From: ches@4fast.net
To: NorthCoast
Subject: 2018 Triennial Review Comments
Date: Friday, June 22, 2018 4:15:08 PM
Attachments: 2018 ncrwqcb.xlsx
2018 comments on Triennial Review 1604.doc

NCRWQCB Staff,
Please see my attached comments on the 2018 Triennial Review.

Thank you

Bill Chesney

Comment on the 2018 Triennial Review

To: North Coast Regional Water Quality Control Board

From: Bill Chesney, California Department of Fish and Wildlife Environmental Scientist (retired).

In 2003, the North Coast Regional Water Quality Control Board staff conducted field sampling in the Shasta River as part of the TMDL preparation process. Bacterial levels were measured to determine what level of protection, if any, staff would need while in contact with the river. Bacterial levels were determined at times to be unsafe for human contact (see Attachment 1).

In 2017 due to continuing health and safety concerns for field staff and the public in contact with the river, the California Department of Fish and Wildlife cooperated with the North Coast Regional Water Quality Control Board to collect water samples weekly from six locations throughout the watershed from February through October (see attached Excel workbook). Samples were analyzed by Basic Lab in Redding California. CDFW staff members were trained to collect the samples according to NCRWQCB protocol.

The results of the sampling show frequent spikes in bacterial levels which are at times well above the levels considered to be safe for human contact (Figures 1 and 2). The timing and location of these spikes appear be at least in part related to flood irrigation practices used in the Shasta Valley. The irrigation season on the main stem begins on April 1 and ends on Oct 1. In the tributaries, such as Parks Creek, flood irrigation continued beyond our sampling period in 2017. Irrigation season in the tributaries runs from March 15 through November 15.

Figure 1

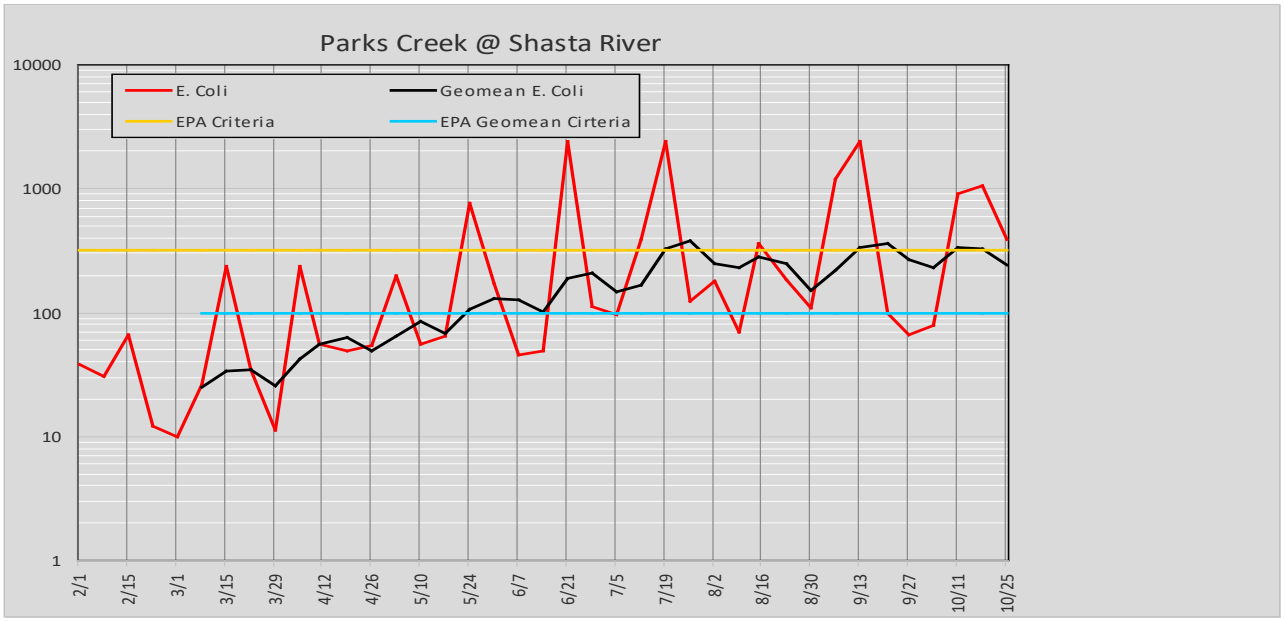
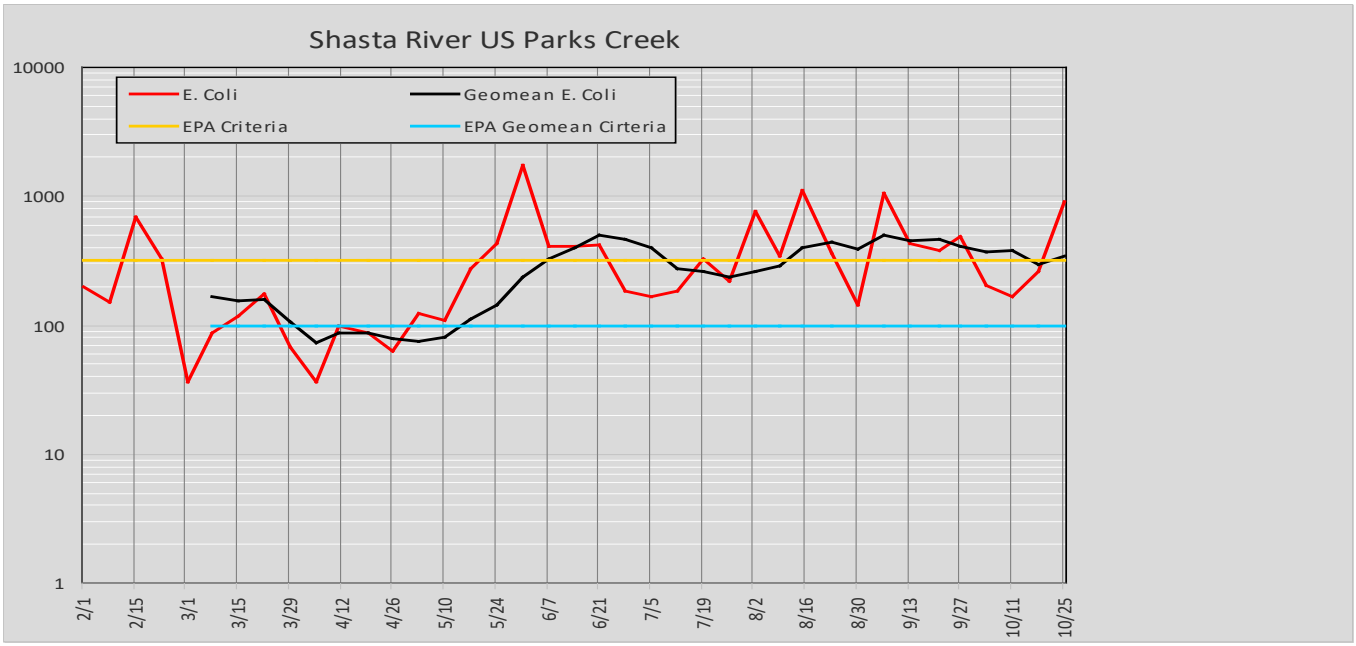


Figure 2



I would like to request that NCRWQ add to the existing work plan investigations to determine the sources of these high bacterial levels, and implement the actions necessary for the protection of people coming into contact with the Shasta River including researchers, students, anglers, irrigators and the general public.

From:	Doug Culbert
To:	NorthCoast
Cc:	Merritt Perry; Mangelsdorf, Alydda@Waterboards; Rebecca Crow; Kevin Carter; Bernard, Lisa@Waterboards
Subject:	2018 Triennial Review Comments
Date:	Friday, June 22, 2018 3:08:48 PM
Attachments:	image001.gif Comment_Triennial2018_Fortuna_20180622.pdf Comment_Triennial2018_Fortuna_attachments.pdf

Please find attached the City of Fortuna's comments and supporting attachments for the 2018 Triennial Review process. Thank you.

Doug Culbert

citylogo

Chief Treatment Plant Operator
City of Fortuna
Office:707.725.1476
Cell:707.502.6258
Fax:707.725.7651

City of Fortuna
P.O. Box 545 • Fortuna, CA 95540
www.friendlyfortuna.com

June 22, 2018

Alydda Mangelsdorf, Planning and Watershed Stewardship Division
North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

Re: Comments on the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region (Basin Plan)

Dear Ms. Mangelsdorf:

The letter is being submitted by the City of Fortuna (City) to provide comments on the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region (Basin Plan). The City appreciates the work the North Coast Regional Water Quality Control Board (Regional Board) has done in support of reviewing the Basin Plan to identify sections that may be in need of modification or new additions.

The Draft Staff Report for the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region (Draft Staff Report) correctly lays out the history of the City of Fortuna's request during the 2014 Triennial Review to *Develop Criteria for Exemption from Seasonal Discharge Prohibition on Point Source Waste Discharge to Eel River* (Seasonal Prohibition Exception Criteria Request). While the City has been slow to pursue with planning staff the activities associated with development of an exemption, the City has made continuous progress on the Lower Eel River, Proposal for Fortuna Wastewater Treatment Facility Monitoring in support of the Seasonal Prohibition Exception Criteria Request. The following describes the progress the City has made and the obstacles the City has addressed.

- A draft water quality monitoring plan was developed in April 2017 and a final water quality plan was submitted to the Regional Board on June 6, 2017, included as Attachment A to this letter. The initial development of the water quality monitoring plan was complicated as a result of finding certified laboratories who would test for the requested Constituents of Emerging Concern (CECs).
- Upon review of the draft water quality monitoring plan, the Regional Board requested a conceptual model of the system prior to approving the water quality monitoring plan. Due to limited subsurface data this was a difficult task, however, regional data was gathered and a system conceptual model was developed and submitted on August 4, 2018 to support the proposed initial monitoring locations, included as Attachment B to the letter.
- As presented in the Draft Staff Report, the City performed a preliminary dye study in November 2017. The results of that dye study were summarized in a report, which is included as Attachment C to this letter. The report documents the City' first attempt at the dye study in a complex system including subsurface mixing of effluent and groundwater and multiple potential groundwater flow pathways. The City felt that this dye test would not provide enough data to make determinations with regard to the fate and transport of the treated effluent as the percolation ponds were not functioning in a typical manner, as heavy silt deposits the previous year resulted in only one pond functioning throughout the study, and city staff felt that another round of dye testing would be necessary with ponds functioning in a normal way, both ponds functioning with one pond reducing in percolation rate and the second pond then providing the majority of the capacity toward the end of the discharge prohibition period. This testing could not be completed last year as high flows prohibited the additional tests, and testing in the winter season would not represent a normal condition. Therefore testing was delayed until this summer discharge prohibition period so that a normal discharge to the ponds can be tested and monitored. Currently, the City is planning a second dye study on June 26th, incorporating the recommendations from the first dye study test.
- By continuing this project as a priority project in the Triennial review process would give further motivation for the City to pursue this dye study and eliminate a potentially environmentally superior alternative from consideration.

- The City has completed the initial round of influent testing for CECs that may be a concern for the City. The testing results indicating those CECs which showed up in the City's wastewater influent are included as Attachment D to the letter.
- The City has also continued to evaluate treatment options that may meet future effluent requirements for surface water discharge in the summer. The City completed a draft treatment evaluation in May 2018 and will be finalizing the treatment and cost evaluation in July 2018.

As presented above, while progress may not be as fast as the Regional Board would hope, the City has continued to make progress on evaluation of the Seasonal Prohibition Exception Criteria Request.

As evidenced by the Regional Board's initial prioritization of the Seasonal Prohibition Exception Criteria Request, developing pathways for alternate compliance within the Basin Plan and protection of beneficial uses and the environment is an important issue for the region that should continue to be included in the triennial review process. The State of California is putting more emphases on integrated water management planning which is a collaborative effort to identify and implement water management solutions on a regional scale that increase regional self-reliance, reduce conflict, and manage water to concurrently achieve social, environmental, and economic objectives. According to the California Department of Water Resources, this approach delivers higher value for investments by considering all interests, providing multiple benefits, and working across jurisdictional boundaries. Examples of multiple benefits include improved water quality, better flood management, restored and enhanced ecosystems, and more reliable surface and groundwater supplies. By developing options within the Basin Plan for alternate compliance to protect water quality and beneficial uses, the Regional Board is supporting potentially innovative integrated solutions that have a higher environmental benefit than projects allowed under the current Basin Plan framework.

Based on the progress the City has documented above, the City requests that the Seasonal Prohibition Exception Criteria Request remain as a priority on the Planning Program Work Plan and that an allocation of 5% of staff resources annually be allocated to this project.

Again, the City of Fortuna appreciates the support of Regional Board staff in evaluating the Seasonal Prohibition Exception Criteria Request, and urges the Regional Board to continue its support of this important project.

Sincerely,

Merritt Perry
Fortuna Interim City Manager

cc:
Lisa Bernard, Sanitary Engineering Associate, Basin Planning Unit, North Coast Regional Water Quality Control Board
Doug Culbert, Chief Plant Operator, City of Fortuna
Rebecca Crow P.E., Senior Engineer, GHD Inc.

ATTACHMENTS
Attachment A: Water Quality Monitoring Plan, City of Fortuna Waste Water Treatment Facility
Attachment B: Fortuna Wastewater Disposal System Conceptual Model
Attachment C: Fortuna Wastewater Disposal System Dye Study 11/2/17 Summary
Attachment D: CEC Monitoring Data

From:	Kylie Heriford
To:	NorthCoast
Subject:	2018 Triennial Review and Smith River ONRW Status Letter
Date:	Thursday, June 14, 2018 8:31:12 AM
Attachments:	2018 Triennial Review and Smith River ONRW Status Final_06.12.18.pdf

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Good morning,

Attached is a letter that the Del Norte County Board of Supervisors approved at the June 12, 2018 meeting to be signed and sent to the North Coast Water Control Board regarding the 2018 Triennial Review and Smith River ONRW Status.

The original will be sent out in today's mail.

Let me know if you have any questions.

-Kylie

--

Kylie Heriford
Clerk of the Board
Del Norte County, California
707-464-7204
981 H ST, Suite 200
Crescent City, CA 95531

"Laughter is the fireworks of the soul"

COUNTY OF DEL NORTE

BOARD OF SUPERVISORS
981 "H" Street, Suite 200
Crescent City, CA 95531

June 12, 2018

Via Certified Mail and Email

North Coast Regional Water Quality Board
5550 Skylane Blvd. Ste. A
Santa Rosa, CA 95403-1072
northcoast@waterboards.ca.gov

Re: 2018 Triennial Review and Smith River ONRW status

Dear North Coast Regional Water Quality Board (NCRWQB) members and staff,

The Del Norte County Board of Supervisors (Board) submitted comments in 2016 in regard to the Smith River's designation as an Outstanding National Resource Water (ONRW) and wishes to once again to reaffirm its comments made in 2016 and to formally request the NCRWQB revisit this project. The Board reiterates that the designation remains (1) not fully investigated (2) unnecessary and unwarranted on the Smith River (3) not defined under state law (4) subject to full environmental review under CEQA and possibly NEPA and (5) not within the purview of the NCRWQB.

The status of ONRW is now even less relevant than it was in 2016 as during the last triennial review the upper North Fork of the Smith River was facing significant risk related to the proposed Red Flat Nickel mining operation to be located in southern Oregon. Since that time however this risk has been largely abated. Specifically, the State of Oregon's Department of Environmental Quality Commission has taken steps to designate the North Fork as an Outstanding Resource Water (ORW). Additionally, Oregon has taken steps to reserve the surface waters of the North Fork for instream fish, wildlife, recreation, and domestic human consumption purposes with additional limitations on groundwater use within the basin. Finally, Federal protections appear to be securely in place against potential activities such as strip mining in the form the Southwestern Oregon Mineral Withdrawal as ratified in Public Land Order 7859. This Order removes the subject lands (including portions of the North Fork drainage) from settlement, sale, location, and entry under the public lands law; location and entry under the US mining laws, and operation of the mineral and geothermal laws for a period of 20-years. It is this Board's opinion that designation of the Smith River as an ONRW remains unnecessary, even less so now

than during the previous triennial review in consideration of recent actions taken by the Federal government and State of Oregon for protections against threats to water quality in the North Fork sections of the Smith River located in the State of Oregon.

The Board of Supervisors again requests that this project be removed from the Workplan or at the least reframed as "Explore ONRW Status and Implications" without reference to the Smith River. Unfortunately, this largely undefined project became a part of the 2014 Triennial Review due through a process that lacked transparency and forthrightness and now is being rolled into the 2018 Triennial Review when admittedly by the NCRWQB the "project has been dormant since the loss of staff in 2016." The NCRWQB states that the project should be phased in order "introduce the term Outstanding National Resource Water" and then a "tool for objectively identifying locations in the Region where the designation of ONRWs could protect ecological significant waters" should be developed and finally "following the completion of this tool, planning staff should propose appropriate ONRW designations, including consideration of the Smith River, and initiate the public review and adoption process." It seems illogical to continue to recommend the project "Designate Outstanding Natural Resource Waters *with an initial focus on the Smith River*" be retained given none of the research has been done and certainly the designation of the Smith River is premature even according to the NCRWQB's own staff report. It is particularly disappointing that this project wasn't removed earlier as this is an example of how difficult it is to remove something once it is written even if the project was never well thought out.

This project became a priority through a process that lacked transparency and that the Board of Supervisors still considers to have been wholly inadequate. The Board was never noticed of the 2014 Triennial Review and the coinciding staff report which listed designation of the Smith River as an ONRW as a medium priority project. All meetings were held outside the affected jurisdiction and the entire process was suspect. (Please see the previous letter submitted by the County for further details). This lack of notice and collaboration has now become the basis for a project remaining into the future which should have never been a priority to begin with.

As stated in the previous letter, our Board is not convinced ONRW designation is necessary to maintain the quality of the already protected and highly regulated Smith River which we our community cherishes particularly in light of the State's anti-degradation policy, Resolution 68-16 which makes clear even if no formal designation has been made, lowering of water quality should not be allowed for waters. Now, even more so than in 2016, our Board does not believe there is a

present mining threat on the Smith River to which only ONRW status can offer protection.

While the Draft Staff Report now states that the term "Outstanding National Resource Water" will be introduced and presumably defined, ONRW designation is not defined within California. This is not something each separate regional water quality board should be defining and possibly differently. This needs to be consistent within the state of California at the state level. The Board reiterates and reaffirms its objections stated in its 2016 letter. While it appears that the NCRWQB staff now will do some ground work, this project should not remain as stated. At a minimum, the project should be reframed as state previously. The Board again advises NCRWQB and reiterates the concerns and statements in its' 2016 that such designation will be subject to CEQA and should be done at the state level.

The Board remains concerned that it is unclear how the designation will affect any current or future businesses located along the river and under that ground objects to any designation or implementation of this status unless or until such implications are completely clarified and acceptable to the County and stakeholders within this jurisdiction.

For the above stated reasons, the Del Norte County Board of Supervisors formally requests the North Coast Regional Water Quality Board 1) revisit this project; 2) revisit the priority; 3) realize that designation is premature and take the name of the Smith River off the project, or choose a river on which there is stakeholder support for the designation; 4) assure that all state and federal laws regarding process to initiate such designation are being met; 6) work with the State to create consistent and statewide ONRW definitions and regulations; and 5) assure that ONRW status implications both intended and unintended and potential impacts are fully vetted and that .

Sincerely,

Chris Howard
Chair, Del Norte County
Board of Supervisors

Attachments: 2016 BOS letter.

From:	Grant Wilson
To:	NorthCoast
Subject:	2018 Triennial Review Comments
Date:	Friday, June 22, 2018 5:00:22 PM
Attachments:	North Coast Regional Water Quality Control Board Letter_ELC & NCSFC.pdf

Please see the attached comments on the North Coast's 2018 Triennial Review. Thank you for your attention.

Grant Wilson

Grant Wilson, JD
Directing Attorney
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510-566-1063
www.earthlawcenter.org

Earth Law Center works to transform the law to recognize and protect nature's inherent rights to exist, thrive and evolve.

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North Coast Stream Flow Coalition
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cmalan1earth@gmail.com
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707.322.8677

June 22, 2018

Matthias St. John
Executive Officer
North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A
Santa Rosa, CA 95403

VIA ELECTRONIC MAIL c/o Alydda Mangelsdorf, Alydda.Mangelsdorf@waterboards.ca.gov

RE: Proposal for Developing both a Mandatory Regional Flow Objective and Flow Criteria for the Scott River, Shasta River, Green Valley Creek, and Mark West Creek

Dear Executive Officer St. John:

Earth Law Center (ELC) and the North Coast Stream Flow Coalition (NCSFC) ask that the North Coast Regional Water Quality Control Board (NCRWQCB) include a *mandatory* narrative instream flow objective for the region as a "high priority" item on the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region (2018 Triennial Review). We also ask that the following waterways receive the same analytical assessment of instream flow criteria that is proposed for the Navarro River watershed:[1] Scott River, Shasta River, Green Valley Creek, and Mark West Creek.

Request 1: Mandatory Development of a Narrative Instream Flow Objective

Background: In 2005, the U.S. EPA awarded grant funding for the NCRWQCB and San Francisco Regional Water Quality Control Board (SFRWQCB) to develop a Stream and Wetland System Protection Policy[2] (Policy) as a Basin Plan amendment in both Region 1 and Region 2. The proposed Policy includes new beneficial uses and water quality objectives as well as an implementation plan. One of the proposed objectives developed as part of the Policy is the narrative flow objective, which would make the connection between the pattern and range of flows and the protection of beneficial uses. The Policy was identified as a high priority by the NCRWQCB in the 2004 and 2007 Triennial Reviews. However, beginning with the 2011 Triennial Review, the NCRWQCB began to list the watershed hydrology objective as a separate task (while

[1] North Coast Regional Water Quality Control Board, "Draft Staff Report for the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region," Section 2.2.5 (May 2018), at: https://www.waterboards.ca.gov/northcoast/water_issues/programs/basin_plan/180504/20180502_draft_Staff%20Report_editted.pdf

[2] The 2014 Triennial Review additionally uses the phrase "Stream and Wetlands [plural] System Protection Policy," while the SFRWQCB typically uses the phrase "Stream and Wetland Systems [plural] Protection Policy."

noting that the draft objective is still part of the Policy). And in the NCRWQCB's 2014 Triennial Review, neither the Policy nor the flow objective were included as "high priority" items. Further, the 2014 Triennial Review merely "consider[s]" development of a regional flow objective.

Requested Changes to 2018 Triennial Review: As it stands, the 2018 Triennial Review states that the NCRWQCB will "Consider the development of a regional narrative flow objective and corresponding implementation methodology."[3] However, this same consideration in the 2014 Triennial Review did not lead to the development of a regional narrative flow objective, which is the ultimate goal of including this item in the Triennial Review. Therefore, we ask the language be revised to state, for example, that the NCRWQCB "Develop a regional narrative flow objective and corresponding implementation methodology." ELC also asks that development of a regional narrative flow objective be elevated to a "high priority" item.

Benefits of a Mandatory Flow Objective for the Region: There are many benefits that a regional instream flow objective would provide. First, the instream flow objective would aid the State Water Resource Control Board's (SWRCB) Division of Water Rights in making regionally appropriate water rights decisions. Second, the flow objective would "[support] the development of implementation measures which protect instream flows" until needed numeric flow criteria can be developed on a stream or watershed level.[4] Third, the flow objective would formally recognize the relationship between changes to hydrological patterns (including flow) and beneficial use protection;[5] and in practice, this connection could be used to ensure that "individual projects and permits are designed and evaluated to support watershed health and avoid adverse cumulative effects."[6] Fourth, the flow objective would help clarify the relationships among flow and other parameters regulated by the NCRWQCB, such as sediment, temperature and bio-stimulatory substances, which would guide efforts to protect and recover waterways more effectively and efficiently than under existing water quality objectives.[7] Fifth, a flow objective would help NCRWQCB staff identify waterways that are impaired due to altered flow.

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[3] *Id.*

[4] North Coast Regional Water Quality Control Board, "2014 Triennial Review of the Water Quality Control Plan for the North Coast Region," p. 19 (Nov. 21, 2014).

[5] As described by Poff *et al*., "[m]odification of the natural flow regime dramatically affects both aquatic and riparian species in streams and rivers worldwide." *See* Poff *et al*., "The Natural Flow Regime," 47(11) BIOSCIENCE (1997).

[6] *See* Peer Review Draft Staff Report to Support the Technical Sediment Total Maximum Daily Load for the Upper Elk River and Associated Documents, App. 6A, p. 6A-2, at: http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/elk_river/pdf/130719_staff_report/staff_report/appendices/Appendix_6A_Watershed_Hydrology_Objective.pdf (Draft Staff Report for the Upper Elk River Sediment TMDL). States the Draft Staff Report for the Upper Elk River Sediment TMDL, "Staff proposes that the Regional Water Board consider adopting a watershed hydrology objective either as part of an action taken specific to the Elk River watershed (if a site specific objective) or as part of another related Basin Plan Amendment (if a region wide objective)." *Id.* In either case, the watershed hydrology objective could "[acknowledge] the connection between flow and sediment in Upper Elk River." *Id.*, at p. 6A-1. The TMDL specifically refers to the language of the proposed watershed hydrology objective as developed in the Peer Review Staff Report for the SWSPP.

[7] For example, in the context of the Technical Sediment TMDL for the Upper Elk River, North Coast staff noted that "[w]hile the existing water quality objectives for sediment are helpful, an explicit objective describing the connectivity of watershed hydrology and beneficial use support and prevention of nuisance is helpful to guide recovery and protection efforts." *See id.* at p. 6A-1. Further, as noted by the Peer Review Staff Report for the SWSPP, "[w]hile existing beneficial uses and water quality objectives in the Basin Plans for the North Coast and

Various U.S. regions have begun to implement such narrative flow objectives. Examples of these flow objectives are: "Stream or other waterbody flows shall support the fish and aquatic life criteria" as Tennessee has implemented, or as Kentucky states "Flow shall not be altered to a degree which will adversely affect the aquatic community." While New York holds "There shall be no alteration to flow that will impair the waters for their best usages." There are several narrative criteria examples that the NCRWQCB could glean from found on a draft technical report composed by the USGS and the EPA.[8] The NCRWQCB should similarly apply a flow objective that would protect its waterways, ecosystems, and aquatic life.

Once adopted, instream flow objectives that are consistent with the Clean Water Act (CWA) would be used for the "protection of all designated uses and for application in all other purposes under the CWA."[9] This is demonstrated by U.S. EPA Region 1, which recommended that NPDES permits consider flows needed to protect uses in light of proposed discharges and that "fishery management/restoration plans . . . be integrated into water quality standards."[10] U.S. EPA Region 1 also specifically found that anti-degradation programs must "obviously address water withdrawals as well as discharges," to ensure there is "adequate ability to protect existing uses"[11]; this position should similarly be reflected in the NCRWQCB's flow objectives and operations.

Conditions are growing even more poor for the already reduced water flow problems faced by a number of North Coast waterways and the benefits a mandatory flow objective would provide would help alleviate some of those problems. For example, according to the United States Geological Survey map of current conditions and how they relate to the rest of the state, the North Coast Region's waterways rank at most in the 25th-75th percentile, but also in the 10th-24th percentile, with some being even below the 10th percentile.[12] In sum, considering the strong legal impetus of the CWA and the clear precedent set by other states, tribes and U.S. EPA regions, we ask that the NCRWQCB elevate the regional narrative flow objective from a "consideration" to an affirmative commitment, while also making it a "high priority" item in the 2018 Triennial Review.

Request 2: Inclusion of Additional Waterways for Analytical Assessment

In the 2018 Triennial Review under Section 2.2.5, the focus is put on developing an analytical assessment of instream flow needs in the Navarro River. The NCRWQCB notes this will require various study plans for components of analysis which will all be combined to develop flow criteria.

San Francisco Bay Regions address to some degree the need to protect water quality and wildlife habitat they do not explicitly address the need to protect the physical condition and integrity of the structure, dynamics, and functions of these systems." Peer Review Staff Report for the SWSPP, p. 114.

[8] United States Environmental Protection Agency and United States Geological Survey, "Draft EPA-USGS Technical Report: Protecting Aquatic Life from Effects of Hydrologic Alteration" at: https://www.epa.gov/sites/production/files/2016-05/documents/webinar-usgs-epa-hyrologic-alteration.pdf.

[9] Letter from U.S. EPA Region 4 to Alabama Department of Environmental Management (2012), pp. 9-14, attached to June 18, 2014 ELC comments to the NCRWQCB (emphasis in original). U.S. EPA Region 4 also specifically encouraged states to "consider adopting environmental flow standards under the CWA based on a 'natural flow paradigm' that more closely resembles natural conditions."

[10] *See* Letter from U.S. EPA Region 1 to the Rhode Island Department of Environmental Management, p. 4 n. 1, attached to June 18, 2014 ELC comments to the NCRWQCB.

[11] *Id.*, at p. 3.

[12] United States Geological Survey, "USGS Current Water Data for California: Daily Streamflow Conditions" at: https://waterdata.usgs.gov/ca/nwis/rt.

Section 2.2.5 then states that "with respect to evaluating other rivers as candidates for flow objectives, staff have established a Flow Workgroup, which is developing multiple tools for assessing flow related impacts in the region and determining the highest priorities."[13] Additionally, in Section 2.2.5 the NCRWQCB recognizes the Scott River, Shasta River, South Fork Eel River, and Mark West Creek as projects that the Flow Group is tracking and the associated flow studies that would need to be done.[14] We believe the time for action to analyze and protect flows on these waterways is now. Therefore, we ask that in addition to the Navarro River, the Scott River, Shasta River, Green Valley Creek, and Mark West Creek also receive an analytical assessment of instream flow criteria.

Scott River: In regard to the Scott River, scientific assessments have already been done establishing flow criteria, which would make implementing such flow criteria by the NCRWQCB a seamless transition. The California Department of Fish and Wildlife prepared an instream flow criteria for the Scott River Watershed for the protection of fishery resources.[15] Incorporated with the flow criteria is an in-depth survey of habitat requirements for the salmonids and Steelhead/Rainbow Trout that inhabit the Scott River. According to the report, the late summer baseflows in the Scott River are 40.3% lower between 1977 to 2005 then they were between 1942 to 2005.[16] This can be attributed to agricultural diversion, groundwater extraction, and drought. The results are that the conditions of the Scott River have "restricted or eliminated available rearing habitats, elevated water temperature, decreased fitness and survival of over-summering juvenile salmonids, and has sometimes resulted in juvenile fish stranding and mortality."[17] The results of inadequate habitats are that the Fall Chinook Salmon in the Scott River have dwindled from 14,447 fish in 1978 to 497 fish in 2004.[18] The Department of Fish and Wildlife concluded that Coho Salmon in California are threatened and will likely become endangered in the near future unless special protection and management efforts are made.[19] Summer-run steelhead within the Distinct Population Segment are recognized as a species of special concern.[20]

Shasta River: There are multiple surveys and monitoring that have been performed on the Shasta River, one of which is the Study Plan to Assess Shasta River Salmon and Steelhead Recovery Needs that was prepared by the Shasta Valley Resources Conservation District.[21] In the Shasta River there is a six-month dry season that results in a severely impacted instream flow with a daily average loss of approximately 160 cfs to 255 cfs.[22] This study plan also cites a 2006 NCRWQCB temperature and dissolved oxygen TMDL study which found that "oxygen concentrations were

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[13] North Coast Regional Water Quality Control Board, "Draft Staff Report for the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region," Section 2.2.5 (May 2018).
[14] *Id.*
[15] California Department of Fish and Wildlife, "Interim Instream Flow Criteria for the Protection of Fishery Resources in the Scott River Watershed, Siskiyou County," (February 6, 2017) at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=143476&inline
[16] *Id.* at p. 6.
[17] *Id.*
[18] *Id.* at p. 9.
[19] *Id.* at p. 10.
[20] *Id.* at p. 14.
[21] Shasta Valley Resource Conservation District, "Study Plan to Assess Shasta River Salmon and Steelhead Recovery Needs," (September 19, 2013) at: https://www.fws.gov/arcata/fisheries/reports/dataSeries/SVRCD%20Shasta%20River%20Final%20Study%20Plan.pdf
[22] *Id.* at p. 24.

regularly too low to comply with the Basin Plan dissolved oxygen objectives, and water temperature conditions regularly exceeded temperature thresholds protective of salmonids.[23] These temperature and oxygen impairments can affect the important species found in the Shasta River, which include: Chinook and Coho salmon; trout; and lamprey.[24] This study plan also cites NCRWQCB's TMDL narrative and numeric objectives, which looked at both dissolved oxygen and pH levels.[25] In addition, the United States Geological Survey has a webpage designated to display the discharge rate and gage height for the Shasta River dating back to 1988. The information found on this page shows that over the measured period of time, the discharge rate of the Shasta River has been decreasing.

Green Valley Creek: There are in-depth findings within the study conducted by the Gold Ridge Resource Conservation District, which show the trend conditions of the Green Valley Creek.[26] The survey found that with only a couple of exceptions, the watershed's water temperature exceeded the preferred temperatures for salmonid habitats, however it did not reach lethal limits.[27] An issue the survey team faced was that in multiple months of 2009 there was no water in various sites to even be able to measure the water temperature.[28] The survey also notes that residential and agricultural uses are highest in the summer months, when the water supply is at its lowest, which likely places substantial pressures on the aquatic life and ecosystems of the Green Valley Creek.[29] In addition, portions of the Green Valley Creek lack adequate shelter and have high stream temperatures, resulting in adversely effected rearing habitat conditions.[30] This could explain why both Steelhead trout and Coho salmon populations have declined over time.[31] However, the survey states that "it should be possible to maintain a healthy aquatic ecosystem while still providing the water necessary for human uses" with careful planning.[32] The survey calls for a continuous stream monitoring of the Green Valley Creek to be able to study stream health and how the conditions affect aquatic organisms throughout the various seasons and this continuous monitoring should have a goal of establishing and expanding monitoring for at minimum the flow and temperature of the creek.[33]

Mark West Creek: According to a study performed by the California Department of Fish and Wildlife, during a three year drought stress monitoring of the Mark West Creek, the Department found that the "survival and successful rearing of juvenile salmon and steelhead depends on

[23] *Id.* at p. 27.
[24] *Id.*
[25] *Id.* at p. 30.
[26] Gold Ridge Resource Conservation District, "Upper Green Valley Creek Watershed Plan: A Living Document to Facilitate the Restoration of Coho Salmon and Preservation of Sustainable Agriculture," (June 30, 2010) at: http://goldridgercd.org/documents/2010UpperGreenValleyPlan.pdf
[27] *Id.* at p. 21.
[28] *Id.*
[29] *Id.* at p. 48.
[30] *Id.* at p. 18.
[31] California Department of Fish and Game, "Stream Inventory Report, Green Valley Creek," (Report last revised April 14, 2006)
[32] *Id.*
[33] *Id.* at p. 20.

maintaining summer flows" in the watershed.[34] They concluded that there should be "monitoring efforts focused on assessing summer flow criteria for juvenile salmon and steelhead in specific streams that support Coho Salmon. Mark West Creek is one of the tributaries that has historically maintained perennial flow during dry years."[35] Monitoring the Coho Salmon populations in the watershed has shown that it plays a crucial role in providing critical habitat for rearing salmonid and steelhead juveniles. However, because Mark West Creek is close to urban and agricultural development, it is ecologically sensitive.[36] The findings of the Department's monitoring was an extremely low stream flow of .02 cfs in the lower reach of the creek and only .04 cfs in the upper reach and these conditions in the lower reach are not hospitable for salmon and steelhead as the water temperatures can get too warm or oxygen levels can be too low.[37] This is likely the result of why the Mark West Creek is experiencing declining populations of both Steelhead trout and Coho salmon.

Conclusion

The above shows the benefits that the Northern Region of California would receive if the NCRWQCB were to implement a mandatory region specific narrative flow objective, as has been done in many other parts of the country. The above also shows why the Scott River, Shasta River, Green Valley Creek and Mark West Creek should receive the same flow criteria assessment as is being implemented for the Navarro River. Therefore, ELC asks that the NCRWQCB elevate a *mandatory* narrative objective for flow criteria to "high priority" for the 2018 Triennial Water Quality Control Plan and also asks that the Scott River, Shasta River, Green Valley Creek and Mark West Creek receive the same assessment as the Navarro River.

Thank you for the opportunity to submit these comments. If you have any questions or would like additional information, please do not hesitate to contact us.

Sincerely,

Grant Wilson
Directing Attorney
Earth Law Center
gwilson@earthlaw.org

Michael A. DeLorenzo
Water Law Associate
Earth Law Center
adelorenzo@earthlaw.org

Chris Malan
Executive Director
N. Coast Stream Flow Coalition
cmalan1earth@gmail.com

[34] California Department of Fish and Wildlife, "Drought Stressor Monitoring Case Study Update: Mark West Creek Coho Salmon and Steelhead Monitoring in 2016." (2016) at: https://www.wildlife.ca.gov/Drought/Projects/Russian-River-Watershed/2016-Update
[35] *Id.*
[36] *Id.*
[37] *Id.*

From:	Amber Jamieson
To:	NorthCoast; Mangelsdorf, Alydda@Waterboards
Cc:	Tom Wheeler
Subject:	North Coast Basin Plan Triennial Review Comments
Date:	Friday, June 22, 2018 7:23:24 AM
Attachments:	North Coast Basin Plan Triennial Review Comments Final.pdf

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Dear Alydda,
Please accept the attached comments on the Basin Plan.
Let me know if you have any questions.
Thanks,
Amber

Amber Jamieson, Conservation Advocate
Environmental Protection Information Center
Office: (707) 822-7711
Cell: (707) 834-2523
145 G Street, Suite A
Arcata, CA 95521
amber@wildcalifornia.org

"Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has."
~Margaret Mead

Keeping Northwest California wild since 1977

June 22, 2018

Sent electronically to:
NorthCoast@waterboards.ca.gov
alydda.mangelsdorf@waterboards.ca.gov

Alydda Mangelsdorf, Planning and Watershed Stewardship Division
North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403

RE: 2018 Triennial Review Comments

Dear Ms. Mangelsdorf,

The Environmental Protection Information Center (EPIC) advocates for science-based protection and restoration of Northwest California's forests, using an integrated, science-based approach, combining public education, citizen advocacy, and strategic litigation. Upon review of the draft documents for the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region, we offer the comments below on behalf of our 15,000 EPIC members and supporters.

Outstanding National Resource Waters

In the face of a changing climate it is imperative that the NCRWQCB strategically focus on protecting intact balanced ecosystems in regions that show significant support for stronger protections. The current timeline and process for ONRW designations are too lengthy and should be streamlined in order to improve our ability to restore and protect ecologically or recreationally exceptional water bodies, with a focus on watersheds that are at risk of degradation, or where endangered species are at risk of extinction in order to protect outstanding waters before it is too late. Since there is already a statewide policy on antidegradation it seems duplicative to spend staff time and resources reinventing new region-specific ONRW rules. In addition to protecting the Smith, we believe that it is strategic to pursue ONRW designation of the Salmon River, Clear Creek, Dillon Creek, and Elder Creek because they have internal champions, including people who are in support of the heightened designation who live in or use the watersheds. For this purpose, it is requested that the Water Board amend Section 2.2.3 of the Draft Staff Report as follows:

"2.2.3 Designate Outstanding National Resource Waters with an initial focus on the Smith River, and future consideration for the Salmon River, Clear Creek, Dillon Creek and Elder Creek."

Smith River. Designating the Smith River as an ONRW must remain a high priority in order to protect the river from harmful industrial activities. This must remain a high priority in order to protect the river from harmful industrial activities such as large scale industrial mining and agricultural activities. It is recommended that the Water Board utilize the authority granted under the Clean Water Act to safeguard the Wild and Scenic Smith River from harmful industrial activities that degrade the water quality in the Smith River in order to protect the health and welfare of the community, fish and wildlife and the surrounding aquatic and terrestrial environment. **We support the designation of the Smith River as an ONRW as a high priority.**

Salmon River. The Wild and Scenic Salmon River is an excellent candidate for designation as an Outstanding National Resource Water. We request that the NCRWQCB identify the designation of the Salmon River as an ONRW as a high priority. This designation would safeguard ecologically, culturally and historically important salmonid species such as the SONCC coho and Chinook salmon runs that are currently at risk of extinction. The Salmon River is an important key watershed that supports a range of beneficial uses including domestic drinking water, recreational activities such as camping, fishing, hiking, hunting, mountain biking, sightseeing, whitewater rafting and swimming, and provides an important cultural heritage resource to the Karuk and Shasta Tribes.

Salmon are a keystone species in our region, supporting a vast segment of the food web and local communities. With plans for the Klamath dams to be removed in the coming years, it is essential that the Salmon River fisheries and the habitat that supports them are given the fullest protections to ensure that one of the only remaining wild salmon populations for Upper Klamath Basin fishery is healthy and able to repopulate their historic habitat that is located above the dams. With salmon fisheries on the brink of extinction, it is imperative that anti-degradation policies are put into effect as soon as possible to prevent a catastrophic decline in fishery populations, before the main-stem Klamath is restored. Based on this immediate need, and local community support **it is recommended that designation of the Salmon River as an ONRW be identified as a high priority.**

Dillon Creek. Dillon Creek is designated as a key watershed because it supports at-risk anadromous fish stocks and exhibits high quality fish habitat. According to the Klamath National Forest's 1995 Dillon Creek Watershed Analysis, "although Dillon Creek accounts for 0.5 percent of the Klamath River Basin in area, it accounts for more than 15 percent of the annual adult summer steelhead population found within the basin. Dillon Watershed is one of the highest-rated watersheds within the basin due to its high fisheries habitat quality, and overall water quality." Because the Klamath dams have blocked off more than half of the aquatic habitat in

the Klamath Basin, remaining high quality watersheds such as Dillon Creek have increasingly important value to maintain wild fish stocks in the Klamath Basin.
It is recommended that Dillon Creek is prioritized for designation as an ONRW as a safeguard from future resource extraction such as mining and logging that would degrade the watershed, wildlife and sacred places.

Clear Creek. With salmon fisheries on the brink of extinction in the Klamath Basin, it is imperative that anadromous fishery habitat in Clear Creek is afforded the fullest protections to support healthy salmon populations and ensure that clean cold water continues to flow into the Klamath River in an area where other tributaries are dewatered annually. The Clear Creek watershed must be protected to provide habitat for at-risk anadromous fish and other aquatic species; with special emphasis on aquatic ecosystems. Restoration activities need to be assessed, prioritized, and selected for implementation based on their effectiveness at improving aquatic habitat. **As requested by the Karuk Tribe in the last Triennial review, the NCRWQCB should prioritize designating the Clear Creek watershed as an Outstanding National Resource Water.**

Elder Creek. Elder Creek, a tributary to the South Fork of the Eel River is one of only a few high quality refugia streams in the South Fork Eel River Basin. Elder Creek is one of the only coastal streams on the North Coast that has never been logged, has no water diversions and has no roads (except one bridge near its mouth). It is one of approximately 50 stations nationwide designated as part of the Hydrologic Benchmark Network by USGS and is registered as a National Natural History Landmark by the National Park Service.

A protected status is already in place for Elder Creek as it is designated as a UC Natural Reserve, an ONRW designation would not be likely to have significant new policy implications. The Elder Creek watershed deserves recognition; therefore, **it is recommended that Elder Creek be considered for future ONRW designation.**

<u>Develop Numeric Flow Objectives for the Scott River</u>
The Scott River and many of its tributaries run dry during summer months due to water diversions and withdrawals. The Scott watershed is home to wild runs of Chinook salmon, coho salmon, and steelhead trout that make up significant components of the Klamath River runs. However, in recent years, dewatering of the river and its tributaries has resulted in such low flows that fish rescue efforts were launched in order to avoid fish kills. These efforts could have been avoided if withdrawals from wells and surface diversions were reduced and/or curtailed. It is the duty of the Water Board to set standards and take appropriate enforcement actions to protect stream flows and water quality.
For these reasons, **it is recommended that numerical flow objectives are developed and enforced for the Scott River.**

Develop Beaver Recovery Strategy

With the likelihood that the beaver were a native species in coastal as well as inland streams in California, they were highly significant to watershed and ecosystem health. With the excessive harvest of beaver in the 1800's, their vital effects on the creation of habitat for fish and other aquatic species ceased and along with other cumulative impacts, led to the demise of watershed function. Beaver were a natural part of the ecosystem and watershed function and it is our obligation to recover this native species.

Beaver are a keystone species, playing a critical role in biodiversity and providing direct benefits to surrounding ecosystems as well as fish, wildlife and people. Dams created by Beaver create wetlands that help decrease the effects of damaging floods, recharge drinking water aquifers, protect watersheds from droughts, decrease erosion, stabilize stream banks and many threatened and endangered species rely on the wetland habitat created by beaver. Beaver have a profound effect on water quantity as well as water quality. Beaver dams and lodges remove toxic pollutants from surface and ground water, reduce nitrates, phosphates, heavy metals and other pollutants. They also reduce excessive fine sediment downstream of beaver dams. Beaver also produce food for fish and other animals, increase habitat and cold water pools that benefit salmon, repair damaged stream channels and watersheds, preserve open space, and maintain stable stream flows. The beaver itself is one of the major sources for wetland development in the United States, and since 3 out of 10 endangered animals in the United States rely on wetlands, beaver restoration should be a priority.

While the North Coast Region has a beaver deficit, every year hundreds of beaver are killed in California's Central Valley by Wildlife Services, a federal agency tasked with "removal" of "problem" or "nuisance" animals. The Department of Fish and Wildlife also issues depredation permits for landowners to trap and kill nuisance Beaver on their property. Instead of trapping and killing beaver that are unwanted in other regions, it is imperative that a relocation program is created, so that Beaver can be relocated to North Coast rivers and other places where they once thrived to help restore streams and wetlands. Beaver reintroduction is a sustainable cost-effective strategy, but stakeholders need to work together to navigate the political, regulatory and biological frameworks to safely restore their populations.

Human watershed restoration is very expensive, resulting in significant costs to tax payers and private entities. The high costs, long timelines and extensive permitting barriers of manmade watershed restoration activities are so overwhelming, that very simple restoration projects have become prohibitively expensive and time consuming. The timeliness of restoration by beavers is needed as sensitive species decline and listed species are near extirpation and extinction.

Beaver reintroduction will address the Board's beneficial use, "spawning and rearing" as water retention, pool habitat for summer rearing, off channel habitat and slower flows for winter rearing, and improved water quality for fish and benthic macro invertebrates will result.

Beaver are a cost effective and sustainable wetland habitat restoration tool overflowing with water conservation benefits of surface water storage and groundwater recharge. The ecosystem services that beaver provide are irreplaceable and cannot be replicated by humans.

It is recommended that the Water Board prioritize the following items:

1. **Develop a policy statement directing the NCRWQCB to coordinate with other agencies to develop a beaver reintroduction and recovery strategy**
2. **Incorporate beaver reintroduction and recovery strategy into the Climate Change Adaptation Policy**
3. **Incorporate beaver reintroduction and recovery into the Groundwater Protection Strategy**
4. **Direct staff to work with CDFW to promote beaver restoration and reintroduction within the North Coast Basin**
5. **Work with USFWS and NOAA fisheries and NOAA Restoration along with CDFW.**

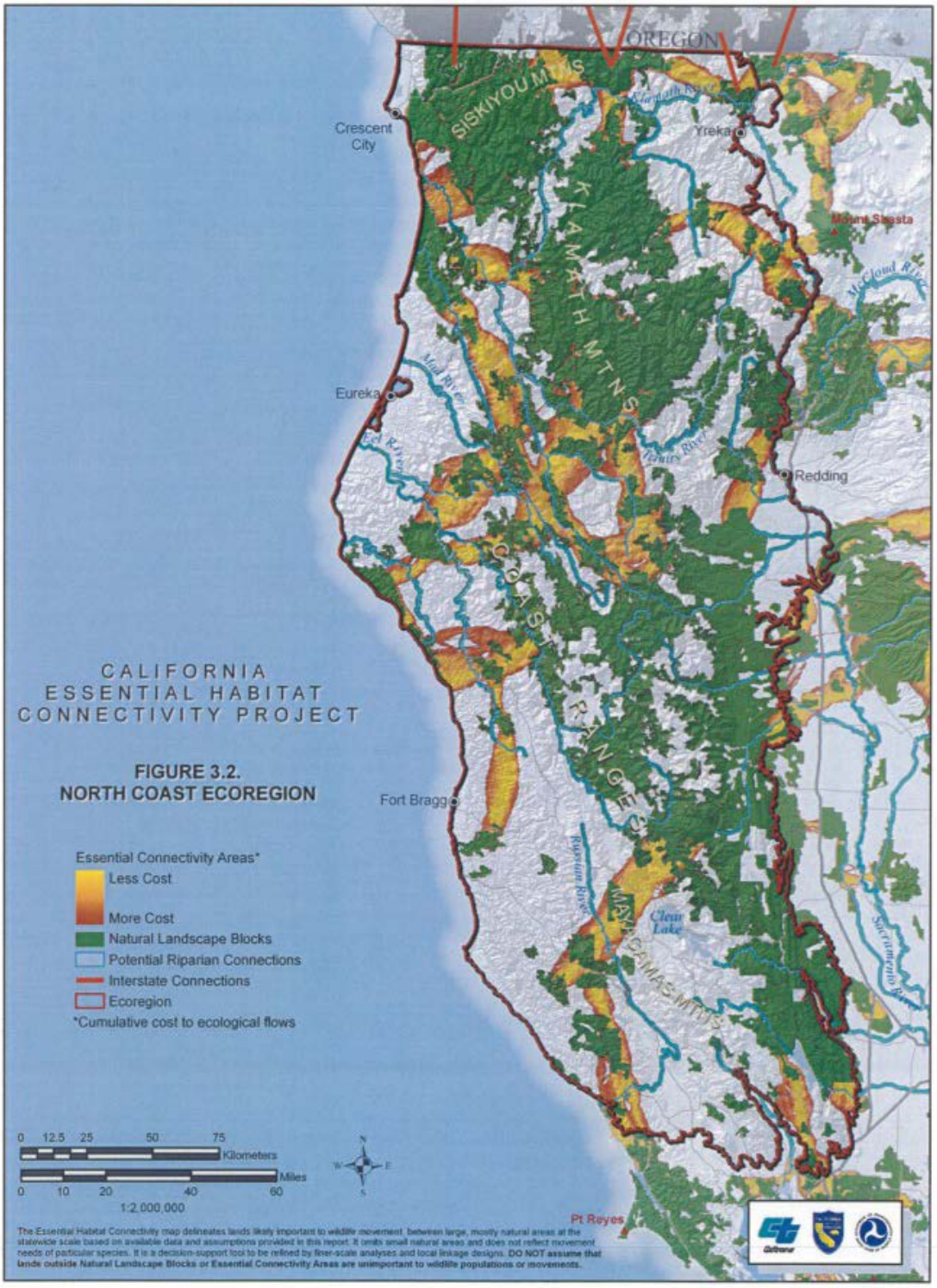
<u>Climate Change Adaptation Policy</u>

Protecting intact watersheds and aquatic ecosystems is crucial for the survival of wildlife and is key to climate adaption. Our natural and political landscapes are rapidly changing. Climate change is affecting ecosystems across the planet, and people, plants and wildlife are beginning to feel the pressures that come from a changing environment. Prolonged droughts, severe storms, growing deserts, deforestation, habitat loss and the resulting increase in stresses on wildlife are projected to become the norm in the future. While the impacts on humans will be significant, the impact on wildlife will be exponentially more detrimental.

According to the California Department of Fish and Wildlife's 2011 Special Animals list, the majority of our wildlife needs help: 88% of amphibians, 87% of native fish, two out of three mammals, and nearly half of all birds and reptiles are "at risk". This decline of wildlife is indicative of the failing health of the ecosystems that all life on Earth depends on. As climate changes, it's important that protected and connected wild places exist.

It is requested that the Climate Change Adaptation Policy prioritizes protecting intact watersheds critical habitat for endangered species, regions that are surrounded by Wilderness and Roadless Areas, Late Successional Reserves and mature forests.

It is recommended that the Climate Change Adaptation Policy focus on developing protections for "Essential Connectivity Areas" and "Potential Riparian Connections" identified in the map below.



North Coast Ecoregion Map from California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California

Thank you for this opportunity to comment and for all of your hard work developing a water quality control plan to provide as the basis for protecting water quality on the North Coast.

Please feel free to contact me if you have any questions.

Sincerely,

Amber Shelton, Conservation Advocate
Environmental Protection Information Center
amber@wildcalifornia.org
(707) 822-7711

From:	eileen cooper
To:	NorthCoast; Mangelsdorf, Alydda@Waterboards
Subject:	Triennial Review ONRW designation Smith River Comment FODN
Date:	Friday, June 22, 2018 1:54:14 PM
Attachments:	Smith River ONRW designation CA final draft.doc

Please confirm that you have received the attached comments timely. Thank you, Eileen 707-465-8904

Friends of Del Norte

Protecting the wild lands, waters and wildlife of Del Norte County since 1973

P.O. Box 144, Crescent City, Ca. 95531

June 22, 2018

ATT: North Coast Regional Water Quality Control Board, NorthCoast@waterboards.ca.gov

Alydda Mangelsdorf Alydda.Mangelsdorf@waterboards.ca.gov

NCRWQB Planning and Watershed Stewardship Division

5550 Skylane Blvd. Suite A Santa Rosa CA 95403

Re: Triennial Review and Outstanding National Resource Water (ONRW) designation - Smith River

Thank you for the opportunity to comment about the Triennial Review and Outstanding National Resource Water (ONRW) designations. The Friends of Del Norte are most supportive of your agency's consideration for designating the Smith River and its tributaries as ONRW. We also appreciate the Water Board's broadened scope to create a designation pathway for the evaluation of river candidates across the North Coast area. We commend your effort, to identify those high quality waters that can most benefit from ONRW designation, and provide the opportunity to receive needed protection in meeting the challenges of the future, including climate change.

For decades we have worked to protect and enhance the fisheries habitat on the Smith River watershed and we believe ONRW designation to be a very positive action in further protecting this important resource, helping to ensure the Smith River as a Salmon Stronghold.

The pristine Smith River is the main source of drinking water for residents of the towns of Crescent City, Smith River, Hiouchi and Gasquet. This is a central benefit to the quality of life for the citizens of Del Norte, and deserves adequate protection in perpetuity. We cannot overemphasize the importance of this fact. There is no logical reason to validate any kind of disruption to the supply of healthy clean drinking water for our communities.

The Smith River is a major economic generator for the citizens of Del Norte County. The prime fishing opportunities alone bring substantial funds into the region, including river guides, hotels, restaurants, tourist rentals, curio shops and adventure tour guides. The Smith River is home to Redwood National and California State Parks (a UNESCO World Heritage Site), and the Smith River National Recreation Area, including Wilderness and Roadless areas. The river is the centerpiece for recreation, including swimming, seasonal kayaking, camping along its beaches, and hiking along its streams. In 2015, $150,000,000 in tourism income

was computed by the Del Norte County Chamber of Commerce. The Smith River has historical and Native American cultural value, wildlife and botanical and scenic value.

Your decision to designate ONRW status for the Smith River will help protect and promote these community benefits, years into the future for the Citizens of Del Norte County. It would be a prestigious honor to receive designation as ONRW for the Smith River.

Both continuing, ongoing threats from mining interests, as well as resiliency to climate change weigh heavily on our minds.

Recently Oregon designated the North Fork Smith River as ORW to fulfill their obligation to protect the Smith River in Oregon as an outstanding waterway, and ensure that industrial mining shall not be allowed. Designation of the North Fork in California would be consistent with Oregon's protective action. The Oregon ORW designation however, does not protect the California North Fork Smith River from mining interests, as Oregon's designation is upstream. Strategic metals of national importance can be found in the serpentine soils through which the Smith River traverses in California, and the current Wild and Scenic designation does not protect the Smith from such strategic claims of National Importance. The ONRW designation would. We must be proactive.

Del Norte County has been united and unanimous in support of Congressman Huffman's and DeFazio's hard work in obtaining a temporary 20 year mineral withdrawal for sections of the Smith River in Oregon. That protection was threatened recently by Congressman Bishop from Utah and presently "critical minerals" are being debated at the federal level. We know protections against mining are weak. We need to be proactive in protecting our drinking water, our fisheries, our recreational waters and our future.

The links below highlight the current aggressive National Corporate Mining efforts.

https://thinkprogress.org/mining-to-begin-this-summer-in-national-monument-eliminated-by-trump-a55f35047e2a/

https://www.miningnewsnorth.com/story/2018/03/16/news/critical-minerals-bill-moves-on-capitol-hill/5094.html

http://thehill.com/opinion/energy-environment/367211-president-trump-signs-executive-order-on-minerals-to-boost

https://www.congress.gov/bill/115th-congress/house-bill/520

https://naturalresources.house.gov/newsroom/documentsingle.aspx?DocumentID=404141

The 1990 Smith River NRA Act withdrew all national forest lands in the watershed (in CA) from entry and location under the mining laws of the United States, subject to valid existing rights. Therefore, from lands within the Smith National Recreation Area in California, the threat of mining would be from existing mining claims that are found to be valid. You can research this on the BLM's LR 2000 online data base - https://reports.blm.gov/reports.cfm?application=LR2000 - scroll down to public mining claims reports.

The Del Norte County Board of Supervisor's current submitted letter fails to be responsive to its citizenry. Their drafted letter was first presented to entire board and the public at the Supervisor meeting on June 12,

2018. At that meeting, the only public comments heard (three) were supportive of ONRW designation, with a call to rewrite the letter. However, a deadline of June 22 did not allow sufficient time for a rewrite.

The North Coast Regional Water Board staff previously held an educational meeting in Del Norte, where lily bulb growers, a highly chemical dependent industry operating in the Smith River Estuary, expressed anxiety about a more difficult water quality permitting process. At this educational meeting, equally many citizens expressed great support and appreciation for the ONRW designation. The largest dairy rancher within the Smith River Estuary gave support for designation of the North Fork Smith River. The room was divided.

Our Board of Supervisors fail to reflect a reasonable balance. Supporting the designation of the pristine forks of the Smith River, while expressing reservation about the needs of the agricultural district in the Smith River Estuary, would have been a more reasonable response to the outcry of the public they serve.

It is the responsibility of the California Water Board to fulfill the promise of the Clean Water Act. As such, you are taking important steps to provide for the designation of ONRWs as authorized under the Clean Water Act. It is appropriate and necessary for such designations to be incorporated into Basin wide planning. The North Coast region has several viable proposed candidates for ONRW status, and should take the lead in this designation process.

The ONRW classification would better protect Del Norte County's clean drinking water and better ensure that the ecological and recreational values of the Smith River shall not be degraded by inappropriate industrial uses. The Wild and Scenic Smith River, a river that has been referred to as California's Crown Jewel, is worthy of the Outstanding National Resource Water designation, and it would be an honor to be the first California River to receive such recognition.

Thank you, Joe Gillespie, president FODN on behalf of our board and membership

2644 Roy Ave, Crescent City CA 95531, 707-465-8904

From: Janet Gilbert
To: NorthCoast
Subject: "2018 Triennial Review Comments"
Date: Thursday, June 14, 2018 12:01:46 PM

June 14, 2018
Dear North Coast Regional Water Quality Board:

On June 11, 2018, I addressed the Del Norte County Board of Supervisors (BOS) at their regularly scheduled meeting. The topic for discussion was the approval of a letter to be sent to NCRWQB regarding ONRW status for the Smith River watershed. The letter from the BOS appears to challenge the legitimacy of the state to even make an ONRW decision as there doesn't appear to be guidelines in place. Nor does the letter find ONRW status valuable. I disagree with the BOS and the following are the comments I made to the BOS.

"My name is Janet Gilbert and I am a Del Norte County resident. I drink the Smith River along with thousands of other Del Norte County residents. I wholeheartedly support recognizing the Smith River watershed as an Outstanding National Resource Water under the Clean Water Act. The ONRW designation is limited to waters of national and state parks, wildlife refuges, and waters of exceptional recreational and ecological significance.
The Smith River and its tributaries qualify under exceptional recreation and ecological significance and offer for our enjoyment anadromous fisheries, canoeing and kayaking, white water rafting, historical and archeological value, and wildlife and botanical and scenic value.
The Smith River supports endangered species habitat, ecological diversity, potential climate change mitigation and is UNESCO World Heritage Site.
Being designated an ONRW, the Smith River will receive the greatest protection under the CWA and that status MAY protect us from mining interests that could impact our lifestyles. We know and supported Congressmen Huffman's and DeFazio's hard work in obtaining a 20 year mineral withdrawal for sections of the Smith River. That protection was recently threatened by Congressman Rob Phillips from Utah. "Critical minerals" are just now being debated at the federal level and we know protections against mining are weak.
We need to be proactive in protecting our drinking water, our fisheries, our recreational waters, and our future.
Designation as an ONRW does not change our present uses of the river such as timber harvest, dairy farming, irrigated agriculture, storm water discharge and water quality certification for individual projects. It does influence future developments and management activities such that we can hold those plans to the highest standards to protect the health of our river and our health.
It is to our benefit to have these safeguards.

In Del Norte County, we have the largest remaining contiguous old growth redwood region. We are a UNESCO World Heritage Site. We are a Smith River National Recreation Area. We are a Wild and Scenic River. And now we can potentially be the first river in the state of California to receive an ONRW status. This accolade is a protective designation of our watershed, our fisheries, our recreational/tourist driven economy. It is an honor and a feather in our caps! It will grow our economy with ecotourism and our health with safe, clean water.

I ask this board to please write a new letter to the water quality board. Please write a letter of inquiry into possibilities and support for the concept of becoming an ONRW. Thank you."

Those were my comments. They generated a brief discussion about postponing the approval of the already written letter. The county clerk said the board needed to respond before June 26, 2018. They voted to send their original letter.

I want the NCRWQB to know I fully support ONRW status for the Smith River Watershed and I ask that you make it a priority. Californians, tourists, visitors, and the ecosystem will benefit when the Smith River watershed becomes a Tier 3 system with ONRW status. Thank you for the opportunity to comment.

Sincerely,

Janet Gilbert

From: Janet carr
To: NorthCoast
Subject: Re: “2018 Triennial Review Comments”
Date: Thursday, June 14, 2018 4:40:11 PM

There is a typographical error/misnaming in my comment notes. The congressman from Utah is Bob Bishop and I typed Bob Phillips. In my comments to the Del Norte Board of Supervisors, I commented only as reference to the congressman from Utah. I apologize for the misnaming of the Utah representative.

Janet Gilbert

On Thu, Jun 14, 2018 at 12:01 PM NorthCoast <NorthCoast@waterboards.ca.gov> wrote:

> We received your electronic information submittal. Thank you for saving paper and helping us protect California’s resources.

From:	Shelley Silbert
To:	NorthCoast
Subject:	2018 Triennial Review Comments
Date:	Friday, June 22, 2018 8:44:39 AM
Attachments:	image001.png Smith River Comments.docx

To whom it may concern,

Attached you will find our organization's comments regarding the Smith River and its ONRW designation. Thank you.

Shelley Silbert, Executive Director
Great Old Broads for Wilderness
Box 2924
Durango, CO 81302
Office: (970) 385-9577
Cell: (928) 600-6754
www.greatoldbroads.org
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https://www.walden.org/what-we-do/global-environmental-leadership-award/

Great Old Broads for Wilderness is a national grassroots organization, led by women, that engages and inspires activism to preserve and protect wilderness and wild lands. Conceived by older women who love wilderness, Broads gives voice to the millions of older Americans who want to protect their public lands as Wilderness for this and future generations. We bring knowledge, commitment, and humor to the movement to protect our last wild places on earth.

On behalf of the Great Old Broads for Wilderness (Broads), a national grassroots organization with over 8,500 members and supporters across the country, I submit to you these scoping comments for the Amendment to Designate the Smith River and its Tributaries as an Outstanding National Resource Water (ONRW). Broads have spent time recreationally on the Smith River and also believe it is ecologically significant enough to require more protections. On the California Water Boards website, it states that in order for a body of water to be considered as an Outstanding National Resource Water it must be "of exceptional recreational and/or ecological significance." We believe that the Smith River easily qualifies under both.

Issues For Consideration

1. Broads have experienced the exceptional recreational opportunity that the Smith River offers.

Last summer the Great Old Broads for Wilderness spent two weeks, split into two different trips, in early July on the Smith River. The first trip Broads embarked upon had twenty-eight members in attendance and the second had forty-six. Broads members were shocked by the beauty and purity of the water. Many members remarked that it was the cleanest and most beautiful water they had ever spent time on. Not only did Broads canoe along the river during the trip, but we also participated in a number of stewardship projects to help maintain the beauty and function of the river. Our members will not forget their time on the Smith River. They appreciated its wild beauty and also spent time making sure others in years to come would also be able to appreciate the magnificence of the river. All Broads who went on the trip believe that the Smith River is worthy of the ONRW designation.

2. The Smith River has exceptional ecological significance, seen firsthand by our members.

While canoeing down the river last summer, Broads were able to witness the incredible habitat that has been created at the hands of the Smith River. Broads found the wildlife and scenery breathtaking, and certainly felt that the ecology found on the Smith River was rare. The California Water Board website features a fact sheet that lays out how rare and significant the Smith River ecology is. The Smith River is home to three animals listed as threatened and one listed as endangered under the Endangered Species Act. Its river banks house forty rare, three threatened, and one endangered plant species under federal legislation. The Smith River is also home to twenty-two species of native fish. When designating the Smith River as a National Recreation Area, the United States Congress remarked, "*the Smith River watershed, from the diverse conifer forests of the Siskiyou Mountains and unique botanical communities of the North Fork serpentine to the ancient redwoods along the river's lower reaches, exhibits a richness of ecological diversity unusual in a basin of its size."* Great Old Broads for Wilderness believes there is more than enough evidence provided by our organization, the California Water Board itself, and the United States Congress to claim that the Smith River is of "exceptional recreational and/or ecological significance."

3. Great Old Broads for Wilderness urges the California Water Board to protect the Smith River before it is too late.

Great Old Broads for Wilderness is headquartered in Durango, Colorado. The Animas River runs through town and provides water for surrounding farms, but also provides a source of recreation, and multiple economic industries for Durango. The town has numerous raft guiding businesses, as well as fly fishing guiding companies that bring thousands of people into town each year. These businesses and organizations rely on the Animas River.

On August 5, 2015, fifty miles north of Durango, outside of Silverton, the Gold King Mine spilled three million US gallons of mine waste water and tailings. The runoff eventually flowed into Lake Powell. It was an environmental disaster and closed the Animas river for nearly two weeks. As the river turned a putrid yellow, there was no ignoring that the Animas would never be the same again. The long-term impacts of the spill are still undetermined, but many farmers are no longer using the Animas for irrigation because of the heavy metals that are still in the water. Residents and companies no longer keep the fish they catch in the Animas because of the hazardous levels of metals.

South of the Colorado border, in New Mexico, the Navajo Nation felt the impact economically as well, they no longer are using the water for irrigation because of pollution. The Environmental Protection Agency (EPA) has refused to pay many of the affected communities the rightful amount of money and US Senator John McCain estimated that the Navajo Nation could incur up to $335 million in costs related to the spill.

Our experience, being so close to the Animas river and the effects of a lack of protection had on the river and surrounding communities, has made Broads passionate about the Smith River's designation as a ONRW. We believe that the Smith River should be designated as a Outstanding National Resource Water because it has the merits of one, but also to protect against potential pollution or harm that may come to the river if it is not designated.

4. Broads believes that the other two bodies of water with the Outstanding National Resource Water have similar characteristics to Smith River.

The other two bodies of water in California with ONRW designations are Mono Lake and Lake Tahoe. Broads believes that both of these bodies of water have similar ecological and recreational traits to the Smith River. All three are home to rare and endangered species and plants. All three also are host to thousands of people each year recreationally. If Smith River is not designated as a ONRW, then a full report should be published detailing why Mono Lake and Lake Tahoe were designated but not the Smith River.

Submitted by: Shelley Silbert, Executive Director, Great Old Broads for Wilderness. 970-385-9577. PO Box 2924, Durango, CO 81301.

From:	Frymire, Jody
To:	NorthCoast
Subject:	2018 Triennial Review Comments
Date:	Thursday, May 24, 2018 9:57:46 AM
Attachments:	IDEXX CA North Coast Basin Plan TR 2018.pdf

Hello,

Thank you for the opportunity to submit a comment for the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region. Attached is my written comment for your consideration.

Thanks again and best regards,

Jody Frymire
Regulatory Affairs Associate II
IDEXX Water

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Ms. Alydda Mangelsdorf
Planning and Watershed Stewardship
North Coast Regional Water Quality Control Board
5550 Skylane Blvd. STE A
Santa Rosa, CA 95403

Document: 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region

May 24, 2018

Dear Ms. Alydda Mangelsdorf,

IDEXX commends the North Coast Regional Water Control Board (Regional Water Board) on initiating the Triennial Review process for the Water Quality Control Plan. At this time, IDEXX would like to request the Regional Water Board to consider the following two comments.

1. Recommend to change the contact recreation (REC-1) bacteria criteria, found at 3.4.1, within Resolution NO R1-2015-0018, from fecal coliforms to either *E. coli* or enterococci.

Rational: *E. coli* and enterococci are more protective indicators of fecal contamination versus fecal coliforms.

Fecal coliform bacteria are commonly identified as being thermotolerant bacteria (able to grow at 44.5°C) [1]. Thermotolerant bacteria consists of *E. coli,* Klebsiella, Enterobacter, and Citrobacter species [1,2]. When testing for fecal coliforms, the population of the bacteria present can affect the fecal coliform results, for example: Klebsiella, Enterobacter, & Citrobacter species are false-positive indicators of fecal contamination as they are from nonfecal origin [2]. It has been found, up to 15% of Klebsiella (nonfecal origin) are thermotolerant and up to 10% of *E. coli* are not thermotolerant, thus potentially causing an error rate of 25% when testing for fecal coliforms [3]. *E. coli* is the only bacteria of the coliform bacteria group that comes from the intestinal tract and found to be more specific to the detection of fecal contamination, so much so, that *E. coli* is the definitive indicator of fecal contamination in US drinking water regulations [3,4] and is the recommended bacterial indicator for fecal contamination in recreational fresh water, as part of the 2012 US EPA Recreational Water Quality Criteria recommendations [5].

Within marine waters, studies show enterococci, as compared to other fecal contamination indicators, have a higher survival rate and show a direct association with risk of swimmer's illness [6,7]. The European Union (EU), uses enterococci as an indicator of fecal contamination for recreational waters, as well as in drinking water. Additionally, enterococci are recommended by US EPA in the 2012 Recreational Water Quality Criteria and included by the World Health Organization as recommended bacteria indicator for fecal contamination for recreational water [5,7].

2. Recommending to change the bacteria criteria listed for ground waters, found at 3.5.1, within Resolution NO R1-2015-0018, from coliform to *E. coli* or enterococci.

Rational: In addition to the previous rational, both *E. coli* and enterococci are more protective indicators of fecal contamination, the US EPA Ground Water Rule recommends using either *E. coli* or enterococci as the bacteria indicator for ground waters [8].

IDEXX appreciates the opportunity to provide these comments and hopes the Regional Water Board will consider these suggested edits as an additional way to strengthen the Water Quality Control Plan and further protect public health. We look forward to the next steps in the Triennial Review process.

Respectfully submitted,

Jody Frymire
Regulatory Affairs Associate, Water

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From: Chichizola, Regina
To: NorthCoast
Subject: 2018 Triennial Review Comments
Date: Friday, June 22, 2018 2:39:48 PM
Attachments: North Coast Triennial Review Process_PCFFA finalV stokedits.docx.pdf

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Please accept the following comments from the Institute for Fisheries Resources, PCFFA and Save California Salmon

Thank you,
Regina Chichizola
IFR/PCFFA
541 951-0126

June 22, 2018

Mr. David Noren, Chair
North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Ste. A
Santa Rosa, CA 95403

Re: PCFFA, IFR, and Save California Salmon comments on the May 17, 2018, Draft Staff Report for the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region.

Sent via email to: alydda.mangelsdorf@waterboards.ca.gov

Dear Chair Noren, Board Members and Staff,

Please accept the following comments on the Draft Staff Report for the 2018 Triennial Review on behalf of the Pacific Coast Federation of Fishermen's Associations (PCFFA), Institute for Fisheries Resources (IFR), and Save California Salmon.

We thank you for the effort to evaluate your previous work in this region and outline a future course of action to inform adaptive management and achieve the goals and objectives of your enabling legislation and of the North Coast Region (Region 1) Basin Plan.

We would like to recommend that the Board prioritize Actions and Basin Plan Amendments that will lead to the protection, restoration and maintenance of salmon species, and their critical habitat that fishermen and tribes depend on to survive--that are the basis of "the economic health of several local communities" (Klamath Act) including commercial fishing and the other "Beneficial Uses" that are spelled out in the Basin Plan and the Glossary of the Draft Staff Report for the 2018 Triennial Review.

There has been a pattern at the Region 1 Board that is continued in this Draft Staff Report, of not addressing the decline of salmon populations caused by the degradation of their critical habitat, which includes water quality and quantity these wild stocks require to spawn and rear. For example, the priorities and staffing numbers outlined in the current staff report are heavily focused on Sonoma County. We request that non-point pollution, including flow impairments and agriculture stormwater runoff, be a focus of upcoming Basin Plan Amendments. We also request that the region finish long stalled TMDLs and Action Plans in key salmon watersheds, such as the South Fork Trinity River.

Water quality and quantity are the single most important factors threatening salmon in the region and both of these issues should be addressed by the Regional Board. We request that flow and pollution issues on key salmon rivers such as the Klamath, South Fork Trinity, Scott, Shasta, Eel, and Smith Rivers be prioritized in this Triennial Review process.

The protection of human health and ESA listed species are listed as top consideration for the Triennial Review process, however, important issues such as agriculture pollution, including stormwater, impoundments, and toxins are not prioritized in any way. This is despite recent changes in EPA guidance and related case law that shows that agriculture pesticide spraying should be regulated through NPDES permits (National Cotton Council, et al. v. EPA). Other key actions, such as protection of instream flows through flow standards and designating Tribal Cultural, Subsistence and Non-tribal Subsistence Beneficial Uses are absolutely essential to the survival of North Coast Salmon species and protection of human health in the North Coast region, however they are not given the priority ranking they deserve. In the case of the flow improvement, only one Southern River is prioritized at this time. This is in contrast to stated state priorities to restore salmon and supplement flows and work to implement the priorities of the California Water Plan.

The following priorities from the 2018 Workplan are items that we support:

1) We recommend that 2.2.5 one be moved up to an immediate priority, and that the regional flow objectives be developed sooner rather than later. Flows need to be the top priority of the Region 1 Board at this time. Lack of water in historic salmon streams is a limiting factor for recovering ESA-listed salmon stocks. We ask that Protection of Instream Flows and Setting of Flow Standards be ranked as a top priority and the Scott, South Fork Trinity and Mainstem Eel River be added to the list of priority watersheds for inclusion in the Flow Standard Process. We would also support a regional flow standard or approach.
"2.2.5 Develop Instream Flow Criteria/Objectives for the Navarro River and evaluate other rivers as candidates for future flow criteria development, as warranted. Consider development of a regional flow objective (e.g., narrative objective) and corresponding

implementation methodology."

2) We support 2.2.4, Groundwater Protection Strategy: "Develop Groundwater Protection Strategy to include: designation of beneficial uses for groundwater, an action plan to outline the designated level methodology for discharges of waste to land, and an action plan to assess and address incidences of salt and nutrient contamination of groundwater." Identify where groundwater is interconnected with surface water flows and manage for stream flows needed for salmon

3) We support 2.2.6. Climate Change, "Assess climate change impacts to water quality predicted in the North Coast Region using a landscape scale assessment tool. Assess the need for a Climate Change Adaptation Strategy to include regulatory (e.g., plans and policies) and non-regulatory approaches to mitigate climate change impacts and improve climate change resilience."

4) We support "3.1.3 Revise Biostimulatory Substances objective to address biostimulatory conditions to better support needed actions associated with cyanotoxin assessment and control."

5) We support "3.2.1 Update Native American Culture, (CUL) and Subsistence Fishing (FISH) beneficial use definitions to comport with statewide Tribal Tradition and Culture (CUL), Tribal Subsistence fishing (TSUB), and Subsistence Fishing (SUB) beneficial use definitions adopted by the State Water Board on the new beneficial use definitions." Non-tribal subsistence fishing has historically been an important cultural aspect of commercial as well as sport fishing communities. Fishermen and their families have had access to local seafood as part of a healthy diet. Access to fresh, local fish in the diet has been curtailed by the limitations on fishing as a result of declining fisheries that have not been brought into a state of recovery. We strongly support the inclusion of the updated Beneficial Uses in 3.2.1.

6) We support "2.2.3 Establish an Outstanding National Resource Water (ONRW) term and definition in the Basin Plan. Identify ONRW eligible waters, particularly to support climate change resilience and including consideration of the Smith River." The South Fork Trinity should be assessed for designation as an Outstanding Natural Resource water as well as the Smith River.

7) We support 4.1.1 "Conduct a TMDL Program Retrospective Review to update existing TMDLs, TMDL action plans, and TMDL implementation policies." We agree with the Staff recommendation that this project be included in the 2018 Planning Program Work Plan as a high priority. We agree that this high priority "responds to public concerns as raised in previous triennial reviews that TMDL Action Plans are outdated and imperfectly

implemented," which corresponds to the Clean Water Act mandate for "efficacy" and "currency." This high priority also responds to the Federal ESA Listing Criteria, whereby "A species is added to the list when it is determined to be an endangered or threatened species because of any of the following factors:

- "the present or threatened destruction, modification, or curtailment of its habitat or range;
- overutilization for commercial, recreational, scientific, or educational purposes;
- disease or predation;
- the inadequacy of existing regulatory mechanisms;
- other natural or manmade factors affecting its survival."

We also suggest the following changes:

1. That the regulation of agricultural discharges and the creation of NPDES permits, Waste Discharge Requirements or Agricultural Waivers in key salmon areas be added to the list as a high priority item or that an Agricultural Stormwater Policy be added to the review as a priority item,
2. That creation of a Temperature TMDL, and a Sediment TMDL Action Plan for the South Fork Trinity River be added to the list of priorities as a high-ranking item,
3. ONRW: That the South Fork Trinity River be assessed for designation as an Outstanding Natural Resource Water as with the Smith River,
4. That assessment and identification of toxins and the toxin's impacts on fish and drinking water sources be added as a priority. These toxins should include mercury, pesticides, nitrates and copper. If multiple watersheds and/or fish species are impacted by these pollutants we suggest Basin Plan Amendments be created to address the pollutants,
5. That a Basin Plan Amendment be developed that prioritizes water quality and habitat protection in the North Coast estuaries. Estuaries are key to the feeding, rearing and overwintering of salmon and are home to some species, such as chum salmon and coastal cutthroat trout that have very few populations remaining. Productive and unpolluted estuaries aid in salmon survival by increasing size, which leads to better ocean survival. Because estuaries are so important to fisheries growth, many species will spend weeks to months within them to aid in survival and to acclimate to ocean conditions. However, they are also one of the most degraded habitats in our region,
6. That fisheries agencies and tribes are consulted on priorities and their comments be incorporated into the Triennial Review.

We fully support the Staff Report's focus on the issues of biostimulatory substances (including a toxic algae focus), groundwater protection, climate change adaptation, and the focus on assessing the effectiveness of TMDLs in the region. Flow restoration and agriculture pollution control efforts will benefit these focus areas. We have also been a big advocate for the focus on the Elk River watershed and appreciate the effort put into resolving this important issue. However, we request the Board and staff consider updating Sediment related TMDLs, waivers and WDR's and revise BMPS. We would like to see examples of BMPs that have been evaluated and shown to work well. We also request that progress reports on sediment listed TMDLs beginning with the South Fork Trinity and Eel Rivers be issued as part of the effort to review the effectiveness of TMDLs due to their importance to fisheries. Currently we do not feel that the sediment issues on the North Coast are being properly addressed by the Board or by TMDL Action Plans and general permits. We hope to work with the Board to remedy this issue.

We also suggest that the Board add a focus on enforcement and work to open a Northern office that is focused on enforcement and collaborative action in key salmon rivers. While we are not certain this requires a Basin Plan Amendment it is perhaps the most important action the Board can take in the near future to benefit North Coast salmon. Currently, the lack of enforcement and staff north of Sonoma County is creating a situation where the permits, water quality orders, and TMDL Action Plans that do exist are not enforced. It also appears as if sometimes staff is hesitant to monitor waterways or create permits for the parts of the region due to distance from the Board's office. This is unacceptable, as the northern part of the region has the highest quality water, best remaining salmon runs, and best chance for restoration and climate change adaptability. The lack of quality monitoring data in the Smith River, despite decades of complaints, is a key example of how distance from the regional office harms California's high-quality water and salmon rivers.

We believe all of the priorities we have laid out are important to protection of water quality for human and fisheries health, and action in these areas could have the added benefit of helping to protect and restore important fisheries habitat.

We do not support the continued focus on issues such as mixing zones for NPDES permits or other non-agriculture related point source related focuses, as we believe non-point pollution and the needs of fisheries needs to become a top priority of this board if salmon are to survive in the region. We also feel that action on the issues of flow impairments and agricultural discharges need to be happen immediately in light of the impacts that global warming and droughts are having on rivers and flow timing. There is no question that if current rate of diversions and pollution remain unchecked in key salmon watersheds the more sensitive fish species, such as Spring Chinook and Coho salmon, and summer steelhead will be functional extinct in the near future.

Commercial Fishermen Are Adversely Impacted by Poor Water Quality

The Pacific Coast Federation of Fishermen's Associations (PCFFA) is the largest trade association of commercial fishermen on the West Coast. For forty years, PCFFA has led the industry in defending the rights of individual fishermen and fighting for long-term survival of commercial fishing as a productive livelihood and way of life. A sister organization, the Institute for Fisheries Resources (IFR), is dedicated to the protection and restoration of fish resources and the human economies that depend on them. By establishing alliances among fishing men and women, government agencies, and concerned citizens, IFR unites resource stakeholders, protects fish populations, and works to restore aquatic habitats. A critical component of both organizations' missions is robust protections for water quality in surface waters that support salmon.

The decline of California's salmon fisheries has had a devastating economic impact. At least 80% of the ocean commercial fishing fleet based in the Bay Area has gone under in the last 20 years, and the North Coast Rivers, such as the Klamath, had suffered even greater declines than the Sacramento system until recently. By contrast, according to a Southwick and Associates study, the commercial benefits of a restored fishery would be $4.83 billion including $2.51 billion in income (salaries/wages/benefits, sole proprietor earnings) and 88,672 jobs (full and part time). (Southwick Associates, Calculation of the Projected Economics and Jobs Impact of Salmon Recovery in California, June 24, 2009.)

Southwick and Associates also estimated the annual value of the restored recreational fishery would be $845.8 million in value-added salaries/wages/benefits, proprietors and property income, dividends, and excise and sales taxes, and $442.7 million in employment (full and part time). (*Id.*)

These claims have been substantiated in other studies as well.

"The largest economic returns resulting from recovered coho salmon populations are associated with sport and commercial fishing. For example, the California commercial and recreational salmon fisheries are estimated to generate a total of $118-279 million in income annually and provide roughly two to three thousand jobs. These figures will increase as salmon runs increase, providing both economic gains and more commercial and recreational fishing opportunities. With a revived sport and commercial fishery, these substantial economic gains and the creation of jobs would be realized across the SONCC coho salmon range, most notably for river communities and coastal counties. (Employment impacts of CA salmon fishery closures in 2008 and 2009. University of the Pacific. Available at: http://forecast.pacific.edu/BFC%20salmon%20jobs.pdf)"

The lack of water quality and flow regulation not only impacts catches directly through poor Fall Run Chinook allocations, but also through season changes and reduced allocations to protect endangered species. Weak stocks of listed species can also cause limited or no harvest in certain ocean zones, such as near the one near the mouth of the Eel River to protect threatened Coastal Fall Run Chinook. The level of economic depression in the rural North Coast, and resulting social issues, such as drug use, homelessness, and family problems, are well documented. These issues are especially widespread in port towns and on reservations and other predominantly Native American communities. Water quality and fisheries issues are therefore environmental and social justice issues for Mendocino, Humboldt, Del Norte, Trinity and Siskiyou Counties.

The North Coast Region has the Best Opportunities for Salmon Restoration in the West

The North Coast Region of California has the best remaining habitat and water quality in the state. The Region 1 Board has been tasked by the state to protect high quality water, however the board regularly does not prioritize the most important salmon streams in its planning. Fisheries-related Beneficial Uses, such as rearing and spawning, are often the most sensitive beneficial use within the region, however the Draft 2018 Triennial Review does not even mention fisheries or fishing based economics at all.

The majority of salmon species within our region are on the Endangered Species list or facing severe declines, however due to the rural nature of the region, high quality water and relatively small number of major dams and diversions, this region has a better chance of fisheries recovery then almost anywhere else in the Western States. Much of the north half of the region has the added benefit of having a high yearly average rainfall, higher mountains, and more spring-dependent watersheds then the majority of the state of California. This makes the region more resistant to the impacts of climate change if action is taken to protect its waters.

A recent report by UC Davis stated that up to 45% of California's salmon species will likely go extinct in 50 years.
(http://caltrout.org/wp-content/uploads/2017/05/SOS-II-Fish-in-Hot-Water-Report.pdf)
This same report lays out a plan to protect and restore fisheries that we feel should be the basis of a fisheries-based focus in this review process. Furthermore, the NOAA Coho Recovery Plan also identifies many North Coast watersheds as "Core Coho Zones," meaning that if these populations are not protected, Coho salmon could go extinct and not be able to repopulate. The NOAA and UC Davis prioritizes are closely aligned with state policy on protecting high quality waters and with the flow and fisheries goals of the California Water Plan.

The U.C. Davis Strategy is laid out below

"***Strongholds: Protect the Best;*** *We must protect the best of what habitats are left. Few fully functioning river ecosystems, with relatively intact watersheds and high-quality habitat, exist today in California, such as the Smith River, Blue Creek, the Eel River and Butte Creek, among others. This is reason enough to make managing systems like these in perpetuity the highest priority, to protect salmonid diversity and production.*
Protect and Restore Source *Waters Protecting and restoring source waters including meadows, springs, and groundwater will allow them to continue to provide refuges for salmonids during stressful times and buffer the effects of climate change. Source headwaters are key to hydrologic connectivity and are vital during periods of low streamflows and drought.*
Restore Productive and Diverse Habitats *Restoring function to once-productive but now highly altered habitats can greatly improve rearing conditions for juvenile salmonids, especially floodplains, coastal lagoons, estuaries, and spring-fed rivers, can greatly improve rearing conditions for juvenile salmonids*."
(http://caltrout.org/wp-content/uploads/2017/05/SOS-II-Fish-in-Hot-Water-Report.pdf)

Flow Restoration and Temperature Management Must be a Top Priority

"*Currently, over three quarters of SONCC coho salmon independent populations are at high risk of extinction* (Figure ES-2). Final SONCC Coho Recovery Plan ES-2 2014)"

"In a third of all populations and 63% of interior populations, the amount of water in streams and rivers is insufficient for coho salmon needs, making altered hydrologic function another prevalent key limiting stress. In 35% of all populations and 71% of interior populations, dams and diversions are a key limiting threat, as they lead to a reduction in the amount of water in streams and rivers." (Final SONCC Coho Recovery Plan ES-6 2014)

We request that temperature and flow studies and actions be taken in the South Fork Trinity, Scott, Shasta, Mainstem and South Fork Eel and associated Basin Plan Amendments follow that aim to restore water quality and habitat to these areas. We request that these flow restoration actions be coordinated with local restoration groups and fisheries agencies so the additional water can be used to provide much needed high-quality habitat during key times of the year. We also request that the Regional Board work closely with the State Board and California Fish and Game to use their authority and codes to make these flow actions a reality on the ground.

This request is grounded in extensive research into salmon numbers and production possibilities. Our goals as fishermen are delisting of ESA listed salmon species and a "harvestable surplus" of all runs of salmon, as stated for Coho in the State Coho Recovery

Strategy. Unless the state and regional boards begin to prioritize the rivers that still support several runs of salmon and have a highly likely of recovery, these goals will remain unattainable and species will go extinct.

Estuary Protection Should be a Priority:
"Recent studies have identified the importance of the greater transition zone, or ecotone (Odum 1971), between fresh and brackish water to juvenile salmonids (Miller and Sadro 2003, Koski 2009, Jones et al. 2014). Miller and Sadro (2003) defined this stream estuary ecotone (SEE), and we adapt their definitions, to include the area of low gradient stream extending from stream entrance to the wide valley floor, through the upper limit of tidal influence downstream to the area where the channel becomes bordered by tidal mudflats. Fall 2015 243 This definition of the SEE includes all side channels, off channel ponds, tidal channels, and fringing marsh habitats that are accessible to fish for at least some portion of the tidal cycle."
(STREAM-ESTUARY ECOTONE AND COHO SALMON CALIFORNIA FISH AND GAME Vol. 101, No. 4 Pages_241-266)

We request that a Basin Plan Amendment be developed that prioritizes water quality and habitat protection in the North Coast estuaries. Estuaries are key to the feeding, rearing and overwintering of salmon and are home to some species, such as chum salmon and coastal cutthroat trout that have very few populations remaining. Productive and unpolluted estuaries aid in salmon survival by increasing size, which leads to better ocean survival. Because estuaries are so important to fisheries growth, many species will spend weeks to months within them to aid in survival and to acclimate to ocean conditions.

"*Juvenile coho salmon resided in the SEE an average of one to two months but some individuals reared there for over a year. We found that about 40% of the coho salmon smolt production from Freshwater Creek, Humboldt Bay's largest tributary, originated 2 from the SEE. Juvenile coho salmon rearing in the SEE were larger than their cohorts rearing in stream habitat upstream*"
STREAM-ESTUARY ECOTONE AND COHO SALMON CALIFORNIA FISH AND GAME Vol. 101, No. 4. Recent studies into the Smith River estuary has also show that Coho use estuaries for winter rearing.

While estuaries are important to salmon they are also perhaps the most developed and polluted habitat within the North Coast Region. Large scale development, stormwater pollution, grazing and agricultural activities are common within estuaries, as are habitat modifications that drain wetlands that could provide for habitat and water quality improvements. Estuary restoration has proven very effective in restoring salmon and aiding in juvenile salmon survival, however steps need to be taken to ensure that holding in estuaries does not expose salmon to degraded water quality and toxins.

We request that staff explore options for managing estuary pollution. Actions like riparian reserves, pollution control, stormwater control, floodplain restoration along with wet weather chemical use and grazing restrictions, and related BMPs could go a long way toward restoring salmon in priority estuaries. We agree with fisheries assessments and science that states that the Eel and Smith River estuaries should be prioritized for restoration and would like to add they should also be prioritized for regulation, Basin Plan Amendments and enforcement actions for water quality violations. They should not be used for "mixing zones" to dilute pollutants or as agricultural drains.

High Quality Water Protection and Pollution Regulation in Key Salmon Watersheds Needs to Be a Region's Highest Priority

*"At the current rate, California stands to lose 45% of its remaining native salmonids, including 11 of 21 anadromous species and 3 of 10 of its inland species, in the next 50 years unless significant actions are taken to stem the decline. (Figure 3). Under present conditions, 23 of the remaining 31 species (74%) are likely to be extinct in the next 100 years." (*SOS II: Fish in Hot Water http://www.capradio.org/media/8795686/sos2.pd*f)*

The report "Fish in Hot Water" from U.C. Davis states that up to 45% of California's fish species will be extinct within 50 years if changes in management do not happen. They lay out needed actions to protect these fisheries in light of climate change. As we stated earlier North Coast rivers and creeks have a better chance than most of California's waterways of being climate change resilient if management actions are taken. Furthermore, the Board has the responsibility to protect high quality waters. Many of these high-quality waters in the regional are located in remote areas of the region with either high mountains and spring fed creeks. These waters are currently threatened by grazing, water diversion, and agricultural runoff. They need to be protected and restored if they are to provide for the needs of humans and fisheries.

The "Fish in Hot Water Report" identified the South Fork Trinity, Smith, Scott, Shasta, and Salmon Rivers as key watersheds to restoring endangered species. Even though Spring Chinook salmon are not listed as Endangered yet, the numbers of wild Klamath River spawners are less than a couple hundred within the South Fork Trinity and Salmon Rivers, and they are nearly extinct in the rest of their range in California with the exception of the Upper Sacramento River, where they are listed, facing decline, and cannot access the majority of their habitat. The actions of this board could decide whether Spring Chinook are extirpated from the state of California. This comment is not to be construed as a position on the ESA listing proposed for Spring Run, but to remind the Region 1 Board of what could be done to remediate impacts to Spring Run.

Spring Salmon are also an extremely important tribal trust resource as they are the first run of salmon in the year and their restoration could expand the in ocean commercial fishing and recreational fishing seasons.

Protection of Spring Chinook salmon needs to be a high priority of the Region 1 Board as water quality is the single most important factor in their demise. A recent study from the University of Davis shows that the gene that created the Spring Run of Salmon evolved in a single event, and that the Spring Run is genetically distinct from the Fall Run. Other studies have shown that changes to habitat and water quality have led to changes in run timing, which has led to changes genetics that favor Fall Run salmon. In short, these species are interbreeding due to water quality and habitat issues and creating an earlier run of Fall Chinook that eventually loses the Spring Chinook gene and is even more susceptible to water quality impairments. Protection of spring flows and early summer is key to making sure that Spring Chinook salmon survive into the future.
https://www.ucdavis.edu/news/study-reveals-evolutionary-history-imperiled-salmon-stocks

The "Fish in Hot Water Report" lays out the following priorities for restoration in of California fisheries: *"Prioritize restoration activities in the Salmon, New, and South Fork Trinity rivers that still hold wild UKTR spring run Chinook, Reduce the impacts of sedimentation from roads, logging, and other activities into UKTR watersheds, Reduce water diversions and groundwater pumping for agricultural and other uses, especially in summer, to keep cold water in streams during stressful summer and fall months, Improve habitat and flow conditions in the Shasta and Scott rivers.* (SOS-II-Fish-in-Hot-Water-Report.pdf)

Prioritization of the South Fork Trinity Temperature TMDL and a flow objective is Key to the Protection of Multiple Runs of Klamath Salmon

"The Water Quality Control Plan for the North Coast recognizes large sections of habitat in the SFTR [South Fork Trinity River] and its tributaries are of critical importance to successful over-summering, spawning, and rearing of coldwater fishes by establishing these activities as Beneficial Uses (United States Forest Service, Department of Agriculture, 1999; Foster Wheeler Environmental Corporation, 2001; URS Greiner Woodward Clyde, 2001). The SFTR still harbors one of the few remaining stocks of wild spring Chinook salmon in the entire Klamath Basin (Van Kirk and Naman, 2008). "
https://thewatershedcenter.com/wp-content/uploads/2016/12/sf_lfa_white_paper_feb-1-2013_final.pdf

The South Fork of the Trinity River has been listed for temperature and sediment impairments under the 303 (d) list of the Clean Water Act for a long time, however we are unable to find an Action Plan for the EPA-created Sediment TMDL for the South Fork and are

not aware of any reasoning for the Board has not asked to create a temperature TMDL for the South Fork Trinity River. We request the Board add this as a high priority item in the Triennial Review.

The South Fork Trinity River is extremely important to many of the species of Klamath salmon and is an extremely large, undammed watershed. It is the largest refuge for wild Spring Chinook salmon in the Trinity River, however the numbers of Spring Run salmon in recent years have declined to just dozens. Spring Salmon are extremely important to the Tribal Beneficial Uses of the Klamath River and to the timing of the in-ocean commercial fishing season, and therefore their survival is vital.

We also request that the South Fork Trinity River be considered after the Smith for Outstanding Natural Resource Water Designation and that it be included in flow objective processes. Temperature in the South Fork is one of the main impediments to both Spring Run and Coho survival and Fall Run production for the South Fork Trinity. This is particularly troubling, as the South Fork Trinity is also more susceptible to climate change impacts then many other Klamath River tributaries.

"In *the mainstem SFTR from Forest Glen to its confluence with the Trinity River, the 7-day maximum average temperature also often rose to over 80 F during the hottest summer days (Trinity County Resource Conservation District, 2003). This is possibly a problem of ambient air temperature, aspect and stream gradient; but there are also contributing factors including water diversions, lack of riparian vegetation shade, increase in forest biomass water use and baseflows supported by groundwater*."
https://thewatershedcenter.com/wp-content/uploads/2016/12/sf_lfa_white_paper_feb-1-2013_final.pdf p. 13

The pressures of the South Fork Trinity's water are increasing due to the rampant cultivation of marijuana and nutrient discharges and groundwater withdrawals are increasing as the watershed's Spring Chinook and Coho numbers plummet. Action needs to be taken immediately on these issues. We request the board not only move forward with the creation of a temperature TMDL on the South Fork Trinity River, we also request that a flow object be included within this TMDL. The South For provides high quality water to several endangered species and therefore action is needed under the state's antidegradation policy.

"In addition, large quantities of water are diverted from the SFTR for domestic and agricultural purposes, predominantly along its major tributary, Hayfork Creek (Pacific Watershed Associates, 1994). For example, East Fork Ranch Diversion on Hayfork Creek has dewatered portions of the creek in the past. Reductions in water yield, such as these, have been determined to be one of the major factors limiting fish production in lower Hayfork Creek (Pacific Watershed Associates,

1994). Despite the fact that such diversions have impacted water quality and fish habitat throughout the SFTR watershed (URS Greiner Woodward Clyde, 2001), little is understood of the extent of impacts on Spring Chinook. Although it is known that there were 18 active ditch diversions in 1996, the number of additional unrecorded pump diversions is currently unknown (Truman et al, 1996). To date, there has been no effort to quantify the amount, or affect, of water diversion from the SFTR or its fish-bearing tributaries (Van Kirk and Naman, 2008). https://thewatershedcenter.com/wp-content/uploads/2016/12/sf_lfa_white_paper_feb-1-2013_final.pdf

Last, we request that as part of the South Fork temperature TMDL that the Regional 1 Board start an investigation into the increasing use of nutrients to see if a nutrient listing is warranted, and that the Board look into water rights and use and make recommendations to the state regarding enforcement of water rights and adjudications on the Trinity River.

To sum up, we request that the Region 1 Board focus on the protection of high quality fisheries habitat and waters as part of this process with a focus on flows, estuary protection, sediment, temperature and enforcement within the Eel, Smith, South Fork Trinity, Scott, Klamath and Shasta Rivers. The protection of high quality water and restoration of flows and habitat need to be the board's highest priority in light of global warming impacts and the state's fisheries crisis if salmon, and the people and cultures that depend on them, are to survive in the region.

Thank you for the opportunity to comment,

Vivian Helliwell
Watershed Conservation Director
Pacific Coast Federation of Fishermen's Associations (PCFFA) and
Institute for Fisheries Resources (IFR)
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Regina Chichizola
Save California Salmon and
PCFFA/IFR
regina@ifrfish.org

From:	Susan Fricke
To:	NorthCoast
Cc:	Mangelsdorf, Alydda@Waterboards; Craig Tucker; Eli Asarian
Subject:	2018 Triennial Review Comments
Date:	Friday, June 22, 2018 2:58:59 PM
Attachments:	Karuk Tribe 2018 Triennial Review Commnets 20180622.pdf

Hi Alydda,

Please see the following comments from the Karuk Tribe regarding the 2018 Triennial Review. Contact me if you have any questions.

Thanks and have a great weekend,

Susan

Susan Fricke
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June 22, 2018

Alydda Mangelsdorf
Planning and Watershed Stewardship Division
North Coast Regional Water Quality Control Board
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403
Submitted via email: NorthCoast@waterboards.ca.gov

Re: 2018 Triennial Review Comments

Ayukii Ms. Mangelsdorf:

We have reviewed the North Coast Regional Water Quality Control Board (Regional Board) *Draft staff report for the 2018 triennial review of the water quality control plan for the North Coast Region* and the associated *Draft resolution No. R1-2018-0030* that were circulated for public comment in May of 2018. We are generally supportive of most of the proposed priorities put forth in the *Triennial Review*, although we offer the following comments on specific issues. Our comments are organized according to the titles and proposed priority rankings listed in the *Triennial Review* staff report.

<u>Develop ocean beaches and freshwater streams pathogen TMDL action plan (#1c high priority)</u>
We support the high priority assigned to indicator bacteria in the *Triennial Review*, given the human health concerns. No Klamath Basin waterbodies have been officially listed yet as impaired by indicator bacteria, so the bacteria plan proposed for development presumably will not include the Klamath Basin. The absence of bacterial impairment listings in the Klamath Basin is likely more due to the lack of historic data collection rather than to a lack of actual impairment. Data collection has increased in recent years and in 2017 the Karuk Tribe and Quartz Valley Indian Reservation (QVIR) submitted indicator bacteria data to the California Data Exchange Network (CEDEN) to be considered by the Regional Board in developing the 2018 303(d) list of impaired waterbodies. These data show violations of water quality standards in the Shasta and Scott Rivers, so we expect that these data will result in impairment listings. It is our understanding that recent data collected by the California Department of Fish and Wildlife in collaboration with the Regional Board also show high levels of indicator bacteria in Shasta River and tributaries. We request that to the extent possible, the bacterial plan be developed in such a way that it can be readily adapted to new areas (e.g., Scott and Shasta valleys) if, as we anticipate, the geographic extent of bacterial impairment listings expand in the future. Indicator bacteria are a serious problem in the Shasta and Scott basins and we urge the Regional Board to do whatever it can to take immediate action to improve conditions.

TMDL Program Retrospective Review (#1d high priority)

We support the TMDL Program Retrospective Review to assess which components of TMDL implementation are working well and which are not working well. Pages 32-33 of the *Triennial Review* staff report lists questions to be addressed during the review. We request that the following additional questions be added to that list: 1) What is the effectiveness of encouraging voluntary actions compared to enforcement and regulatory mandates? Where have these been approaches been attempted? What are the pros and cons of these approaches? Can they be used in a complementary manner? 2) For infrastructure projects such as riparian fencing or changing points of diversion (e.g., from a cold spring to a warmer river), are those projects still being maintained and resulting in the intended outcomes, or has the project failed (e.g., fence broke or gates left open and cattle have continuous access to the riparian zone). To the extent possible, please quantify the progress that has been made versus what still needs to be done (e.g., what percent of stream miles have properly functioning riparian fencing? What percent of road miles have been upgraded or decommissioned?). Page 33 of the *Triennial Review* staff report says that: "Any recommendations with basin planning implications, including revisions to existing plans and policies, will be incorporated into the 2021 Triennial Review for the Regional Water Board's consideration." We recommend that if the review comes up with ideas for improved policies and approaches, then they should be implemented as soon as possible rather than waiting. We do not understand why it would be necessary to wait until the 2021 Triennial Review to decide to implement those improvements.

Develop Groundwater Protection Policy (#2 high priority)

We support the priority assigned to developing a groundwater protection policy. We also support the concept of developing a policy to promote groundwater recharge, given that in most of the North Coast there is not a scarcity of water at an annual timescale (in contrast to other many areas of California), but rather primarily a scarcity during the dry summer season. If managed properly, groundwater recharge offers one tool to potentially increase summer instream flows as well as availability of water for human demands. However, in watersheds where human water demands exceed available water supplies in summer, increased groundwater recharge may just facilitate increased groundwater extraction and may not increase instream flows. Therefore, enforceable numeric objectives for instream flow and effective regulation of surface and groundwater withdrawals are essential elements of an effective strategy to protect instream beneficial uses.

We would also like to emphasize the need for this policy in the Scott basin. Monitoring indicates a shallow groundwater table also documented as interconnected to surface flow in the Scott basin. This unique feature has the potential to have severe impacts to groundwater pollution. The QVIR has documented indicator bacteria, *E. coli*, in both the surface and groundwater and QVIR's Microbiology Lab has documented the same throughout the Scott basin. It is also important to understand the coordination necessary with the State Water Board's Water Rights division and the Department of Water Resources both of which are implementing the Adjudications in the Scott basin which specifically allocates groundwater to agricultural uses. We have a high level of support for this policy and request to be involved with staff in the development. Coho salmon are highly dependent on groundwater seepage during the summer months of baseflow and the quality of the groundwater they are seeking for refuge is critical to their survival.

We request that the groundwater recharge element of the Groundwater Protection Policy include a recommendation to work with the California Department of Fish and Wildlife (CDFW), the California Fish and Game Commission, and Tribes to improve management of beavers (*Castor canadensis*) in California. Current beaver management in California still focuses solely on their historic role as fur-bearers and pests but does not consider their ecological (i.e., creating and maintaining wetlands which benefit many species including coho salmon) or hydrologic benefits (i.e., promoting groundwater recharge) resulting from the dams that beavers build. CDFW allows hundreds or thousands of beavers to be killed in California each year, primarily through issuance of depredation permits (e.g., to prevent beavers from plugging culverts) but also by allowing recreation and commercial trapping. Many of these depredations could be avoided through effective non-lethal management strategies (Pollock et al. 2017). In addition, CDFW does not allow beaver relocation, so large areas of suitable habitat on the North Coast of California remain un-occupied by beavers. Allowing people to relocate beavers into unoccupied habitats would greatly speed the recovery and recolonization which has been occurring slowly since commercial trapping nearly extirpated beavers from California in the 18th and 19th centuries.

<u>Develop Instream Flow Criteria (#3 high priority)</u>
The *Triennial Review* proposed to continue work on developing instream flow criteria/objectives for the Navarro River, evaluate other rivers as candidates for future flow criteria development, and consider developing a regional narrative flow objective and corresponding implementation methodology. The projected end date for the task is fiscal year 2024-25.

We strongly support the development of numeric flow objectives to protect instream beneficial uses, but as noted previously in our comments on the 2014 Triennial Review, we are disappointed that no Klamath Basin waterbodies are included as priority for flow criteria. The Scott and Shasta Rivers have extensively documented impairment of beneficial uses resulting in large part from depleted instream flows. There is work underway to do a flow study in the Shasta River as required by the California Action Plan, as noted in the *Triennial Review*; however, there are no flow studies being conducted in the Scott River. We strongly recommend that the Regional Board take aggressive action to protect instream flows in the Shasta and Scott watersheds. Setting enforceable instream flow criteria/objectives is essential to preventing extinction of coho salmon which have fallen to extremely low levels in the Scott and Shasta Rivers (Figure 1). It will also prevent unpredictable drops in river levels that results in stranding of listed species and critical Tribal Trust species and negatively impacts beneficial uses (Figures 2&3).

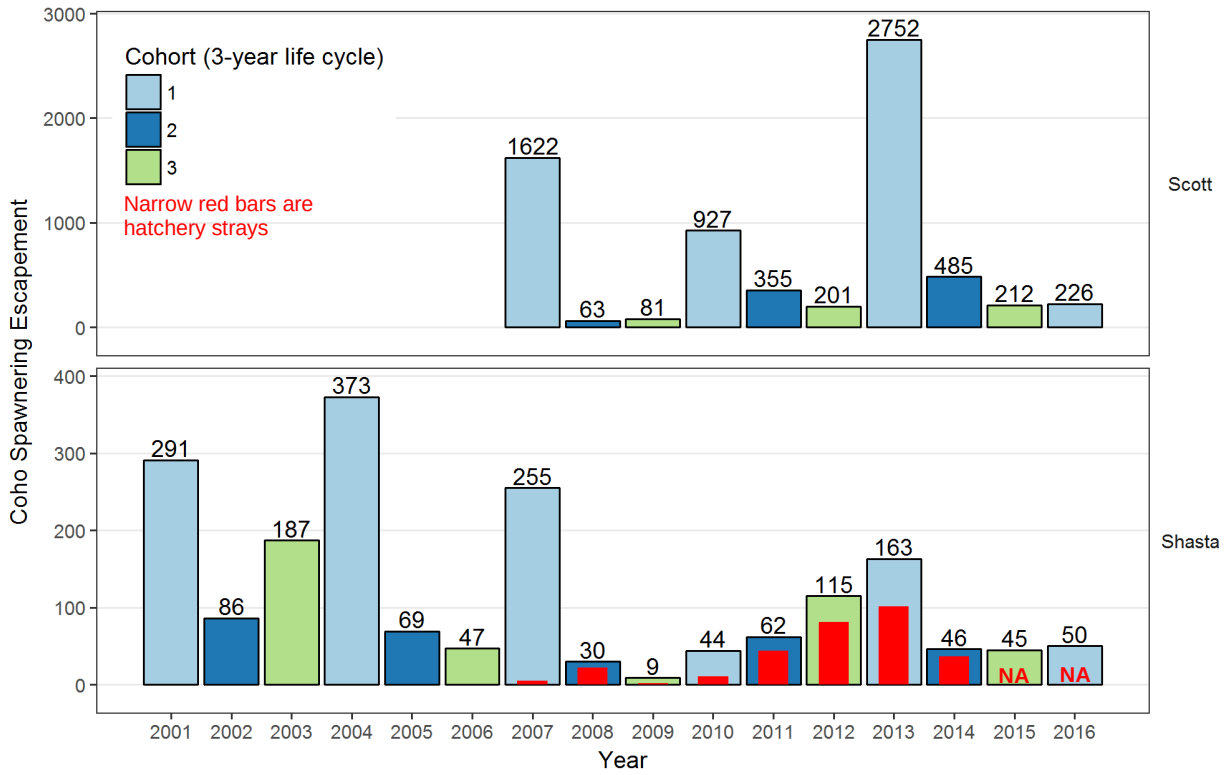


Figure 1. Adult coho spawning escapement in Scott (top panel) and Shasta (top panel) sub-basins, 2001-2016. Bars are color-coded by the 3-year life cycle as a visual aid. Hatchery strays were only estimated in Shasta River in 2007-2014 (no carcasses found in 2015 and 2016 results not yet available); total counts include hatchery strays. Iron Gate hatchery began releasing surplus adults in 2010. Data sources for Scott River video weir: 2007-2015 from Chesney and Knechtle (2016a), 2016 from Bill Chesney (unpublished). Data sources for Shasta River: 2001-2015 from Chesney and Knechtle (2016b), 2016 from Bill Chesney (unpublished). Data are incomplete in some years due to high flow conditions (see reports for details).

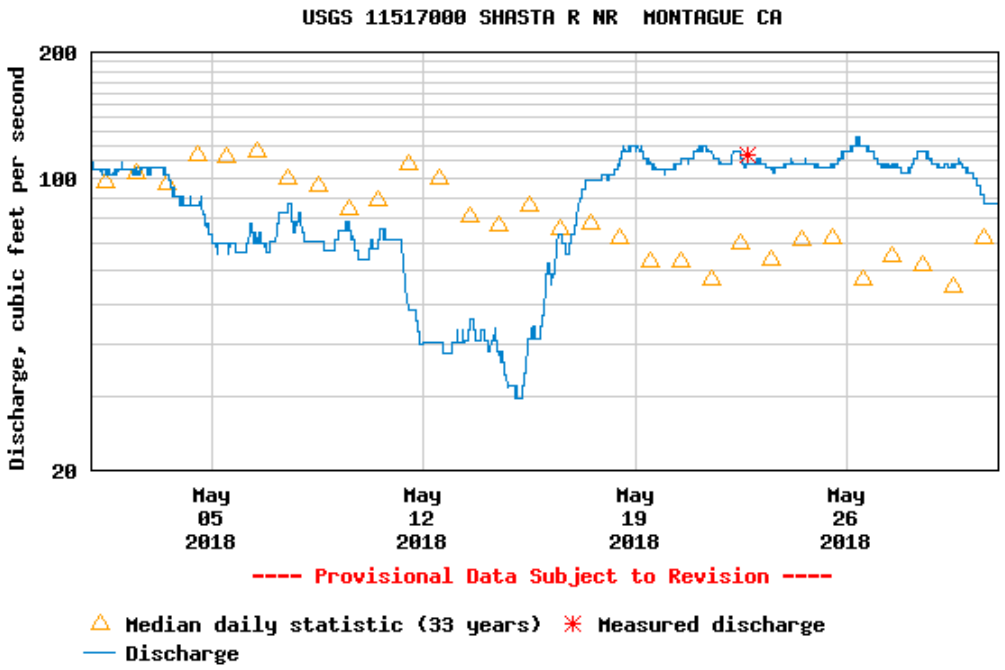


Figure 2. Shasta River flows in cubic feet per second (cfs) from the USGS gage near the mouth of the River for the month of May. Note the drop from 80 to 40 cfs in one day on May 11th, likely exacerbated by stream diversions. Data from https://waterdata.usgs.gov/nwis/uv?cb_00060=on&cb_00065=on&format=gif_stats&period=30&site_no=11517500.

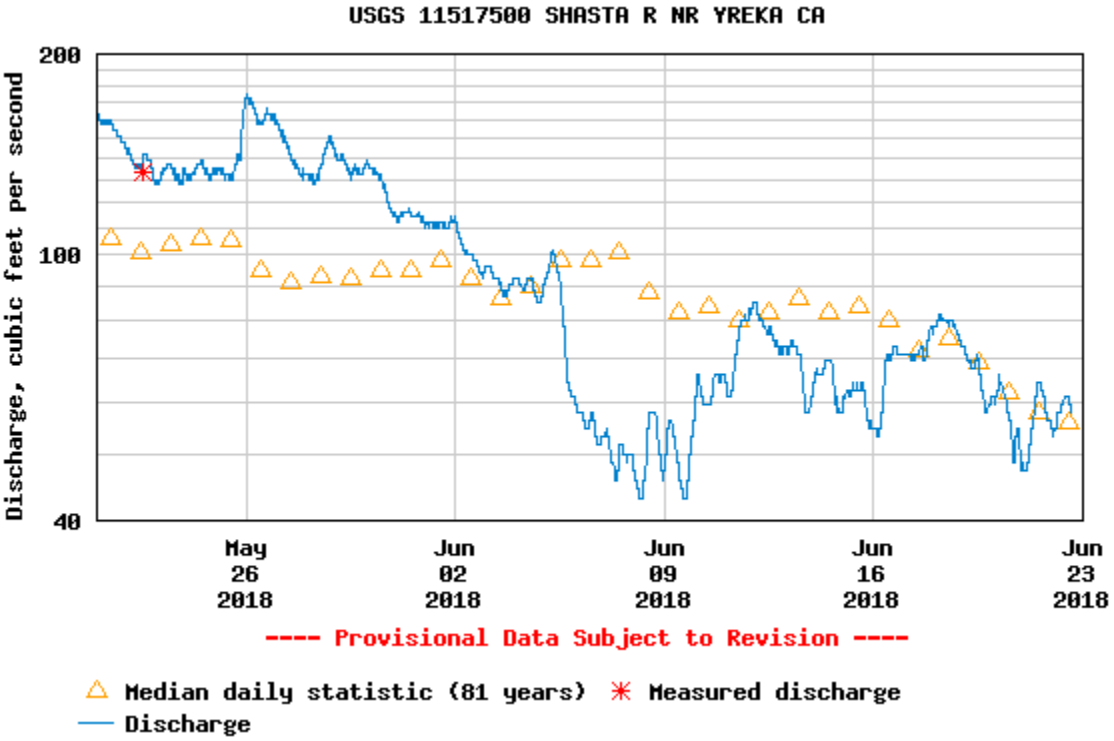


Figure 3. Shasta River flows in cubic feet per second (cfs) from the USGS gage near the mouth of the River for a 30 days from May 21 to June 22. Note the drop from 100 to less than 50 cfs over a 2 day

window on June 5-7, likely exacerbated by stream diversions. Data from https://waterdata.usgs.gov/nwis/uv?cb_00060=on&cb_00065=on&format=gif_stats&period=30&site_no=11517500

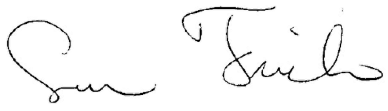
Develop a Climate Change Adaptation Policy (#4 high priority)
We request that the Climate Change Adaptation Policy include recommendations for improving beaver management in California (see comments on Groundwater Protection Policy above for details).

Designate Outstanding National Resource Water (#5 high priority)
As noted in the *Triennial Review*, Outstanding National Resource Water (ONRW) is a designation under the Clean Water Act which restricts the degradation of high quality waters. Despite the presence of many waterbodies with extremely important water bodies, no such areas have yet been designated on the North Coast. As noted previously in our comments on the 2014 Triennial Review, we encourage the Regional Board to designate high-quality waters within the Klamath Basin as ONRW. The Salmon River as well as Middle Klamath tributaries such as Clear Creek and Dillon Creek should also be designated as ONRW.

Review Biostimulatory Substances Objective (#6 high priority)
The *Triennial Review* recommends revising the biostimulatory substances objective in the Basin Plan to recognize the links amongst multiple variables, including nutrients, temperature, flow and others, which in combination produce biostimulatory conditions. We support this revision, since it reflects current science and is highly relevant to parts of the Klamath Basin, such as those waterbodies where biostimulatory conditions are caused or exacerbated by streamflow depletion or reservoir impoundments.

Update Beneficial Uses Chapter (Table 2-1) (#7 high priority)
We support the *Triennial Review's* recommendation to replace the Basin Plan's current Native American Culture (CUL) and Subsistence Fishing (FISH) beneficial uses with the updated statewide definitions for Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB), and to revise Table 2-1 to update the list of specific waterbodies for which these uses apply. We request to be consulted during the waterbody designation process so that we can provide input.

Yoôtva,



Susan Fricke
Water Quality Program Manager

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Chesney, D. and Knechtle, M. 2016b. Shasta River Chinook and Coho Salmon Observations in 2015. California Department of Fish and Game, Klamath River Project, Yreka, CA. Available from: http://kbifrm.psmfc.org/file/shasta-river-chinook-and-coho-salmon-observations-in-2015/, accessed 6/27/2017.
https://www.fws.gov/oregonfwo/Documents/BRGv.2.0_6.30.17_forpublicationcomp.pdf

Pollock, M.M., G.M. Lewallen, K. Woodruff, C.E. Jordan and J.M. Castro (Editors) 2017. The Beaver Restoration Guidebook: Working with Beaver to Restore Streams, Wetlands, and Floodplains. Version 2.0. United States Fish and Wildlife Service, Portland, Oregon. 219 pp. Online at: https://www.fws.gov/oregonfwo/promo.cfm?id=177175812

From:	Fred Krieger
To:	Mangelsdorf, Alydda@Waterboards; NorthCoast
Subject:	2018 Triennial Review Comments
Date:	Friday, June 22, 2018 2:31:08 PM
Attachments:	Comments - North Coast Triennial Review 6-22-2018.pdf

Attached are my comments on the triennial review. I hope these are helpful. Please call if you have any questions.

Fred
510 843-7889

June 22, 2018

California Regional Water Quality Control Board, North Coast Region
5550 Skylane Blvd., Suite A
Santa Rosa, CA 95403 2375 Northside Drive, Suite 100
Attn: Alydda Mangelsdorf, Planning and Watershed Stewardship Division

Via email: NorthCoast@waterboards.ca.gov ; Alydda.Mangelsdorf@waterboards.ca.gov

Subject: 2018 Triennial Review Comments

Thank you for the opportunity to provide comments on the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region. These comments include proposals to add several additional issues to the list of priority projects to be investigated during the review period.

The comments address issues potentially impacting municipal stormwater permittees, industries regulated by the Industrial General Permit, and construction projects subject to the Construction General Permit.

The comments focus on current Basin Plan objectives that potentially cause waterways to be identified as impaired or that result in apparent permit violations when, in fact, no environmental harm or public health risk is present. Modifying these objectives by adopting U.S. EPA recommended water quality criteria and by making other science-based changes will allow the regulated community to focus on pollutants and water quality conditions with demonstrated adverse effects on water quality. Hopefully, these comments are useful as the Regional Board considers revisions to the Basin Plan.

My comments are attached. They are not submitted on behalf of any organization or government agency. If you have any questions, please contact me at (510) 843-7889 or fkrieger@msn.com.

Sincerely,

Fred Krieger

Attachment A: Comments on the Triennial Review for the North Coast Region

Attachment B: Natural Background TSS Concentrations during Wet Weather

Attachment A **- Comments on the Triennial Review for the North Coast Region**

Comment 1**: Adoption of the U.S. EPA 2007 recommended freshwater criteria for copper**

The Regional Water Board should consider adoption of U.S. EPA's 2007 recommended water quality criteria for copper as the applicable freshwater copper objectives in the North Coast Basin Plan. These EPA criteria are based on the Biotic Ligand Model (BLM) which more thoroughly takes into account local water chemistry compared to the current California Toxics Rule-based criteria. As you know, a review for possible adoption of updated U.S. EPA criteria is required by the 2015 modifications to the federal water quality standards (WQS) regulations. Updating the Basin Plan with the 2007 copper criteria will potentially save dischargers the considerable expenditures needed to complete Water Effect Ratio (WER) studies which are currently necessary to produce scientifically-based objectives in the absence of objectives based on EPA's recommended criteria. Permittees will substantially benefit from adoption of the U.S. EPA criteria and waterways in the Region will be appropriately classified with respect to copper impairment.

The multi-agency Phase I MS4 permit for the North Coast Region requires Santa Rosa and the County of Sonoma to develop a workplan to address copper, lead, and zinc in stormwater runoff.[1] This workplan is required to include:

- **i.** An inventory of sources of copper, lead, and zinc within their jurisdictions;
- **ii.** Proposed BMPs needed to reduce the levels of copper, lead, and zinc in the discharge or storm water and non-storm water;
- **iii.** A monitoring proposal to verify BMP effectiveness; and
- **iv.** A proposed implementation schedule.

The permit receiving water limitations specify: "*Discharges of storm water or non-storm water from an MS4 shall not cause or contribute to a violation of water quality standards in receiving water*." Board staff have indicated that the water quality standards apply at the point of discharge (i.e., end-of-pipe). Consequently, BMPs for copper will presumably be designed to achieve the out-of-date CTR-based criteria currently in effect. Alternatively, the permittees may need to spend the necessary funds to develop site-specific modifications to the copper standards using the water effect ratio approach. The State Implementation Policy (SIP) does authorize the Regional Water Boards to grant mixing zones and dilution credits or to issue exceptions but unfortunately, the SIP does not apply to stormwater. As a result, upgrading the Basin Plan with the U.S. EPA copper criteria appears to be an priority project for the triennial review. Otherwise permittees may incur unnecessary expenses.

The potential savings from application of the 2007 copper criteria were identified by U.S. EPA when they promulgated the criteria: "We expect that application of this model will result in more

[1] California Regional Water Quality Control Board, North Coast Region. *Order No. R1-2015-0030*. October 2015, posted here.

appropriate criteria and eliminate the need for costly, time-consuming site-specific modifications using the water effect ratio."[2]

The current freshwater objectives in the Basin Plan for copper are based on the criteria promulgated by U.S. EPA in the May 18, 2000, California Toxics Rule (CTR). The CTR values are based on U.S. EPA's recommended copper criteria issued in 1984. U.S. EPA revised the freshwater aquatic life copper criteria with the 2007 update. The current copper standards in the CTR consider only the effects of hardness on the bioavailability and toxicity of copper. Because these standards do not account for the effects of pH, natural organic matter, and other characteristics they can be overly stringent or underprotective (or both, at different times).[3]

The outdated CTR standards for copper negatively impact many stormwater permittees without providing a benefit to water quality. Available monitoring data indicates that copper frequently exceeds the hardness-based CTR copper standards at the point of discharge from MS4 outfalls and this conclusion is supported in the National Stormwater Quality Database. Most stormwater permits, including those on the North Coast, require the discharge to not *cause or contribute to exceedances of water quality standards* in the receiving water. Exceedances identified by monitoring can result in permit violations and permits also require dischargers to implement revised programs or best management practices to address exceedances. Unfortunately, treatment BMPs to adequately reduce copper concentrations are not feasible. Consequently, permittees must develop site-specific objectives to help bring their discharges into compliance. Development of site-specific objectives typically requires several million dollars in permittee expenditures and many years of effort.

For most waterways, the problem of exceedances and apparent risk to aquatic organisms could be resolved with adoption of the U.S. EPA 2007 criteria which are based on the BLM. The BLM takes into account more local water chemistry parameters compared to the current CTR criteria. Dissolved organic carbon, pH, and other parameters used in the BLM significantly affect toxicity and the BLM approach presents a better assessment of risk to aquatic organisms. U.S. EPA's Science Advisory Board (SAB) has found that, in general, the BLM can "significantly improve predictions of the acute toxicity of certain metals across an expanded range of water chemistry parameters compared to the WER".[4]

The copper exceedance problem is being at least partially addressed by source control, especially controls directed at copper released from brake pads which are a major source. SB 346 (2010, Kehoe), established a program that will eventually eliminate copper use in brake pads. While the changeover in brake pad constituents will significantly reduce copper concentrations in stormwater runoff, the full reductions will occur many years in the future due to the lag time for changing out on-road brakes. In addition, the brake pad phase-out is unlikely to completely

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[2] U.S. EPA. *Aquatic Life Ambient Water Quality Criteria - Copper, 2007 Revision*. EPA-822-R-07-001. February 2007, posted here. The model being referred to is the biotic ligand model which is the basis for the EPA criteria.
[3] U.S. EPA Office of Science and Technology, Presentation, Water Quality Standards Academy. *Biotic Ligand Model and Copper Criteria*. March 2016, posted here.

[4] U.S. EPA. *An SAB Report: Review of the Biotic Ligand Model of the Acute Toxicity of Metals*, EPA-SAB-EPEC-00-006. February 2000, posted here.

solve the problem of exceedances of the current CTR criteria. Full implementation of the copper phase-out has been estimated to remove up to roughly 60% of the copper from urban runoff. This estimate is supported by the CASQA report, *Estimated Urban Runoff Copper Reductions Resulting from Brake Pad Copper Restrictions*.[5] Consequently, more reductions—beyond those resulting from the brake pad phase out—will be needed to comply with current, non-updated, CTR standards. The costs for site-specific standards and related compliance problems will be avoided if the Regional Water Board adopts the U.S. EPA 2007 updated criteria for copper.

Suggestion:

1. Prioritize the adoption and incorporation into the Basin Plan of the U.S. EPA 2007 recommended criteria for copper (freshwater).

***Comment 2*: Reconsideration of Drinking Water Standards applied as surface water standards**

The North Coast Basin Plan currently incorporates primary and secondary drinking water standards (i.e., maximum contaminant levels, MCL) as water quality objectives (WQO).[6]

> Section 3.1.1 excerpt: *Other water quality objectives [e.g., taste and odor thresholds or other secondary Maximum Contaminant Levels (MCLs)] and policies … may apply and may be more stringent. Where more than one objective exists for the same water quality parameter, the objective protective of the most sensitive beneficial use applies.*
>
> Section 3.4.3 excerpt: *In no case shall waters designated for use as domestic or municipal supply (MUN) contain concentrations of chemical constituents in excess of the following maximum contaminant level (MCL) and secondary maximum contaminant level (SMCL) provisions specified in title 22 of the California Code of Regulations:*
>
> *a) Table 64431-A, MCLs - Inorganic Chemicals (§ 64431)*
> *b) Table 64444-A, MCLs - Organic Chemicals (§ 64444)*
> *c) Table 64449-A, SMCLs - "Consumer Acceptance Contaminant Levels" (§ 64449)*
> *d) Table 64449-B, SMCLs - "Consumer Acceptance Contaminant Level Ranges" (§64449)*

As noted above, these objectives apply to waterways with the municipal and domestic supply beneficial use (MUN). Most freshwaters in the Basin Plan are designated as MUN waterways. Several of the MCLs are natural constituents (or parameters) including aluminum, iron, and turbidity, and are consistently exceeded during wet weather even in natural (un-impacted)

---

[5] CASQA. *Estimated Urban Runoff Copper Reductions Resulting from Brake Pad Copper Restrictions*. 2016, posted here.

[6] California Regional Water Quality Control Board, North Coast Region. *Resolution No. R1-2015-0018, Attachment 1*. Posted here. The revised water quality objectives have been approved by the Office of Administrative Law in 2016 and are now in effect under state law. Apparently, the amendment is still awaiting approval by U.S. EPA.

waterways. This results in stormwater discharges exceeding the standards even when no risk exists to aquatic organisms or human health.

The problematic primary MCL is aluminum (MCL = 1 mg/L) and the problematic secondary MCLs are aluminum, (MCL = 0.2 mg/L), iron, and turbidity. Other MCLs, such as the secondary MCLs for color, manganese, silver, zinc may also cause exceedances in some situations. The secondary MCLs are "*Consumer Acceptance Contaminant Levels*" and were developed for finished drinking water. The secondary MCLs are not federally enforceable by U.S. EPA.

Exceedances of iron and aluminum objectives

Typically, many if not most natural surface waters exceed several of the secondary MCL-based objectives during wet weather and also in dry weather depending on the waterway. These exceedances occur during wet weather because turbidity in waterways becomes naturally elevated and surface soils are mobilized at higher concentrations. For example, iron and aluminum together constitute roughly 11% of natural surface soils in California. As shown in Table 1, very low concentrations of these soils in waterways or in urban stormwater runoff result in non-compliance with water quality objectives derived from the secondary MCLs.

Table 1 – Estimated Concentration and Potential Exceedances when Suspended Solids in Waterways are Composed of Natural Soils

Constituent	Background Concentration in California Soils (1)	Concentration (assuming total suspended solids = 100 mg/l) (2)	End-of-pipe Objectives Based on Secondary MCLs
Aluminum	7.3%	7.3 mg/l	**0.2 mg/l**
Iron	3.7%	3.7 mg/l	**0.3 mg/l**

(1) Average; UC Riverside, 1996, posted here

(2) Additionally assuming that most or all of the Al and Fe is in particulate form.

A total suspended solids (TSS) concentration of 100 mg/L was used in the table because waterways un-impacted by human activity will often have TSS concentrations above 100 mg/L during wet weather. In addition, 100 mg/L is a typical value in stormwater runoff from highways and urban areas. This value is also used as the annual numeric action level (NAL) in the Industrial General Permit (IGP). In reviewing the table, it is also evident that exceedances in stormwater runoff resulting from natural soils will be common even when TSS levels in the runoff are much lower than the 100 mg/L.

Potential exceedances of Fe and Al MCLs in natural (i.e., un-impacted) waterways are also suggested by research conducted by the Southern California Coastal Water Research Project. The researchers assessed seventeen natural southern California creeks during wet weather and

found a median TSS of 184 mg/L (see Attachment B). Using an estimated TSS value of 100 mg/L is therefore likely conservative.

The secondary drinking water standards were developed to apply to drinking water after treatment. In fact, most drinking water treatment plants often add iron or aluminum salts or both to promote coagulation, flocculation and precipitation. For example, aluminum sulfate (alum) is typically added in a 50% solution at about 20 mg/L.

The primary aluminum MCL (1 mg/L) is higher than the secondary MCL (0.2 mg/L) but also creates a compliance problem. This is demonstrated by a historical evaluation of aluminum concentrations in Ventura County waterways during wet weather. The Ventura Countywide Stormwater Quality Management Program (VCSQMP) prepared an assessment of aluminum in three major watersheds.[7] This assessment found that 74.2 percent of all wet weather water quality samples collected by the VCSQMP exceeded 1 mg/L. However, in natural watersheds upstream from anthropogenic activities, 100% of wet weather samples exceeded 1 mg/L.

Exceedances of turbidity objective

The secondary MCL for turbidity of 5 NTU is also a major concern when used as a Region-wide surface water objective because it is often exceeded due to natural sources. In dry weather turbidity levels can be below 10 NTU, but turbidity levels of 100 NTU or higher are not unusual during wet weather. Drinking water treatment plants typically filter out particulates by coagulation and flocculation with chemicals, followed by sand filtration. Very high turbidity levels can overload the treatment plants, but treatment plants are designed to handle occasional high turbidity days that may occur during wet weather.

Suggestions:

1. Focus implementation of MCL-based standards on those pollutants or parameters which will potentially impact finished drinking water, i.e., those constituents not adequately controlled by standard drinking water treatment (e.g., dissolved constituents such as TDS, chloride, sulfate).

2. Consider alternative approaches for regulating the targeted constituents. For example, an alternative approach for addressing the secondary MCLs is being considered by the Central Valley Board during their Triennial Review. Their *Issue 6: Secondary Maximum Contaminant Levels (MCLs) as Water Quality Objectives for Surface and Ground Waters* will assess the option of determining compliance with secondary MCLs by using a filtered water sample for metals, color and turbidity. If MCLs must be applied to surface waters this may be an appropriate approach because it will eliminate most of the problems caused by natural constituents normally present in waterways, especially during wet weather.

[7] Larry Walker Associates. *Historical Data Evaluation of Aluminum in the Ventura River, Santa Clara River, and Calleguas Creek Watersheds*. 2014.

Attachment B **- Natural background concentrations of total suspended solids during wet weather in southern California creeks**

(*Flow weighted mean concentrations*)

Site name	TSS mg/L
Arroyo Seco	107.03
Arroyo Sequit	461.24
Bear Creek Matilija	242.25
Bear Creek WFSGR	6.29
Bell Creek	93.41
Chesebro Creek	200.85
Cattle Creek EFSGR	223.76
Coldbrook NFSGR	54.25
Cristianitos Creek	4,689.18
Fry Creek	11.08
Mill Creek	0.25
Piru Creek	5,454.92
Runkle Canyon	2,375.17
Santiago Creek	13.97
Sespe Creek	51,969.43
Silverado Creek	38.70
Tenaja Creek	184.15
Average	***3,890***
Median	***184***

Excerpted from: Stein, E. and V. Yoon. 2007. Assessment of Water Quality Concentrations and Loads from Natural Landscapes. Southern California Coastal Water Research Project Technical Report 500. February 2007. Appendix VIII: Wet weather concentrations, loads, and fluxes for each study site; posted: ftp://ftp.sccwrp.org/pub/download/DOCUMENTS/TechnicalReports/500_NL_APPENDIX_VIII.pdf

From:	Crystal Robinson
To:	NorthCoast
Cc:	tribalchairman
Subject:	Comments on the RWB Triennial Review
Date:	Thursday, June 21, 2018 1:56:03 PM
Attachments:	NCRWQCB_BasinPlan_20180621_QVIR comments.pdf

See comments attached, please contact me if there are any questions regarding these comments.

Crystal Robinson
Environmental Director
Quartz Valley Indian Reservation
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Fort Jones, CA 96031
office: 530-468-5907 ext 318
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Quartz Valley Indian Reservation
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530-468-5907

To: North Coast Regional Water Quality Control Board
From: Crystal Robinson, Environmental Director, Quartz Valley Indian Reservation
Date: June 21, 2018
Re: Review and comments on *Draft staff report for the 2018 triennial review of the water quality control plan for the North Coast Region* and associated *Draft Resolution No. R1-2018-0030*

We have reviewed, with the help of our consultants Kier Associates, the North Coast Regional Water Quality Control Board (Regional Board) *Draft staff report for the 2018 triennial review of the water quality control plan for the North Coast Region* and the associated *Draft Resolution No. R1-2018-0030* that were circulated for public comment in May of 2018. We are generally supportive of most of the proposed priorities put forth in the *Triennial Review*, although we offer the following comments on specific issues. Our comments are organized according to the titles and proposed priority rankings listed in the *Triennial Review* staff report.

Develop ocean beaches and freshwater streams pathogen TMDL action plan (#1c high priority)
We support the high priority assigned to indicator bacteria in the *Triennial Review*, given the human health concerns. No Klamath Basin waterbodies have been officially listed yet as impaired by indicator bacteria, so the bacteria plan proposed for development presumably will not include the Klamath Basin. The absence of bacterial impairment listings in the Klamath Basin is likely more due to the lack of historic data collection rather than to a lack of actual impairment. Data collection has increased in recent years and in 2017 the Karuk Tribe and Quartz Valley Indian Reservation (QVIR) submitted indicator bacteria data to the California Data Exchange Network (CEDEN) to be considered by the Regional Board in developing the 2018 303(d) list of impaired waterbodies. These data show violations of water quality standards in the Shasta and Scott Rivers, so we expect that these data will result in impairment listings. It is our understanding that recent data collected by the California Department of Fish and Wildlife in collaboration with the Regional Board also show high levels of indicator bacteria in Shasta River and tributaries. We request that to the extent possible, the bacterial plan be developed in such a way that it can be readily adapted to new areas (e.g., Scott and Shasta valleys) if, as we anticipate, the geographic extent of bacterial impairment listings expand in the future. Indicator bacteria are a serious problem in the Shasta and Scott basins and we urge the Regional Board to do whatever it can to take immediate action to improve conditions.

TMDL Program Retrospective Review (#1d high priority)
We support the TMDL Program Retrospective Review to assess which components of TMDL implementation are working well and which are not working well. Pages 32-33 of the *Triennial Review* staff report lists questions to be addressed during the review. We request that the following additional questions be added to that list: 1) What is the effectiveness of encouraging voluntary actions compared to enforcement and regulatory mandates? Where have these been approaches been attempted? What are the pros and cons of these approaches? Can they be used in a

complementary manner? 2) For infrastructure projects such as riparian fencing or changing points of diversion (e.g., from a cold spring to a warmer river), are those projects still being maintained and resulting in the intended outcomes, or has the project failed (e.g., fence broke or gates left open and cattle have continuous access to the riparian zone). To the extent possible, please quantify the progress that has been made versus what still needs to be done (e.g., what percent of stream miles have properly functioning riparian fencing? What percent of road miles have been upgraded or decommissioned?). Page 33 of the *Triennial Review* staff report says that: "Any recommendations with basin planning implications, including revisions to existing plans and policies, will be incorporated into the 2021 Triennial Review for the Regional Water Board's consideration." We recommend that if the review comes up with ideas for improved policies and approaches, then they should be implemented as soon as possible rather than waiting. We do not understand why it would be necessary to wait until the 2021 Triennial Review to decide to implement those improvements.

Develop Groundwater Protection Policy (#2 high priority)

We support the priority assigned to developing a groundwater protection policy. We also support the concept of developing a policy to promote groundwater recharge, given that in most of the North Coast there is not a scarcity of water at an annual timescale (in contrast to other many areas of California), but rather primarily a scarcity during the dry summer season. If managed properly, groundwater recharge offers the potential to increase summer instream flows as well as availability of water for human demands. However, in watersheds where human water demands exceed available water supplies in summer, increased groundwater recharge may just facilitate increased groundwater extraction and may not increase instream flows. Therefore, enforceable numeric objectives for instream flow and effective regulation of surface and groundwater withdrawals would be critically important elements of an effective strategy to protect instream beneficial uses.

We would also like to emphasize the need for this policy in the Scott basin. Monitoring indicates a shallow groundwater table also documented as interconnected to surface flow in the Scott Adjudication. This unique feature has the potential to have severe impacts to groundwater pollution. The QVIR has documented indicator bacteria, *E. coli*, in both the surface and groundwater and QVIR's Microbiology Lab has documented the same throughout the Scott basin. It is also important to understand the coordination necessary with the State Water Board's Water Rights division and the Department of Water Resources both of which are implementing the Adjudications in the Scott basin which specifically allocates groundwater to agricultural uses. We have a high level of support for this policy and request to be involved with staff in the development. Coho salmon are highly dependent on groundwater seepage during the summer months of baseflow and the quality of the groundwater they are seeking for refuge is critical to their survival.

We request that the groundwater recharge element of the Groundwater Protection Policy include a recommendation to work with the California Department of Fish and Wildlife (CDFW) and the California Fish and Game Commission to improve management of beavers (*Castor canadensis*) in California. Current beaver management in California still focuses solely on their historic role as fur-bearers and pests but does not consider their ecological (i.e., creating and maintaining wetlands which benefit many species including coho salmon) or hydrologic benefits (i.e., promoting groundwater recharge) resulting from the dams that beavers build. CDFW allows hundreds or thousands of beavers to be killed in California each year, primarily through issuance of depredation permits (e.g., to prevent beavers from plugging culverts) but also by allowing recreation and commercial trapping. Many of these depredations could be avoided through effective non-lethal management strategies (Pollock et al. 2017). In addition, CDFW does not allow beaver relocation, so

large areas of suitable habitat on the North Coast of California remain un-occupied by beavers. Allowing people to relocate beavers into unoccupied habitats would greatly speed the recovery and recolonization which has been occurring slowly since commercial trapping nearly extirpated beavers from California in the 18th and 19th centuries.

Develop Instream Flow Criteria (#3 high priority)

The *Triennial Review* proposed to continue work on developing instream flow criteria/objectives for the Navarro River, evaluate other rivers as candidates for future flow criteria development, and consider developing a regional narrative flow objective and corresponding implementation methodology. The projected end date for the task is fiscal year 2024-25.

We strongly support the development of numeric flow objectives to protect instream beneficial uses, but as noted previously in our comments on the 2014 Triennial Review, we are disappointed that no Klamath Basin waterbodies are included as priority for flow criteria. The Scott and Shasta Rivers have extensively documented impairment of beneficial uses resulting in large part from depleted instream flows. There is work underway to do a flow study in the Shasta River as required by the California Action Plan, as noted in the *Triennial Review*; however, there are no flow studies being conducted in the Scott River. We strongly recommend that the Regional Board take aggressive action to protect instream flows in the Shasta and Scott watersheds. Setting enforceable instream flow criteria/objectives is essential to preventing extinction of coho salmon which have fallen to extremely low levels in the Scott and Shasta Rivers (Figure 1).

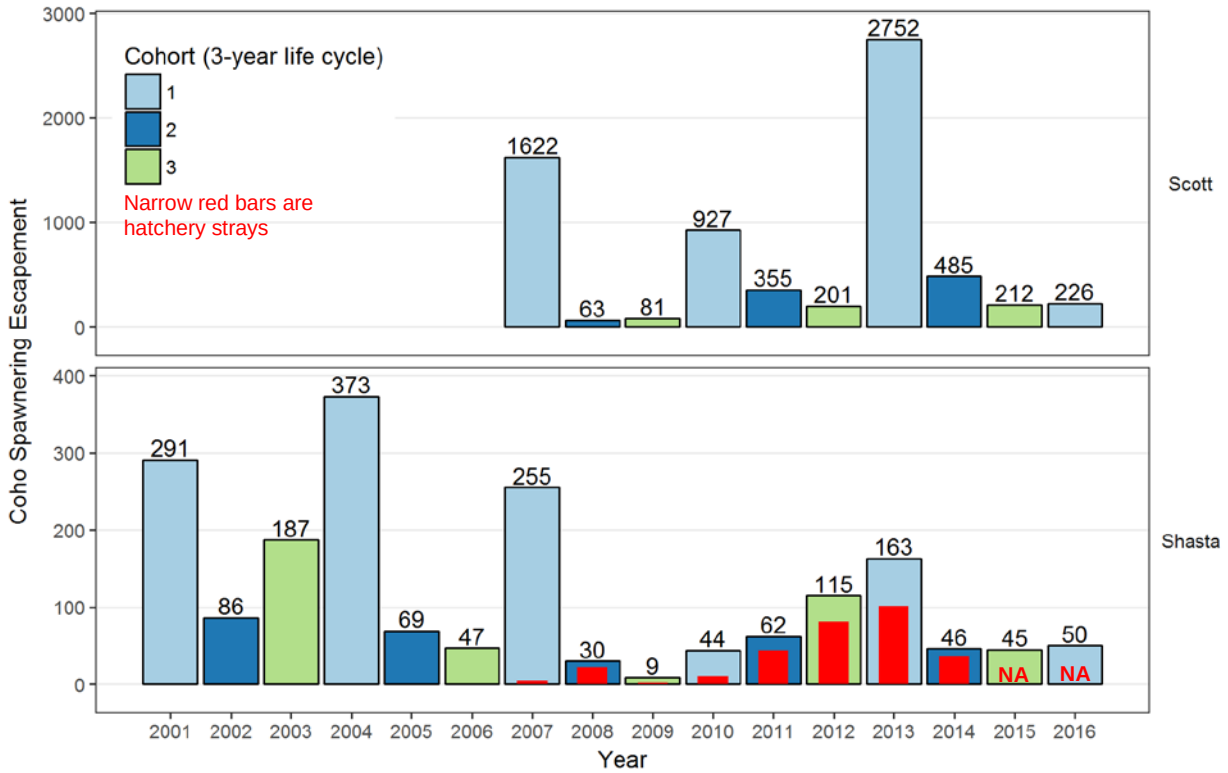


Figure 1. Adult coho spawning escapement in Scott (top panel) and Shasta (top panel) sub-basins, 2001-2016. Bars are color-coded by the 3-year life cycle as a visual aid. Hatchery strays were only estimated in Shasta River in 2007-2014 (no carcasses found in 2015 and 2016 results not yet available); total counts include hatchery strays. Iron Gate hatchery began releasing surplus adults in 2010. Data sources for Scott River video weir: 2007-2015 from Chesney and Knechtle (2016a), 2016 from Bill Chesney (unpublished). Data sources

for Shasta River: 2001-2015 from Chesney and Knechtle (2016b), 2016 from Bill Chesney (unpublished). Data are incomplete in some years due to high flow conditions (see reports for details).

Develop a Climate Change Adaptation Policy (#4 high priority)
We request that the Climate Change Adaptation Policy include recommendations for improving beaver management in California (see comments on Groundwater Protection Policy above for details).

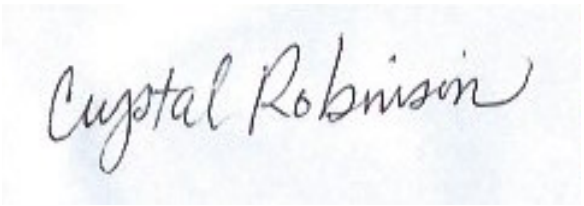
Designate Outstanding National Resource Water (#5 high priority)
As noted in the *Triennial Review*, Outstanding National Resource Water (ONRW) is a designation under the Clean Water Act which restricts the degradation of high quality waters. Despite the presence of many waterbodies with extremely high water quality, no such areas have yet been designated on the North Coast. As noted previously in our comments on the 2014 Triennial Review, we encourage the Regional Board to designate high-quality waters within the Klamath Basin as ONRW. The Salmon River as well as Middle Klamath tributaries such as Clear Creek and Dillon Creek are likely suitable for ONRW designation.

Review Biostimulatory Substances Objective (#6 high priority)
The *Triennial Review* recommends revising the biostimulatory substances objective in the Basin Plan to recognize the links amongst multiple variables, including nutrients, temperature, flow and others, which in combination produce biostimulatory conditions. We support this revision, since it reflects current science and is highly relevant to parts of the Klamath Basin, such as those waterbodies where biostimulatory conditions are caused or exacerbated by streamflow depletion or reservoir impoundments.

Update Beneficial Uses Chapter (Table 2-1) (#7 high priority)
We support the *Triennial Review's* recommendation to replace the Basin Plan's current Native American Culture (CUL) and Subsistence Fishing (FISH) beneficial uses with the updated statewide definitions for Tribal Tradition and Culture (CUL), Tribal Subsistence Fishing (T-SUB), and Subsistence Fishing (SUB), and to revise Table 2-1 to update the list of specific waterbodies for which these uses apply. We request to be consulted during the waterbody designation process so that we can provide input.

Thank you for this opportunity to comment and please contact me at 530-468-5907 ext 318 if there are any questions regarding these comments.

Sincerely,



Crystal Robinson
Environmental Director
Quartz Valley Indian Reservation

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Chesney, D. and Knechtle, M. 2016b. Shasta River Chinook and Coho Salmon Observations in 2015. California Department of Fish and Game, Klamath River Project, Yreka, CA. Available from: http://kbifrm.psmfc.org/file/shasta-river-chinook-and-coho-salmon-observations-in-2015/, accessed 6/27/2017.
https://www.fws.gov/oregonfwo/Documents/BRGv.2.0_6.30.17_forpublicationcomp.pdf

Pollock, M.M., G.M. Lewallen, K. Woodruff, C.E. Jordan and J.M. Castro (Editors) 2017. The Beaver Restoration Guidebook: Working with Beaver to Restore Streams, Wetlands, and Floodplains. Version 2.0. United States Fish and Wildlife Service, Portland, Oregon. 219 pp. Online at: https://www.fws.gov/oregonfwo/promo.cfm?id=177175812

From:	Bob Legge
To:	NorthCoast
Subject:	2018 Triennial Review for the North Coast Region Comment Letter
Date:	Friday, June 22, 2018 4:57:17 PM
Attachments:	2018 Triennial Review of the Basin Plan RRK Comment Letter.pdf

Hi all,

Please forward to Alydda.

Thanks

--
Bob Legge, Erosion Control Specialist
HAZWOPER #106270 Federal CISEC #1338, State of CA QSP #24459
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Healdsburg, CA 95448
(707) 433-1958
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June 22, 2018

Alydda Mangelsdorf, Supervisor of the Planning Unit
North Coast Regional Water Quality Control Board
5550 Skylane Boulevard, Suite A,
Santa Rosa, CA 95403

RE: Comment Letter-Draft Staff Report for the 2018 Triennial Review

Dear Alydda, Staff of the Planning Unit, and Board Members,

Russian Riverkeeper ("RRK") is one of twelve Waterkeeper organizations within the California Coastkeeper Alliance ("CCKA") network. RRK works tirelessly to protect and enhance the 1484 square mile Russian River Watershed for the benefit of its inhabitants, its visitors and our ecosystems. On behalf of RRK, we appreciate the opportunity to provide comments on the North Coast Regional Water Quality Control Board's ("NCRWQCB") May 17, 2018 *Draft Staff Report for the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region.*

Chapter 2.0 Status of 2014 Triennial Review High Priority Projects and Recommendations for 2018 Triennial Review

2.1.1 Russian River Pathogen TMDL Action Plan

Page 5 of the Draft Staff Report, footnote 3 states "TMDLs sometimes rely on statewide water quality standards, where those supersede standards contained in the basin plan. When the State Water Board is in the process of updating statewide standards, the schedule and outcome of a TMDL project can be affected." This has shown to be true with regards to the RR Pathogen Action Plan as it relates to NCRWQCB Basin Plan Water Quality Standards (WQS) for Fecal Coliform Concentrations.

The State Water Board's Draft Provisions create a scenario that will lead to anti-backsliding throughout Region 1. The State Water Board is attempting to set an illness rate at 32 illnesses per 1,000 swimmers for E. coli criteria. However, Region 1 Basin Plan WQS has an illness rate set at only 8 illnesses per 1,000 swimmers. If the median Fecal Coliform concentration is currently set at 50/100ml (R1 Basin Plan) then it converts to an equivalent for E. Coli which equates to an estimated illness rate in Region 1 Freshwaters at 8 per 1,000 people. Adopting the State Water Board's recommended Freshwater Water Quality Objective of 100 cfu/100 ml GM and 320 cfu/100 ml STV equates to illness rates of 32 per 1,000 recreationalists (this is 4 times as many illnesses).

We direct your attention to this language directly out of the NCRWQCB Basin Plan (Section 3, Water Quality Objectives). "*Whenever several different objectives exist for the same water quality parameter, the strictest objective applies".* RRK expects Staff and the Regional Board Members to uphold their current protective WQS for Bacteria and not

weaken them. If the State Water Board Requires Region 1, and/or any other region with similarly stringent standards, to adopt ANY proposed less stringent Bacteria Provisions' water quality objectives, RRK will prepare to advocate against this as it will constitute illegal backsliding. The Russian River is imperiled. Do not waste any more time waiting for anything to come from State Board. Especially, when it will be less stringent than language and policies in your own Basin Plan. Establish the correct load allocations (LAs) for nonpoint sources, scientifically prove what natural background levels are in the Russian River and its tributaries and move forward with promulgating this TMDL immediately.

2.1.2 Laguna de Santa Rosa Nutrient, Dissolved Oxygen, Temperature, and Sediment TMDL Action Plan

In the prior 2014 Triennial Review, Staff mentioned allocating resources with the intent of clarifying the geographic extent of the impairments and to remap the Laguna Watershed into smaller segments with mainstem reaches separate from tributary waterbodies (2015-2017 listing cycle). Where is this information? Can you please direct us to where it resides?

Page 7, Paragraph 2. You mention the wildfires in October 2017, that much of the damage was focused in the Laguna de Santa Rosa watershed and that it is yet unknown what long-term consequences for water quality there may be from the wildfires…We can tell you from experience (we have been out in the watershed working on fire restoration efforts on the front line for the past 8 months), VERY FEW property owners understand the risks associated with denuded landscapes, the effects they will have upon elevated peak flows, large scale erosion and debris flows as well as to the possible toxics that have yet to leach off the landscape into our waterways in the years after the fire. For this reason, the NCRWQCB should be diligent in conducting studies and securing grant funding to continue with efforts to monitor and restore our landscapes in and around the Laguna and its tributaries. This includes plans for replacing erosion and sediment control devices that were installed in October of 2017 by both CAL-FIRE and Staff at NCRWQCB. As a recommendation, seek to fund NGO's and Non-Profits in the Watershed (Like RRK) who have the experience and staff to continue protecting the burn areas during the rain seasons this year and into the future.

2.1.3. Ocean Beaches and Freshwater Streams Bacteria TMDL (Coastal Pathogen TMDL)

RRK agrees with NCRWQCB staff that an ocean beaches and freshwater streams bacteria TMDL and action plan should follow completion of the Russian River pathogen TMDL and action plan. We agree that it would allow staff to refine the approach developed for the Russian River, offering staff the ability to derive efficiencies from replicating those elements of the analysis and load allocations that resulted from the thorough and detailed work associated with the Russian River TMDL.

RRK agrees with staff recommendation that this issue continue to be on the 2018 triennial review list as a high priority.

Can you please share with the public the analysis (once it is derived) from the wet and dry season samples collected over the last two years at reference streams and reference beaches? This is an integral part of determining natural background levels and one RRK would very much like to be made aware of when published. Also, is all this data (including SF Bay and Central Coast Regional Water Quality Control Boards Bacteria Data) housed in some central data depository (ie CEDEN?). Preferably, in some file where the information is labeled under "Ocean Beaches and Freshwater Streams Bacteria TMDL (Coastal Pathogen TMDL)" and if it is not labeled as such could NCRWQCB Staff consider posting this Bacteria Data on your website under this program heading?

2.2 Non-TMDL Projects

2.2.4 Develop a Groundwater Protection Strategy Action Plan

RRK looks forward to commenting on topics of groundwater protection, CEC's, the programmatic approach to Salts and Nutrient loading & potential groundwater contamination risk, and the thresholds necessary to ensure appropriate protections are developed and actions are taken to properly manage the identified risks associated with the use of recycled water from municipal wastewater sources, increased use of storm water, the conjunctive use of surface water and groundwater all with the desired outcome to improve and conserve the use of local water supplies.

RRK agrees with NCRWQCB staff recommendations and are optimistic that stringent, enforceable policy/regulations will come out of these findings, particularly as they will relate to various water recycling practices, groundwater recharge/reuse, urban landscape irrigation and point and non-point source discharge prohibitions. RRK looks forward to this projects completion prior to the end of Fiscal Year 2019-20.

2.2.5 Develop Instream Flow Criteria (High Priority Non-TMDL Project)

3.1.2 Develop a Stream and Wetland System Protection Policy (Medium and Low Priority Project for 2018 Triennial Review)

Both Instream Flow Criteria and a Stream and Wetlands System Protection Policy are critically relevant to the Russian River Watershed and its tributaries. The fact that Staff predicts the Instream Flow Criteria will not be completed until 2024 is very discouraging and disturbing. With problems like Cyano HABs, nutrients, streams running dry and an over allocation of water rights as well as salmonids being stranded in pools in the summertime, Both 2.25 and 3.1.2 should both be moved to high priority projects during this next cycle.

RRK concurs with the San Francisco Regional Water Board narrative watershed hydrology objective in the draft Stream and Wetlands System Protection Policy that describes the need to maintain and protect 4-dimensional hydrologic functionality, including hillslope to valley, headwaters to estuary, groundwater to surface water, and annual/seasonal connectivity in a manner that mimics the natural pattern and range of flows necessary to support beneficial uses and prevent nuisance.

What is desperately needed is improved coordination between the NCRWQCB and the Division of Water Rights. With all the work being done on the Cannabis front this should be a no brainer. The fact that staff has acknowledged a need to maintain adequate instream flow and that this has been identified in several TMDLs adopted by NCRWQCB staff is essential in moving Instream Flow Criteria and a Stream and Wetlands System Protection Policy forward. RRK strongly advocates that at a minimum a narrative watershed hydrology objective be offered that supports the development of implementation measures which protect instream flows, until such time as numeric flow objectives can be developed for individual streams or watersheds.

As staff in the San Francisco Bay Region have developed a draft Substitute Environmental Document, including a proposed Basin Plan amendment toward a Stream and Wetlands System Protection Policy, RRK suggests that staff's recommendation that this " should be retained on the 2018 triennial review list as a medium priority Basin Plan amendment should be upgraded to that of high priority.

ON A FINAL NOTE:
RRK acknowledges that large amounts of resources are required to implement a TMDL Action Plan, however, lack of staff or staff that has retired and not been replaced, are not acceptable reasons for continuing to allow the federal Clean Water Act (CWA) and your own Basin Plan WQO's to be violated.

The Russian Riverkeeper thanks you for the opportunity to comment on the "Draft Staff Report for the 2018 Triennial Review of the Water Quality Control Plan for the North Coast Region".

Sincerely,

Bob Legge

Bob Legge
Policy Director
Russian Riverkeeper
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707-433-1958
www.russianriverkeeper.org

From: Felice Pace
Sent: 11 May 2018 15:13:40 -0700
To: NorthCoast
Cc: Carl Page-TU WR chapter;Greg King;Grant Werschkull-Smith River A;Eileen Cooper;rpietrelli@gmail.com;Gregg Gold;Melinda Groom;Ned Forsyth;Richard Kreis - NEC Rep;Rita Zito;Sue Leskiw;Petey Brucker;Grant Wilson, Earthlaw Ctr;Nathaniel Kane - ELF;NCSFC_list;NGO Groundwater Collaborative
Subject: 2018 Triennial Review Comments to NCWQCB

These comments on the 2018 (Triennial) Basin Plan Rview are submitted on behalf of the North Group Redwood Chapter Sierra Club and myself as an individual.

Comment 1: We support retaining "Develop a Groundwater Protection Strategy" in a manner that will make it possible for the NCWQCB to effectively protect groundwater quality in all of the Northcoast's groundwater basins. That means the strategy must address and lead to a level of groundwater monitoring in those basins which is sufficient to determine if groundwater quality is being protected and that discharges from groundwater to surface water, typically from springs near or within surface water channels, meet surface water quality standards. The Triennial Review document should make it clear how the "Strategy" will lead to protection of groundwater quality and groundwater discharges to surface waters.

Comment 2: Development of a Groundwater Protection Strategy should be integrated with groundwater planning pursuant to SGMA. The NCWQCB should participate in GSP (plan) development on Smith River Plain, in the Scott and Shasta Basin's and in other basins where groundwater discharge plays a role in both flow-related pollution an in the non-attainment of applicable water quality standards. NCWQCB staff should participate in GSP development in order to assure that GSPs adequately protect groundwater quality and Groundwater Dependent Ecosystems, especially groundwater fed springs which discharge into surface waters. Staff time should be allocated for participation in groundwater basin planning in basins that are listed as water quality impaired where GSPs are being prepared.

Comment 3: The Groundwater Protection Strategy item of the Triennial Review should be expanded to include development of specific actions to implement the strategy once it is adopted.

Comment 4: The Triennial Review should prioritize and allocate staff resources for listing appropriate streams as "flow-impaired". Flow impaired stream listings are needed in order to adequately address pollution that is flow related and/or the

violation of applicable water quality standards that are related to flow. Only by restoring adequate flows can flow-related pollution and pollutants be addressed.

Comment 5: Development of "Numeric Flow Objectives" for streams should not be limited to the Navarro River but should be extended to all streams which are flow-impaired (see Comment 4).

Felice Pace
Klamath, CA 95548
707-954-6588

"Be concerned not with obedience but with benefit."

The Way of Life, Lao Tzu

From:	David Webb
To:	NorthCoast
Subject:	2018 triennial review comments in pdf
Date:	Friday, June 22, 2018 4:44:37 PM
Attachments:	final triennial rev comments.pdf

Previously sent as a word doc.

Thanks

Dave

From: David Webb
To: NorthCoast
Subject: 2018 triennial review comment
Date: Friday, June 22, 2018 4:55:34 PM

U have sent in other comments already. i woulsd liek to submit this additional comment.

Recent events in the Shasta River have documented a need for guidance on what an acceptable rate of change is acceptable in flow rates to avoid stranding fish. In a managed stream like the Shasta, the watermaster could and should coordinate with water users to ramp up diversion rates, but would need specifric guidance to do so. I would like to request that a mechanism be identified to add language to action plan providing for mechanisms to manage diversions to avoid abrupt instream flow changes.

David Webb

David Webb
PO Box 277
Mt. Shasta, CA 97067
6-22-18

Greetings.

I will be brief:

1. In 2003, in response to both voiced concerns of others, and out of concern for NCRWQ staff safety, NCRWQ staff collected water data indicating bacterial levels in the Shasta River exceeding safety standards for humans (attached). Somehow, that finding fell through the cracks, and no further investigations were done until a joint effort with NCRWQ was initiated by Cal DFW out of concern for their worker's health. Apparently the 2017 data found indicated things were much worse than expected. The Shasta River is a beautiful stream, and persons fishing, swimming, doing research, working on ranches irrigating, etc all have regular contact with its water. They all deserve for that contact to be safe. The collection of this 2017 data wasn't completed until the fall of 2017, and still needed to be processed after that. That left it too late for meeting several deadlines for consideration by NCRWQ. And given the current procedures, it could easily be 6 more years before it will be thoroughly be examined, and meanwhile people continue to be at risk. Taking that long may be legal, and it may be convenient, <u>but it isn't right</u>, especially when data RWQ had since 2003 clearly indicated a problem.

Typical recreational use in the Shasta River

Family recreation in Shasta River

When mistakes are made, they need to be rectified, even if that means stepping outside the normal timeline things are intended to follow. In order to catch up with the 2003 data, the current 3 year workplan needs to allocate sufficient attention to this problem in the Shasta River to fully understand it so appropriate action can be taken soon, not in 6 years (or more).

In addition, the fact that the Shasta River is now used intermittently as a conduit to supply M&I water to the City of Montague further emphasizes the need to minimize bacterial contaminants so as to reduce risks associated with excessive chlorination of water with high organic content.

2. Since at least 2010 (I didn't look any farther back) many citizen groups have been requesting relief from flow impairments on many rivers, including the Shasta, only to be met repeatedly with the lame (albeit true) excuse that 'we don't have an approved process in place to do that evaluation'. That excuse was valid the first time the topic came up. It isn't valid year after year after year. If a plausible and significant problem is brought to your attention, and you don't have a proper process with which to address it fairly and evenhandedly, then the work plan should include necessary time to develop such a process. While the staff report acknowledges this issue, it isn't clear if it will actually be given a high enough priority to be resolved. Newly unfolding events in the upper Klamath Basin (see Siskiyou Daily News for 6/22/18 "Potential Disaster Facing Klamath Basin") in which the majority of irrigation may be shut down for the entire season highlight the consequences of failure to try to solve difficult resource sharing problems fairly. Not many years ago it was the bucket brigade and all that followed. Can we be surprised that when the Native Americans have the upper hand they respond in kind? It should be noted that this flow impairment issue was listed as a low priority item in both 2011 and 2014 triennial reviews, with no action taken in either period. It needs a higher priority. The scope of work described in Staff Report 2.2.5 for rivers other than the Navarro is not reflected in the workplan chart on page 40. Given the importance of this topic, and the now obvious consequences of not trying to find a middle ground solution, it needs to be more explicitly shown with a high priority in the workplan.

Beyond the above, the continued reluctance of NCRWQ to take on the bad actors in the watershed makes those persons who invested time and money in creating and maintaining measures to protect water quality look like fools in their community. Their efforts need to be supported by showing that they were wisely taken and paid off, and not leave them looking like they could have done nothing at all and saved time and money. Continued enforcement failure in this area will result in loss of what forward progress has been made in attempting to protect water quality, and leave the entire community at far greater risk of lawsuits over environmental issues.

In the workplan, the groundwater protective measures ranked 2 don't include the staff suggested additional focus on chemical contamination as described in 2.2.4 of the staff report. It should be explicitly included also.

On a happier note, I applaud the inclusion of a high priority task to examine the outcomes-to-date of the numerous TMDL plans within the region. As many or all of them pass the 25% of the timeline mark, one would hope that most of the easier tasks will have been completed, and results of those efforts will show. And if not, then it will provide a firm foundation for the exercise of adaptive management while there is still

time to act. Every effort should be made to do quantative assessments of each, not qualitative ones.

Attachments:
Cover and key sections of 2003 report
Example NCRWQ bacterial data

California Regional Water Quality Control Board
North Coast Region

Shasta River Water Quality Conditions

2002 & 2003

May 2004

Draft for Public Review

D R A F T

Table 8. Shasta River Bacteriological Sample Results 2003

Site	Total Coliform (MPN/100 ml)	Fecal Coliform (MPN/100 ml)	E. coli (MPN/100 ml)	Enterococcus (MPN/100 ml)
Montague-Grenada Road	≥ 2,419.2	300	249.5	1091.0
Highway 3	≥ 2,419.2	500	285.1	165.2
CA DHS Threshold Level	10,000	400	235	61

Notes:
MPN = Most Probable Number
The California Department of Health Services (DHS) recommends posting fresh water beaches when single sample values exceed the levels identified in the fourth row of the table. California Department of Health Services. July 24, 2001. Draft Guidance for Fresh Water Beaches.
http://www.dhs.ca.gov/ps/ddwem/beaches/freshwater.htm
Total and fecal coliform, enterococcus, and e. coli are "indicator organisms" of microbiological contamination and are used by health authorities as surrogates for disease-causing organisms that are likely to be present in sewage, but are difficult to analyze for directly. Presence of these indicator organisms at both Shasta River sample locations at levels above the DHS thresholds indicates there may be disease-causing organisms present in the Shasta River.