comment 1:** CF&WU opposes modifying the City's discharge permit to allow discharge to the Napa River outside the currently permitted dates of November 1 through June 15. CF&WU notes that the Napa River is impaired pursuant to Clean Water Act section 303(d) due to sediment, nutrients, and pathogens.*

Response to Comment 1: No changes are necessary. The tentative CDO would not modify the existing discharge season. It enforces existing permit requirements, including the discharge prohibition from June 16 through October 31.

***CF&WU Comment 2:** CF&WU opposes increasing the City's effluent pumping capacity due to the potential effects on aquatic life, including anadromous fish such as salmon and steelhead.*

Response to Comment 2: We disagree. The tentative CDO (Table 1, task "a," item 6) would allow an increase in effluent pumping capacity only to the extent that any increased discharge flows only occur when high river flows provide ample dilution as required by the Permit. The sole reason the tentative CDO would allow increased effluent pumping capacity is that the Permit allows discharge rates during high river flows that are higher than the City's current pumping capacity. Such discharges in compliance with Permit-required dilution ratios would free up existing storage and not harm the beneficial uses of the Napa River.

***CF&WU Comment 3:** CF&WU opposes increased landscape irrigation using recycled wastewater until the Regional Water Board determines that all known contaminants, including antimony, boron, ammonia, cyanide, mercury, copper, arsenic, chlorodibromomethane, dichlorobromomethane, salts, oil and grease, and polychlorinated biphenyls (PCBs), will not cause or contribute to soil or groundwater pollution, affect public health, or degrade local wells. CF&WU urges investigation of reports that recycled water application sites are becoming more saturated and recycled water may be harming trees. CF&WU requests any data on adverse public health effects at sports fields, lawns, and golf courses irrigated with recycled wastewater, particularly regarding potential effects on children.*

Response to Comment 3: We disagree. Consistent with State Water Board Resolution No. 77-1, we support and encourage water recycling, which is an important means of conserving and preserving the beneficial uses of the State’s waters, particularly given the ongoing drought. Increased landscape irrigation (along with increased storage and treatment capacity and reduced plant inflows) would reduce Napa River discharges and bypasses to over-saturated City-owned irrigation fields.

The tentative CDO enforces the General Water Reuse Order, which is based on Title 22 of the California Code of Regulations, to protect human health and groundwater resources. The City already provides sufficient treatment to comply with General Water Reuse Order requirements. Because the General Water Reuse Order is designed to protect human health and groundwater resources, it does not require monitoring for adverse public health effects at sport fields, lawns, golf courses, etc. At the concentrations found in recycled water, antimony, boron, ammonia, cyanide, mercury, copper, arsenic, chlorodibromomethane, dichlorobromomethane, salts, oil and grease, and PCBs do not pose significant human health risks and do not harm trees.

We revised tentative CDO Table 1 as follows to clarify that increasing irrigation means adding irrigation area, not simply increasing irrigation flows at existing locations:

Task	Compliance Date
<p>a. Report on Actions to Comply with Prohibitions: Submit a report on progress implementing actions to eliminate the need for bypasses and to meet discharge prohibitions. The report shall include the following actions, identified in the June 24, 2013, <i>Bypass Alternatives Investigation Report</i>, and discussed in the June 17, 2014, <i>Status Update Report</i>:</p> <p>⋮</p> <p>2. Increasing landscape irrigation <u>by adding irrigation area</u>;</p> <p>⋮</p>	<p>March 31, 2015</p>

CF&WU Comment 4: CF&WU supports demolition and relocation of the City’s riverside ponds due to their proximity to the Napa River and potential for seepage, percolation, flooding, and uncontrolled discharges. CF&WU also supports restoration of the site to its original conditions.

Response to Comment 4: We agree that the riverside ponds should be rehabilitated to eliminate the potential for seepage, percolation, flooding, or uncontrolled discharges. We revised the tentative CDO to reflect this. We inserted the following as finding 10 (renumbering previous findings 10 through 25, accordingly, to 11 through 26):

10. On December 10, 2013, in response to a Regional Water Board request, the Discharger investigated and reported that there was about 5,000 gallons per day of seepage of treated wastewater from the Plant’s riverside ponds to groundwater and possibly to the Napa River. The riverside ponds are directly adjacent to the Napa River and were originally built in the 1970s as percolation ponds but have not been maintained as such.

We revised finding 15 (formerly finding 14) as follows:

- 14 15.** This Order requires the Discharger to take specific actions to comply with the Permit and General Water Reuse Order for ~~two~~ three reasons:
- a. Plant discharges threaten to violate the Permit's discharge prohibitions against discharges to the Napa River when the river-to-wastewater flow ratio is insufficient to provide adequate dilution. Bypasses to the irrigation fields threaten to violate the General Water Reuse Order, which prohibits runoff of treated wastewater from recycled water use sites; and
 - b. Plant discharges have violated, and threaten to violate, the Permit's antimony effluent limitations.
 - c. Seepage from the riverside ponds threatens to violate the Permit discharge prohibition against unauthorized discharges.

We revised finding 19 (formerly finding 18) as follows:

- 18 19.** The Discharger threatens to violate the Permit's discharge prohibitions and the General Water Reuse Order's prohibitions unless corrective actions are taken.
- ⋮
- d. The Discharger threatens to violate Permit Prohibition A by allowing seepage from the riverside ponds to discharge directly or indirectly to the Napa River.
 - ~~d.~~ e. The Discharger threatens to violate General Water Reuse Order Prohibitions A.2 and A.3 during bypass operations by discharging tertiary-treated wastewater to recycled water use sites when the soil may be saturated and runoff may occur.

Finally, we added Provision 2 (and renumbered previous Provisions 2 through 6, accordingly, to 3 through 7), as follows:

- 2. Rehabilitation or Replacement of the Riverside Ponds.** The Discharger shall evaluate and submit a report outlining alternatives for rehabilitating the riverside ponds to eliminate seepage, percolation, or other uncontrolled discharge to the Napa River, including the alternative of replacing the treatment function of the riverside ponds with another method. The report shall identify at least one preferred alternative and detail the steps and timeframe anticipated to implement that preferred alternative. The Discharger shall submit the report no later than June 1, 2015.

Restoring the site of the riverside ponds to its original conditions is beyond the scope and authority of this tentative CDO because neither the Permit nor the General Water Reuse Order requires such restoration.

***CF&WU Comment 5:** CF&WU recommends posting of the Napa River adjacent to and downstream of the treatment plant to prevent human contact and protect public health until the*

waters are safe. CF&WU reports individuals needed antibiotics after inspecting the Napa River adjacent to the wastewater treatment plant.

Response to Comment 5: We disagree. It is not clear from the comment when the inspections occurred; whether the City was bypassing tertiary-treated wastewater from its irrigation fields at the time of the inspections; or specifically where the inspections occurred in relation to the plant (e.g., upstream or downstream or near the City's irrigation fields). The treatment plant discharge is safe for human contact – even from the bypassed discharges - so posting is unwarranted. The only contaminant in the City's discharge that might necessitate the use of antibiotics is bacteria. Monitoring shows that plant discharges meet Permit and General Water Reuse Order bacteria limitations, which protect human health during and following water contact recreation or from incidental human contact. The antimony violations addressed by the tentative CDO relate to effluent limitations derived from drinking water standards. However, the drinking water standards assume much higher consumption than a typical recreational user would experience: two liters per day for a lifetime for an adult and one liter per day for a child.

CF&WU Comment 6: CF&WU supports immediate notification of all downstream Napa River water users (for irrigation, frost protection, or other purposes) regarding the City's violations.

Response to Comment 6: We provided notice of the City's violations and this tentative CDO through publication in the Napa Valley Register on September 24, 2014, and an email announcement and posting on our web site on September 22, 2014. The State Water Board also issued a press release on September 22. Based on the comments received on the tentative CDO, the notice was effective. The aim of the tentative CDO is to ensure that Napa River water is safe for irrigation, frost protection, and other purposes.

CF&WU Comment 7: CF&WU supports requiring treatment to remove pollutants at the treatment plant prior to treated wastewater being discharged to the Napa River or recycled at irrigation sites.

Response to Comment 7: We agree that treatment may be necessary to comply with the Permit. Tentative CDO Table 2, Task d, requires treatment plant upgrades if source identification and control measures do not result in Permit compliance. The tentative CDO requires source identification and control measures first because such measures could be more cost effective than treatment and could reduce the level of treatment ultimately required.

CF&WU Comment 8: CF&WU supports boron limitations for all Napa County wastewater discharges.

Response to Comment 8: Boron (like antimony) may be coming from geothermal spas. The measures the tentative CDO would require to control antimony could also control boron. Additionally, we have required the City to collect data to determine if boron discharge limits are necessary and, if so, at what levels. If these data show that there is reasonable potential for the boron discharged to cause or contribute to exceedance of boron water quality objectives, then the Regional Water Board will also consider imposing boron discharge limits.

CF&WU Comment 9: CF&WU supports implementation of a 2001 agreement between the City and various spas to identify, monitor, and meter the City’s commercial geothermal water users, effectively reducing geothermal inflows to the wastewater collection system.

Response to Comment 9: We are not a party to the agreement between the City and the geothermal spas, and the agreement has no bearing on Regional Water Board authorities. The tentative CDO would require a pollution prevention plan for antimony, a geothermal constituent. If spas are confirmed to be an antimony source, the tentative CDO would require the City to consider metering, monitoring, and charging for geothermal discharges to its sewers. We revised Table 1 of the tentative CDO to strengthen this requirement:

Task	Compliance Date
<p>a. Report on Actions to Comply with Prohibitions: Submit a report on progress implementing actions to eliminate the need for bypasses and to meet discharge prohibitions....</p> <p>⋮</p> <p>4. Reducing geothermal inflows to the plant <u>by such means as metering, monitoring, and charging for discharges of geothermal water to the sewer system or other means as necessary;</u></p> <p>⋮</p>	<p>March 31, 2015</p>

We also revised Table 2 of the tentative CDO:

Task	Compliance Date
<p>a. Submit Pollution Prevention Plan for Antimony: Submit a pollution prevention plan to identify and reduce antimony sources and comply with Permit antimony effluent limitations....</p> <p>⋮</p> <p>2. Analysis of methods to prevent antimony discharges from identified sources, including application of local limits to industrial or commercial dischargers, pollution prevention techniques, public education and outreach, and other innovative and alternative approaches. If geothermal waters are an substantial antimony source, the analysis shall consider <u>include</u> metering, monitoring, and sur<u>charging for</u> geothermal discharges from commercial and industrial facilities. These discharges are within the Discharger’s ability and authority to control. The analysis shall also identify sources, or potential sources, not within the Discharger’s ability or authority to control, such as pollutants in the potable water supply, airborne pollutants, pharmaceuticals, or pesticides. The analysis shall estimate the magnitude of such sources to the extent feasible.</p> <p>⋮</p>	<p>March 31, 2015</p>

CF&WU Comment 10: CF&WU supports a moratorium on construction within the City until the treatment plant complies with State and federal water quality requirements, even during very dry periods, and can handle load increases resulting from proposed development.

Response to Comment 10: We disagree. The Regional Water Board does not have authority to regulate land use and development. To the extent the commenter is suggesting that the Regional Water Board impose a connection ban, we believe a connection ban is unwarranted at this time.

While we view the violations as serious, the requirements in the tentative CDO are appropriate for the threat that the violations pose. These violations consist of only three discharges (since 2011) without adequate dilution from river flow and of exceedances of antimony limits set to preserve the Napa River as a municipal and domestic water supply.

We acknowledge that the disposal capacity problem may lead to more frequent future violations if the drought persists and the City does not take action. The Regional Water Board therefore retains the option of banning new sewer connections if needed to protect water quality or compel the City to comply with its permits. The tentative CDO would require the City, within three years, to improve its facilities, reduce influent flows, and expand its recycling capabilities sufficiently to meet existing and foreseeable future wastewater disposal demands. We revised tentative CDO Table 1 to make this requirement explicit:

Task	Compliance Date
<p>a. Report on Actions to Comply with Prohibitions: ¶ The report shall also describe...<u>and any additional actions necessary to comply with prohibitions and to meet existing and foreseeable future wastewater disposal demands.</u></p>	<p>March 31, 2015</p>
<p>¶</p>	<p>¶</p>
<p>g. Comply with Prohibitions: Submit documentation confirming complete implementation of actions scheduled in Task “b”; compliance with Permit Prohibitions A, B, and C; and <u>compliance with General Water Reuse Order Prohibitions A.2 and A.3; and confirming that these actions will allow the City’s wastewater treatment, disposal, storage, and recycling facilities to meet existing and foreseeable future wastewater disposal demands.</u></p>	<p>January 31, 2018</p>

On antimony, the tentative CDO would require the City, within four years, to identify sources, and control and/or treat those sources to comply with permit limits. This is a short and reasonable amount of time to correct this problem considering that antimony levels in the discharge are not harmful to aquatic life or threatening to human health unless consumed in drinking water over a lifetime.

Finally, the City contends that proposed development will allow it to finance wastewater improvements thus avoiding financial burdens on existing City residents. It is appropriate to allow the City to establish its own approach to financing necessary infrastructure.

***CF&WU Comment 11:** CF&WU supports mandatory minimum penalties for current violations because last year’s penalty (\$6,000 in fines for March 2013 antimony violations) appears to have been insufficient.*

Response to Comment 11: It is unclear what the commenter means by “current violations.” To the extent the commenter refers to violations occurring prior to the tentative CDO, we plan to begin the process of assessing penalties for all currently unenforced violations subject to mandatory minimum penalties. Water Code section 13385 exempts dischargers from mandatory minimum penalties when a CDO is in place that requires corrective actions for the violations. This is reasonable since the tentative CDO would require the City to make considerable financial investments in its infrastructure.

CF&WU Comment 12: *CF&WU urges the Regional Water Board to disapprove Timber Harvest Plan (THP) 1-13-126 NAP.*

Response to Comment 12: This comment does not pertain to the tentative CDO. The Regional Water Board is not authorized to approve or disapprove of the referenced timber harvest plan, but Board staff provided feedback on the plan in a September 23, 2014, letter to Leslie Markham at the California Department of Forestry and Fire Protection (CAL-FIRE). We continue to work with CAL-FIRE to see that our water quality-related concerns with plan are addressed.

3. CITIZENS FOR A GREEN COMMUNITY

Citizens for a Green Community Comment 1: *Citizens for a Green Community states that Calistoga's treated wastewater contains high levels of boron, antimony, ammonia, cyanide, copper, and mercury, primarily from the geothermal spas. Citizens for a Green Community points out that the City never implemented a 2001 agreement with the spas to monitor their wastewater and establish a payment scale that reflects treatment costs. Citizens for a Green Community urges immediate implementation of the 2001 agreement.*

Response to Comment 1: See our response to CF&WU Comment 9.

Citizens for a Green Community Comment 2: *Citizens for a Green Community urges the Regional Water Board to require installation of wastewater treatment equipment to remove pollutants prior to discharge.*

Response to Comment 2: See our response to CF&WU Comment 7.

Citizens for a Green Community Comment 3: *Citizens for a Green Community supports relocation of the wastewater ponds away from the Napa River.*

Response to Comment 3: See our response to CF&WU Comment 4.

Citizens for a Green Community Comment 4: *Citizens for a Green Community states that City has focused on increasing revenue from Transient Occupancy Taxes, approving some 300 new hotel and resort units in the last year. While this could provide funding for improved city services, it also increases the pressure on a wastewater system that cannot support the current population. Citizens for a Green Community recommends a ban on new sewer connections until the City's wastewater collection and treatment system is brought up to State and Regional standards.*

Response to Comment 4: See our response to CF&WU Comment 10.

4. FOREST UNLIMITED

Forest Unlimited Comment 1: This tentative CDO came to Forest Unlimited's attention as a result of its review of a timber harvest plan that would accommodate development of the Calistoga Hills Resort. Forest Unlimited considers the violations addressed by the tentative CDO to be extremely serious and supports its adoption at the November Board meeting.

Response to Comment 1: No response is necessary.

Forest Unlimited Comment 2: Forest Unlimited believes the Calistoga Hills Resort development would further stress the overloaded wastewater treatment plant and states that suspending large new development activity within the service area would help the City comply with water quality regulations.

Response to Comment 2: See our response to CF&WU Comment 10.

Forest Unlimited Comment 3: Forest Unlimited asks what heavy metals, in addition to antimony, have been measured in the river and plant discharge. Forest Unlimited suggests that it is unlikely that antimony is the only heavy metal present in geothermal water, noting that hot springs frequently contain lead, arsenic, radon, radium, cadmium, selenium, and sulfur. Forest Unlimited calls for all regulated contaminants to be monitored and prevented from entering the Napa River.

Response to Comment 3: The Permit requires the City to monitor the discharge for antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, and zinc. It also requires monitoring for other pollutants once per permit term. When the Permit was issued in 2010, only antimony and copper concentrations were high enough to demonstrate a reasonable potential that the discharge could cause or contribute to exceedances of water quality standards in the Napa River. Therefore, the Permit imposes effluent limitations on antimony and copper. As for sulfur, while it is prevalent in geothermal waters, it is not present at levels of concern in the discharge because the City's activated sludge treatment system removes sulfur (which is a common element in human waste). The City is not required to monitor radon or radium at this time. Napa County is an U.S. EPA Zone 3 county for radon risk, indicating the lowest potential for exposure; thus, radon is unlikely to be present at levels of concern.

Forest Unlimited Comment 4: Forest Unlimited says Table 1, Task "a," item 4 is insufficiently specific to protect the Napa River. It points out that directing flows to the Napa River without treatment could address the plant's capacity limitations but would not keep antimony and other metals out of the river.

Response to Comment 4: We agree. Any discharge of pollutants to the Napa River requires an NPDES permit. Therefore, wastewater from geothermal sources cannot simply be routed around the City's treatment plant to the Napa River without additional controls. Tentative CDO Table 1,

Task “a,” item 4, requires a progress report on the City’s existing efforts to eliminate the need for bypasses and to meet Permit discharge prohibitions. “Reducing geothermal inflows to the plant” is one action the City identified in its June 24, 2013, *Bypass Alternatives Investigation Report*, and discussed further in its June 17, 2014, *Status Update Report*. The progress report required by Table 1, Task “a,” item 4, must describe efforts to reduce geothermal inflows. See our response to CF&WU Comment 9 regarding revisions to tentative CDO Table 1 that strengthen this requirement.

Forest Unlimited Comment 5: *Forest Unlimited requests information concerning any additional contaminants entering the Napa River, especially from geothermal sources.*

Response to Comment 5: Forest Unlimited appears to request information concerning contaminants entering the Napa River from any source. This is a very broad request. We anticipate contacting Forest Unlimited to ascertain more specifically the type of information it seeks and providing an initial response before the end of November 2014.

5. NAPA COUNTY FARM BUREAU (BUREAU)

Bureau Comment 1: *The Bureau supports the tentative CDO to enforce the City’s permits, set timelines for specific improvements to waste discharge operations, and increase storage.*

Response to Comment 1: No response is necessary.

Bureau Comment 2: *The Bureau opposes increasing effluent pumping capabilities to an already impaired Napa River. It also supports installation of equipment to remove geothermal pollutants at the wastewater treatment plant, and new stringent limitations on boron discharges.*

Response to Comment 2: Regarding effluent pumping capabilities, see our response to CF&WU Comment 2. Regarding new treatment equipment, see our response to CF&WU Comment 7. Regarding boron limits, see our response to CF&WU Comment 8.

Bureau Comment 3: *The Bureau supports immediate implementation of the 2001 agreement between the City and local spas to identify, monitor, and meter the City’s geothermal water users.*

Response to Comment 3: See our response to CF&WU Comment 9.

6. NAPA VALLEY GRAPEGROWERS

***Napa Valley Grapegrowers Comment 1:** Napa Valley Grapegrowers states that increased landscape irrigation with the City's recycled water poses a severe threat. Due to a lack of comprehensive studies of probable contaminants, it worries that irrigation with recycled wastewater could lead to soil and groundwater pollution, affect public health, and degrade wells.*

Response to Comment 1: See our response to CF&WU Comment 3. In addition, the tentative CDO's requirements to reduce geothermal inflows to the plant to control antimony could, indirectly, reduce boron concentrations since both elements may be from the same geothermal sources.

***Napa Valley Grapegrowers Comment 2:** Napa Valley Grapegrowers requests to be included in discussions regarding the use of recycled wastewater from the Calistoga plant.*

Response to Comment 2: We have added Napa Valley Grapegrowers to the interested parties list for the Calistoga wastewater treatment plant's Permit and tentative CDO.

7. MR. BILL DYER

***Mr. Dyer Comment 1:** Mr. Dyer notes that local spas discharge geothermal waters to the wastewater treatment plant. He points to a 2001 agreement between the City and many spas that was to lead to metering spa discharges and, presumably, flow-based fees. He wonders whether such fees, if established, would have financed a solution to the City's current problems. He says discharging to the Napa River when the storage ponds are full has been too convenient.*

Response to Comment 1: We are not a party to any agreement between the City and geothermal spas, and such agreements have no bearing on the Regional Water Board's authority to impose requirements through a CDO. See our response to CF&WU Comment 9.

***Mr. Dyer Comment 2:** Mr. Dyer notes that millions of dollars have been invested in Napa River restoration and its fisheries are recovering. He says wastewater discharges during low-flow conditions undermine these efforts.*

Response to Comment 2: The tentative CDO would establish measures to minimize current unauthorized discharges and strict tasks that would eliminate future unauthorized discharges to the Napa River when the Permit prohibits doing so.

***Mr. Dyer Comment 3:** Mr. Dyer states that runoff from the City's irrigation fields can have significant effects on the river. He reports seeing, in January 2014, that irrigation field runoff caused white bubbles on the river surface and also more than doubled the downstream flow.*

Response to Comment 3: We agree that runoff from the City's discharge to its irrigation fields can have significant effects on the river. The tentative CDO aims to correct this because runoff resulting from discharge is a violation of the General Water Reuse Order. We received reports of white bubbles on the river surface in January 2014 and directed the City to investigate and abate any foaming. The City took steps that should minimize foaming until these violations are corrected.

***Mr. Dyer Comment 4:** Mr. Dyer also reports that discharge samples he collected and sent for analysis contained boron and other compounds unsuitable for vineyard irrigation.*

Response to Comment 4: Boron (like antimony) may be coming from geothermal spas. This means the measures the tentative CDO would require to control antimony could also control boron. Additionally, pursuant to our requirements, the City is collecting data to determine if boron discharge limits are necessary. If the data show that there is reasonable potential for the boron discharged to cause or contribute to exceedance of boron water quality objectives, then the Regional Water Board will also consider imposing boron discharge limits. See our response to CF&WU Comment 8.

***Mr. Dyer Comment 5:** Mr. Dyer is concerned that aquatic life is threatened from runoff from the fields; this may be exacerbated by local mosquito abatement personnel spraying growth inhibitors on the fields.*

Response to Comment 5: Available data do not show the presence of contamination in the runoff at levels that would threaten aquatic life. In an email on May 13, 2013, Mr. Dyer inquired about threats to aquatic life from the Mosquito Abatement District applying Methoprene to the City's irrigation fields. We replied on May 15, 2013, that Methoprene is a growth regulator that abates mosquitos by preventing their larvae from reaching maturity rather than a conventional poison and has been shown to have no impact on other aquatic life. We also attached to our reply the U.S. EPA Pesticide Fact Sheet on Methoprene that contains this information.

***Mr. Dyer Comment 6:** Mr. Dyer wonders about potential human health effects. Northwesterly winds cause spray from the saturated spray fields to drift over the adjacent hiking and biking path. He hopes local health authorities monitor conditions for toxins, such as antimony and other metals.*

Response to Comment 6: We are unaware of any health authorities monitoring airborne antimony or other metals. However, antimony and other metals are not known to pose human health risks at the concentrations measured in plant effluent, particularly if the route of exposure is skin contact or short-term inhalation. The antimony limits in the Permit are derived from drinking water standards, which are based on conservative assumptions based on lifetime drinking water consumption. The tentative CDO would require measures to ensure that the City complete tasks to comply with the conservative antimony discharge limits.

Mr. Dyer Comment 7: Mr. Dyer points out that boron in the treated wastewater makes recycling infeasible for vineyard irrigation, but irrigation at schools, sport fields, and parks is insufficient to prevent river discharges during low-flow conditions. He has heard that the elementary school lawn was once so saturated that it was difficult for children to play on it. He hopes such conditions are not unhealthy.

Response to Comment 7: Boron is not known to be associated with harmful human health effects. There is no boron drinking water standard. Nevertheless, excess levels of boron can be of concern for certain agricultural crops, including vineyards. The City is measuring boron in its discharges and the Napa River, and we will consider the data and propose effluent limitations if warranted.

Mr. Dyer Comment 8: Mr. Dyer notes that climate change may make low river flows more frequent. He objects to increasing pumping capacity to allow increased discharge, or extending the seasonal interval during which discharge is allowed. He asks for a solution that removes toxic compounds and deals with the increased discharge volumes that will accompany proposed development.

Response to Comment 8: We mostly agree. The tentative CDO does not call for extending the discharge season (see our response to CF&WU Comment 1). It does allow the City to increase pumping capacity, if feasible (see our response to CF&WU Comment 2); but the City would still be required to comply with Permit dilution requirements. The tentative CDO would require the City to evaluate and implement source controls, treatment, and storage as necessary to comply with the requirements of its permits. Facility improvements must be adequate to accommodate existing and foreseeable future demands (see our response to CF&WU Comment 10).

8. MR. GEOFF ELLSWORTH

Mr. Ellsworth Introductory Comment: Mr. Ellsworth is concerned about the adequacy of wastewater treatment and illegal releases.

Response to Introductory Comment: We agree. See our response to CF&WU Comment 7. The CDO is intended to address releases.

Mr. Ellsworth Comment 1: Mr. Ellsworth opposes the City's discharges until all appropriate mitigation measures to protect the beneficial uses of State waters are in place.

Response to Comment 1: The Permit and General Water Recycling Order specify measures required by State and federal laws and regulations to protect the Napa River. The tentative CDO enforces these permits.

We disagree that the City should not be allowed to discharge treated wastewater until it can comply with all requirements. The City's residents and businesses will continue to generate

wastewater. Failing to operate the wastewater treatment plant would cause untreated wastewater to build up within the collection system until the sewers overflowed. Then the untreated wastewater would flow to the Napa River and pose unprecedented health threats to local and downstream communities. The tentative CDO's approach is far more practical and protective of human health and the environment.

Mr. Ellsworth Comment 2: Mr. Ellsworth opposes modifying the Permit to extend the discharge season. He also opposes increasing the City's effluent pumping capacity.

Response to Comment 2: See our responses to CF&WU Comments 1 and 2.

Mr. Ellsworth Comment 3: Mr. Ellsworth opposes increasing landscape irrigation until all known contaminants, including antimony, boron, ammonia, cyanide, mercury, copper, arsenic, chlorodibromomethane, dichlorobromomethane, salts, oil and grease, and PCBs, will not cause or contribute to soil or groundwater pollution, affect public health, or degrade local wells.

Response to Comment 3: See our response to CF&WU Comment 3.

Mr. Ellsworth Comment 4: Mr. Ellsworth supports demolition and relocation of the City's riverside ponds due to their proximity to the Napa River, agriculture, and wells, and the potential for seepage, percolation, flooding, and uncontrolled discharges.

Response to Comment 4: See our response to CF&WU Comment 4.

Mr. Ellsworth Comment 5: Mr. Ellsworth supports installation of new equipment to remove pollutants at the treatment plant.

Response to Comment 5: See our response to CF&WU Comment 7.

Mr. Ellsworth Comment 6: Mr. Ellsworth supports new county-wide boron limits.

Response to Comment 6: See our response to CF&WU Comment 8.

Mr. Ellsworth Comment 7: Mr. Ellsworth supports a moratorium on construction within the City until the treatment plant fully complies with State and federal water quality requirements.

Response to Comment 7: See our response to CF&WU Comment 10.

Mr. Ellsworth Comment 8: Mr. Ellsworth supports the Regional Water Board's denial of Timber Harvest Plan 1-13-126 NAP because the resulting development would further stress the wastewater treatment plant.

Response to Comment 8: See our response to CF&WU Comment 12.

Mr. Ellsworth Comment 9: Mr. Ellsworth supports implementation of the 2001 agreement between the City and various spas to identify, monitor, and meter the City's commercial geothermal water users, effectively reducing geothermal flows.

Response to Comment 9: See our response to CF&WU Comment 9.

Mr. Ellsworth Comment 10: Mr. Ellsworth supports visibly posting all City borders with the Napa River to prevent public contact until the river is safe.

Response to Comment 10: See our response to CF&WU Comment 5.

Mr. Ellsworth Comment 11: Mr. Ellsworth supports notifying downstream Napa River water users of the City's violations.

Response to Comment 11: See our response to CF&WU Comment 6.

Mr. Ellsworth Comment 12: Mr. Ellsworth supports mandatory penalties to provide an incentive against future violations, especially since climate change and the ongoing drought may increase the City's need to discharge in violation of its permits. Mr. Ellsworth asks how he can find more information on penalties and the processes by which they are assessed.

Response to Comment 12: Regarding mandatory minimum penalties for the City's violations, see our response to CF&WU Comment 11. Information regarding the Regional Water Board's enforcement activities, including penalty assessments, is available at the following web page: http://www.waterboards.ca.gov/sanfranciscobay/board_decisions/enforcement.shtml. We have also added Mr. Ellsworth to the interested parties list for the City's Permit and tentative CDO.

9. MR. JOE MATTHEWS

Mr. Matthews Comment 1: Mr. Matthews opposes release of secondary or tertiary-treated wastewater to the Napa River until all appropriate mitigation measures are in place.

Response to Comment 1: See our response to Mr. Ellsworth Comment 1.

Mr. Matthews Comment 2: Mr. Matthews opposes modifying the Permit to extend the discharge season.

Response to Comment 2: See our response to CF&WU Comment 1.

Mr. Matthews Comment 3: Mr. Matthews opposes increasing the City's effluent pumping capacity.

Response to Comment 3: See our response to CF&WU Comment 2.

Mr. Matthews Comment 4: *Mr. Matthews opposes increased landscape irrigation until all known contaminants, including antimony, boron, ammonia, cyanide, mercury, copper, arsenic, chlorodibromomethane, dichlorobromomethane, salts, oil and grease, and PCBs, will not cause or contribute to soil or groundwater pollution, affect public health, or degrade local wells.*

Response to Comment 4: See our response to CF&WU Comment 3.

Mr. Matthews Comment 5: *Mr. Matthews supports demolition and relocation of the City's riverside ponds due to their proximity to the Napa River, agriculture, and wells, and the potential for seepage, percolation, flooding, and uncontrolled discharges.*

Response to Comment 5: See our response to CF&WU Comment 4.

Mr. Matthews Comment 6: *Mr. Matthews supports installation of new equipment to remove pollutants at the treatment plant.*

Response to Comment 6: See our response to CF&WU Comment 7.

Mr. Matthews Comment 7: *Mr. Matthews supports new county-wide boron limits.*

Response to Comment 7: See our response to CF&WU Comment 8.

Mr. Matthews Comment 8: *Mr. Matthews supports a moratorium on construction within the City until the treatment plant fully complies with State and federal water quality requirements.*

Response to Comment 8: See our response to CF&WU Comment 10.

Mr. Matthews Comment 9: *Mr. Matthews supports the Regional Water Board's denial of Timber Harvest Plan 1-13-126 NAP because the resulting development would further stress the wastewater treatment plant.*

Response to Comment 9: See our response to CF&WU Comment 12.

Mr. Matthews Comment 10: *Mr. Matthews supports implementation of the 2001 agreement between the City and various spas to identify, monitor, and meter the City's commercial geothermal water users, effectively reducing geothermal flows.*

Response to Comment 10: See our response to CF&WU Comment 9.

Mr. Matthews Comment 11: *Mr. Matthews supports visibly posting all City borders with the Napa River to prevent public contact until the river is safe.*

Response to Comment 11: See our response to CF&WU Comment 5.

Mr. Matthews Comment 12: *Mr. Matthews supports notifying all downstream Napa River water users regarding the City's violations.*

Response to Comment 12: See our response to CF&WU Comment 6.

Mr. Matthews Comment 13: Mr. Matthews supports mandatory penalties to provide an incentive against future violations, especially since climate change and the ongoing drought may increase the City's need to discharge in violation of its permits.

Response to Comment 13: See our response to CF&WU Comment 11.

10. MR. HAL HUFFSMITH

Mr. Huffsmith Comment 1: Mr. Huffsmith notes that the burden on the existing wastewater treatment plant will increase with the City's approval of several hotel and resort developments, stating that the current infrastructure is inadequate to address future demands. Mr. Huffsmith supports the remedies set forth in tentative CDO.

Response to Comment 1: See our response to CW&FU Comment 10 regarding improvements necessary to meet future demands.

Mr. Huffsmith Comment 2: Mr. Huffsmith mentions that Calistoga residents noted foam and sludge discharges during the time of low 2014-15 winter rainfall.

Mr. Huffsmith Comment 2: See our response to Mr. Dyer Comment 3.

11. MS. ANNE SCOTT

Ms. Scott Comment 1: Ms. Scott has concerns about the aquatic effects of arsenic, boron, and antimony in runoff from the City's irrigation fields next to the bike path along the Napa River.

Response to Comment 1: Arsenic, boron, and antimony concentrations in the City's discharge are too low to harm aquatic life. However, existing boron concentrations are of concern for agricultural use and existing antimony concentrations for use of the Napa River as a municipal water supply. The tentative CDO would impose tasks to control antimony, which could also control boron. See our response to CF&WU Comment 8.

Ms. Scott Comment 2: Ms. Scott notes that the City has approved large projects that could affect wastewater treatment operations and contribute to Napa River problems. She asks that these issues be addressed before more development goes forward.

Response to Comment 2: See our response to CF&WU Comment 10.

12. MR. CARL SHERRILL

Mr. Sherrill Comment 1. Mr. Sherrill comments that Calistoga's wastewater system is inadequate and poses a serious threat to Napa River water quality. He notes that the City has authorized a planning study for an additional wastewater storage pond. His impression is that the new pond is to provide capacity for present needs, not new development. He asks what will happen when three large new resorts and other previously-approved projects demand additional wastewater treatment capacity. He suggests that a building moratorium might be in order. He requests that the City upgrade its system before allowing further development.

Response to Comment 1: See our response to CF&WU Comment 10.