

county of ventura

PUBLIC WORKS AGENCY
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Electronic Submission: commentletters@waterboards.ca.gov

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor,
Sacramento, CA 95814

Comment #17

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Watershed Protection District
Glenn Shephard, Director

Subject: Comment Letter—303(d) List for waterbodies in the Los Angeles Region

Dear Ms. Townsend:

The County of Ventura (County) appreciates the opportunity to provide comments on the proposed revisions to the Clean Water Act Section 303(d) List of impaired waterbodies in the Los Angeles Region [hereinafter referred to as 303(d) List which was distributed for public review on June 9, 2017.

The County understands that the State Water Resources Control Board (SWRCB) is proposing over 153 new waterbody segment-pollutant combination 303(d) listings in the Los Angeles Region. The development and implementation of Total Maximum Daily Loads (TMDLs) is a significant investment of resources and it is critical that the 303(d) list be based on sound science and methodologies. The County participates in the implementation of many TMDLs in the Calleguas Creek, Santa Clara River, Ventura River, and upper Malibu Creek Watersheds addressing a diverse set of pollutants. The County has actively participated in the 303(d) public review process since the original List was released at the Regional level on February 8, 2017, by providing a comment letter to the Regional Water Quality Control Board – Los Angeles Region (Los Angeles Water Board) on March 30, 2017 and oral comments at the public workshop on May 4, 2017.

17.01

The County and the other stakeholders implementing TMDLs in the Calleguas Creek Watershed (CCW TMDL Stakeholders), as well as the Ventura County Agricultural Irrigated Lands Group (VCAILG), will be submitting separate comment letters regarding the proposed listing changes in the Calleguas Creek Watershed and VCAILG-affected waterbody segments. The County supports comments from both CCW TMDL Stakeholders and VCAILG and requests that the SWRCB address all identified errors and issues therein.



17.02

The County appreciates the efforts the Los Angeles Water Board has made to correct errors and inconsistencies in the original list. Namely, the removal of all incorrect pollutant listings associated with a P* MUN beneficial use, as well as removal of data from agricultural drains which do not represent receiving waters. These corrections along with other errors noted by the County resulted in the correcting of 15 listings. While we appreciate the efforts made by the Los Angeles Water Board, the County still has concerns with the SWRCB's proposed 303(d) List and believe that it requires modification before adoption. The requested modification comments fall into two general categories:

17.03

I. Category 5A listings should not be listed due to noncompliance with the Listing Policy (e.g., lack of temporal representation), incorrect exceedance calculations, incorrect interpretation of the data (e.g., mismatched units), and the existence of an existing TMDL to address the pollutant.

17.04

II. Additional concerns regarding interpretation of listing criteria (e.g., temperature and pH exceedances, benthic community effects).

The remaining sections of this letter provide the detailed list of requested changes to the 303(d) List and the rationale for the requested actions.

17.05

I. Incorrect Category 5A Listings

A. Lack of Proper Temporal Representation

There are many instances where the data to support the listed pollutant lack proper temporal representation. Section 6.1.5.3 of the State Water Resources Control Board (SWRCB) Listing Policy¹ states that:

*“Samples should be representative of the critical timing that the pollutant is expected to impact the water body. Samples used in the assessment must be temporally independent. If the **majority of samples were collected on a single day** or during a single short-term natural event (e.g., a storm, flood, or wildfire), **the data shall not be used as the primary data set supporting the listing decision.**”* [Emphasis added]

All of the proposed Category 5 pollutants listed in **Table 1** rely on data collected from a single sample date. This directly violates the Listing Policy. For instance, the “Temporal Representation” entry in the Fact Sheet for Los Sauces Creek selenium listing [Line of Evidence (LOE) 86035] states “*Data was collected on a single*

¹ State of California State Water Resources Control Board (SWRCB) Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List. Amended February 3, 2015. [Referred to hereinafter as Listing Policy]

day 6/8/2006". Because there is no temporal resolution for these waterbody-pollutant combinations, the proposed new listing should be removed.

17.06

The County made this comment previously in their March 30th, 2017, letter and in response the Los Angeles Water Board stated: "*Because the data collected are temporally independent, it is appropriate to assess the data as individual samples even though they were collected at the same site.*" This response implies that the Los Angeles Water Board did not understand the County's original comment since these listings definitively lack temporal resolution by relying on a single sample day. Using a single sample day to support a new listing is in direct contradiction to the Listing Policy.

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The Los Angeles Water Board went on to respond to Javon Canyon and Los Sauces Creek selenium listings with the following statement:

"Fish were collected from two sites on a single day.

Because the data collected is spatially independent, it is appropriate to assess the data as individual samples even though they were collected on the same date. As the data support a listing decision, the waterbody pollutant combination should be listed until more data supporting a delisting decision become available.

In addition, fish are not static; they move throughout a waterbody and accumulate pollutants in tissue over time. Therefore, the data are, by their nature, spatially and temporally independent."

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The County finds this response insufficient. First, the samples collected for selenium were water samples not fish tissue (see **Table 1**).

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Second, the County is not arguing that the two samples collected on the same day should not be treated as individual samples. The Listing Policy states that "*a majority of samples*" collected in a single day cannot be used to justify a listing. In the case of all pollutants listed in **Table 1**, 100% of collected samples

17.10

were from a single day. Third, nowhere in the Listing Policy does it allow spatial representation (two samples collected at different stations on a single day) to compensate for the lack of temporal representation. As stated above, the reason temporal representation is necessitated is to avoid a short term natural event from creating bias for the assessment of a waterbody. Because both sites were sampled on the same day it is

17.11

not possible to determine if the pollutant concentrations are indicative of typical waterbody conditions as opposed to a short-term natural event. Therefore, these listings must be removed until additional samples can be collected to provide adequate temporal representation to assess the waterbody and fully comply with the Listing Policy.

Table 1. Proposed Listings Lacking Adequate Temporal Representation

Waterbody Segment	Pollutant	No. of Samples	Date Collected	Type of Sample
Javon Canyon	Benthic Community Effects	2	6/5/2006	Macroinvertebrate survey
	Selenium	2	6/5/2006	Water
Los Sauces Creek	Selenium	2	6/8/2006	Water
Madranio Canyon	Benthic Community Effects	2	6/7/2006	Macroinvertebrate survey
	Copper	2	6/7/2006	Water
	Selenium	2	6/7/2006	Water
Padre Juan Canyon	Benthic Community Effects	2	6/7/2006	Macroinvertebrate survey
	Selenium	2	6/7/2006	Water
Port Hueneme Harbor (Back Basins)	Arsenic	2	2/28/2007	Mussel tissue
	Cadmium	2	2/28/2007	Mussel tissue
	Dieldrin	2	2/28/2007	Mussel tissue
	PAHs ²	4 2	10/3/2006 2/28/2007	Sediment Mussel tissue
Ventura Harbor: Ventura Keys	Arsenic	2	2/28/2007	Mussel tissue
	Cadmium	2	2/28/2007	Mussel tissue
	Chlordane	2	2/28/2007	Mussel tissue
	DDT	2	2/28/2007	Mussel tissue
	Dieldrin	2	2/28/2007	Mussel tissue
	PCBs (Polychlorinated biphenyls)	2	2/28/2007	Mussel tissue

17.12

Requested Action:

- Remove all listings shown in Table 1 that were based on a single sample collection date due to lack of temporal representation.

² Although two different sample dates were shown as having exceedances for PAHs, the samples were collected in two different media (sediment and fish tissue) on those two dates. Temporal representation is not demonstrated by using samples collected in one media on one day and another media on a different day. Samples in the same day from the same media are needed to show temporal representation.

17.13

B. Recalculate Exceedances for Port Hueneme Harbor and Ventura Harbor Pollutants

In addition to the lack of temporal representation for the newly proposed Port Hueneme and Ventura Harbor listings, the County has identified errors in the exceedance calculations in addition to numerous persistent errors in the updated Fact Sheets which need to be corrected. The County maintains that these listings must be removed due to lack of temporal representation; however, the following issues indicate that there may be further reasons to remove the listings and the following corrections should be made to the Fact Sheets.

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- Ventura Harbor and Port Hueneme cadmium exceedances were incorrectly calculated and do not show any exceedance over the Office of Environmental Health Hazard Assessment (OEHHA) 2.2 ppm criteria limit.

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- All exceedances for analytes in Ventura Harbor and Port Hueneme (See **Table 2**) are based on mussel tissue. However, in many cases, the Fact Sheets and Response to Comments cite fish fillet analysis. No fish tissue samples exist in the dataset linked in the Fact Sheet nor were any fish tissue samples available for download from CEDEN.

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- Due to the inconsistent reference to sample type (e.g., mussel versus fish samples) and incorrect calculation of the cadmium exceedance, we request that the SWRCB recalculate all exceedances for Ventura Harbor and Port Hueneme to ensure there are no additional exceedance calculation errors.

In addition to the issues stated above there were also errors noted in the Fact Sheets:

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- Ventura Harbor dieldrin listing shows two LOEs (89619 and 82787) demonstrating exceedance for shellfish surveys and fish tissue analysis. Both of these lines of evidence appear to be from the same 2 samples and should not be double counted as separate LOEs. Similar issues exist for PCBs listings for the same waterbody as well as dieldrin and PAHs for Port Hueneme.

17.18

- Many of the “Los Angeles Water Board Staff Conclusions” in the Decision IDs for Ventura and Port Hueneme Harbors include the wrong number of samples and exceedances for the Lines of Evidence. For instance, in the Ventura Harbor: Ventura Keys PCBs listing cites an LOE with 4 of 4 samples exceeding; however, only 2 of 2 samples exceed. All Fact Sheets for these analytes need to be checked for errors and corrected.

17.19 Table 2. Port Hueneme Harbor and Ventura Harbor Listings which need to be corrected

Waterbody Segment	Pollutant
Port Hueneme Harbor (Back Basins)	Arsenic
	Cadmium
	Dieldrin
	PAHs (Polycyclic Aromatic Hydrocarbons)
Ventura Harbor: Ventura Keys	Arsenic
	Cadmium
	Chlordane
	DDT
	Dieldrin
	PCBs (Polychlorinated biphenyls)

Requested Actions:

- 17.20 1. Review and recalculate all pollutant exceedances for Port Hueneme and Ventura Harbor in Table 2.**
- 17.21 2. Remove the cadmium listings for Ventura Harbor and Port Hueneme as the concentrations do not exceed the criteria.**
- 17.22 3. Correct and remove all reference to fish fillet in the response to comment and Fact Sheets as only shellfish samples were collected.**
- 17.23 4. Correct the numerous errors in the Fact Sheets for Ventura Harbor and Port Hueneme Listings.**

17.24 C. Reassess Mercury Listings Using Correct Units

The data used to assess mercury for Santa Clara River Reach 3 are in ng/L (nanograms per liter) and the objective is µg/L (micrograms per liter). The data need to be converted into the same units as the objective before an exceedance can be determined. The County expects that after this calculation has been performed the waterbody will no longer meet the listing guidelines. Based on the justification that the data and objectives have different units, the June 9th version of the Draft 303(d) List removed the following waterbody segments for mercury impairments: Calleguas Creek Reach 3 (Potrero Road upstream to Conejo Creek confluence), Calleguas Creek Reach 4 (was Revolon Slough Main Branch), La Vista Drain (Ventura County), and Ventura River Reach 3. It is unclear to the County why the same error for Santa Clara River Reach 3 was not corrected.

Requested Action:

- **Repeat the mercury analysis for Santa Clara River Reach 3 after correcting the unit error. Correction of the unit error will result in no exceedances and require removal of the proposed mercury listing.**

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D. Change the Listing Category to 5B Because a TMDL Already Addresses the Pollutant

There is a newly proposed 5A listing of *Escherichia coli* for Santa Clara River Reach 3; however, the Santa Clara River has an existing Bacteria TMDL which specifically addresses this reach.³ The County requests that this proposed listing be properly categorized as 5B instead of 5A since it is already being addressed by an approved TMDL.

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Additionally, there are newly proposed 5A listings for benthic community effects in Medea Creek Reach 1 and Triunfo Canyon Reach 1, and existing listings in Malibu Creek, Las Virgenes Creek, Lindero Creek Reach 1, Medea Creek Reach 2, Triunfo Canyon Reach 2, and Malibu Lagoon that are all addressed by the Malibu Creek Benthic Community TMDL⁴ and should therefore be categorized as 5B. While the County maintains that the new listings have been made incorrectly (see Comment No. 7), if they are maintained on the list, they should be categorized as 5B instead of 5A because they are already addressed by an approved TMDL.

Requested Actions:

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1. Change the Santa Clara River Reach 3 *Escherichia coli* listing status to 5B because a Bacteria TMDL already exists.

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2. Change the Malibu Creek, Las Virgenes Creek, Lindero Creek Reach 1, Medea Creek Reach 2, Triunfo Creek Reach 2, and Malibu Lagoon benthic community effects listing status to 5B because a Benthic Community TMDL already exists.

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3. Remove the benthic community listings for Medea Creek Reach 1, Triunfo Canyon Reach 1, but if maintained, change the listing status to 5B because a Benthic Community TMDL already exists.

³ Amendment to the Water Quality Control Plan – Los Angeles Region to incorporate the TMDL for Indicator Bacteria in the Santa Clara River Estuary and Reaches 3, 5, 6, and 7. Effective March 21, 2012. http://www.swrcb.ca.gov/losangeles/water_issues/programs/tmdl/tmdl_list.shtml

⁴ Malibu Creek and Lagoon TMDL for Sedimentation and Nutrients to Address Benthic Community Impairments. US Environmental Protection Agency Region IX. July 2, 2013.

II. Additional concerns regarding interpretation of listing criteria

A. Ensure No J-flagged Data Were Used in the Assessment

17.30 The Listing Policy specifically prohibits the use of J-flagged (“estimated”) data that fall below the quantitation limit but above the water quality standard. Section 6.1.5.5 of the Listing Policy specifically states:

“When the sample value is less than the quantitation limit and the quantitation limit is greater than the water quality standard, objective, criterion, or evaluation guideline, the result shall not be used in the analysis. The quantitation limit includes the minimum level, practical quantitation level, or reporting limit.”

17.31 All listings based on the use of J-flagged data should, therefore, be removed from the draft 303(d) List. The Ellsworth Barranca listing for DDE uses J-flagged data and should also be removed based on the incorrect assignment of the beneficial use P*MUN (as discussed in the County’s previous comment) in addition to the use of J-flagged data. The Response to Comments stated that this change was in process at this time however the Fact Sheets show that Ellsworth Barranca is still incorrectly listed for P*MUN and the J-flagged data correction has yet to be made. The County urges the SWRCB to make this, and any other similar corrections prior to approving the 303(d) List.

Requested Actions:

17.32 1. Review all Fact Sheets and Lines of Evidence for the use of J-flagged data and remove any instances where J-flagged data were used.

17.33 2. Remove the listing of DDE for Ellsworth Barranca as well as any other pollutants that lack the minimum number of exceedances required to justify a listing.

B. The Toxicity Listing for Ventura River Reach 3 (Weldon Canyon to Confl. w/ Coyote Cr) Relies on Outdated Data

17.34 Based on a review of the available data, all the observed toxic samples occurred prior to 2009. Of the 8 exceedances, 3 occurred in 2000/2001 and the rest were in 2006, 2007 and 2008. In the 2006-2008 time period, toxicity was commonly observed due to chlorpyrifos and diazinon which were subsequently restricted. Toxicity in many watersheds has been significantly reduced as a result of these use modifications. The available data shows that no samples exceeded after 2008, indicating that those pesticides or another cause that is no longer present, were the cause of the toxicity. Because of the transient nature of toxicity and the potential that the causes of the toxicity are no longer present, exceedances from prior to the pesticide use bans should not be

used as the basis for a listing. The more recent samples since the pesticide use restrictions should be used as a basis for evaluation.

In response to the County's original comment letter, the Los Angeles Water Board retained the listing as 5A and responded that "*Of the 43 samples evaluated, eight samples were in exceedance, which supported a listing decision. The waterbody pollutant combination should be listed until more data supporting a delisting decision become available. Staff encourages commenter to submit data to CEDEN in preparation for the next listing cycle.*" If the SWRCB decides to maintain the listing, the County requests that the pollutant be properly categorized as 4B defined as "*Another regulatory program is reasonably expected to result in attainment of the water quality standard within a reasonable, specified time frame*". As stated above the cause of the toxicity has already been addressed by the banning of chlorpyrifos and diazinon in 2008 and there is already ample evidence (i.e., no exceedances since 2008) to show that the beneficial use has not been impacted since that regulatory program was put in place.

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17.36 **Requested Action:**

- **Either remove the listing for Ventura River Reach 3 for toxicity based on exceedances from outdated data, OR categorize the listing as 4B.**

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C. *Benthic Community Effects Listing are Based on Flawed Analyses and Should Be Removed*

The benthic community effects listings are based on a metric which has since been deemed arbitrary and inappropriate. The Index of Biotic Integrity (IBI) stream assessment was a commonly used metric to determine benthic community effects. The threshold used to distinguish an impaired reach was a value of 39 and below. However, this threshold value was arbitrarily assigned as a statistical cut-off value. The state has since endorsed the use of the California Stream Condition Index (CSCI), as stated in the Appendix G Fact Sheets, "*The CSCI is applicable statewide, accounts for a much wider range of natural variability, and provides equivalent scoring thresholds in all regions of the state. The CSCI will be used in the future for water quality assessment purposes statewide over the regional indices of biologic integrity (IBIs).*" Despite this, all the newly listed benthic community effects in **Table 3** utilize the IBI to assess the waterbodies. Therefore, the County requests that these listings be removed until the waterbodies can be assessed with a more representative metric such as the CSCI. While the Fact Sheets for a number of water segments are listed as an exceedance for benthic community effects citing a low CSCI score, the original data shows only IBI scores. Waterbodies assessed using only IBI scores should not be listed.

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In addition, many of the benthic community effects listings rely on a single day of sampling which does not provide proper temporal representation as discussed in Comment No. 1.

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Additionally, several of the new listings are addressed by an existing TMDL and should be categorized as Category 5B if they are maintained on the list after consideration of this comment.

Table 3. Benthic Community Effects Listings

Waterbody Segment	Notes
Medea Creek Reach 1 (Lake to Confl. with Lindero)	If maintained, should be 5B (see comment No. 4)
Triunfo Canyon Creek Reach 1	If maintained, should be 5B (see comment No. 4)
Javon Canyon	Should also not be listed based on inadequate temporal resolution (see comment No. 1)
Madranio Canyon	Should also not be listed based on inadequate temporal resolution (see comment No. 1)
Padre Juan Canyon	Should also not be listed based on inadequate temporal resolution (see comment No. 1)
Ventura River Reach 1 and 2 (Estuary to Weldon Canyon)	
Ventura River Reach 3 (Weldon Canyon to Confl. w/ Coyote Cr)	
Ventura River Reach 4 (Coyote Creek to Camino Cielo Rd)	

Requested Actions:

17.41

1. Remove all listings shown in Table 3 for benthic community effect that use the IBI listing.

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2. Update the Appendix G Fact Sheets to clearly state that an IBI metric was used not the CSCI for all pollutants noted in Table 3.

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D. There is No Demonstration that High pH is a Result of Waste Discharge

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The waterbodies listed for high pH do not appropriately demonstrate that the high pH was a result of waste discharge as required in the Basin Plan. The Santa Clara River Estuary, Santa Clara River Reach 1, and Oxnard Drain are listed for high pH. As stated in the Fact Sheet and according to the Los Angeles Region Basin Plan⁵ “*The pH of inland surface waters shall not be depressed below 6.5 or raised above 8.5 as a result of waste discharges*” [emphasis added]. However, it was not demonstrated for either of these waterbodies that the elevated pH levels were a result of waste discharge as opposed to natural causes. The Los Angeles Water Board staff noted that “*analysis of sources and*

⁵ Water Quality Control Plan Los Angeles Region R4 Basin Plan.

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causes [...] are not completed as part of the Integrated Report or 303(d) listing process". However, pH samples cannot be considered impairments without specific evidence that high pH is a result of waste discharge. In Response to Comments, the Los Angeles Water Board acknowledged that there are multiple sources of water to Santa Clara River to include waste discharge but went on to state that "the relative contribution of the causes of pH exceedances is largely speculative at this time". The County agrees that the sources are speculative at this time and because the Basin Plan criteria requires that a source be identified before a waterbody can be deemed in exceedance, the SWRCB should either provide evidence that the elevated pH was a result of waste discharge and detail that in the Fact Sheets, or, if no such evidence exists, the listings should be removed.

17.46

Requested Action:

- **Remove the pH listings for Santa Clara River Estuary, Santa Clara River Reach 1, and Oxnard Drain as there is no data provided in the Fact Sheet that demonstrate that these high pH values are the result of waste discharge.**

A. Correct the Proposed Temperature Listings Which are Based on Incorrect Interpretation of Evaluation Guideline

17.47

The temperature listing for Ventura River Reaches 1 and 2 (Estuary to Weldon Canyon) and Ventura River Reach 4 (Coyote Creek to Camino Cielo Rd) uses an evaluation guideline of 13-21 degrees Celsius (°C) as the optimum growth range for rainbow trout. However, the applicable Basin Plan objective for waterbodies designated as COLD is "For waters designated as COLD, water temperature shall not be altered by more than 5 degrees F above the natural temperature." The Fact Sheets provide no discussion of natural temperatures or a demonstration that the temperature was raised above natural temperatures in order to exceed the objectives.

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Notwithstanding that a deviation from natural temperatures has not been demonstrated, the manner in which the evaluation guideline is applied is also inappropriate. Moyle 1976 is referenced as the source of the evaluation guideline. Moyle 1976 was revised and expanded by Moyle 2002⁶. Moyle 2002 states: "Rainbows are found where daytime temperatures range from nearly 0°C in winter to 26-27°C in summer, although extremely low (<4°C) or extremely high (>23°C) temperatures can be lethal if the fish have not previously been gradually acclimated. Even when acclimation temperatures are high, temperatures of 24-27°C are invariably lethal to trout, except for very short exposures (25, 26)." As such, while temperatures above 21°C may not be optimal according to Moyle 1976, Moyle 2002 clearly states that lethal temperatures are those greater than 23°C which indicates that the evaluation guideline of 21°C is more appropriately applied

⁶ Moyle, Peter B. *Inland fishes of California: revised and expanded*. University of California Press, 2002.

as a chronic guideline (necessitating the establishment of an averaging period) and 23°C is the more appropriate "not-to-exceed" guideline if used for listing.

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The Los Angeles Water Board's response to comments noted that the optimum range for Rainbow Trout is 13-21 degrees Celsius and therefore this is an appropriate Evaluation Guideline. The County requests that the SWRCB review the application of this guideline as a "not to exceed" value for the purposes of making listing decisions. Based on the information provided above, the County believes that the Los Angeles Water Board has misinterpreted the science behind the selected guideline when they used the range of 13-21 as a "not to exceed" threshold when the studies used to determine the guideline indicate 23°C is the appropriate "not to exceed" threshold. Using the threshold of 23°C, no samples would exceed the threshold in Ventura River Reach 4 and only 2 samples would exceed the threshold in Ventura River Reaches 1 and 2. Neither of these number of exceedances would meet the listing thresholds.

Requested Action:

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- **Remove the temperature listing for Ventura River Reach 1 and 2 as well as Ventura River Reach 4.**

The County appreciates the opportunity to comment on the 303(d) List and looks forward to continuing to work with the SWRCB to address these concerns.

Thank you for your time and consideration of these comments. If you have questions or need additional information, please contact Ewelina Mutkowska at (805) 645-1382 or Ewelina.Mutkowska@ventura.org.

Sincerely,



Glenn Shephard, P.E.
Director
Ventura County Watershed Protection District

Cc: Jeff Pratt, Ventura County Public Works Agency
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