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BEFORE THE STATE WATER RESOURCES CONTROL BOARD
STATE OF CALIFORNIA

In the Matter of SCOTT RIVER WAIVER
AND SHASTA RIVER WAIVER

)
)
) PETITION CHALLENGING SCOTT
) RIVER TMDL CONDITIONAL WAIVER
) OF WASTE DISCHARGE
) REQUIREMENTS, ORDER NO. R1-2018-
) 0018 ("SCOTT RIVER WAIVER") AND
) THE SHASTA RIVER TMDL
) CONDITIONAL WAIVER OF WASTE
) DISCHARGE REQUIREMENTS, ORDER
) NO. R1-2018-0019 ("SHASTA RIVER
) WAIVER")
)
)

The Karuk Tribe submits this petition to the State Water Resources Control Board (“State Board”) to review the Scott River TMDL Conditional Waiver of Waste Discharge Requirements, Order No. R1-2018-0018 (“Scott River Waiver”) and the Shasta River TMDL Conditional Waiver of Waste Discharge Requirements, Order No. R1-2018-0019 (“Shasta River Waiver”), adopted by the California Regional Water Quality Control Board, North Coast Region (“Regional Board”). The Scott River Waiver and the Shasta River Waiver are referred to collectively as the “Waivers.”

1. Petitioner

This petition is submitted by the Karuk Tribe. The contact information for the Karuk Tribe is as follows:

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2. Regional Water Board Action Being Petitioned

The Karuk Tribe is petitioning two Regional Board orders: (1) the Scott River TMDL Conditional Waiver of Waste Discharge Requirements, Order No. R1-2018-0018, and (2) Shasta River TMDL Conditional Waiver of Waste Discharge Requirements, Order No. R1-2018-0019. A copy of each is attached to this petition as Exhibits A and B, respectively.

3. The Date the Regional Water Board Acted

The Regional Board held a hearing and voted to adopt the Waivers, with modifications, on April 19, 2018. Final, signed Waivers were issued via the lyris listserve for North Coast TMDL related issues on May 10, 2018 with further revised final, signed Waivers issued via the lyris listserve on May 17, 2018. According to Regional Board staff, the Waivers issued May 17, 2018 corrected typographical errors found in the May 10, 2018 version of the Waivers. The final, signed Waivers were first made available to the public on the Regional Board’s website on May 9, 2018, with the further revised final, signed Waivers made available on the Regional Board’s website on May 16, 2018.

Counsel for the Karuk Tribe contacted Regional Board staff to inquire on when the final,

signed Waivers would be available to the public during the week of April 30th 2018. Counsel for Karuk Tribe did not reach Regional Board staff, and left a voicemail inquiring when the final, signed Waivers would be released. Staff for the Regional Board returned Karuk Tribe's counsel's voicemail during the week of May 7, 2018. During this phone conversation Regional Board staff indicated that the Waivers would likely be released before Friday May 11, 2018. Counsel for the Karuk Tribe searched the Regional Board website on May 14, 2018 for the Waivers, but could not find them. Counsel for the Karuk Tribe contacted the Regional Board staff again on May 22, 2018 inquiring about the status of the Waivers, as he had not received a lyrics notice indicating they had been finalized and signed. In response, Regional Board staff indicated the Waivers had been made public on the Regional Board's website and via the lyrics listserve on May 10, 2018 and again on May 17, 2018. Counsel for the Karuk Tribe went to the Regional Board's website and located the Waivers, signed May 16, 2018, on the website.

The versions of the Waivers attached as **Exhibit A** (Scott River Waiver) and **Exhibit B** (Shasta River Waiver) to this petition are signed and dated May 16, 2018.

4. Reasons the Action Was Improper

As explained in detail below in Part 7 below, the Regional Board's issuance of the Waivers was improper for at least three reasons.

First, the Waivers do not comply with the Basin Plan, including compliance milestones and deadlines, as they must to be legal under Water Code section 13269, because (a) the discretionary pollution management requirements of the Waivers bear no relationship to the waste load allocations for agricultural practices set out in the Basin Plan, and (b) the discretionary monitoring program (which is not mandated but rather is only potentially applicable to dischargers at the discretion of the Regional Board's Executive Officer), is ineffective in monitoring dischargers' compliance with the TMDL's waste load allocations.

Second, the Waivers do not comply with the State Board's Policy for Implementation and Enforcement of Non-Point Source Pollution Control Programs ("NPS Policy") because (a) they do not address non-point source pollution in a manner that achieves and maintains water quality objectives, (b) they do not provide a timeline and quantifiable milestones designed to

measure progress towards achieving water quality objectives and total maximum daily loads (“TMDLs”), and (c) they fail to contain a monitoring program that would provide effective feedback to ensure Waivers are achieving their stated purpose. In fact, the Scott River Waiver does not even mention the NPS Policy.

Third, the Waivers do not comply with California’s Anti-Degradation Policy because the Regional Board did not conduct an anti-degradation analysis and ensure that the Waivers require dischargers implement the best practicable treatment and control (“BPTC”) to ensure any changes in water quality resulting from the discharges covered by the Waivers are consistent with the maximum benefit to the people of State and will not unreasonably affect beneficial uses. Instead, in an attempt to satisfy its anti-degradation obligations, the Regional Board simply presented the following circular argument: Because the Regional Board “anticipates” measures in the Waivers might over time improve existing water quality, any change in water quality resulting from the discharges will be consistent with maximum benefit to the people of the State and will not unreasonably affect beneficial uses. This circular reasoning is entirely devoid of any analysis of whether the baseline water quality (the best water quality since 1968) in Scott River and Shasta River are “high quality waters,” actual analysis of the impacts of the covered discharges on the Scott River or Shasta River, whether the pollution controls required by the Waivers are BPTC, or whether the impacts authorized by the Waivers is consistent with maximum benefit to the people of the State and will not unreasonably affect beneficial uses.

5. How Petitioner is Aggrieved

The Karuk Tribe is aggrieved by the adoption of the Waivers because the Waivers do not and will not effectively protect and restore water quality in the Scott River and Shasta River, which is essential to the protection and recovery of salmon and steelhead. The Karuk Tribe’s culture depends on salmon and steelhead for its very existence.

Salmonid stocks in the Klamath Basin continue to suffer profound declines with Southern Oregon/Northern California Coho and Klamath Spring Chinook nearing extinction. The Klamath Fall Chinook run in the Klamath Basin in 2016 was the lowest since systematic

surveys began in 1978. See *Summary of Scott and Shasta River Fish Data* (attached to Petitioner's Comment Letter as Exhibit A. Petitioner's Comment Letter and Exhibits are attached to this Petition as **Exhibit C**). Fall Chinook in the Scott and Shasta Rivers was also very low, and Coho and Pacific lamprey also show continuing declines over time. *Id.* The North Coast Regional Water Quality Control Board ("RWQCB") accepts that a primary cause of salmon declines is agricultural practices. Factors include 1) reduced shade; 2) tailwater return flows; 3) diversions and flow modifications, and; 4) impoundments. See for example *Basin Plan at 4-69; 4-70*. The Shasta has been listed pursuant to the Clean Water Act as impaired for dissolved oxygen ("DO") since 1992, and temperature since 1994. The Scott was listed for sediment in 1992, and temperature in 1998. Thus these critical salmon rivers have failed to meet the water quality standards necessary to support salmon migration, and that are legally required, for well over 20 years.

TMDLs for DO, sediment, and temperature for these rivers were incorporated into the Basin Plan between 2005 and 2006. The first waivers for non-point source discharges to the Shasta River and Scott River were issued in 2006. In 2011 the Regional Board amended the Basin Plan to include an implementation plan for the Shasta and Scott River TMDLs ("Action Plan"). The Action Plan included a series of studies, plans, reports, and collaborative efforts intended to achieve compliance. The Action Plan includes a final compliance deadline of 26 January 2017, requiring that all discharges from riparian areas, and all tailwater discharges, comply with water quality objectives, TMDLs, and NPS Plan requirements by that date.

All available data shows no meaningful progress towards compliance with water quality objectives and TMDLs. The available data shows no measureable trend for temperature in the Shasta River or Scott River. See Petitioner's Comment Letter (Exhibit B, *Summary of Scott River Water Temperature Data*). And while there is limited data on sediment and DO in the rivers, no improving trend can be discerned for these impairments either. Thus for over 20 years since the impairment listings, and over 15 years since issuance of the first waivers on the Shasta River and Scott River, no meaningful progress on water quality has been achieved, and salmon stocks have continued their downward spiral.

Nonetheless, the Regional Board's Waivers continue the failed requirements for the Shasta River and Scott River virtually unchanged for another five years. At least two California Courts have rejected other regional boards' refusals to provide meaningful regulation for agricultural discharges. See *Asociacion de Gente Unide por el Agua v. Central Valley Regional Board*, ("AGUA")(2012) 210 Cal. App. 4th 1255 (finding WDRs that regulate dairy farms to be illegal because they did not comply with the Anti-Degradation Policy); *Monterey Coastkeeper v. California State Water Resources Control Board* (2005) Case No. 34-2012-80001324 (Sacramento County Sup. Court) ("*Coastkeeper*") (finding waivers that regulate irrigated lands to be illegal because they did not meet requirements of NPS Policy, Basin Plan, or the Anti-Degradation Policy).

The Regional Board's failure to regulate dischargers from agricultural operations in a manner that complies with the law and adequately addresses the significant harm caused by these dischargers to the water quality of Scott River and the Shasta River, and to the salmon and steelhead that rely on these rivers, directly harms the Karuk Tribe, its culture, and its members.

6. Action Requested from State Water Board

The Karuk Tribe requests that the State Board vacate the Waivers and direct the Regional Board to revise and reissue them to:

(a) ensure compliance with the Basin Plan by incorporating pollution control measures that relate directly to assuring waste load allocations for agricultural discharges are met, and monitoring and reporting by dischargers that demonstrates TMDL waste load allocations are met;

(b) ensure compliance with the NPS Policy by including objective, non-discretionary pollution control measures that achieve and maintain water quality objectives, including TMDL waste load allocations, and monitoring and reporting by dischargers that provides effective feedback to ensure water quality objectives are being achieved and maintained; and

(c) conduct an Anti-Degradation Analysis consistent with the requirements of Resolution No. 68-16 and include appropriate, specific pollution treatment and control measures and

monitoring and reporting to ensure discharges comply with the Anti-Degradation Policy.

7. Points and Authorities for Legal Issues Raised

The Regional Board's issuance of the Waivers is legally flawed because the Waivers do not comply with the Basin Plan, they do not comply with the NPS Policy, and they do not comply with the Anti-Degradation Policy.

The fatal flaws in the Waivers are the exact same as those in the Central Coast Regional Water Quality Control Board's Conditional Waiver of Waste Discharge Requirements Order No. R3-2012-0011 ("Central Coast Waiver") that regulates discharges from irrigated agricultural lands. As the court determined in *Coastkeeper*, the Central Coast Waiver was legally deficient because: (1) it did not comply with the Central Coast Basin Plan because it lacked sufficiently specific enforceable measures to ensure compliance with water quality objectives, and it did not include a feedback mechanism to ensure compliance with water quality objectives (*id.* at 32), (2) it did not comply with the NPS Policy because the monitoring program was insufficient to verify compliance with the waiver's requirements and ensure progress over time, it did not include time schedules to measure progress toward reaching quantifiable milestones, and it did not include specific actions that must be taken if monitoring showed pollution control measures are failing to achieve stated objectives (*id.* at 38), and (3) the Central Coast Board violated the anti-degradation policy because it had failed to apply the policy and conduct the required analysis to determine if the authorized discharges were to "high quality waters" and whether allowing discharges to these waters (and potential degradation of these waters) would be consistent with the maximum benefit to the people of the state and not unreasonably affect beneficial uses (*id.* at 39).

A. The Waivers Do Not Comply with the Basin Plan and Water Code Section 13269

The California Water Code authorizes waivers only where they are both consistent with the applicable Basin Plan, and in the public interest. *Water Code Section 13269*; see also *Coastkeeper* at 25. The TMDLs (allocating load consistent with compliance with water quality objectives) applicable to the Shasta River and Scott River, respectively, were incorporated into

the Basin Plan in 2006. In 2011 the RWQCB amended the Basin Plan to include the Action Plans for the Shasta and Scott. Accordingly, to comply Water Code section 13269, Waivers must be consistent with the requirements of the TMDLs and the Action Plans for the Scott and Shasta rivers. Further, a waiver must include monitoring “designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver’s conditions.” *Id.* As explained below, the Waivers are not consistent with the TMDLs and Action Plans and do not include adequate monitoring, and as such must be remanded to the Regional Board.

1. The Waivers Are Not Consistent with Applicable TMDL and the Action Plan Requirements

The Shasta River TMDLs for temperature and dissolved oxygen provide specific, quantitative load allocations. Irrigation return flows are prohibited from increasing receiving water temperatures, surface flows temperatures must be reduced by 1.2 to 2.1 degrees centigrade at specific river mile locations, and detailed shade/solar heat requirements are outlined. The Shasta River TMDL for dissolved oxygen sets out specific percentages that dissolved oxygen demand must be reduced in specific river reach lengths to comply with water quality objectives. The Scott River TMDLs for sediment and temperature likewise provide specific, quantitative load allocations. For example, sediment load is allocated in tons/sq.mi.-yr, with reductions by percentages and sources. *Basin Plan* at 4-60.

The Waivers are inconsistent with the Basin Plan TMDL requirements and Action Plan requirements, and thus Water Code section 13269. Importantly, the entirely discretionary pollution management elements of the Shasta River Waiver and the Scott River Waiver bear no reasonable relationship to the waste load allocations set out in the Basin Plan. Though the Waivers both require “Dischargers” to engage in some level of pollution control and management, specific and objectively defined measures are not required, and there is no analysis by staff or otherwise to demonstrate that the discretionary measures set forth in the Waivers will reduce pollution in discharges to levels allowed by the TMDL waste load allocations, or that they will do so within the timeframes allowed under the Action Plans.

Regarding the Shasta River Waiver, the Regional Board included no data or analysis as to how the measures will ensure compliance with the waste load allocations. The Shasta River program's implementation has been extremely limited since 2006 (23 of 150 high priority farms assessed to date, for example) and no quantitative analysis of the impact of that limited program to date, or the management practices implemented is articulated in the Shasta River Waiver. Given the lack of monitoring data, it is unclear how such an analysis could be conducted, and in any event receiving water data indicates that water quality impairment is unchanged. In other words, the pollution management requirements in the Shasta River Waiver (which are simply carried over from previous waivers), cannot be said to have successfully reduced pollutant loads in the Shasta River, and the only available data indicates that water quality has not improved since adoption of the first waivers in 2006. There is nothing approaching substantial evidence in the record that the pollution control measures required by the Shasta River Waiver will ensure waste load allocations in the TMDL are met.

In addition, and perhaps most damning, is the Shasta River Waiver's inconsistency with the final TMDL and water quality objective compliance deadline set out in the Action Plan. The Action Plan, and thus the Basin Plan, requires compliance with all water quality objectives and TMDL waste load allocations for a) all discharges associated with riparian land use activities (*Action Plan* at 4-79), and b) all tailwater return flows, (*id.* at 4-80), no later than 26 January 2017. Thus to be consistent with the Basin Plan, the 2017 Waiver must include limitations sufficient to ensure compliance with standards for riparian and tailwater flows *immediately*. There is no evidence in the record to support a conclusion that the pollution control measures will achieve this requirement. Furthermore, the only evidence in the record strongly supports the opposite conclusion - that the pollution control measures will not ensure immediate compliance with waste load allocations. As such, the Shasta River Waiver fails completely to ensure compliance with the Basin Plan limits, both for the TMDL waste load allocations generally, and specifically for riparian and tailwater discharges, and is therefore illegal.

The same flaws are present in the Scott River Waiver. The entirely discretionary pollution management elements of the Scott River Waiver bear no reasonable relationship to

the waste load allocations set out in the Basin Plan. The Scott River Waiver includes no data or analysis as to how the measures will ensure compliance with the waste load allocations. Given the lack of monitoring data, it is unclear how such an analysis for sediment could be conducted. In any event, receiving water data for temperature indicates that water quality impairment has been unchanged over the 10 year life of the waiver program. See *Summary of Scott River Water Temperature Data* (Exhibit B to Karuk Tribe's comment letter, which is attached hereto as **Exhibit C**). Moreover, the deadlines for complying with the Scott River TMDLs, which are set out in the Action Plan, have passed, and thus the Scott River Waiver must demonstrate immediate compliance with the applicable waste load allocations. However, it does not and there is no evidence in the record to support the conclusion that it does. Therefore, the Scott River Waiver fails completely to ensure compliance with the Basin Plan limits, both for the TMDL waste load allocations and Action Plan requirements, and is therefore illegal.

The Regional Board's response to comments do not attempt to explain how the Waivers are consistent with the TMDL waste load allocations or the Action Plan deadlines. Instead, the Response to Comments repeat the basic legal requirement in summary fashion, without analysis or support, that the Waivers "require implementation of management measures designed to eliminate discharges consistent with TMDL load allocations and targets." Response to Comments at 3. No explanation, analysis, reference to any study, or facts to support this assertion are provided. Simply saying it does does not make it so. As explained above, the available water quality data for the Shasta River and Scott River indicate that despite more than ten years of requiring the pollution control measures continued in the Waivers, waste load allocations and TMDLs have not been met. The evidence does not support a conclusion that the pollution control measures in the Waivers are consistent with the requirements of the TMDLs and Action Plans incorporated in the Basin Plan. Accordingly, the Waivers do not comply with Water Code section 13269.

2. The Waivers Do Not Include Monitoring to Determine the Effectiveness of the Waivers' Requirements

The Waivers also fail to comply with the requirement of Water Code section 13269(b) that waivers include monitoring requirements adequate to verify that management practices are effectively controlling pollution. See Water Code § 13269(b). Both the Scott River Waiver and the Shasta River Waiver require *zero* monitoring by dischargers – not individual monitoring, not group monitoring, not even representative monitoring. This despite the fact that Water Code section 13269(b) states unequivocally that “conditions of the waiver shall include, but need not be limited to, the performance of individual, group, or watershed-based monitoring.”

The Waivers do include potential monitoring requirements that a Discharger may be subject to at some undetermined point in the future, and entirely at the Executive Officer's discretion. See Scott River Waiver at 5; Shasta River Waiver at 6-7. However, even these monitoring requirements, if imposed on a Discharger, do not satisfy Water Code section 13269(b). These monitoring requirements are focused entirely on evaluating implementation of those few management practices the Executive Officer deems appropriate, but fail to include any receiving water monitoring, and no field evaluation. Further, there is no reach-by-reach sampling and analysis required to establish compliance with the TMDLs, nor is there monitoring of discharges from tailwater returns or otherwise. It is implausible to conclude that the discretionary monitoring requirements with the Executive Officer could require of Dischargers is sufficient to demonstrate compliance with applicable Basin Plan limits.

The Regional Board's response to comments does not address these obvious shortcomings, which were raised in the Karuk Tribe's comments. Instead, the Response to Comments asserts that there is additional monitoring underway in the Shasta River valley, and plans for monitoring in the Scott River valley, that “is sufficient to provide data for evaluating the effectiveness of the management measures applied.” Response to Comments at 3. That there is some other monitoring taking place in the watershed is inadequate for purposes of Water Code section 13269, which requires monitoring as a condition of the Waivers

themselves. Moreover, just as the court determined in *Coastkeeper*, group or regional monitoring programs are inadequate when the regulatory program relies on implementation of management practices to achieve water quality standards. *Coastkeeper* at 41. There must be monitoring requirements that verify that the management practices themselves are properly implemented and effectively controlling discharges of pollutants. *Id.* There are no such site-specific monitoring requirements in the Waivers, and as such they fail to meet the requirements of Water Code section 13269.

B. The Waivers Do Not Comply with the Non-point Source Policy

The State Board adopted the NPS Policy in 2004. The NPS Policy has the force and effect of a regulation, and must be complied with for all non-point source permitting, including waivers such as those at issue here. *Coastkeeper* at 4. The NPS Policy has also been incorporated into the Basin Plan, reaffirming the requirement that the Regional Board implement its requirements when adopting the Waivers. The NPS Policy states:

Before approving or endorsing a specific NPS pollution control implementation program, a RWQCB must determine that there is a high likelihood the implementation program will attain the RWCQB's stated water quality objectives.

NPS Policy at 11. The NPS Policy requires that waivers contain five "Key Elements." Waivers must: 1) explicitly address non-point source pollution in a manner that achieves and maintains water quality objectives; 2) include a description of management practices and program elements expected to be implemented; 3) includes a time schedule and quantifiable milestones designed to measure progress towards achieving water quality objectives; 4) includes sufficient feedback mechanisms to ensure that the program is achieving its stated purpose, and ascertain whether additional or different actions are required, and; 5) state the potential consequences for failure to achieve the programs objectives. *NPS Policy* at 11-15; *Coastkeeper* at 4-5.

In adopting the Waivers, the Regional Board failed to conduct any analysis relating to the NPS Policy, or to make any demonstration that the Waiver complies with the NPS Policy. In particular, the Waivers fail to satisfy elements 1, 3, and 4 of the NPS Policy.

First, the Waivers fail to satisfy Element 1's requirement to address non-point source

pollution in a manner that achieves and maintains water quality objectives. Specifically, the Waivers include no analysis or determination “that there is a high likelihood the implementation program will attain the RWQCB’s stated water quality objectives.” NPS Policy at 11. Further, there is no information in the record to suggest that the requirements in the Waivers will result in attainment of water quality objectives. In fact, the information in the record demonstrates the opposite to be true.

The Waivers continue, virtually unchanged, the same program—“focused” Regional Board requirements on a subset of farmers, including management practices and reporting, at the discretion of the Regional Board Executive Director— carried over from the 2006 and 2012 waivers. During the prior twelve years of waiver implementation, no measureable progress towards water quality objectives and TMDL compliance has been achieved, and salmon stocks continue to shrink. Rather than ensuring that water quality objectives and TMDLs will be met, the Waivers ensure that they will not.

Second, the Waivers fail to provide a timeline and quantifiable milestones designed to measure progress towards achieving water quality objectives and TMDLs. Instead the Waivers maintain an entirely discretionary program, with no milestones or timelines. And while the Waivers attach the Action Plan, which does include timelines and milestones, that Action Plan was adopted in 2011, and all the dates for deadlines and milestones have already passed. Thus, rather than setting out deadlines and milestones, the Action Plan documents the failure of the 2012 waivers to meet the deadlines and milestones required by the Basin Plan, and ensures the 2018 Waivers will fail to meet these deadlines and milestones that have already passed.

Third, the Waivers fail to include a workable, effective feedback mechanism. The NPS Policy requires monitoring, reporting, and analysis sufficient to evaluate progress, and to adjust where necessary. “Except for waivers for discharges that the SWRCB or a RWQCB determines do not pose a significant threat to water quality, waiver conditions must include, but need not be limited to, individual, group or watershed-based monitoring.” NPS Policy at 5. While the monitoring can be focused on management practices implementation—mere

implementation cannot be substituted for actual compliance with water quality objectives. NPS Policy at 7.

Contrary to these requirements, the Waivers include no meaningful feedback mechanism. Instead they provide only the possibility of reporting by dischargers, at the Executive Director's discretion. And while the Basin Plan (incorporating TMDLs) sets out specific, numeric standards to protect salmon, designated by reach of the river, and allocated by source (see Basin Plan at pp. 4-60 to 4-63 and 4-72 to 4-74), the Waivers include zero discharge or receiving water monitoring. Thus any meaningful evaluation of the Waivers' or the dischargers' covered by the Waivers contribution towards water quality objective or TMDL compliance is impossible.

The Shasta River Waiver further fails to conduct any evaluation of the effectiveness of the feedback mechanism carried over from the 2012 Shasta waiver. The Action Plan for the Shasta River TMDLs includes numerous monitoring, reporting, and program development requirements for the Regional Board, diverters, dischargers, and State and Federal agencies.¹ The Shasta River Waiver fails completely to evaluate the effectiveness of these feedback mechanisms—whether the plans and reports were completed and submitted, as required by the Action Plan, whether Regional Board staff reviewed them, or if they were implemented or even considered by the Regional Board or the dischargers. Almost none of these reports are available on the Regional Board's website, so evaluation by the public is problematic as well. Without any analysis of the effectiveness of the program in the 2012 Shasta waiver, the Shasta River Waiver cannot be consistent with the NPS Policy.

Likewise, the Scott River Waiver further fails to conduct any evaluation of the effectiveness of the feedback mechanism carried over from the 2012 Scott waiver. The Action

¹ See for example: Basin Plan at 4-77 (farmer's Annual Reports); 4-78 (RWQCB Development of Monitoring Plan)(Ranch Management Plans)(RWQCB Proposed Riparian Rules and Regulations by 2007); 4-79 (all riparian discharges in compliance with WQS and TMDL by 26 Jan 2017)(tailwater return flow management annual reports); 4-80 (RWQCB adopt tailwater prohibitions, WDRs or waivers)(compliance with all WQS and TMDL for tailwater discharges by 26 Jan 2017); 4-81 (diverters provide final report to RWQCB documenting dedicated cold water instream flows by 26 Jan 2012); 4-82 (where efforts to achieve DO and temp objectives inadequate as of 26 Jan 2012, RWQCB to recommend to SWRCB to seek modification to adjudication)(irrigators to achieve 50% reduction in DO demand u all minor impoundments by 26 Jan 2008); 4-83 (plan to bring Lake Shastina into compliance with WQS and TMDLs submitted to RWQCB by 26 Jan 2012).

Plan for the Scott River TMDLs includes numerous monitoring, reporting, and program development requirements for the Regional Board, diverters, dischargers, and State and Federal agencies.² The Scott River Waiver fails completely to evaluate the effectiveness of these feedback mechanisms—whether the plans and reports were completed and submitted, as required by the Action Plan, whether Regional Board staff reviewed them, or if they were implemented or even considered. A monitoring plan for the Scott River is posted on the Regional Board website, and was apparently developed in 2011. *See Scott River Watershed Water Quality Compliance and Trend Monitoring Plan*. However the Scott River Waiver fails to even mention the monitoring program, whether it was implemented, or any results of any monitoring that was conducted. Without any analysis of the effectiveness of the program in the 2012 Scott waiver, the Scott River Waiver cannot be consistent with the NPS Policy.

In response to the Karuk Tribe’s comment that the Waivers do not comply with the NPS Policy, the Regional Board asserts that because the Waivers are only part of a larger program designed to address non-point source pollution to the Shasta River and Scott River, they are not themselves a “nonpoint source water quality program,” and thus need not comply with the NPS Policy. Response to Comments at 2. There is no legal basis in the NPS Policy for this distinction.

The NPS Policy does not use the term “nonpoint source water quality program.” Rather, the NPS Policy refers to programs developed by the Regional Board to control nonpoint source pollution as “NPS control implementation programs” and includes among them WDRs and waivers of WDRs. NPS Policy at 8 (explaining that regional boards “have primary responsibility for ensuring that appropriate NPS control implementation programs are in place throughout the State. RWQCB responsibilities include, but are not limited to, issuing WDRs or a waiver of WDRs for individual discharges or a category of NPS discharges, or adopting a basin plan amendment that addresses NPS discharges.”) There can be no doubt that the Waivers are “nonpoint source control implementation programs” adopted by the Regional Board. Thus

² See for example: Basin Plan at 4-65 (RWQCB to develop and take permitting actions to address shade removal; ED to report on status by 8 Sept 2009)(study plan re: hydrologic connection to groundwater by 8 Sept 2007); 4-67 (RWQCB to require Riparian Management Plans. Criteria for plans by 8 Sept 2008).

there is no basis in the law for the Regional Board's assertion that the Waivers are not required to comply with the NPS Policy.

Moreover, according to the Regional Board's website, there are "several programs to address and regulate nonpoint source discharges and pollution."³ Among these programs are both the "Total Maximum Daily Load Implementation" and the "Agricultural Lands Discharge Program." *Id.* The Waivers are nonpoint source control implementation programs, adopted by the Regional Board, that implement TMDLs and regulate discharges from agricultural lands in the region. As such the Waivers must meet the requirements of the NPS Policy.

The Regional Board also attempts to distinguish the Waivers here from the Central Coast Waivers at issue in *Coastkeeper* on grounds that the Central Coast Waivers "addressed a comprehensive irrigated lands waiver ... that applied to the entire Central Coast Region," while the Waivers here "are one component of the non-point source program" in the North Coast region. Response to Comments at 2. But this is legally irrelevant. The Central Coast Waivers were, and remain, one component, among many, of the Central Coast regional board's efforts to control nonpoint source discharges in the region. The Regional Board's reliance on a false distinction between its Waivers and the Central Coast Waivers cannot support the conclusion that the Waivers here need not comply with the NPS Policy.

For the reasons stated above, the Waivers fail to comply with the NPS Policy and the State Board should remand them to the Regional Board to address this failure.

C. The Waivers Do Not Comply with the Anti-Degradation Policy

Resolution No. 68-16, the Anti-Degradation Policy, provides that existing high quality waters must be maintained unless the Regional Board can show that "any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies." The policy also requires the "best practicable treatment or control of the discharge necessary" to assure the highest water quality "consistent with maximum benefit to the people of the State."

³ See https://www.waterboards.ca.gov/northcoast/water_issues/programs/non_point_source/.

In 2012, the California Court of Appeal explained what is required of the Regional Board to ensure compliance with the Anti-Degradation Policy. See *AGUA*, 210 Cal. App. 4th at 1260, (2012). The *AGUA* court explained “the State Board's antidegradation policy applies whenever (a) there is existing high quality water, and (b) an activity which produces or may produce waste or an increased volume or concentration of waste that will discharge into such high quality water.” *Id.* at 1268. As such, the first step in the Anti-Degradation analysis is determining whether the regulated discharges are to high quality waters. *Id.* at 1268. The process for making this determination is set out in Administrative Procedures Update (APU) 90-004, *Antidegradation Policy Implementation for NPDES Permitting* (July 2, 1990) (“APU90-004”). APU 90-004 clarifies that an anti-degradation analysis must be done on a pollutant-by-pollutant basis. APU 90-004 specifically requires the Boards to compare the baseline water quality—which is “the best quality of the receiving water that has existed since 1968”—to the water quality standards for each pollutant. APU 90-004 at 4. It also clarifies that state anti-degradation policy completely prohibits any degradation in waters that do not meet water quality standards. Finally, APU 90-004 identifies specific findings that must be made before degradation of high-quality waters can be allowed. In sum, State anti-degradation requirements mandate that high water quality be maintained, unless degradation is justified based on specific findings. APU 90-004 at 4-5; see also *AGUA* at 1270-1271; *Coastkeeper* at 5-7. And in no case may impaired waters be further degraded. *Id.*

Here, the Regional Board failed to conduct the required first step in Anti-Degradation analysis when adopting the Waivers. The Regional Board made no effort to determine whether the Scott River or the Shasta River are “existing high quality waters.” This failure to evaluate and determine whether the receiving waters are high quality waters is a failure to comply with the Anti-Degradation Policy. See *AGUA* at 1270-1271.

There is no dispute that the activities covered by the Waivers produce waste that is discharged to the Scott River and the Shasta River. Thus there is no question that the Anti-Degradation Policy applies.

Considering the Anti-Degradation Policy applies, the Regional Board also failed to

comply with the Anti-Degradation Policy when adopting the waivers. Instead of evaluating whether “any change [in water quality authorized by the Waivers] will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies,” in both Waivers the Regional Board employs circular logic to conclude that because the measures in the waivers might over time improve existing water quality, no analysis is required. In *AGUA* the court rejected virtually identical circular language relied on by the Central Valley Regional Board. See *AGUA* at 1280; 1260-61, 1271-72 (“The Regional Board has failed to make any such findings. Rather, it argues that the antidegradation policy is inapplicable because the Order states that it ‘does not authorize any further degradation to groundwater.’ We disagree. The wish is not father to the action.”). Just as in *AGUA*, and as in *Coastkeeper*, authorizing discharges by continuing existing terms from previous waivers that resulted in degradation of water quality over the past 12 years on hopes that conditions on discharges will improve water quality is not a substitute for performing the required Anti-Degradation analysis. Because the Regional Board failed to conduct the required analysis when adopting the Waivers, they are illegal.

In its Response to Comments, the Regional Board asserts that “it has made findings in this, and the prior issued versions of the waiver, that the waiver does not allow discharges that will degrade high quality waters, and where degradation may occur the Executive Officer may require additional monitoring.” Response to Comments at 4. However this assertion that the Waivers do not allow discharges that will degrade high quality waters is completely unsubstantiated by any specific findings in the Waivers or by information in the record.

The Regional Board further argues that “under *AGUA*, the baseline for determining degradation is the best water quality that has existed since 1968 minus any degradation that has been authorized by prior order or regulation,” and that the Waivers “are anticipated to reduce and eliminate discharges ... and to result in an improvement over current conditions in the watersheds.” But the relevant question for the Anti-Degradation analysis is not whether there will be an improvement over current conditions. The relevant question is whether the

authorized discharges result in degradation relative to the best water quality since 1968, and if so whether any change in baseline water quality authorized by the Waivers “will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies.” The Regional Board did not conduct an analysis to answer these questions when adopting the Waivers. No analysis of the baseline is provided. Nor is there any analysis of what amount of degradation has been authorized by prior order or regulation. Instead, the Regional Board just assumes that the “current conditions” are the benchmark for evaluating whether the Waivers ensure compliance with the Anti-Degradation Policy. There is no evidence or analysis in the record to support this assertion. Just like in *AGUA*, just saying it is so does not make it so.

The Waivers do not comply with Anti-Degradation Policy, and as such must be remanded to the Regional Board.

8. Service of the Petition

A copy of this Petition was sent to the Regional Board. Because the Waivers regulate “Dischargers” generally, but the dischargers are not required to enroll or otherwise identify themselves publicly, there is no feasible means for sending a copy of this Petition to the dischargers.

9. Exhaustion Before the Regional Board

The issues raised in this Petition were raised before the Regional Board. The Karuk Tribe submitted written comments on 7 July 2017. A copy of the comment letter and its attachments submitted by the Karuk Tribe to the Regional Board is attached as Exhibit C. The RWQCB and the Karuk Tribe conducted a government to government meeting on the Waivers on April 10, 2018, where Karuk Tribe representatives explained that they intended to petition the State Water Resources Control Board for relief if the Waivers were issued as drafted.

Respectfully Submitted,

 /s/ Drevet Hunt

Drevet Hunt
Daniel Cooper

Lawyers for Clean Water, Inc.
Counsel for Karuk Tribe

Exhibit A

**California Regional Water Quality Control Board
North Coast Region**

Order No. R1-2018-0018

**Scott River TMDL Conditional Waiver
of
Waste Discharge Requirements**

The California Regional Water Quality Control Board, North Coast Region, (hereinafter Regional Water Board) finds that:

1. The *Action Plan for the Scott River Sediment and Temperature Total Maximum Daily Loads*, hereinafter known as the Scott River TMDL Action Plan or Action Plan, is incorporated into the Water Quality Control Plan for the North Coast Region (Basin Plan).¹ The Action Plan describes the implementation actions necessary to achieve the Sediment and Temperature TMDLs and attain water quality standards in the Scott River watershed. The Action Plan assigns specific actions for the Regional Water Board and Dischargers² in Table 4-10 of the Basin Plan (Attachment A). The implementation actions are designed to encourage and build upon on-going, proactive restoration and enhancement efforts in the watershed.
2. Pursuant to Water Code section 13269, and consistent with California's [Policy for Implementation and Enforcement of Nonpoint Source Pollution Control Program](#) (May 20, 2004), the Regional Water Board adopted Order No. R1-2006-0081, *Conditional Waiver for Discharges Related to Specific Land Management Activities in the Scott River Watershed North Coast Region* on August 9, 2006 (2006 Order). In the 2006 Order, for Discharges not already authorized under an existing permit or order, the Regional Water Board conditionally waived the requirement for Dischargers to file a Report of Waste Discharge (ROWD) and obtain Waste Discharge Requirements (WDR) pursuant to Water Code section 13269. The 2006 Order applied to Dischargers that participate in specified on-going collaborative programs and implement the measures outlined in the 2006 Order. To be covered under the 2006 Order, Dischargers were required to employ land stewardship practices and activities that minimize, control, and prevent discharges of sediment and elevated solar radiation loads to the Scott River and tributaries.
3. On October 4, 2012 the Regional Water Board adopted Order No. R1-2012-0084 (2012 Order), updating the existing Scott River Conditional Waiver of Waste Discharge Requirements and extending its coverage until October 4, 2017.

¹http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/scott_river/060307/bpl/Basin_Plan_Language.pdf.

²The term "Dischargers" is used in this Order and includes individuals or entities that are responsible for discharges of waste into the Scott River as well as those responsible for maintaining operations that may limit or control discharges of waste.

4. On June 1, 2017 the Regional Water Board initiated a 37 day public comment period on Order No. R1-2017-0031 (2017 Order). On June 14, 2017 the Regional Water Board held a staff workshop in Yreka and on June 29, 2017 held a Board workshop in Santa Rosa to solicit public comment on the draft 2017 Order.
5. This 2018 Order waives the requirement for Dischargers to file a ROWD and obtain WDRs for parties who implement the required conditions of this Order and the associated measures described in Table 4-10 of the Basin Plan (Attachment A) and participate in on-going collaborative programs. The Scott River TMDL Action Plan identifies specific implementation actions that apply to Dischargers responsible for road and sediment waste discharge sites, Dischargers responsible for vegetation that shades water bodies, and Dischargers that conduct grazing activities.
6. The Scott River TMDL Action Plan, the 2006 Order, and the 2012 Order did not include automatic requirements for Dischargers to submit enrollment or annual reporting documents. As with the previous Orders, this 2018 Order does not require active enrollment or annual reporting requirements as a condition of obtaining coverage. The Regional Water Board finds that to efficiently prioritize resources for Order implementation it is appropriate for staff to continue to focus on those activities and Dischargers that pose the highest risk to water quality.
7. The Scott River TMDL Action Plan and this 2018 Order include provisions requiring Grazing and Riparian Management Plans and Erosion Control Plans on an as-needed, site-specific basis when required by the Executive Officer. When required, Grazing and Riparian Management Plans must describe, in detail: (1) sediment waste discharges and sources of elevated water temperatures caused by livestock grazing; (2) how and when such sources are to be controlled and monitored; and (3) management practices that will prevent and reduce future sources. For Dischargers responsible for roads, Erosion Control Plans must describe, in detail, sediment waste discharge sites and how those sites will be controlled.
8. The Scott River TMDL Action Plan and this 2018 Order also provide that monitoring and reporting shall be conducted as required by the Executive Officer. Monitoring shall involve one or more of the following: upslope effectiveness monitoring, instream effectiveness monitoring, and compliance and trend monitoring.
9. Factors that increase risk to water quality include type and intensity of land use, proximity to streams, and the length of stream adjacent to such activities. These factors should be considered in determining when Plans shall be required. Accordingly, this Order directs staff to continue its focus on working with Dischargers whose operations present higher risks to water quality. For timberlands managed for timber production, staff should focus on working with the largest Dischargers responsible for upland road management and sediment control.

10. Plans required by the Regional Water Board Executive Officer can range from a simple submittal describing practices implemented to minimize, control and prevent discharges of sediment or elevated solar radiation to the Scott River and tributaries to a plan that comprehensively describes existing sources of sediment discharge and elevated water temperatures, the management practices employed to minimize, control and prevent the sources, and a monitoring and reporting program to document actions taken to control the sources and the effectiveness of such actions. The level of detail required in a plan will be dependent on the site-specific characteristics of an activity or operation, and will be specified in writing by the Regional Water Board Executive Officer.
11. Dischargers who are not required to submit plans and are not otherwise notified by Regional Water Board staff need not file anything with the Regional Water Board so long as they meet conditions of this Order. All Dischargers are required to comply with the provisions in Table 4-10 of the Action Plan (Attachment A of this Order).
12. This Order provides some examples of the types of management measures that minimize, control, and prevent the discharge of sediment and elevated solar radiation loads to the Scott River watershed, consistent with Table 4-10 of the Action Plan (Attachment A). These types of management measures are the type that will minimize, control, and prevent the discharge of waste and other controllable water quality factors associated with a site. Alternative site-specific management measures that achieve equal or better level of performance as the measures contained in this Order may be developed in consultation with Regional Water Board staff for a specific site and activity.
13. Since the adoption of the 2012 Order, important actions have been taken to improve water quality in the Scott River watershed. Fifteen ranches have been assessed by Regional Water Board staff, including 6 of the 15 largest Dischargers in the watershed, as characterized by risk to water quality, accounting for 55 miles of total stream frontage or approximately 33 percent of the total stream frontage adjacent to private property.
14. Concurrent with these assessments 11 acres of riparian vegetation have been planted, 6 beaver dam analogues have been installed, and 4 major bank stabilization projects have been completed. Additionally, a comprehensive groundwater model has been developed with the support of University of California Davis researchers. This effort has identified management options for increasing flows in the Scott River throughout the summer. Since 2006, a total of \$1.6 million in grant and contract funding has been awarded to implement many of these actions and promote practices that implement the Scott River TMDL Action Plan.
15. The Regional Water Board, acting as the lead agency under the California Environmental Quality Act (Public Resources Code, sections 21000-21777) (CEQA), conducted an environmental analysis as part of the Scott River TMDL development and adoption process in accordance with title 14, California Code of Regulations, section 15251(g). The implementation of this Order (the "project") will not result in any physical changes in the environment different than those that were analyzed in the Scott River TMDL Action Plan. This project will not result in any new impacts to the environment, accordingly this Order

does not require preparation of a subsequent or supplemental environmental document pursuant to California Code of Regulations, title 14, sections 15162 or 15163. There is no evidence to indicate that substantial changes are proposed for the project, that substantial changes have occurred with respect to the circumstances of the project, or that there is new information of substantial importance with respect to the project. The issuance of this Order is also exempt from the provisions of CEQA in accordance with the following categorical exemptions: title 14, California Code of Regulations sections 15301, (existing facilities); 15304, (minor alterations to land); 15306 (information collection); and 15307 and 15308 (certain actions by regulatory agencies to maintain, restore, or enhance natural resources and to protect the environment.) The Regional Water Board will file a notice of determination and exemption after adoption of this Order.

16. State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Resolution No. 68-16), requires Regional Water Boards to regulate the discharge of waste to maintain high quality waters of the State to ensure that discharges will not unreasonably affect beneficial uses and will not result in water quality less than that described in Regional Water Board policies. This Order is the latest in a series of regulatory orders that implement the Scott River TMDL Action Plan and requires Dischargers to take actions that minimize, control, and prevent non-point source discharges in the watershed. This Order is consistent with Resolution No. 68-16 because it requires that Dischargers employ the best practicable treatment and control measures in order to minimize degradation, achieve water quality standards and prevent nuisance. The Scott River TMDL Action Plan and the management measures required by this Order establish an iterative process that includes evaluation and implementation of management practices in a timely manner to minimize, control, and prevent the discharge of waste. These management practices are enforceable through this Order, and the effectiveness of these measures will be verified through monitoring and reporting as required by the Executive Officer. The Regional Water Board anticipates that any changes in water quality that may occur as a result of Order implementation will, over time, reflect an improvement in water quality, not degradation. Thus, any change in water quality will be consistent with maximum benefit to the people of the State and will not unreasonably affect beneficial uses.
17. The Regional Water Board determines that the adoption of this Order is consistent with the Basin Plan, all applicable statewide plans and policies, is in the public interest, and will not have a significant adverse impact on the environment.
18. Following the expiration or replacement of this 2018 Order, the Regional Water Board intends to address water quality concerns associated with agriculture in the Scott River watershed through a permitting program (i.e. order) more consistent with approaches implemented in other parts of the state. The future order is anticipated to follow the same general approach as this 2018 Order, requiring Dischargers to proactively implement land stewardship practices and activities that minimize, control, and prevent discharges of sediment and solar radiation loads to the Scott River and tributaries. The future order would continue to involve on-site water quality assessments with Regional Water Board staff. However, the future order may differ from this Order by incorporating

a tiered structure, employing multiple levels of permitting rigor commensurate with the level of discharge or threat of discharge, and may require active enrollment procedures and payment of fees. It is likely that the lowest risk tier would be for those properties that have already been assessed by Regional Water Board staff and successfully implemented practices that minimize, control, and prevent discharges of sediment and solar radiation loads to the Scott River and tributaries. Higher tiers with increased monitoring and reporting requirements would likely apply to those properties that have not developed plans or taken actions to comply with the conditions of this 2018 Order. Any future order would be subject to noticing and public comment before consideration of adoption by the Regional Water Board.

THEREFORE, IT IS HEREBY ORDERED that pursuant to Water Code sections 13263, subdivision (a), 13267, and 13269, the Regional Water Board waives the requirement to submit a Report of Waste Discharge and the requirement to establish Waste Discharge Requirements for Dischargers in the Scott River watershed that comply with the following conditions:

1. Dischargers that are implementing applicable management measures outlined in this Order will be considered eligible for coverage under this Order. Such Dischargers shall employ land stewardship practices as described below and in Attachment A of this Order.
2. If required in writing by the Regional Water Board Executive Officer, Dischargers shall provide Grazing and Riparian Management Plans, and/or Erosion Control Plans as required.
3. The Regional Water Board Executive Officer may direct the Discharger to develop and implement a site specific monitoring and reporting plan, which upon request, shall be submitted for the Executive Officer's review and approval. Monitoring and reporting may include, but is not limited to, the following:
 - a. Photo documentation related to implementation of management measures;
 - b. Evaluation and documentation of instream and near-stream management measures (e.g., riparian buffer establishment affecting sediment and temperature discharges);
 - c. Stream temperature monitoring;
 - d. Collection of tailwater data, including impacts from tailwater discharge (e.g. collection of water temperature, nutrients, or dissolved oxygen data in tailwater and receiving water and estimates of tailwater discharge volumes);
 - e. Annual summary of progress towards implementing management measures in an approved Grazing and Riparian Management Plan and/or Erosion Control Plan, or other activities designed to minimize, control, and prevent potential water quality impacts; and
 - f. Results of specific monitoring requirements.
4. When any plan as described above is required and subsequently approved by the Executive Officer, the Discharger shall implement the plan. Failure to submit or implement the plan as approved is a violation of this Order.

5. Dischargers shall comply with management measures that minimize, control, and prevent the discharge of sediment and elevated solar radiation loads that affect the Scott River watershed. The following are management measures that will minimize, control, and prevent the discharge of sediment and elevated solar radiation loads to the Scott River watershed. Dischargers shall implement management measures to comply with these standard conditions or management measures developed in consultation with Regional Water Board staff that provide equal or better protection:
 - a. Riparian areas are managed in a manner that allows the natural establishment and abundance of native vegetation;
 - b. Riparian areas are managed in a manner that allows sufficient vegetation to minimize, control, and prevent surface erosion;
 - c. Riparian areas are managed in a manner that maintains their essential functions supporting beneficial uses (e.g. sediment filtering, woody debris recruitment, streambank stabilization, nutrient cycling, pollutant filtering, shading);
 - d. Grazed lands are managed in a manner that minimizes, controls, and prevents pollutant discharges;
 - e. Periodic grazing in riparian areas is limited to the late winter/early spring period, when impacts to woody species are minimized;
 - f. Grazing within riparian corridors occurs for short durations, and only when forage consisting of non-woody vegetation is available;
 - g. Livestock are removed from riparian areas when stubble height reaches 4 inches, or livestock shift preference to browsing of woody species, whichever occurs first;
 - h. Livestock are prevented from disturbing sediment discharge sites and other unstable features adjacent to watercourses;
 - i. At no time shall grazing in riparian areas cause a discharge of waste to surface waters;
 - j. Manure, soil, plant waste, and other debris are stockpiled away from areas where they could be washed or eroded into surface waters;
 - k. Management practices are in place to minimize, control, and prevent irrigation water or tailwater from reaching surface waters;
 - l. Tillage practices do not prevent the natural establishment and abundance of native riparian vegetation;
 - m. Management practices, such as buffer strips and cover crops, are in place to minimize, control, and prevent the erosion of sediments that could reach surface waters;
 - n. Nutrients from fertilizers, compost, soil amendments, or other sources are applied at agronomic rates to minimize, control, and prevent nutrient runoff into surface water or percolation into groundwater at levels that violate water quality standards;
 - o. Roads and related infrastructure are constructed and maintained in a manner that minimizes, controls, and prevents the discharge of sediment to surface waters;
 - p. Pesticides are stored, handled, applied, and disposed of in manner that minimizes, controls, and prevents discharge to surface water or groundwater; and
 - q. Petroleum products and other liquid chemicals, such as gasoline, diesel, biodiesel, and oil shall be stored, handled, used, and disposed of in a manner that minimizes, controls, and prevents discharge to surface water or groundwater.

6. This Order shall not apply to any discharges for which an individual WDR or waiver of WDRs has been issued by the Regional Water Board. It also does not supersede or limit the requirements of any enforcement actions (e.g. cleanup and abatement orders) that are issued by the State Water Board or Regional Water Board.
7. Pursuant to Water Code section 13267, the Regional Water Board staff or its authorized representatives may investigate the property of persons subject to this Order to ascertain whether the purposes of the Porter-Cologne Act are being met and whether the discharger is complying with the conditions of this Order. This inspection shall be made with the consent of the landowner, or if consent is withheld, with a duly issued warrant pursuant to the procedure set forth in Title 13 Code of Civil Procedure Part 3 (commencing with section 1822.50). However, in the event of an emergency affecting the public health or safety, an inspection may be performed without consent or the issuance of a warrant.
8. Nothing in this Order precludes the Regional Water Board from taking enforcement actions for violations of any discharge prohibitions in the Basin Plan, California Water Code, or to require clean up and abatement of existing sources of pollution, where appropriate.
9. This Order shall not create a vested right, and discharges of waste shall be considered a privilege, as provided for in Water Code section 13263 subdivision (g).
10. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). Dischargers are responsible for meeting all other applicable requirements of local, state, and federal regulations and/or required permits.
11. Discharges shall not cause conditions of pollution or nuisance as defined by Water Code section 13050.
12. This Order does not preclude the need for permits that may be required by other governmental agencies, nor does it supersede any requirements, ordinances, or regulations of any other regulatory agency, including necessary certification and permitting for the application of pesticides and herbicides and proper handling of human/domestic waste.
13. This Order expires five years following the date of adoption or when the Regional Water Board or State Water Board adopts a regulatory action that explicitly supersedes this Order, whichever occurs first.

Certification

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of Order R1-2018-0018, adopted by the California Regional Water Quality Control Board, North Coast Region, on April 19, 2018.



Digitally signed
by Matthias
St John
Date: 2018.05.16
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Matthias St. John
Executive Officer

Attachment A

4. IMPLEMENTATION PLANS

Table 4-10 Scott River Sediment and Temperature TMDL Implementation Actions*		
Topic	Responsible Parties	Actions
Roads & Sediment Waste Discharges	<ul style="list-style-type: none"> Parties Responsible for Roads and Sediment Waste Discharge Sites. Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board encourages parties responsible for roads and sediment waste discharge sites to take actions necessary to prevent, minimize, and control road-caused sediment waste discharges. Such actions may include the inventory, prioritization, control, monitoring, and adaptive management of sediment waste discharge sites and proper road inspection and maintenance. The Regional Water Board's Executive Officer shall require parties responsible for roads, on an as-needed, site-specific basis, to develop and submit an Erosion Control Plan and a Monitoring Plan. An Erosion Control Plan shall describe, in detail, sediment waste discharge sites and how and when those sites are to be controlled. By September 8, 2008, criteria shall be developed for determining when an Erosion Control Plan shall be required, although nothing precludes the Executive Officer from requiring Erosion Control Plans prior to this date. Should discharges or threatened discharges of sediment waste that could negatively affect the quality of waters of the State be identified in an Erosion Control Plan or by other means, dischargers shall be required to implement their Erosion Control Plan and monitor sediment waste discharge sites through appropriate permitting or enforcement actions.
Roads	<ul style="list-style-type: none"> California Department of Transportation (Caltrans). Regional Water Board. 	<ul style="list-style-type: none"> Regional Water Board staff shall evaluate the effects of Caltrans' state-wide NPDES permit, storm water permit, and waste discharge requirements (collectively known as the Caltrans Storm Water Program) by September 8, 2008. The evaluation shall determine the adequacy and effectiveness of the Caltrans Storm Water Program in preventing, reducing, and controlling sediment waste discharges and elevated water temperatures in the North Coast Region, including the Scott River watershed. If Regional Water Board staff find that the Caltrans Storm Water Program is not adequate and effective, Regional Water Board staff shall develop specific requirements, for State Water Board consideration, to be incorporated into the Caltrans Storm Water Program at the earliest opportunity, or the Regional Water Board shall take other appropriate permitting or enforcement actions.
Roads	<ul style="list-style-type: none"> County of Siskiyou (County). Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board and the County shall work together to draft and finalize a Memorandum of Understanding (MOU) to address county roads in the Scott River watershed. The MOU shall be drafted and ready for consideration by the appropriate decision-making body(ies) of the County by September 8, 2008. The following items shall be addressed during MOU development: <ol style="list-style-type: none"> A date for the initiation and completion of an inventory of all sediment waste discharge sites caused by county roads within the Scott River watershed, which can be done with assistance from the Five Counties Salmonid Conservation Program. A date for the completion of a priority list of sediment waste discharge sites. A date for the completion of a schedule for the repair and control of sediment waste discharge sites. A date for the completion of a document describing the sediment control practices to be implemented by the County to repair and control sediment waste discharge sites, which can be done with assistance from the Five Counties Salmonid Conservation Program. A description of the sediment control practices, maintenance practices, and other management measures to be implemented by the County to prevent future sediment waste discharges, which can be done with assistance from the Five Counties Salmonid Conservation Program. A monitoring plan to ensure that the sediment control practices are implemented as proposed and effective at controlling discharges of sediment waste. A commitment by the County to complete the inventory, develop the priority list, develop and implement the schedule, develop and implement sediment control practices, implement the monitoring plan, and conduct adaptive management.

Table 4-10 Scott River Sediment And Temperature TMDL Implementation Actions* (cont.)		
Topic	Responsible Parties	Actions
Grading	<ul style="list-style-type: none"> County of Siskiyou (County). Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board encourages the County to develop a comprehensive ordinance addressing roads, land disturbance activities, and grading activities outside of subdivisions in the Scott River watershed, or an equivalent County-enforceable mechanism, by September 8, 2008. The ordinance may be specific to the Scott River watershed or county-wide in scope.
Dredge Mining	<ul style="list-style-type: none"> Regional Water Board. 	<ul style="list-style-type: none"> Regional Water Board staff shall review laws and regulations that address water quality effects of suction dredge mining and shall investigate the impact of suction dredge mining activities on sediment and temperature loads in the Scott River watershed by September 8, 2009. If Regional Water Board staff find that dredge mining activities are discharging deleterious sediment waste and/or resulting in elevated water temperatures, staff shall propose, for Board consideration, the regulation of such discharges through appropriate permitting or enforcement actions.
Temperature & Vegetation	<ul style="list-style-type: none"> Parties Responsible for Vegetation that Shades Water Bodies. Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board encourages parties responsible for vegetation that provides shade to a water body in the Scott River watershed to preserve and restore such vegetation. This may include planting riparian trees, minimizing the removal of vegetation that provides shade to a water body, and minimizing activities that might suppress the growth of new or existing vegetation (e.g., allowing cattle to eat and trample riparian vegetation). To address compliance with the Nonpoint Source Policy, the Regional Water Board shall develop and take appropriate permitting and enforcement actions to address the human-caused removal and suppression of vegetation that provides shade to a water body in the Scott River watershed. The Regional Water Board's Executive Officer shall report to the Regional Water Board on the status of the preparation and development of appropriate permitting and enforcement actions by September 8, 2009.
Water Use	<ul style="list-style-type: none"> Water Users. County of Siskiyou (County). Stakeholders. Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board encourages water users to develop and implement water conservation practices. The Regional Water Board requests the County, in cooperation with other appropriate stakeholders, to study the connection between groundwater and surface water, the impacts of groundwater use on surface flow and beneficial uses, and the impacts of groundwater levels on the health of riparian vegetation in the Scott River watershed. The study should: (1) consider groundwater located both within and outside of the interconnected groundwater area delineated in the Scott River Adjudication,** (2) the amount of water transpired by trees and other vegetation, and (3), if deleterious impacts to beneficial uses are found, identify potential solutions including mitigation measures and changes to management plans. Should the County determine that it and its stakeholders are able to commit to conducting the above study, the County, in cooperation with other stakeholders, shall develop a study plan by September 8, 2007. The study plan shall include: (1) goals and objectives; (2) data collection methods; (3) general locations of data collection sites; (4) data analysis methods; (5) quality control and quality assurance protocols; (6) responsible parties; (7) timelines and due dates for data collection, data analysis, and reporting; (8) financial resources to be used; and (9) provisions for adaptive change to the study plan and to the study based on additional study data and results, as they are available.
Flood Control & Bank Stabilization	<ul style="list-style-type: none"> Parties Responsible for Flood Control Structures or Dredge, Fill, and/or Bank Stabilization Activities. Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board encourages parties responsible for levees and other flood control structures to plant and restore stream banks on and around existing flood control structures. The Regional Water Board shall rely on existing authorities and regulatory tools, such as the 401 Water Quality Certification program, to ensure that flood control and bank stabilization activities in the Scott River watershed are conducted in a manner that minimizes the removal or suppression of vegetation that provides shade to a water body, prevents or minimizes sediment delivery, and minimizes changes in channel morphology that could increase water temperatures.

4. IMPLEMENTATION PLANS

Table 4-10 Scott River Sediment And Temperature TMDL Implementation Actions* (cont.)		
Topic	Responsible Parties	Actions
Timber Harvest	<ul style="list-style-type: none"> • Private & Public Parties Conducting Timber Harvest Activities. • Habitat Conservation Plan Holders. • Regional Water Board. 	<ul style="list-style-type: none"> • The Regional Water Board shall use appropriate permitting and enforcement tools to regulate discharges from timber harvest activities in the Scott River watershed, including, but not limited to, cooperation with, and participation in, the California Department of Forestry and Fire Protection’s timber harvest project approval process. • The Regional Water Board shall use, where applicable, general or specific waste discharge requirements and waivers of waste discharge requirements to regulate timber harvest activities on private and public lands in the Scott River watershed. • Timber harvest activities on private lands in the Scott River watershed are not eligible for Categorical Waiver C included in the Categorical Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region (Order No. R1-2004-0016, as it may be amended or updated for time to time) simply through the adoption of this TMDL Action Plan. However, timber harvest activities on private lands in the Scott River watershed may be eligible for Categorical Waivers A, B, D, E, and F, as appropriate. • Where a Habitat Conservation Plan (HCP) is developed, Regional Water Board staff shall work with the HCP holder to develop, for Board consideration, ownership-wide waste discharge requirements for activities covered by the HCP, with any additional restrictions necessary to protect water quality and beneficial uses. • If current laws and regulation governing timber harvest (e.g., the Forest Practice Rules) are changed in a manner that reduces water quality protections, the Regional Board will use its authorities to maintain at a minimum the current level of water quality protection.
U.S. Forest Service & U.S. Bureau of Land Management	<ul style="list-style-type: none"> • U.S. Forest Service (USFS). • U.S. Bureau of Land Management (BLM). • Regional Water Board. 	<ul style="list-style-type: none"> • The Regional Water Board and federal land management agencies, including the USFS and the BLM, shall work together to draft and finalize Memoranda of Understanding (MOU) that shall address sediment waste discharges, elevated water temperatures, and grazing activities within the Scott River watershed. The MOUs shall be drafted and ready for consideration by the appropriate decision-making body(ies) by September 8, 2008. The following items shall be addressed during MOU development: Contents Related to Sediment Waste Discharges: <ol style="list-style-type: none"> 1. A date for the completion of an inventory of all significant sediment waste discharge sites and all roads on USFS/BLM land. 2. A date for the completion of a priority list. 3. A date for the completion of a schedule for the repair and control of significant sediment waste discharge sites. 4. A date for the completion of a document describing the sediment control practices to be implemented by the USFS/BLM to repair and control sediment waste discharge sites. 5. A description of sediment control practices, road maintenance practices, and other management measures to be implemented by the USFS/BLM to prevent or minimize future sediment waste discharges. 6. A monitoring plan to ensure that sediment control practices are implemented as proposed and are effective at controlling discharges of sediment waste. 7. A commitment by the USFS/BLM to complete the inventory, develop the priority list, develop and implement the schedule, develop and implement sediment control practices, implement the monitoring plan, and conduct adaptive management. Contents Related to Elevated Water Temperatures: <ol style="list-style-type: none"> 8. A commitment by the USFS/BLM to continue to implement the Riparian Reserve buffer width requirements. 9. A monitoring plan to ensure that the Riparian Reserve buffer widths are effective at preventing or minimizing effects on natural shade. 10. A commitment by the USFS/BLM to implement the Riparian Reserve monitoring plan and conduct adaptive management.

Table 4-10 Scott River Sediment And Temperature TMDL Implementation Actions* (cont.)		
Topic	Responsible Parties	Actions
U.S. Forest Service & U.S. Bureau of Land Management	<ul style="list-style-type: none"> U.S. Forest Service (USFS). U.S. Bureau of Land Management (BLM). Regional Water Board. 	<p>Continued from previous page.</p> <p>Contents Related to Grazing Activities:</p> <ol style="list-style-type: none"> A date for the completion of a description of grazing management practices and riparian monitoring activities implemented in grazing allotments on USFS/BLM lands. A commitment by the USFS/BLM and the Regional Water Board to determine if existing grazing management practices and monitoring activities are adequate and effective at preventing, reducing, and controlling sediment waste discharges and elevated water temperatures. A commitment by the USFS/BLM to develop revised grazing management practices and monitoring activities, should existing measures be inadequate or ineffective, subject to the approval of the Regional Water Board's Executive Officer. A commitment by the USFS/BLM to implement adequate and effective grazing management practices and monitoring activities and to conduct adaptive management.
Grazing	<ul style="list-style-type: none"> Private Parties Conducting Grazing Activities. Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board encourages the parties responsible for grazing activities to take necessary actions to prevent, minimize, and control sediment waste discharges and elevated water temperatures. The Regional Water Board's Executive Officer shall require parties responsible for grazing activities on private lands in the Scott River watershed to develop, submit, and implement a Grazing and Riparian Management Plan and a Monitoring Plan on an as-needed, site-specific basis. A Grazing and Riparian Management Plan shall describe, in detail, (1) sediment waste discharges and sources of elevated water temperatures caused by livestock grazing, (2) how and when such sources are to be controlled and monitored, and (3) management practices that will prevent and reduce future sources. By September 8, 2008, criteria shall be developed for determining when a Grazing and Riparian Management Plan shall be required, although nothing precludes the Executive Officer from requiring Grazing and Riparian Management Plans prior to this date. Should human activities that will likely result in sediment waste discharges and/or elevated water temperatures be proposed or identified, through a Grazing and Riparian Management Plan or by other means, the responsible party(ies) shall be required to implement their Grazing and Riparian Management Plans and monitor through appropriate permitting or enforcement actions.
Siskiyou RCD & Scott River Watershed Council	<ul style="list-style-type: none"> Siskiyou Resource Conservation District (SRCD). Scott River Watershed Council (SRWC). Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board and staff shall increase efforts to work cooperatively with the SRCD and SRWC to provide technical support and information to landowners and stakeholders in the Scott River watershed and to coordinate educational and outreach efforts. The Regional Water Board shall encourage the SRWC to (1) implement the strategic actions specified in the Strategic Action Plan and (2) assist landowners in developing and implementing management practices that are adequate and effective at preventing, minimizing, and controlling sediment waste discharges and elevated water temperatures.
Natural Resources Conservation Service and University of California Cooperative Extension	<ul style="list-style-type: none"> Natural Resources Conservation Service (NRCS). University of California Cooperative Extension (UCCE) Regional Water Bd 	<ul style="list-style-type: none"> The Regional Water Board shall increase efforts to work cooperatively with the NRCS and UCCE to provide technical support and information to responsible parties and stakeholders in the Scott River watershed and to coordinate educational and outreach efforts.
CA Dept. of Fish and Game	<ul style="list-style-type: none"> CA Depart. of Fish & Game (CDFG). Regional Water Board. 	<ul style="list-style-type: none"> The Regional Water Board shall encourage the CDFG and aid, where appropriate, in the implementation of necessary tasks, actions, and recovery recommendations as specified in the Recovery Strategy for California Coho Salmon (CDFG 2004) in the Scott River watershed.

* Although the Regional Water Board prefers to pursue the implementation actions listed in Table 4-10, the Regional Water Board shall take appropriate permitting and/or enforcement actions should any of the implementation actions fail to be implemented by the responsible party or should the implementation actions prove to be inadequate.

** Superior Court of Siskiyou County. 1980. Scott River Adjudication: Decree No. 30662.

4. IMPLEMENTATION PLANS

IX. Glossary

Adjusted Potential Effective Shade:

The percentage of direct beam solar radiation attenuated and scattered before reaching the ground or stream surface from the potential vegetation conditions, reduced by 10% to account for natural disturbances such as fire, windthrow, disease, and earth movements that reduce the actual riparian vegetation below the site potential.

Compliance and Trend Monitoring:

Monitoring intended to determine, on a watershed scale, if water quality standards are being met, and to track progress towards meeting water quality standards.

Effective Shade:

The percentage of direct beam solar radiation attenuated and scattered before reaching the ground or stream surface from topographic and vegetation conditions.

Groundwater Accretion:

The gradual increase in surface flow in a stream resulting from the influx of groundwater.

Implementation Monitoring:

Monitoring used to assess whether activities and control practices were carried out as planned. This type of monitoring can be as simple as photographic documentation, provided that the photographs are adequate to represent and substantiate the implementation of control practices.

Instream Effectiveness Monitoring:

Monitoring of instream conditions to assess whether sediment control practices are effective at keeping waste sediment from being discharged to a water body. Instream effectiveness monitoring may be conducted upstream and downstream of the discharge point or before, during, and after the implementation of sediment control practices.

Potential Vegetation Conditions:

The most advanced seral stage that nature is capable of developing and making actual at a site in the absence of human interference. Seral stages are the series of plant communities that develop during ecological succession from bare ground to the climax community (e.g., fully mature, old-growth).

Road:

Any vehicle pathway, including, but not limited to: paved roads, dirt roads, gravel roads, public roads and highways, private roads, rural residential roads

and driveways, permanent roads, temporary roads, seasonal roads, inactive roads, trunk roads, spur roads, ranch roads, timber roads, skid trails, and landings which are located on or adjacent to a road.

Salmonids:

Fish species in the family Salmonidae, including but not limited to, salmon, trout, and char.

Sediment:

Any inorganic or organic earthen material, including, but not limited to: soil, silt, sand, clay, and rock.

Sediment Waste:

Sediment that is generated directly or indirectly by anthropogenic activities or projects.

Sediment Waste Discharge Site:

An individual, anthropogenic erosion site that is currently discharging or has the potential to discharge sediment waste to waters of the State.

Thermal Refugia:

Colder areas within a water body that provide cold water refuge from unsuitably warm water.

Timber Harvest Activities:

Commercial and non-commercial activities relating to forest management and timberland conversions. These activities include the cutting or removal of both timber and other solid wood forest products, including Christmas trees. These activities include, but not limited to, construction, reconstruction and maintenance of roads, fuel breaks, firebreaks, watercourse crossings, landings, skid trails, or beds for the falling of trees; fire hazard abatement and fuel reduction activities; burned area rehabilitation; and site preparation that involves disturbance of soil or burning of vegetation following timber harvesting activities; but excluding preparatory tree marking, surveying, or road flagging.

Upslope Effectiveness Monitoring:

Monitoring intended to determine, by assessing upslope conditions, if sediment control practices are effective at keeping waste sediment from being discharged to a water body. This type of monitoring can be as simple as photographic documentation, provided that the photographs are adequate to represent and substantiate that the sediment control practices are effective.

Exhibit B

**California Regional Water Quality Control Board
North Coast Region**

Order No. R1-2018-0019

**Shasta River TMDL Conditional Waiver
of
Waste Discharge Requirements**

**The California Regional Water Quality Control Board, North Coast Region,
(hereinafter Regional Water Board) finds that:**

1. The *Action Plan for the Shasta River Temperature and Dissolved Oxygen Total Maximum Daily Loads*, hereinafter the Shasta River TMDL Action Plan or Action Plan, was adopted by the California North Coast Regional Water Quality Control Board (Regional Water Board) on June 28, 2006, (Resolution No. R1-2006-0052) and amended into the *Water Quality Control Plan for the North Coast Region* (Basin Plan) on January 26, 2007, following approval by the United States Environmental Protection Agency.¹ The Action Plan describes the implementation actions necessary to achieve the Temperature and Dissolved Oxygen TMDLs and attain water quality standards in the Shasta River watershed. Table 4-14 of the Action Plan (Attachment A of this Order) sets forth specific implementation actions required of the Regional Water Board and Dischargers² to achieve these standards.
2. The Action Plan also contains a provision conditionally waiving the requirement to file a Report of Waste Discharge (ROWD) and obtain Waste Discharge Requirements (WDR), pursuant to Water Code section 13269, for Dischargers that choose to participate in on-going collaborative programs and implement applicable management measures outlined in Table 4-14 of the Action Plan.
3. Pursuant to Water Code section 13269, and consistent with California's [Policy for Implementation and Enforcement of Nonpoint Source Pollution Control Program](#) (May 20, 2004), the Regional Water Board adopted the Shasta River TMDL Conditional Waiver of Waste Discharge Requirements (Order No. R1-2012-0083 or 2012 Order) on October 4, 2012. To be eligible for coverage under the 2012 Order, the Dischargers are required to employ land stewardship practices and activities that minimize, control, and prevent discharges of fine sediment, nutrients (including animal waste), other oxygen consuming materials, and elevated solar radiation loads (including loss of riparian vegetation) to the Shasta River and tributaries. Order No. R1-2012-0083 expired on October 4, 2017.

¹http://www.waterboards.ca.gov/northcoast/water_issues/programs/tmdls/shasta_river/060707/finalshastatmdlactionplan.pdf

² The term "Dischargers" is used in this Order and includes individuals or entities that are responsible for discharges of waste into the Shasta River watershed as well as those responsible for maintaining operations that may limit or control discharges of waste.

4. On June 1, 2017, the Regional Water Board initiated a 37 day public comment period on Order No. R1-2017-0032 (2017 Order). On June 14, 2017, the Regional Water Board held a staff workshop in Yreka and on June 29, 2017, held a Board workshop in Santa Rosa to solicit public comment on the draft 2017 Order.
5. The Regional Water Board finds that to efficiently prioritize resources for Order implementation it is appropriate for staff to continue to focus on those activities and Dischargers that pose the highest risk to water quality. Regional Water Board staff are prioritizing staff efforts on a subset of Dischargers with operations adjacent to reaches of the Shasta River and its tributaries with high habitat value for support of beneficial uses and activities with the highest risk to water quality.
6. Factors used to determine risk to water quality include type and intensity of land use, proximity to streams, and the length of stream adjacent to such activities. Accordingly, this Order directs staff to continue its focus on working with Dischargers whose operations present higher risks to water quality. Factors that increase risk to water quality of the Shasta River watershed include, but are not limited to:
 - Excessive animal grazing in riparian corridors, including grazing that occurs after forage length is less than four inches, or grazing when animals favor woody species;
 - Unrestricted animal access to the Shasta River, tributary reaches, or springs and their associated wetlands in the Shasta River watershed, which can result in discharge of animal waste to surface waters;
 - Feeding in close proximity to riparian corridors, which increases the introduction of animal waste into surface waters;
 - Storage or stockpiling of manure, soil, plant waste and other debris in areas where they could be washed or eroded into surface waters;
 - Storage of chemical fertilizers, pesticides, fuels, oils and other potentially hazardous substances or nutrient containing substances in areas where they could be readily introduced to surface waters;
 - Application of nutrients, compost, soil amendments, irrigation water, or other materials above the agronomic rate, or in a manner whereby excess water or nutrients percolate beyond the root zone and into groundwater, or run off into surface waters;
 - Tillage practices that inhibit the development of riparian vegetation and/or lead to excessive loading of sediment into surface waters;
 - Unpermitted alterations to streambanks and streambeds;
 - Creating or maintaining unpermitted impoundments of surface water that lead to elevated surface water temperatures; and
 - Unmitigated tailwater return flows to main stem and tributary reaches, or into springs and their associated wetlands such that elevated surface water temperatures result.

7. This Order requires Dischargers to provide Regional Water Board staff access to properties for the purposes of assessing compliance with this Order.
8. The Shasta River TMDL Action Plan and this 2018 Order authorize the Regional Water Board Executive Officer on a site specific, as-needed basis to require the development, submittal, and implementation of Ranch Management Plans and/or Tailwater Management Plans designed to minimize, control, and prevent discharges of fine sediment, nutrients and oxygen consuming material, as well as elevated solar radiation loads, from violating water quality standards in the Shasta River watershed.
9. Ranch Management Plans and Tailwater Management Plans can range from a simple submittal describing practices implemented to prevent discharge of waste, including fine sediment, nutrients and oxygen consuming material, as well as elevated solar radiation loads, from affecting waters in the Shasta River watershed, to a more comprehensive plan. More comprehensive plans could include, but are not limited to, identification and description of:
 - Existing sources of waste or tailwater discharges and other nonpoint source activities;
 - Management practices employed to minimize, control, and prevent discharges from those sources and activities; and
 - Monitoring and reporting program to document actions taken to control the sources and the effectiveness of such actions.

The level of detail required in a plan will be dependent on the site specific characteristics of an activity/operation, and will be specified in writing by the Regional Water Board Executive Officer.

10. The Shasta River TMDL Action Plan and this 2018 Order, provide that the Regional Water Board Executive Officer may direct the Dischargers to develop a site specific monitoring and reporting plan, including a description of specific monitoring and reporting requirements. Monitoring and reporting may include, but is not limited to, the following:
 - Photo documentation related to implementation of management measures;
 - Evaluation and documentation of instream and near-stream management measures (e.g., riparian buffer establishment affecting nutrient and temperature discharges); and/or
 - Collection of tailwater data, including impacts from tailwater discharge (e.g. collection of water temperature, nutrients, or dissolved oxygen data in tailwater and receiving water and estimates of tailwater discharge volumes).

The level of detail required in a site specific monitoring and reporting plan will be dependent on the site-specific characteristics of an activity/operation, and will be specified in writing by the Regional Water Board Executive Officer.

11. The landowners who do not receive a letter requiring development and submittal of plans and/or other documentation (described in findings 9-11) need not file anything with the Regional Water Board and need not submit annual reports as previously required by the Shasta River TMDL Action Plan and the 2012 Order as long as they meet eligibility criteria and conditions of this 2018 Order. Regardless, all Dischargers are still required to comply with the provisions in Table 4-14 of the Action Plan (Attachment A of this Order). Appendices A through G of the Action Plan provide examples of applicable management measures that Dischargers should consider as part of their land stewardship activities.
12. This Order provides some examples of the types of management measures that minimize, control, and prevent the discharge of sediment and elevated solar radiation loads to the Shasta River watershed, consistent with Table 4-14 of the Action Plan (Attachment A). These management measures will minimize, control, and prevent the discharge of waste and other controllable water quality factors associated with a site. Alternative site-specific management measures that achieve the equal or better level of performance as the measures contained in this Order may be developed in consultation with Regional Water Board staff for a specific site and activity.
13. Since adoption of the 2012 order, progress toward attaining the TMDL has been made utilizing an approach focused on activities with the highest risk to water quality. This progress in the Shasta River watershed includes the installation of 24 stockwater systems, 8 irrigation efficiency projects, 6 projects that divert tailwater return flow, and 3,750 linear feet of riparian plantings. Additionally, 23 ranches have been assessed by Regional Water Board staff. Approximately 133 miles of riparian fencing have been installed since the adoption of the Action Plan, protecting 91 percent of the mainstem of the Shasta River, 60 percent of the Little Shasta River, 49 percent of Parks Creek, 60 percent of Yreka Creek, and a cumulative 61 percent of the entire stream reach length of the Shasta River system. Since 2006, approximately \$3.3 million has been awarded in grants to complete these projects and to support ongoing stewardship efforts within the watershed to implement the Action Plan.
14. Tailwater discharges continue to be one of the most significant and controllable threats to water quality subject to Regional Water Board regulatory jurisdiction, as does the lack of riparian fencing along tributaries of the Shasta River. Flow and increasing dedicated cold water to the Shasta River watershed is a high priority with efforts underway by Dischargers, The Nature Conservancy, Cal Trout, Montague Water Conservation District, Shasta Valley Resource Conservation District, and the National Marine Fisheries Service.

15. The Regional Water Board, acting as the lead agency under the California Environmental Quality Act (Public Resources Code, sections 21000-21777) (CEQA), conducted an environmental analysis as part of the Shasta River TMDL development and adoption process in accordance with title 14, California Code of Regulations, section 15251(g). The implementation of this Order (the “project”) will not result in any physical changes in the environment different from those that were analyzed in the Shasta River TMDL Action Plan. This Order does not require preparation of a subsequent or supplemental environmental document pursuant to California Code of Regulations, title 14, sections 15162 or 15163. There is no evidence to indicate that substantial changes are proposed for the project, that substantial changes have occurred with respect to the circumstances of the project, or that there is new information of substantial importance with respect to the project. The issuance of this Order is also exempt from the provisions of CEQA in accordance with the following categorical exemptions: title 14, California Code of Regulations sections 15301, (existing facilities); 15304, (minor alterations to land); 15306 (information collection); and 15307 and 15308 (certain actions by regulatory agencies to maintain, restore, or enhance natural resources and to protect the environment.) The Regional Water Board will file a notice of determination and exemption after adoption of this Order.
16. State Water Board Resolution No. 68-16, *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (Resolution No. 68-16), requires Regional Water Boards to regulate the discharge of waste to maintain high quality waters of the State to ensure that discharges will not unreasonably affect beneficial uses and will not result in water quality less than that described in Regional Water Board policies. This Order is the latest in a series of regulatory orders that implement the Shasta River TMDL Action Plan and requires Dischargers to take actions that minimize, control, and prevent non-point source discharges in the watershed. This Order is consistent with Resolution No. 68-16 because it requires that Dischargers employ the best practicable treatment and control measures in order to minimize degradation, achieve water quality standards and prevent nuisance. The Shasta River TMDL Action Plan and management measures required by this Order establish an iterative process that includes evaluation and implementation of management practices in a timely manner to minimize, control, and prevent the discharge of waste. These management practices are enforceable through this Order and the effectiveness of these measures will be verified through monitoring and reporting as required by the Executive Officer. The Regional Water Board anticipates that any changes in water quality that may occur as a result of Order implementation will, over time, reflect an improvement in water quality, not degradation. Thus, any change in water quality will be consistent with the maximum benefit to the people of the State and will not unreasonably affect beneficial uses.

17. The Regional Water Board determines that the adoption of this Order will be consistent with the Basin Plan, all applicable statewide plans and policies, is in the public interest, and will not have a significant adverse impact on the environment.
18. Following the expiration or replacement of this 2018 Order, the Regional Water Board intends to address water quality concerns associated with agriculture in the Shasta River watershed through a permitting program (i.e. order) more consistent with approaches implemented in other parts of the state. The future order is anticipated to follow the same general approach as this 2018 Order, requiring the Dischargers to proactively implement land stewardship practices and activities that minimize, control, and prevent discharges of fine sediment, nutrients, oxygen consuming materials, and elevated solar radiation loads to the Shasta River and tributaries. The future order would continue to involve on-site water quality assessments with Regional Water Board staff. However, the future order may differ from this Order by incorporating a tiered structure, employing multiple levels of permitting rigor commensurate with the level of discharge or threat of discharge, and may require active enrollment procedures and payment of fees. It is likely that the lowest risk tier would be for those properties that have already been assessed by Regional Water Board staff and successfully implemented practices that minimize, control, and prevent discharges of fine sediment, nutrients, oxygen consuming materials, and elevated solar radiation loads to the Shasta River and tributaries. Higher tiers with increased monitoring and reporting requirements would likely apply to those properties that have not developed plans or taken actions to comply with the conditions of this Order. Any future order would be subject to noticing and public comment before consideration of adoption by the Regional Water Board.

THEREFORE, IT IS HEREBY ORDERED that pursuant to Water Code sections 13263, subdivision (a), 13267, and 13269, the Regional Water Board waives the requirement to submit a report of waste discharge and the requirement to establish waste discharge requirements for landowners in the Shasta River watershed that comply with the following:

1. Dischargers that are implementing applicable management measures outlined in this Order will be considered eligible for coverage under this Order. Such Dischargers shall employ land stewardship practices as described below and in Attachment A of this Order.
2. If required in writing by the Regional Water Board Executive Officer, Dischargers shall develop Ranch Management and/or Tailwater Management Plan(s).
3. The Regional Water Board Executive Officer may direct the Discharger to develop and implement a site specific monitoring and reporting plan, which, upon request, shall be submitted for the Executive Officer's review and approval. Monitoring and reporting may include, but is not limited to, the following:

- a. Photo documentation related to implementation of management measures;
 - b. Evaluation and documentation of instream and near-stream management measures (e.g. riparian buffer establishment affecting nutrient and temperature discharges);
 - c. Collection of tailwater data, including impacts from tailwater discharge (e.g. collection of water temperature, nutrients, or dissolved oxygen data in tailwater and receiving water and estimates of tailwater discharge volumes).
 - d. Annual summary of progress towards implementing management measures in an approved Ranch Management or Tailwater Management Plan(s), or other activities designed to minimize, control, and prevent potential water quality impacts;
 - e. Monitoring results.
4. When any plan as described above is required and subsequently approved by the Executive Officer, the Discharger shall implement the plan. Failure to submit or implement the plan as approved is a violation of this Order.
5. Dischargers shall comply with management measures that minimize, control, and prevent the discharge of sediment, nutrients (including animal waste), oxygen consuming materials and elevated solar radiation loads that affect the Shasta River watershed. The following are management measures that will minimize, control, and prevent the discharge of waste and elevated solar radiation loads to the Shasta River watershed. Dischargers shall implement management measures to comply with these standard conditions or management measures developed in consultation with Regional Water Board staff that provide equal or better protection:
- a. Riparian areas are managed in a manner that allows the natural establishment and abundance of native vegetation;
 - b. Riparian areas are managed in a manner that allows sufficient vegetation to minimize, control, and prevent surface erosion;
 - c. Riparian areas are managed in a manner that maintains their essential functions supporting beneficial uses (e.g. sediment filtering, woody debris recruitment, streambank stabilization, nutrient cycling, pollutant filtering, shading);
 - d. Grazed lands are managed in a manner that minimizes, controls, and prevents pollutant discharges;
 - e. Periodic grazing in riparian areas is limited to the late winter/early spring period, when impacts to woody species are minimized;
 - f. Grazing within riparian corridors occurs for short durations, and only when forage consisting of non-woody vegetation is available;
 - g. Livestock are removed from riparian areas when stubble height reaches 4 inches, or livestock shift preference to browsing of woody species, whichever occurs first;
 - h. Livestock are prevented from disturbing sediment discharge sites and other unstable features adjacent to watercourses;

- i. At no time shall grazing in riparian areas cause a discharge of waste to surface waters;
 - j. Manure, soil, plant waste, and other debris are stockpiled away from areas where they could be washed or eroded into surface waters;
 - k. Management practices are in place to minimize, control, and prevent irrigation water or tailwater from reaching surface waters;
 - l. Tillage practices do not prevent the natural establishment and abundance of native riparian vegetation;
 - m. Management practices, such as buffer strips and cover crops, are in place to minimize, control, and prevent the erosion of sediments that could reach waterbodies;
 - n. Nutrients from fertilizers, compost, soil amendments, or other sources are applied at agronomic rates to minimize, control, and prevent nutrient runoff into surface water or percolation into groundwater at levels that violate water quality standards;
 - o. Roads and related infrastructure are constructed and maintained in a manner that minimizes, controls, and prevents the discharge of sediment to the waterbodies;
 - p. Pesticides are stored, handled, used, and disposed of in manner that minimizes, controls, and prevents discharge to surface water and groundwater; and
 - q. Petroleum products and other liquid chemicals, such as gasoline, diesel, biodiesel, and oil shall be stored, handled, used, and disposed of in a manner that minimizes, controls, and prevents discharge to surface water and groundwater.
6. This Order shall not apply to any discharges for which an individual WDR or waiver of WDRs has been issued by the Regional Water Board. It also does not supersede or limit the requirements of any enforcement actions (e.g., cleanup and abatement orders) that are issued by the State or Regional Water Board.
 7. Pursuant to Water Code section 13267, the Regional Water Board staff or its authorized representatives may investigate the property of persons subject to this Order to ascertain whether the purposes of the Porter-Cologne Act are being met and whether the discharger is complying with the conditions of this Order. This inspection shall be made with the consent of the landowner, or if consent is withheld, with a duly issued warrant pursuant to the procedure set forth in Title 13 Code of Civil Procedure Part 3 (commencing with section 1822.50). However, in the event of an emergency affecting the public health or safety, an inspection may be performed without consent or the issuance of a warrant.
 8. Nothing in this Order precludes the Regional Water Board from taking enforcement actions for violations of any discharge prohibition in the Basin Plan, California Water Code, or requiring cleanup and abatement of existing sources of pollution, where appropriate.

9. This Order shall not create a vested right, and discharges of waste shall be considered a privilege, as provided for in Water Code section 13263 subdivision (g).
10. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code sections 2050 to 2097) or the Federal Endangered Species Act (16 U.S.C.A. sections 1531 to 1544). Dischargers are responsible for meeting all other applicable requirements of local, state, and federal regulations and/or required permits.
11. Discharges shall not cause conditions of pollution or nuisance as defined by Water Code section 13050.
12. This Order does not preclude the need for permits that may be required by other governmental agencies, nor does it supersede any requirements, ordinances, or regulations of any other regulatory agency, including necessary certification and permitting for the application of pesticides and herbicides and proper handling of human/domestic waste.
13. This Order expires five years following the date of adoption or when the Regional Water Board or State Water Board adopts a regulatory action that explicitly supersedes this Order, whichever occurs first.

Certification

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of Order R1-2018-0019, adopted by the California Regional Water Quality Control Board, North Coast Region, on April 19, 2018.



Digitally signed by
Matthias St. John
Date: 2018.05.16
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Matthias St. John
Executive Officer

Table 4-14 Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions		
Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Range and Riparian Land Management	<ul style="list-style-type: none"> Parties Conducting Grazing Activities Landowners and managers owning and operating property adjacent to the Shasta River and its tributaries Shasta Valley Resource Conservation District (Shasta Valley RCD) Shasta Coordinated Resource Management and Planning Committee (Shasta CRMP) California Department of Fish and Game (CDFG) 	<p>Landowner/User Actions: Landowners should employ land stewardship practices and activities that minimize, control, and preferably prevent discharges of fine sediment, nutrients, and other oxygen consuming materials from affecting waters of the Shasta River and tributaries. Landowners should also employ land stewardship practices and activities that minimize, control, and preferably prevent elevated solar radiation loads from affecting waters of the Shasta River and its Class I and II tributaries.</p> <p>Those that oversee and manage grazing and range land activities in the Shasta River watershed should implement the applicable management measures for agriculture and grazing from the following sources:</p> <ul style="list-style-type: none"> <i>Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy)</i> (SWRCB 2004 or as amended). <i>Shasta Watershed Restoration Plan</i> (November 1997). <i>Shasta Valley Resource Conservation District Master Incidental Take Permit (ITP) Application</i> (Shasta RCD 2005). <i>Recovery Strategy for California Coho Salmon</i> (Coho Recovery Strategy) (CDFG 2004). <p>See Appendix A of this Action Plan for examples of some of these applicable measures.</p> <p>Landowners may need to develop and implement management measures in addition to those specified above to address site-specific conditions. This may include determining appropriate riparian widths for tree planting activities such that the appropriate width buffer is created to ensure effective stream shading and oxygen consuming material discharge elimination.</p> <p>Landowners shall submit annually to the Regional Water Board a written summary of all range and riparian management actions taken to achieve compliance with water quality standards, the TMDLs, and the NPS Policy, either individually or through the Shasta Valley RCD and its CRMP or through the CDFG Coho ITP.</p> <p>RCD Actions: The Shasta Valley RCD and its CRMP should:</p> <ul style="list-style-type: none"> Assist landowners in developing and implementing management practices that minimize, control and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, as well as elevated solar radiation loads from affecting waters of the Shasta River and tributaries. Assist landowners in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the range and riparian management actions taken by the landowner. <p>State Actions: CDFG will:</p> <ul style="list-style-type: none"> Assist landowners in developing and implementing management practices that minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials as well as elevated solar radiation loads from affecting waters of the

4. IMPLEMENTATION PLANS

Table 4-14 Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions (cont.)		
Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Range and Riparian Land Management (cont.)	<ul style="list-style-type: none"> • CDFG (cont.) • Regional Water Board 	<p>Shasta River and tributaries.</p> <ul style="list-style-type: none"> • Administer the Coho Recovery Strategy and the ITP (when approved). <p>The Regional Water Board will:</p> <ul style="list-style-type: none"> • Work cooperatively with the Shasta Valley RCD and its CRMP to: <ol style="list-style-type: none"> 1. Provide technical support and information to individuals, landowners, and community members in the Shasta River watershed. 2. Coordinate monitoring, educational and outreach efforts. 3. Develop a monitoring program to evaluate and document implementation and effectiveness of the range and riparian management actions taken by the landowners. • Should efforts fail to be implemented or effective, the Regional Water Board's Executive Officer shall require, on a site specific as-needed basis, the appropriate responsible parties to develop, submit, and implement a ranch management plan designed to prevent discharges of fine sediment, nutrients and other oxygen consuming materials, as well as elevated solar radiation loads from affecting waters of the Shasta River and tributaries. <p>The ranch management plan shall describe in detail:</p> <ol style="list-style-type: none"> 1. Locations discharging and/or with the potential to discharge nutrients and other oxygen consuming materials, and elevated solar radiation loads to watercourses which are caused by livestock grazing or related activities. 2. How and when identified sites are to be controlled and monitored, and management practices that will be implemented to prevent and reduce future discharges of nutrient and other oxygen consuming materials, and elevated solar radiation loads to the Shasta River and its tributaries. <p>Group and/or individual ranch management plans shall be implemented upon review, comment, and approval by Regional Water Board staff and their Executive Officer for compliance with water quality standards, the TMDLs, and the NPS Policy.</p> <ul style="list-style-type: none"> • The Regional Water Board shall address the removal and suppression of vegetation that provides shade to a water body through development of a Stream and Wetland System Protection Policy. This will be a comprehensive, region-wide riparian policy that will address the importance of shade on instream water temperatures and will potentially propose riparian setbacks and buffer widths. The Policy will likely propose new rules and regulations, and will therefore take the form of an amendment to the Basin Plan. Other actions under this section may be modified for consistency with this policy, once adopted. With funding already available through a grant from the U.S. EPA, Regional Water Board staff are scheduled to develop this Policy for Regional Water Board consideration and adoption by the end of 2007. • Within two years of EPA approval of the TMDL Action Plan (by January 26, 2009), the Regional Water Board's Executive Officer shall report to the Regional Water Board on the status of the preparation and development of appropriate permitting actions.

Table 4-14 Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions (cont.)

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Range and Riparian Land Management (cont.)	<ul style="list-style-type: none"> Regional Water Board (cont.) 	<ul style="list-style-type: none"> The Regional Water Board shall take appropriate permitting actions as necessary to address the removal and suppression of vegetation that provides shade to a water body in the Shasta River watershed. Such actions may include, but are not limited to, prohibitions, waste discharge requirements (WDRs) or waivers of WDRs for grazing and rangeland activities, farming activities near water bodies, stream bank stabilization activities, and other land uses that may remove and/or suppress vegetation that provides shade to a water body. Should prohibitions, waivers or WDRs be developed, they may apply to the entire North Coast Region or just to the Shasta River watershed. Within ten years of EPA approval of the TMDL (by January 26, 2017), all identified discharges associated with riparian land use activities shall be in compliance with water quality standards, the TMDLs, and the NPS Policy.
Tailwater Return Flows	<ul style="list-style-type: none"> Irrigators Shasta Valley RCD Shasta CRMP 	<p>Landowner Actions: Those that oversee and manage tailwater discharges from irrigated lands in the Shasta River watershed, which may include landowners, lessees, and land managers (collectively referred to as irrigators), should employ land stewardship and irrigation management practices and activities that minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, and elevated water temperatures from affecting waters of the Shasta River and its tributaries.</p> <p>Irrigators should implement the applicable management measures for tailwater return flows from the following sources:</p> <ul style="list-style-type: none"> <i>Policy for the Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy) (SWRCB 2004 or as amended).</i> <i>Shasta Watershed Restoration Plan (November 1997).</i> <i>Shasta Valley Resource Conservation District Master Incidental Take Permit (ITP) Application (Shasta RCD 2005).</i> <i>Recovery Strategy for California Coho Salmon (Coho Recovery Strategy) (CDFG 2004).</i> <p>See Appendix B of this Action Plan for examples of some of these tailwater return flow measures.</p> <p>In addition, landowners may develop and implement management measures suitable for their site-specific conditions.</p> <p>Irrigators should submit annually to the Regional Water Board a written summary of all tailwater return flow management actions taken to help achieve compliance with water quality standards, the TMDLs, and the NPS Policy, either individually or through the Shasta Valley RCD and its CRMP or through the CDFG Coho ITP.</p> <p>RCD Actions: The Shasta Valley RCD and its CRMP should:</p> <ul style="list-style-type: none"> Assist irrigators in developing and implementing management practices that minimize, control and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, and elevated water temperatures from affecting waters of the Shasta River and its tributaries.

4. IMPLEMENTATION PLANS

Table 4-14 Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions (cont.)		
Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Tailwater Return Flows (cont.)	<ul style="list-style-type: none"> • Shasta Valley RCD and Shasta CRMP (cont.) • CDFG • Regional Water Board 	<ul style="list-style-type: none"> • Implement the recommended actions specified in the Shasta Watershed Restoration Plan, Coho Recovery Strategy, and the ITP (when approved). • Assist irrigators in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the tailwater management actions taken by the irrigators. <p>State Actions: CDFG will:</p> <ul style="list-style-type: none"> • Assist irrigators in developing and implementing management practices that minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials, and elevated water temperatures from affecting waters of the Shasta River and its tributaries. • Administer the Coho Recovery Strategy and the ITP (when approved). <p>Regional Water Board will:</p> <ul style="list-style-type: none"> • Work with the Shasta Valley RCD and its CRMP to develop a monitoring program to evaluate and document implementation and effectiveness of the tailwater management actions taken by the irrigators. • Evaluate the effectiveness of tailwater management actions and develop recommendations for the most effective regulatory vehicle to bring tailwater discharges into compliance with water quality standards, the TMDLs, and the NPS Policy. • Should efforts fail to be implemented or effective, the Regional Water Board's Executive Officer may require irrigators, on a site specific as-needed basis, to develop, submit, and implement, upon review, comment and approval by the Regional Water Board's Executive Officer, a tailwater management plan designed to prevent discharges of fine sediment, nutrients and other oxygen consuming materials, and elevated solar radiation loads from affecting waters of the Shasta River and its tributaries. • Within one year of EPA approval of the TMDL (by January 26, 2008), the Regional Water Board's Executive Officer shall report to the Regional Water Board on the status of the preparation and development of appropriate permitting actions to bring the discharge into compliance with water quality standards, the TMDLs, and the NPS Policy. • Within five years of EPA approval of the TMDL (by January 26, 2012) and based on Regional Water Board staff recommendation(s) derived from the evaluation phase for tailwater management, the Regional Water Board shall adopt prohibitions, WDRs, waivers of WDRs, or any combination thereof, as appropriate. • Within ten years of EPA approval of the TMDL (by January 26, 2017), the discharge of all tailwater return flow shall be in compliance with water quality standards, the TMDLs, and the NPS Policy.

4. IMPLEMENTATION PLANS

Table 4-14 Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions (cont.)		
Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Water Use and Flow (cont.)	<ul style="list-style-type: none"> • CDFG (cont.) • Department of Water Resources (DWR) • Regional Water Board • State Water Resources Control Board (State Water Board) 	<p>Shasta River and tributaries.</p> <ul style="list-style-type: none"> • Administer the Coho Recovery Strategy and the ITP (when approved). • Assist in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the actions taken by the water diverters to increase dedicated cold water instream flows in the Shasta River. <p>DWR should:</p> <ul style="list-style-type: none"> • Coordinate and assist water diverters in developing and implementing a monitoring program through a watermaster service to evaluate and document implementation and effectiveness of the actions taken by the water diverters to increase dedicated cold water instream flows in the Shasta River. <p>The Regional Water Board will:</p> <ul style="list-style-type: none"> • Work cooperatively with water diverters, the Shasta Valley RCD and its CRMP, CDFG and DWR, wholly or in part, to establish monitoring and reporting programs to gauge implementation and effectiveness of the actions taken by responsible parties. • If the Executive Officer receives credible evidence that the Shasta River flows are diminishing, the Executive Officer shall promptly report this to the Regional and State Water Board. • If after five years, the Regional Water Board's Executive Officer finds that the above measures have failed to be implemented or are otherwise ineffective, the Regional Water Board may recommend that the State Water Board consider seeking modifications to the decree (<i>In re Waters of Shasta River and its Tributaries</i>, No. 7035 (Super. Ct. Siskiyou County Dec. 29, 1932)), conducting proceedings under the public trust doctrine and/or conducting proceedings under the waste and unreasonable use provisions of the California Constitution and the California Water Code.
<p>Irrigation Control Structures, Flashboard Dams, and other Minor Impoundments</p> <p>(Collectively referred to as minor impoundments)</p>	<ul style="list-style-type: none"> • Individual Irrigators • Irrigation Districts • DWR • Others owning, operating, managing, or anticipating construction of minor impoundments 	<p>Irrigator(s) Actions: Irrigation districts, individual irrigators, and others that own, operate, manage, or anticipate constructing instream minor impoundments or other structures capable of blocking, impounding, or otherwise impeding the free flow of water in the Shasta River system shall comply with one or more of the following measures:</p> <ul style="list-style-type: none"> • Permanently remove minor impoundments in the Shasta River mainstem. • Re-engineer existing impoundments to decrease surface area of impoundment. • Not construct new impoundments unless they can be shown to have positive effects to the beneficial uses of water relative to water quality compliance and the support of beneficial uses, including the salmonid fishery, in the Shasta Valley. <p>Within one year of EPA approval of the TMDL (by January 26, 2008), report in writing to the Regional Water Board methods and management practices they shall implement that will reduce sediment oxygen demand rates by 50% from baseline behind all minor impoundments.</p>

Table 4-14 Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions (cont.)

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Minor impoundments (cont.)	<ul style="list-style-type: none"> • Shasta Valley RCD • Shasta CRMP • CDFG • Regional Water Board 	<p>RCD Actions: The Shasta Valley RCD and its CRMP should:</p> <ul style="list-style-type: none"> • Assist in developing and implementing minor impoundment removal, re-engineering or initial design work for compliance with water quality standards, the TMDLs, and the NPS Policy. • Implement the recommended actions specified in the Shasta Watershed Restoration Plan and the ITP (when approved). • Assist in developing and implementing a monitoring program to evaluate and document implementation and effectiveness of the actions taken to remove, re-engineer or limit construction of minor impoundments on the mainstem Shasta River. <p>State Actions: CDFG will:</p> <ul style="list-style-type: none"> • Assist in developing and implementing the removal, re-engineering, or limitation on the construction of minor impoundments in the Shasta River mainstem. • Administer the Coho Recovery Strategy and the ITP (when approved). • Assist in the development and implementation of a monitoring program to evaluate and document the implementation and effectiveness of the actions taken to remove, re-engineer, or limit construction of minor impoundments on the mainstem Shasta River. <p>The Regional Water Board will:</p> <ul style="list-style-type: none"> • Work with CDFG to establish monitoring and reporting elements of their programs in order to gage their effectiveness. • Work with the Shasta Valley RCD and its CRMP to establish monitoring and reporting programs to gage the implementation and effectiveness of the Shasta Watershed Restoration Plan. • Include appropriate conditions in Clean Water Act water quality certification permits for minor impoundment removal or re-engineering activities that comply with water quality standards, the TMDL, and the NPS Policy.
Lake Shastina	<ul style="list-style-type: none"> • MWCD • City of Weed • County of Siskiyou • Caltrans • Communities of Lake Shastina • U.S. Forest Service (USFS) • U.S. Bureau of Land Management (BLM) • Private timberland owners 	<p>Within 2 years of EPA approval of the TMDL (by January 26, 2009), the responsible parties shall complete a study of water quality conditions and factors affecting water quality conditions in Lake Shastina, and develop a plan for addressing factors affecting water quality conditions to bring Lake Shastina into compliance with water quality standards, the TMDLs, and the NPS Policy.</p> <p>The study and plan shall be submitted to the Regional Water Board Executive Officer for review, comment and approval. Within 5 years of EPA approval of the TMDL (by January 26, 2012), the responsible parties shall begin implementing the plan.</p>

4. IMPLEMENTATION PLANS

Table 4-14 Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions (cont.)		
Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Dwinnell Dam	<ul style="list-style-type: none"> Montague Water Conservation District (MWCD) 	<p>Within 2 years of EPA approval of the TMDL (by January 26, 2009), the MWCD shall report in writing to the Regional Water Board on a plan to bring the discharge from Dwinnell Dam into compliance with water quality standards, the TMDLs, and the NPS Policy.</p>
City of Yreka Wastewater Treatment Facility (Yreka WWTF)	<ul style="list-style-type: none"> City of Yreka Regional Water Board 	<p>Yreka Wastewater Treatment Facility Actions: The Yreka WWTF shall comply with existing Regional Water Board Orders and Monitoring and Reporting Programs.</p> <p>Regional Water Board Actions: The Regional Water Board will:</p> <ul style="list-style-type: none"> Pursue aggressive compliance with Order No 96-69 and CAO No. R1-2004-0037. Continue vigorous oversight and enforcement of Monitoring and Reporting Program No. R1-2003-0047 to ensure timely submittal of sampling and analytical results from the operators of the Yreka WWTF.
Urban and Suburban Runoff	<ul style="list-style-type: none"> City of Yreka City of Weed City of Montague Community of Edgewood Communities of Lake Shastina Other landowners with suburban runoff Regional Water Board 	<p>Actions: The cities of Yreka, Weed, Montague, the communities of Lake Shastina, and other landowners with suburban runoff should identify possible pollutants, their sources, and volumes of polluted runoff from urban and suburban sources within their spheres of influence that may discharge, directly or indirectly, to waters of the Shasta River watershed.</p> <p>Cities and other landowners with suburban runoff should implement the applicable measures from the NPS Policy. See Appendix D of this Action Plan for examples of some of these applicable measures.</p> <p>Within two years of EPA approval of the TMDL (by Jan. 2009), cities and landowners with suburban runoff shall develop a plan to minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials and elevated temperature waste discharge from affecting waters of the Shasta River and its tributaries. The plan shall be submitted to the Regional Water Board's Executive Officer for review, comment and approval. Within 5 years of EPA approval of the TMDL (by Jan. 2012), cities and landowners with suburban runoff shall begin implementing the plan.</p> <p>State Actions: The Regional Water Board will:</p> <ul style="list-style-type: none"> Work cooperatively with responsible parties to implement their plan, including appropriate management measures and reasonable time schedules which minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials and elevated temperature waste discharge from affecting waters of the Shasta River and its tributaries.
Activities on Federal Lands	<ul style="list-style-type: none"> USFS 	<p>USFS Actions: The USFS should consistently implement the best management practices for timber harvest activities, grazing, and other activities included in the:</p> <ul style="list-style-type: none"> Klamath <i>National Forest Land and Resource Management Plan</i> (USFS 1995) or as amended as long as equivalent or better water quality protections are required. Shasta-Trinity National Forest Land and Resource Management Plan (USFS 1995) or as amended as long as equivalent or better water quality protections are required. <i>Water Quality Management for Forest System Lands in California, Best Management Practices</i> (USFS 2000) or as amended as long as

Table 4-14 Shasta River Dissolved Oxygen and Temperature TMDL Implementation Actions (cont.)

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Activities on Federal Lands (cont.)	<ul style="list-style-type: none"> • USFS (cont.) • Regional Water Board • BLM • Regional Water Board 	<p>equivalent or better water quality protections are required.</p> <p>See Appendix E of this Action Plan for some examples of these measures.</p> <p>Regional Water Board Actions: The Regional Water Board will:</p> <ul style="list-style-type: none"> • Continue its involvement with the USFS to periodically reassess the mutually agreed upon goals of the 1981 Management Agency Agreement between the SWRCB and the USFS. • Work with the USFS to draft and finalize a Memorandum of Understanding (MOU). The MOU shall be drafted and ready for consideration by the appropriate decision-making body of the USFS within two years of EPA approval of the TMDL (by January 26, 2009). The MOU shall include, in part, buffer width requirements and other management practices as detailed in Appendix E. <p>BLM Actions: BLM shall implement best management grazing strategies that are detailed in a joint management agency document titled:</p> <ul style="list-style-type: none"> • <i>Riparian Management, TR 1737-14, Grazing Management for Riparian-Wetland Areas, USDI-BLM, USDA-FS (1997).</i> <p>See Appendix F of this Action Plan for some examples of these measures.</p> <p>Regional Water Board Actions: The Regional Water Board will work with the BLM to draft and finalize a Memorandum of Understanding (MOU). The MOU shall be drafted and ready for consideration by the appropriate decision-making body of the BLM within two years of EPA approval of the TMDL (by January 26, 2009). The MOU shall include buffer width requirements and other management practices as detailed in Appendix F of this Action Plan.</p>
Timber Harvest Activities on Non-Federal Lands	<ul style="list-style-type: none"> • Private Parties Conducting Timber Harvest Activities • California Department of Forestry (CDF) • Regional Water Board 	<p>Timber Harvest Related Actions: Parties conducting timber harvest activities should employ land stewardship practices that minimize, control, and preferably prevent discharges of fine sediment, nutrients and other oxygen consuming materials from affecting waters of the Shasta River and tributaries. Landowners should also employ land stewardship practices and activities that minimize, control, and preferably prevent elevated solar radiation loads from affecting waters of the Shasta River and its Class I and II tributaries.</p> <p>State Actions: CDF will:</p> <ul style="list-style-type: none"> • Ensure timber operations in the Shasta River watershed are in compliance with the water quality standards, the TMDLs, and NPS Policy. <p>Regional Water Board Actions: The Regional Water Board shall use appropriate permitting and enforcement tools to regulate discharges from timber harvest activities in the Shasta River watershed, including, but not limited to:</p> <ul style="list-style-type: none"> • Participation in the CDF timber harvest review and approval process. • Use of general or specific WDRs and waivers of WDRs, if applicable, to regulate timber harvest activities on private lands in the Shasta River watershed.

4. IMPLEMENTATION PLANS

Source or Land Use Activity	Responsible Parties	Actions to Address Dissolved Oxygen and Water Temperature Impairment
Timber Harvest Activities on Non-Federal Lands (cont.)	<ul style="list-style-type: none"> Regional Water Board (cont.) 	<ul style="list-style-type: none"> Timber harvest activities on private lands in the Shasta River watershed are not eligible for Categorical Waiver C included in the Categorical Waiver of <i>Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region</i> (Order No. R1-2004-0016) simply through the adoption of this TMDL Action Plan. However, timber harvest activities on private lands in the Shasta River watershed may be eligible for Categorical Waivers A, B, D, E, and F, as appropriate. If the California Forest Practice Rules (Title 14 CCR Chapters 4, 4.5 and 10) are changed in a manner that reduces water quality protections, the Regional Water Board shall require plan submitters to maintain the level of water quality protection provided by the 2006 Forest Practice Rules. <p>See Appendix G of this Action Plan for select examples of 2006 Forest Practice Rules.</p>
California Department of Transportation Activities (Caltrans)	<ul style="list-style-type: none"> Caltrans Regional Water Board 	<p>Caltrans Actions: Caltrans shall implement the requirements of its stormwater program.</p> <p>Regional Water Board Actions: Regional Water Board shall:</p> <ul style="list-style-type: none"> Within two years of EPA approval of the TMDL (by January 26, 2009), complete an initial evaluation of the Caltrans Stormwater Program. After the initial two-year evaluation is completed, the Regional Water Board shall continue periodic reviews of the program to assure ongoing compliance.

IX. Glossary

Adjusted Potential Effective Shade:

The percentage of direct beam solar radiation attenuated and scattered before reaching the ground or stream surface from the potential vegetation conditions, reduced by 10% to account for natural disturbance such as fire, windthrow, disease, and earth movements that reduce actual riparian vegetation below the site potential.

Biochemical Oxygen Demand (CBOD):

An analytical method used as an indicator for the concentration of biodegradable organic matter present in a sample of water. It measures the rate of uptake of oxygen by micro-organisms in the sample of water over a given period of time, and can be used to infer the general quality of the water and its degree of pollution.

Carbonaceous Deoxygenation:

Refers to the consumption of oxygen by bacteria during the breakdown of (decomposition) of organic (carbon-containing) material.

Class I Tributary:

This watercourse must have one of the following properties in order to be considered a Class I tributary, according to California Forest Practice Rules: (1) domestic supplies, including springs, on site and/or within 100 feet downstream of the operations area, and/or (2) fish are always or seasonally present onsite, includes habitat to sustain fish migration and spawning.

Class II Tributary:

This watercourse must have one of the following properties in order to be considered a Class II tributary, according to California Forest Practice Rules: (1) fish always or seasonally present offsite within 1000 feet downstream, (2) is an aquatic habitat for nonfish aquatic species, and/or (3) excludes Class III waters that are tributary to Class I waters.

Compliance and Trend Monitoring:

Monitoring intended to determine, on a watershed scale, if water quality standards are being met, and to track progress towards meeting water quality standards.

Dedicated Cold Water Instream Flow:

Water remaining in the stream in a manner that that the diverter, either individually or as a group, can ensure will result in water quality benefits. Temperature, length, and timing are factors to consider when determining the water quality benefits of an instream flow.

Implementation Monitoring:

Monitoring used to assess whether activities and control practices were carried out as planned. This type of monitoring can be as simple as photographic documentation, provided that the photographs are adequate to represent and substantiate the implementation of control practices.

Instream Effectiveness Monitoring:

Monitoring of instream conditions to assess whether pollution control practices are effective at keeping waste from being discharged to a water body. Instream effectiveness monitoring may be conducted upstream and downstream of the discharge point or before, during, and after the implementation of pollution control practices.

Irrigation Return Flows:

See Tailwater Return Flow.

Natural Potential Vegetation Conditions:

The most advanced seral stage that nature is capable of developing and making actual at a site in the absence of human interference. Seral stages are the series of plant communities that develop during ecological succession from bare ground to the climax community (e.g., fully mature, old-growth).

Nitrification:

The oxidation of an ammonium (NH_4^+) compound to nitrite (NO_2^-) and nitrate (NO_3^-), a process that consumes oxygen.

Nitrogenous Deoxygenation:

The conversion of organic nitrogen to ammonium (NH_4^+) and the subsequent oxidation of ammonium to nitrite (NO_2^-) and then to nitrate (NO_3^-), a process that consumes oxygen

Nitrogenous Biochemical Oxygen Demand (NBOD):

A measure of the amount of oxygen consumed from the conversion of organic nitrogen to ammonium (NH_4^+) and the oxidation of ammonium to nitrite (NO_2^-) and subsequently (NO_3^-).

Nitrogenous Oxygen Demand:

The conversion of organic nitrogen to ammonium by bacteria, a process that consumes oxygen.

Potential Effective Riparian Shade:

That shade resulting from topography and natural potential vegetation that reduces the heat load reaching the stream. The difference between existing (baseline) and adjusted potential effective shade reflects the amount of effective riparian shade increase (i.e. reduced solar transmittance) that is necessary to achieve natural receiving water temperatures.

Potential Solar Radiation Transmittance:

Potential solar radiation transmittance is the amount of solar radiation that passes through the vegetation canopy and reaches the water surface, when natural potential vegetation conditions are achieved.

Reaeration:

The process whereby atmospheric oxygen is transferred to a waterbody.

Salmonids:

Fish species in the family Salmonidae, including but not limited to: salmon, trout, and char.

Sediment:

Any inorganic or organic earthen material, including, but not limited to: soil, silt, sand, clay, peat, and rock.

Sediment Oxygen Demand (SOD):

The consumption of oxygen by sediment and associated organisms (such as bacteria and invertebrates) through both the decomposition of organic matter and respiration by plants, bacteria, and invertebrates.

Solar Radiation Transmittance:

Solar radiation transmittance is defined as the amount of solar radiation that passes through the vegetation canopy and reaches the water surface. A value of 1.0 represents no shade; a value of 0.0 represents complete shade.

Tailwater Return Flow:

Water applied to a field for irrigation at rates that exceed soil infiltration and evaporation rates, resulting in runoff of irrigation water to a surface water body. Same as Irrigation Return Flows.

Water Quality Compliance Model Scenario:

A computer water quality model scenario developed by Regional Water Board staff that characterizes Shasta River watershed conditions under which the Basin Plan narrative temperature objective and numeric dissolved oxygen are met in the Shasta River.

Exhibit C

Karuk Community Health Clinic
64236 Second Avenue
Post Office Box 316
Happy Camp, CA 96039
Phone: (530) 493-5257
Fax: (530) 493-5270



Karuk Dental Clinic
64236 Second Avenue
Post Office Box 1016
Happy Camp, CA 96039
Phone: (530) 493-2201
Fax: (530) 493-5364

Administrative Office
Phone: (530) 493-1600 • Fax: (530) 493-5322
64236 Second Avenue • Post Office Box 1016 • Happy Camp, CA 96039

North Coast Regional Water Quality Control Board
5550 Skyline Blvd., Suite A
Santa Rosa, CA 95403

7 July 2017

Re: Comments on Draft Ag Waivers for
Shasta and Scott Rivers;
Order No. R-1 2017-0032 and
R-1-2017-0031

Ayukii Regional Board and Staff:

Thank you for the opportunity to comment on the draft Waivers of Discharge Requirements for the Shasta River TMDLs (“2017 Shasta Waiver”) and for the Scott River TMDLs (“2017 Scott Waiver”). Unfortunately Staff is proposing to continue virtually unchanged the failed program begun with the 2006 Shasta and Scott Waivers, and carried over in the 2012 Shasta and Scott Waivers. Because the 2017 Shasta Waiver and the 2017 Scott Waiver fail to comply with the Non-Point Source Policy (“NPS Policy”), the North Coast Basin Plan (“Basin Plan”), and California’s Anti-Degradation Policy, the draft waivers cannot be approved, and must be substantially modified to include management programs, monitoring and reporting, and the evaluation needed to achieve compliance with water quality objectives and Total Maximum Daily Loads (“TMDL”). We look forward to working with Staff in developing Waivers that comply with State and Federal Law, and can help restore endangered salmon fisheries.

I. Background

Salmonid stocks in the Klamath Basin continue to suffer an existential crisis. The fall Chinook run in the Klamath Basin in 2016 was the lowest since systematic surveys began in 1978. *See Summary of Scott and Shasta River Fish Data*, Attached as exhibit A. Fall Chinook in the Scott and Shasta Rivers was also very low, and coho and lamprey also show continuing declines over time. *Id.* The North Coast Regional Water Quality Control Board (“RWQCB”) accepts that a primary cause of salmon declines is agricultural practices. Factors include 1) reduced shade; 2) tailwater return flows; 3) diversions and flow modifications, and; 4) impoundments. *See for example Basin Plan at 4-69; 4-70.* The Shasta has been listed pursuant to the Clean Water Act as impaired for dissolved oxygen (“DO”) since 1992, and temperature since 1994. The Scott was listed for sediment in 1992, and temperature in 1998. Thus these critical salmon rivers

have failed to meet the water quality standards necessary to support salmon migration, and that are legally required, for well over 20 years.

TMDLs for DO, sediment, and temperature for these rivers were incorporated into the Basin Plan between 2005 and 2006. The first Waivers for non-point source discharges to the Shasta and Scott were issued in 2006. In 2011 the RWQCB amended the Basin Plan to include an implementation plan for the Shasta and Scott TMDLs (“Action Plan”). The Action Plan included a series of studies, plans, reports, and collaborative efforts intended to achieve compliance. The Action Plan includes a final compliance deadline of 26 January 2017, requiring that all discharges from riparian areas, and all tailwater discharges, comply with water quality objectives, TMDLs, and NPS Plan requirements by that date.

Yet all available data shows no meaningful progress towards compliance with water quality objectives and TMDLs. The available data shows no measureable trend for temperature in the Shasta or Scott. *See for example Summary of Scott River Water Temperature Data*, attached as exhibit B. And while data on sediment and DO in the rivers is sparse, no improving trend can be discerned for these impairments either. Thus for over 20 years since the impairment listings, and over 15 years since issuance of the first waivers on the Shasta and Scott, no meaningful progress on water quality has been achieved, and salmon stocks have continued their downward spiral.

Staff now proposes to continue the failed waivers for the Shasta and Scott virtually unchanged for another five years. This is not only bad public policy, it is illegal. At least two California Courts have rejected Regional Boards’ refusals to provide meaningful regulation for agriculture. *See Asociacion de Gente Unide por el Agua v. Central Valley Regional Board*, (“*Agua*”)(2012) 210 Cal. App. 4th 1255; *Monterey CoastKeeper v. California State Water Resources Control Board*, (“*Coastkeeper*”) (2015) No. 34-2012-80001324 (attached as Exhibit C). Yet staff ignores the requirements of the NPS Plan, the Basin Plan, California’s Anti-Degradation Policy in the 2017 Shasta and Scott Waivers. To comply with State Law, and more importantly to make progress towards restoring salmon, the waivers must be redrafted to comply with each of these requirements.

II. The 2017 Shasta and 2017 Scott Waivers are Inconsistent with the Non-Point Source Policy

In 2004, the State Water Resources Control Board (“SWRCB”) adopted the Policy for Implementation and Enforcement of Non-Point Source Pollution Control Programs. The NPS Policy has the force and effect of a regulation, and must be complied with for all non-point source permitting, including waivers such as the 2017 Shasta and Scott Waivers. *Coastkeeper* at 4. The NPS Plan has also been incorporated into the Basin Plan, reaffirming the requirement that RWQCB staff comply with its requirements. The Policy states:

Before approving or endorsing a specific NPS pollution control implementation program, a RWQCB must determine that there is a high likelihood the implementation program will attain the RWQCB's stated water quality objectives. *NPS Policy* at 11.

The NPS Policy requires that waivers contain five "Key Elements." Waivers must: 1) explicitly address non-point source pollution in a manner that achieves and maintains water quality objectives; 2) include a description of management practices and program elements expected to be implemented; 3) includes a time schedule and quantifiable milestones designed to measure progress towards achieving water quality objectives; 4) includes sufficient feedback mechanisms to ensure that the program is achieving its stated purpose, and ascertain whether additional or different actions are required, and; 5) state the potential consequences for failure to achieve the programs objectives. *NPS Policy* at 11-15; *Monterey* at 4-5.

A. 2017 Shasta Waiver

While the 2017 Shasta Waiver mentions the NPS Policy in providing background on the issuance of the 2012 Shasta Waiver, the 2017 Waiver fails to conduct any analysis relating to the NPS Plan, or to make any demonstration that the Waiver complies with the NPS Plan. The 2017 Shasta Waiver fails to comply with the NPS Policy for at least three reasons.

First, the 2017 Waiver fails to address non-point source pollution in a manner that achieves and maintains water quality objectives. Specifically, the 2017 Shasta Waiver includes no analysis or determination "that there is a high likelihood the implementation program will attain the RWQCB's stated water quality objectives." *NPS Plan* at 11. And while the 2017 Shasta Waiver fails to conduct any quantitative analysis relating to water quality objective compliance, given the unchanging impairment in the Shasta, no meaningful analysis *could* conclude that continuing the existing program, as proposed by the 2017 Shasta Waiver, will achieve compliance with water quality objectives and TMDLs in this generation. The Shasta waiver program was first adopted in 2006. Essentially the same program—"focused" RWQCB requirements on a subset of farmers, including management practices and reporting, at the discretion of the RWQCB Executive Director— was carried over into the 2012 Shasta Waiver, and is proposed for another five years. During the prior ten years of waiver implementation, no measureable progress towards water quality objectives and TMDL compliance has been achieved, and salmon stocks continue to shrink. Rather than ensuring that water quality objectives and TMDLs will be met, the 2017 Shasta Waiver ensures that they will not. As such the 2017 Shasta Waiver is illegal.

Second, the 2017 Shasta Waiver fails to provide a timeline and quantifiable milestones designed to measure progress towards achieving water quality objectives and TMDLs. Instead the 2017 Shasta Waiver maintains an entirely discretionary program, with no milestones or timelines. And while the 2017 Shasta Waiver attaches

the Action Plan, which does include timelines and milestones, that Action Plan was adopted in 2011, and all the dates for deadlines and milestones have already passed. Thus rather than setting out deadlines and milestones, the Action Plan documents the failure of the 2012 Shasta Waiver, and now the 2017 Shasta Waiver, to meet the deadlines and milestones required by the Basin Plan.

Third, the 2017 Shasta Waiver fails to include a workable feedback mechanism. The NPS Policy requires monitoring, reporting, and analysis sufficient to evaluate progress, and to adjust where necessary. While the monitoring can be focused on management practices implementation—mere implementation cannot be substituted for actual compliance with water quality objectives. *NPS Policy* at 7.

The 2017 Shasta Waiver includes no meaningful feedback mechanism. Instead it provides only the possibility of reporting by dischargers, at the Executive Director's discretion. And while the Basin Plan (incorporating TMDLs) sets out specific, numeric standards to protect salmon, designated by reach of the river, and allocated by source, *See Basin Plan* at pp. 4-72 to 4-74, the 2017 Shasta Waiver includes *zero* discharge or receiving water monitoring. Thus any meaningful evaluation of the 2017 Shasta Waiver's contribution towards water quality objective or TMDL compliance is impossible.

The 2017 Shasta Waiver further fails to conduct any evaluation of the effectiveness of the feedback mechanism carried over from the 2012 Shasta Waiver. The Action Plan for the Shasta TMDLs includes numerous monitoring, reporting, and program development requirements for the RWQCB, diverters, dischargers, and State and Federal agencies.¹ The 2017 Shasta Waiver fails completely to evaluate the effectiveness of these feedback mechanisms—whether the plans and reports were completed and submitted, were as required by the Action Plan, whether RWQCB staff reviewed them, or if they were implemented or even considered by the RWQCB or the dischargers. Almost none of these reports are available on the RWQCB website, so evaluation by the public is problematic as well. Without any analysis of the effectiveness of the program in the 2012 Shasta Waiver, the 2017 Shasta Waiver cannot be consistent with the NPS Policy.

¹ *See for example:* Basin Plan at 4-77 (farmer's Annual Reports); 4-78 (RWQCB Development of Monitoring Plan)(Ranch Management Plans)(RWQCB Proposed Riparian Rules and Regulations by 2007); 4-79 (all riparian discharges in compliance with WQS and TMDL by 26 Jan 2017)(tailwater return flow management annual reports); 4-80 (RWQCB adopt tailwater prohibitions, WDRs or waivers)(compliance with all WQS and TMDL for tailwater discharges by 26 Jan 2017); 4-81 (diverters provide final report to RWQCB documenting dedicated cold water instream flows by 26 Jan 2012); 4-82 (where efforts to achieve DO and temp objectives inadequate as of 26 Jan 2012, RWQCB to recommend to SWRCB to seek modification to adjudication)(irrigators to achieve 50% reduction in DO demand u all minor impoundments by 26 Jan 2008); 4-83 (plan to bring Lake Shastina into compliance with WQS and TMDLs submitted to RWQCB by 26 Jan 2012).

B. The 2017 Scott Waiver

The 2017 Scott Waiver includes no mention of the NPS Policy, and fails to conduct any analysis relating to the NPS Policy, or to make any demonstration that the Waiver complies with the NPS Policy. As with the 2017 Shasta Waiver, the 2017 Scott Waiver is inconsistent with the NPS Policy in at least three ways.

First, the 2017 Waiver fails to address non-point source pollution in a manner that achieves and maintains water quality objectives. As with the 2017 Shasta Waiver, the 2017 Scott Waiver fails to conduct any quantitative analysis relating to water quality objective compliance, and given the unchanging impairment in the Scott, no meaningful analysis *could* conclude that continuing the existing program will achieve compliance with water quality objectives and TMDLs. As noted above, the Scott waiver program was first adopted in 2006. The same program—“focused” RWQCB requirements on a subset of farmers, including management practices and reporting, at the discretion of the RWQCB Executive Director—was carried over into the 2012 Scott Waiver, and is proposed for another five years. During the prior ten years of waiver implementation, no measureable progress towards water quality objectives and TMDL compliance has been achieved, and salmon stocks continue to shrink. Rather than ensuring that water quality objectives and TMDLs will be met, the 2017 Scott Waiver ensures that they will not.

Second, the 2017 Scott Waiver fails to provide a timeline and quantifiable milestones designed to measure progress towards achieving water quality objectives and TMDLs. Instead the 2017 Scott Waiver maintains an entirely discretionary program, with no milestones or timelines. And while the 2017 Scott Waiver attaches the Action Plan, which does include timelines and milestones, that Action Plan was adopted in 2011, and all the dates for deadlines and milestones passed between 2008 and January of 2017.

Third, 2017 Scott Waiver includes no meaningful feedback mechanism. Instead it provides only the possibility of reporting by dischargers, at the Executive Director’s discretion. And while the Basin Plan (incorporating TMDLs) sets out specific, numeric standards to protect salmon, designated by reach of the river, and allocated by source, *See Basin Plan at pp. 4-60 to 4-63*, the 2017 Scott Waiver includes *zero* discharge or receiving water monitoring. Thus any meaningful evaluation of the 2017 Shasta Waiver’s contribution towards water quality objective or TMDL compliance is impossible.

The 2017 Scott Waiver further fails to conduct any evaluation of the effectiveness of the feedback mechanism carried over from the 2012 Scott Waiver. The Action Plan for the Scott TMDLs includes numerous monitoring, reporting, and program development

requirements for the RWQCB, diverters, dischargers, and State and Federal agencies.² The 2017 Scott Waiver fails completely to evaluate the effectiveness of these feedback mechanisms—whether the plans and reports were completed and submitted, were as required by the Action Plan, whether RWQCB staff reviewed them, or if they were implemented or even considered. A monitoring plan for the Scott is posted on the RWQCB website, and was apparently developed in 2011. *See Scott River Watershed Water Quality Compliance and Trend Monitoring Plan*. However the 2017 Scott Waiver nowhere mentions the monitoring program, whether it was implemented, or any results of any monitoring that was conducted. Without any analysis of the effectiveness of the program in the 2012 Scott Waiver, the 2017 Scott Waiver cannot be consistent with the NPS Policy.

III. The 2017 Shasta and 2017 Scott Waivers are Inconsistent with Water Code Section 13269 and the Basin Plan

The TMDLs (allocating load consistent with compliance with water quality objectives) applicable to the Shasta and Scott rivers were incorporated into the Basin Plan in 2006. In 2011 the RWQCB amended the Basin Plan to include the Action Plans for the Shasta and Scott.

The California Water Code authorizes waivers only where they are both consistent with the applicable Basin Plan and in the public interest. *Water Code Section 13269, See also Monterey* at 25. The waiver must include monitoring “designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver’s conditions.” *Id.*

A. 2017 Shasta Waiver

As noted above, the 2017 Shasta Waiver includes no discharge or receiving water monitoring. Instead any monitoring will be conducted solely at the discretion of the Executive Director of the RWQCB, and then only as to implementation of management measures. *See 2017 Shasta Waiver* at ¶ 11.

In contrast the Shasta TMDLs for temperature and dissolved oxygen provide specific, quantitative load allocations. Irrigation return flows are prohibited from increasing receiving water temperatures, surface flows temperatures must be reduced by 1.2 to 2.1 degrees centigrade at specific river mile locations, and detailed shade/solar heat requirements. Similarly the dissolved oxygen TMDLs set out specific percentages that dissolved oxygen demand must be reduced in specific river reach lengths to comply with water quality objectives.

² *See for example:* Basin Plan at 4-65 (RWQCB to develop and take permitting actions to address shade removal; ED to report on status by 8 Sept 2009)(study plan re: hydrologic connection to groundwater by 8 Sept 2007); 4-67 (RWQCB to require Riparian Management Plans. Criteria for plans by 8 Sept 2008).

The 2017 Waiver is inconsistent with the Basin Plan and Water Code Section 13269 for at least two reasons:

First, the entirely discretionary pollution management elements of the 2017 Shasta Waiver bear no reasonable relationship to the waste load allocations set out in the Basin Plan. The waiver includes no data or analysis as to how the measures will ensure compliance with the waste load allocations. The program's implementation has been extremely limited since 2006 (23 of 150 high priority farms assessed to date, for example) and no quantitative analysis of the impact of that limited program to date, or the management practices implemented is articulated in the waiver. Given the lack of monitoring data, it is unclear how such an analysis could be conducted, and in any event receiving water data indicates that water quality impairment is unchanged. Finally, and perhaps most damning, is the 2017 Shasta Waiver's inconsistency with the final TMDL and water quality objective compliance deadline set out in the Action Plan. The Action Plan, and thus the Basin Plan, requires compliance with all water quality objectives and TMDL waste load allocations for a) all discharges associated with riparian land use activities, *Action Plan* at 4-79, and b) all tailwater return flows, *Id* at 4-80, no later than 26 January 2017. Thus to be consistent with the Basin Plan, the 2017 Waiver must include limitations sufficient to ensure compliance with standards for riparian and tailwater flows *immediately*. The 2017 Shasta Waiver fails completely to ensure compliance with the Basin Plan limits, both for the TMDL waste load allocations generally, and specifically for riparian and tailwater discharges, and is therefore illegal.

Second, the 2017 Shasta Waiver's discretionary monitoring, focused entirely on evaluating implementation of those few management practices the Executive Officer deems appropriate, cannot evaluate compliance with the TMDL waste load allocations imposed by the Basin Plan. The 2017 Shasta Waiver includes no receiving water monitoring, and no field evaluation, let alone the reach by reach sampling and analysis required to establish compliance with the TMDLs. And the 2017 Waiver specifically fails to require any sampling of riparian flows, or tailwater flows—flows required to comply with the standards in the Basin Plan six months ago. Because the 2017 Shasta Waiver fails to include monitoring sufficient to demonstrate compliance with applicable Basin Plan limits, it violates Water Code Section 13269.

B. 2017 Scott Waiver

As with the 2017 Shasta Waiver, the 2017 Scott Waiver includes no discharge or receiving water monitoring. Any monitoring will be conducted solely at the discretion of the Executive Director of the RWQCB, and then only as to implementation of management measures.

The Scott TMDLs for sediment and temperature provide specific, quantitative load allocations. For example, sediment load is allocated in tons/sq.mi.-yr, with reductions by percentages and sources. *Basin Plan* at 4-60.

Again as with the 2017 Shasta Waiver, the 2017 Scott Waiver is inconsistent with the Basin Plan and Water Code Section 13269 for at least two reasons:

First, the entirely discretionary pollution management elements of the 2017 Scott Waiver bear no reasonable relationship to the waste load allocations set out in the Basin Plan. The waiver includes no data or analysis as to how the measures will ensure compliance with the waste load allocations. Given the lack of monitoring data, it is unclear how such an analysis for sediment could be conducted. In any event receiving water data for temperature indicates that water quality impairment has been unchanged over the 10 year life of the waiver program. *See Summary of Scott river Water Temperature Data.*

Second, the 2017 Scott Waiver's discretionary monitoring, focused entirely on evaluating implementation of those few management practices the Executive Officer deems appropriate, cannot evaluate compliance with the TMDL waste load allocations imposed by the Basin Plan. The 2017 Scott Waiver includes no receiving water monitoring, and no field evaluation, let alone the reach by reach sampling and analysis required to establish compliance with the TMDLs. Because the 2017 Scott Waiver fails to include monitoring sufficient to demonstrate compliance with applicable Basin Plan limits, it violates Water Code Section 13269.

IV. The 2017 Shasta and 2017 Scott Waivers Conduct No Anti-Degradation Analysis, and Violate Anti- Degradation Prohibitions

In 1968, the State Board adopted Resolution No. 68-16, Statement of Policy with Respect to Maintaining High Quality of Waters in California. Resolution No. 68-16 provides that existing high-quality waters must be maintained unless the state can show that “any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water, and will not result in water quality less than that prescribed in the policies.” The policy also requires the “best practicable treatment or control of the discharge necessary” to assure the highest water quality “consistent with maximum benefit to the people of the State.”

In 1990, the State Board issued Administrative Procedures Update (APU) 90-004, Antidegradation Policy Implementation for NPDES Permitting (July 2, 1990) (“APU90-004”), which provides guidance for implementing Resolution No. 68-16. APU 90-004 clarifies that an anti-degradation analysis must be done on a pollutant-by-pollutant basis. APU 90-004 specifically requires the Boards to compare the baseline water quality—which is “the best quality of the receiving water that has existed since 1968”—to the water quality standards for each pollutant. APU 90-004 at 4. It also clarifies that state anti-degradation policy completely prohibits any degradation in waters that do not meet water quality standards. Finally, APU 90-004 identifies specific findings that must be made before degradation of high-quality waters can be allowed. In sum, State anti-degradation requirements mandate that high water quality be maintained, unless degradation is justified based on specific findings. APU 90-004 at 4-5; *See also Monterey* at 5-7. And in no case may impaired waters be further degraded. *Id.*

Neither the 2017 Shasta or 2017 Scott Waivers conduct the required Anti-degradation analysis. Instead, both waivers employ circular logic to conclude that because the measures in the waivers might over time improve existing water quality, no analysis is required. The Court of Appeal has rejected virtually identical circular language included in a Concentrated Animal Feeding Operation WDR. *See Aqua* at 1280; 1260-61, 1271-72. As in *Agua*, and as in *Monterey*, continuing existing terms in the 2017 Waivers that resulted in degradation of water quality in the 2006 and 2012 Waivers triggers Anti-Degradation analysis. Because the 2017 Waivers fail to do so, they are illegal.

Thank you again for the opportunity to comment.

Yootva,

 FOR RUSSELL ATTEBERY

Russell Buster Attebery
Chairman

Exhibit A

SUMMARY OF SCOTT AND SHASTA RIVER FISH DATA

Data collected by CDFW and collaborators

Compiled/graphed by Riverbend Sciences (or by CDFW), 6/27/2017, for use by the members of the Klamath Tribal Water Quality Consortium.

The fall Chinook salmon run in the Klamath Basin in 2016 was the lowest since systematic surveys began in 1978, with only 27,353 fish compared to a long-term average of 127,013 fish (Figure 1). Fall Chinook numbers in the Scott and Shasta Rivers were also very low in the 2016 (Figure 2), though not quite as poor as in the rest of the Klamath Basin. The reliable long-term dataset for coho salmon escapement is much shorter, starting in 2007 in the Scott River and 2001 in the Shasta River (Figure 3). Coho salmon predominately follow a 3-year life cycle, so population trends can be viewed as three separate cohorts. In the early years of the record, there was one coho cohort in the Shasta and Scott sub-basins that was much stronger than the rest (i.e., 2001, 2004, 2007); however, it appears to have declined in 2016 in the Scott and in the past three generations in the Shasta (2010, 2013, 2016) (Figure 3). The Shasta River coho population is heavily influenced by hatchery strays, in part due to a change in hatchery practices which began in 2010 (Figure 3). Data on juvenile coho in the Scott River shows the dominant cohort declining in the most recent generation (2016) but an increase for the weakest cohort (2015) (Figure 4). In the Shasta River, all three cohorts of juvenile coho appear to be declining over time (Figure 5). Juvenile lamprey catch has also declined in abundance in recent years in both rivers (Figure 6).

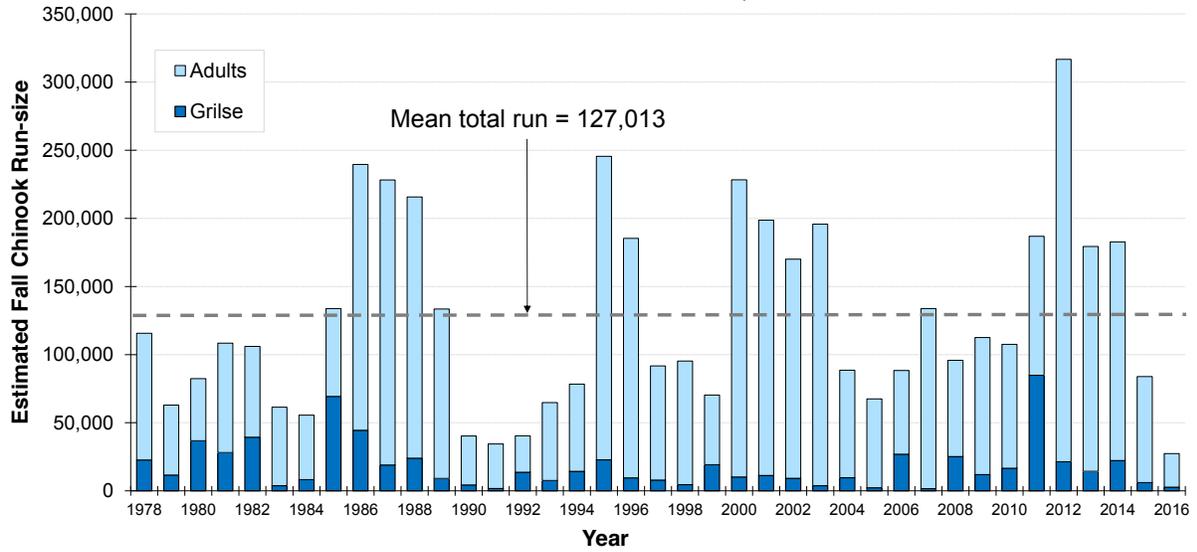


Figure 1. Estimated fall chinook run size (before in-river harvest) in the Klamath Basin, 1978-2016. Data from CDFW (2017) Klamath Basin “megatable”. Data for 2016 are provisional.

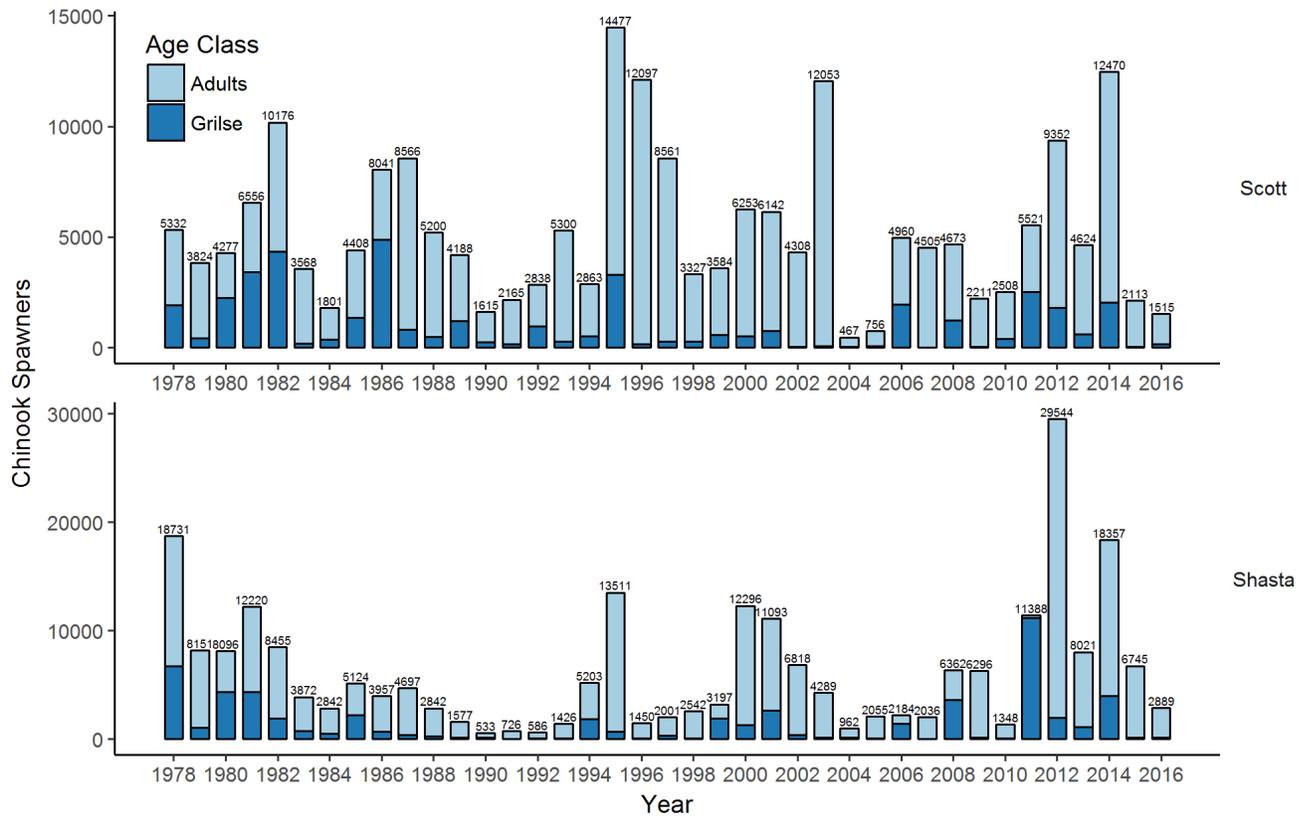


Figure 2. Fall chinook spawning escapement in Scott (top panel) and Shasta (bottom panel) sub-basins, 1978-2016. Data from CDFW (2017) Klamath Basin “megatable”. Data labels are sums of adults plus grilse.

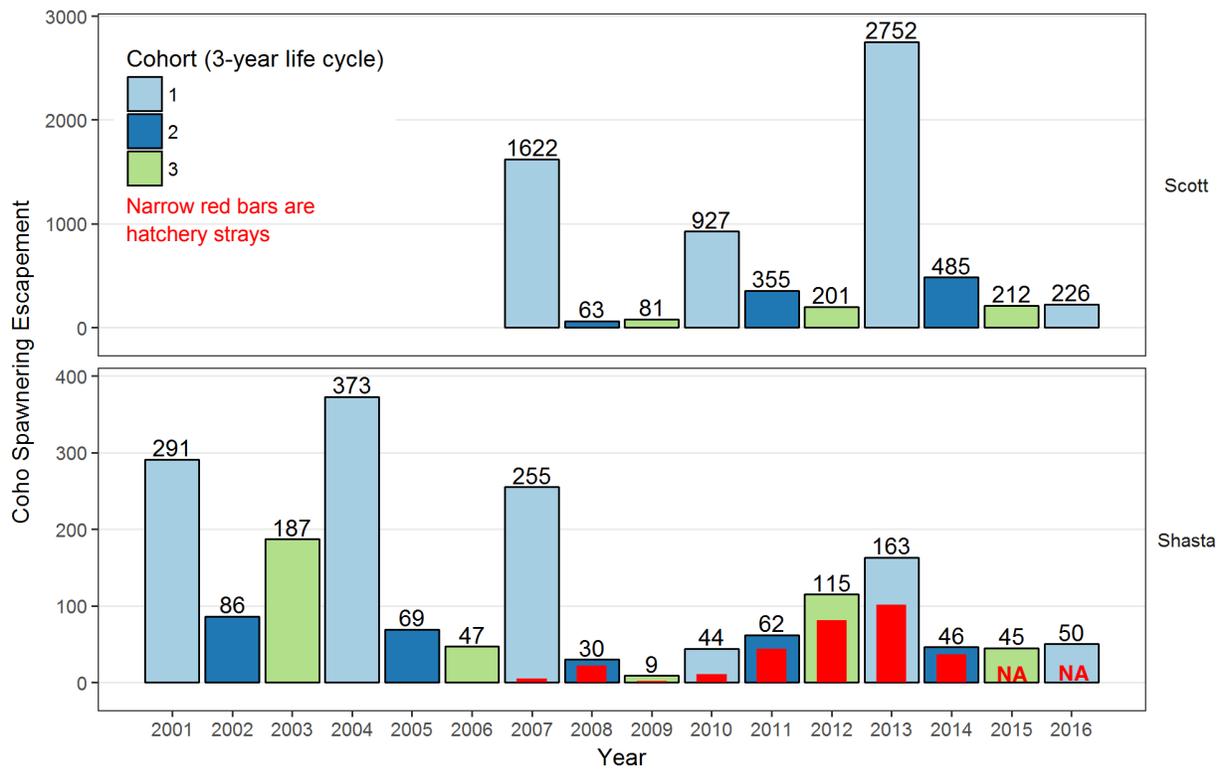


Figure 3. Adult coho spawning escapement in Scott (top panel) and Shasta (top panel) sub-basins, 2001-2016. Bars are color-coded by the 3-year life cycle as a visual aid. Hatchery strays were only estimated in Shasta River in 2007-2014 (no carcasses found in 2015 and 2016 results not yet available); 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).

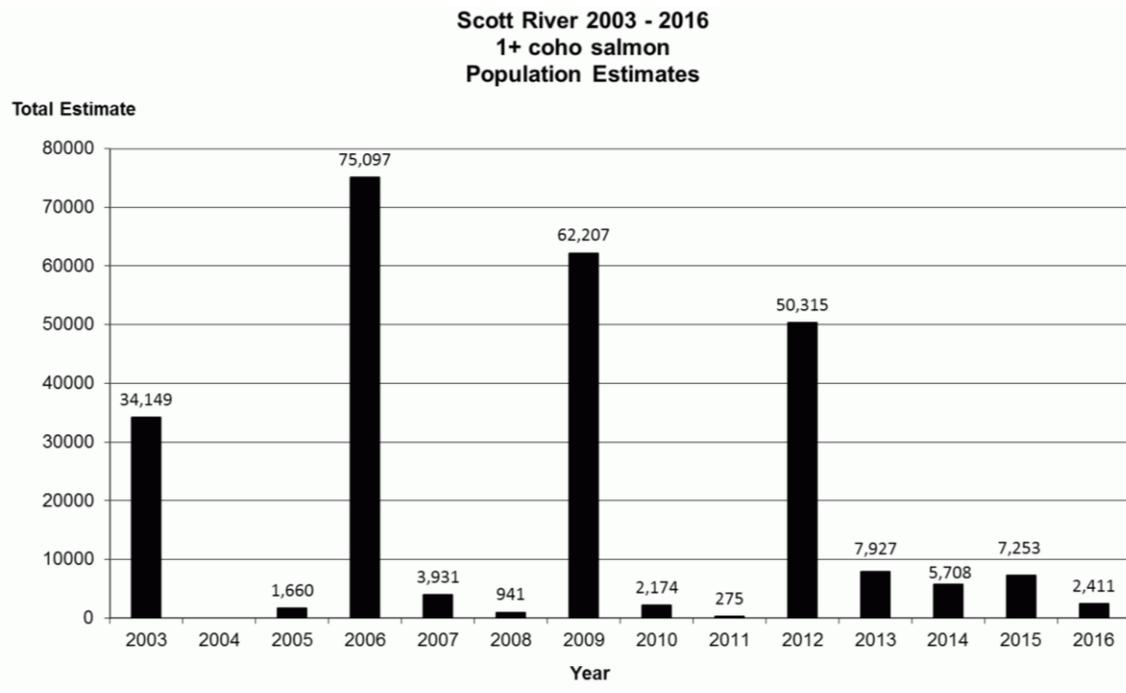


Figure 4. Population estimates for juvenile 1+ coho salmon outmigrants at Scott River rotary screw trap, 2003-2016. Chart from Chesney (2017) presentation to the Klamath Basin Monitoring Program (KBMP).

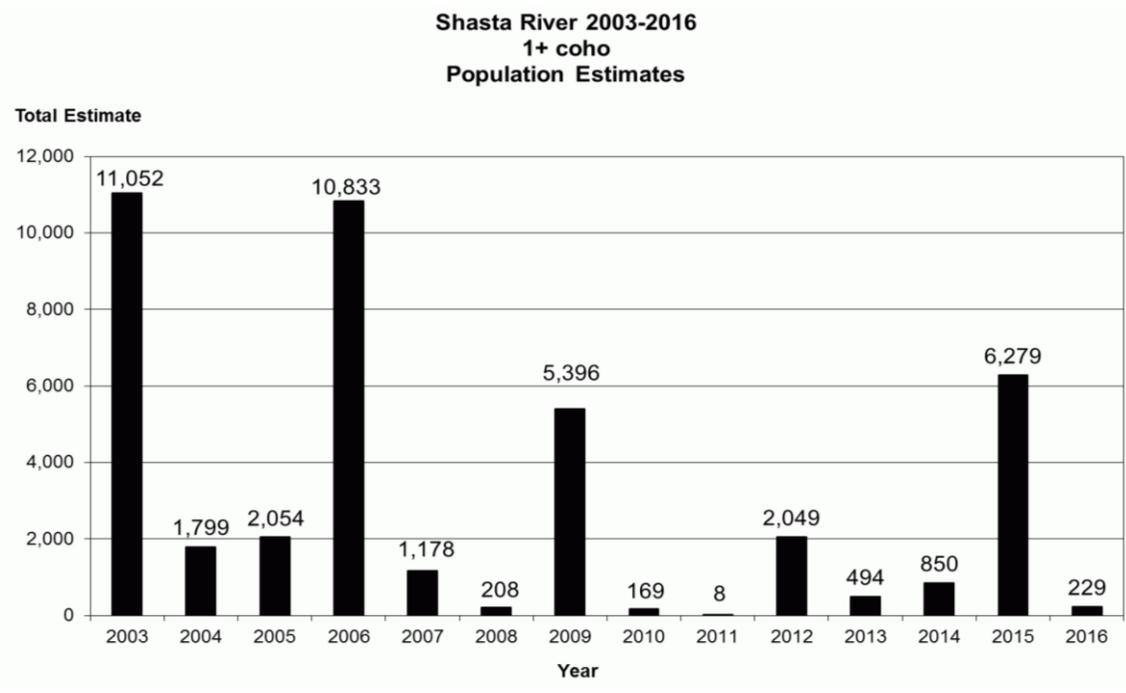


Figure 5. Population estimates for juvenile 1+ coho salmon outmigrants at Shasta River rotary screw trap, 2003-2016. Chart from Chesney (2017) KBMP presentation.

Juvenile lamprey catch, Shasta and Scott Rivers Julian weeks 5- 26, 2000-2013

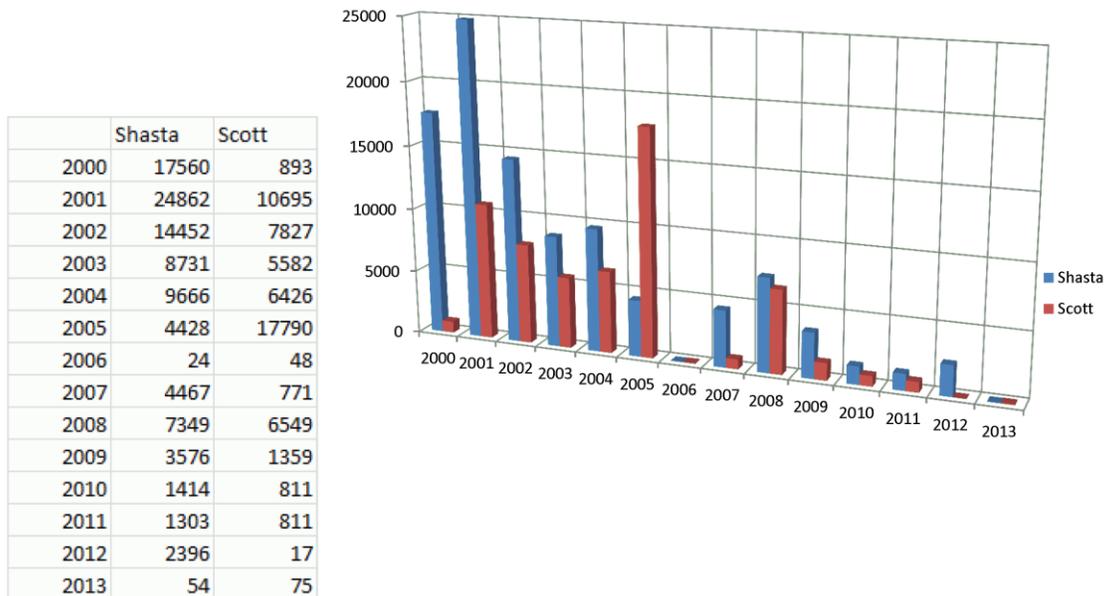


Figure 6. Catch of juvenile lamprey at Shasta and Scott River rotary screw traps, 2000-2013. Chart from Chesney (2017) KBMP presentation.

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<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=123560>, accessed 6/27/2017.

Exhibit B

SUMMARY OF SCOTT RIVER WATER TEMPERATURE DATA

Data collected by a multitude of entities

Compiled/graphed by Riverbend Sciences, 6/27/2017, for use by the members of the Klamath Tribal Water Quality Consortium.

Klamath Tribal Water Quality Consortium has commissioned an analysis of Klamath Basin stream temperatures which is currently in progress. For that analysis, Riverbend Sciences has compiled approximately 29 million individual measurements of stream temperature collected by a multitude of entities, totaling over 4,500 site-years. In these comments on the TMDL waiver, we present some preliminary excerpts from that ongoing analysis. Unfortunately, we had a difficult time obtaining data for the private lands in the Shasta and Scott Rivers, so our ability to analyze potential changes in temperature conditions is limited to a relatively small number of sites.

Stream temperatures at a single site can vary substantially from year to year, making it difficult to determine whether locally controllable factors such as riparian conditions or streamflow are changing or if any apparent changes in stream temperatures are just year to fluctuations in climate. The upcoming Klamath Tribal Water Quality Consortium will use stream network spatial statistical models to address these questions. In the interim, for these TMDL waiver comments we utilize a simpler approach to dealing with climate. Rather than attempting to correct for year-to-year differences in climate, we calculated an index which designates years as cool vs. warm at the geographic scale of the Lower/Middle Klamath Basin, so that when an annual time series for a site is displayed it can be placed in context. Then index of cool vs. warm years is based on the MWMT relative anomaly (i.e., ratio of MWMT for individual years to the mean MWMT calculated from all years) using a method previously developed by Asarian (2016) in the South Fork Trinity River and as calculated as follows. First, using only those sites with at least five years of data, we calculated each site's mean MWMT. For each site, we then divided the MWMT for each year by the mean MWMT. The result is the relative anomaly, a unitless ratio which can then be averaged across all sites within a year, allowing relatively "apples-to-apples" comparisons of the general warmth of each year (Figure 1). The five warmest years were 1992, 2006, 2009, 2014, 2015 and the five coolest years were 1995, 2008, 1993, 1999, 2011 (Figure 2).

Figures 3 through 6 show time series of Maximum Weekly Maximum Temperature (MWMT) at several Scott River sites collected by USFS, USFWS, and QVIR. MWMT is the average daily maximum temperature during the hottest seven-day period of the year. Adjacent sites are grouped together for comparison. Recent years such as 2014 and 2015 were among the warmest on record at the Scott River sites, suggesting that temperature conditions in the Scott River have not improved since the adoption of the TMDLs. The inter-annual pattern at the Shasta River sites (Figures 7 through 9) is generally similar to the Scott River sites (i.e., not improving over time), except CDFW's site BSC 1 the mouth of Big Springs Creek on the Nature Conservancy's Big Springs Ranch where MWMT appears to have decreased since 2008 despite adverse climate conditions in 2014-2015.

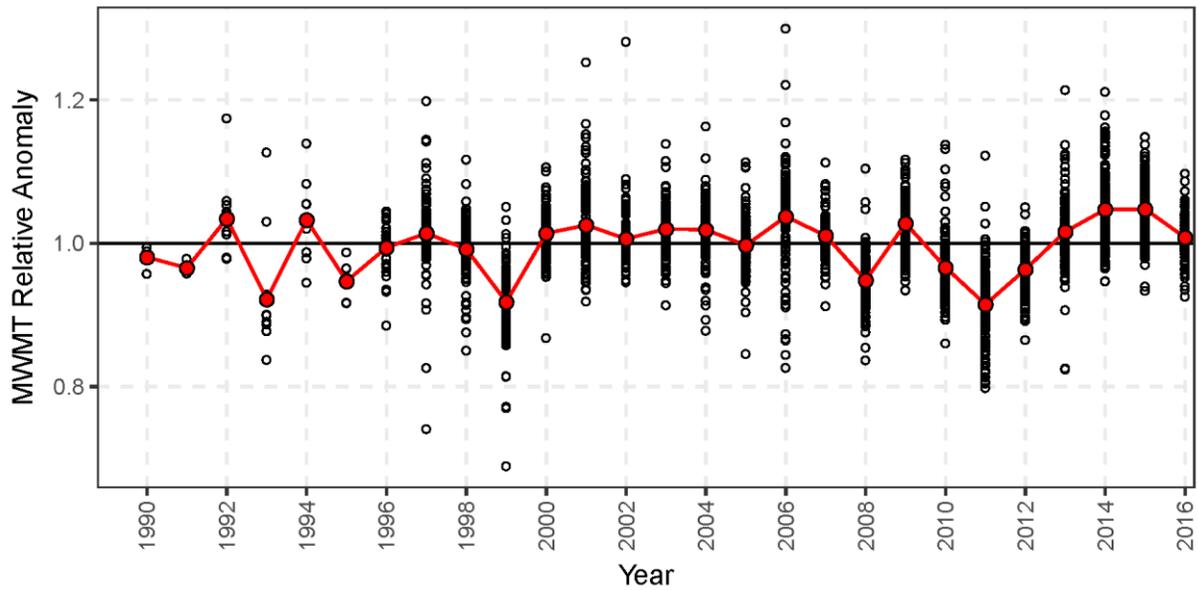


Figure 1. Annual time series of MWMT relative anomaly (i.e., ratio of a site-year's MWMT to a site's mean MWMT) for each site and year (black circles). Large red circles are the mean of all sites within a year. Warm years have relative anomalies greater than 1 while cool years have relative anomalies less than 1. The analysis includes hundreds of sites in the Lower and Middle Klamath Sub-Basins including many in the Scott sub-basin but not many in the Shasta sub-basin.

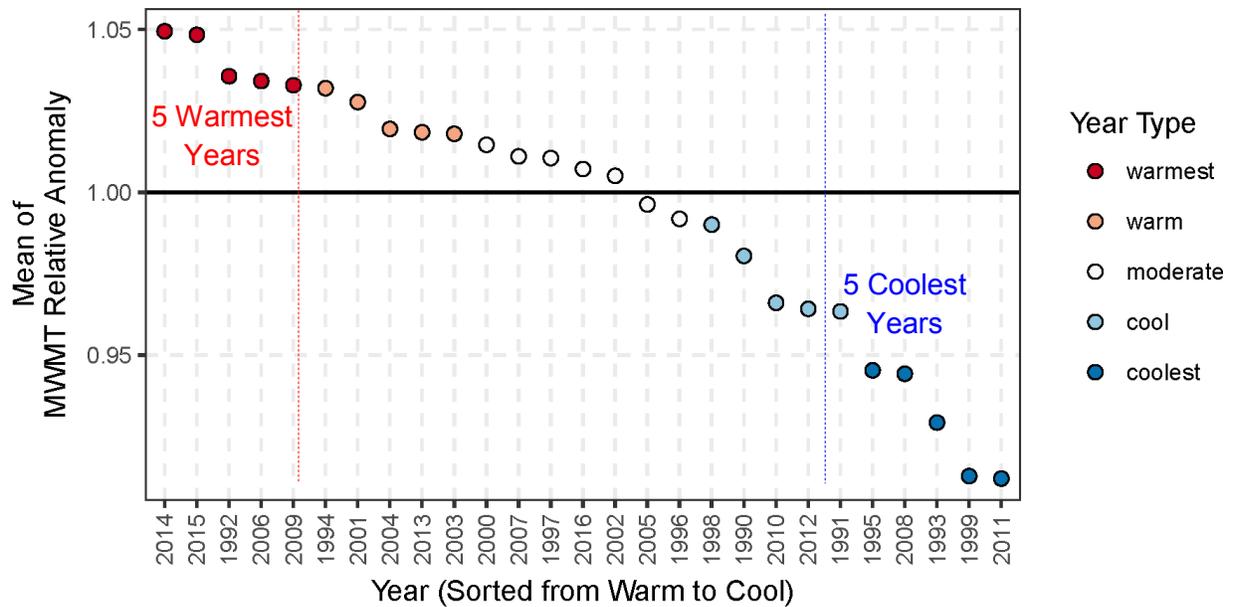


Figure 2. Mean of MWMT relative anomaly (i.e., mean ratio of a single-year MWMT to a mean MWMT) for each year 1990 to 2016, indicating generalized basin-scale cool and warm years. X-axis is sorted in same order as y-axis. Points in this graph are the same as the red circles in the previous figure. Warm years have relative anomalies greater than 1 while cool years have relative anomalies less than 1.

Scott River near Mouth (river mile 0-0.5 up to Roxbury Bridge):

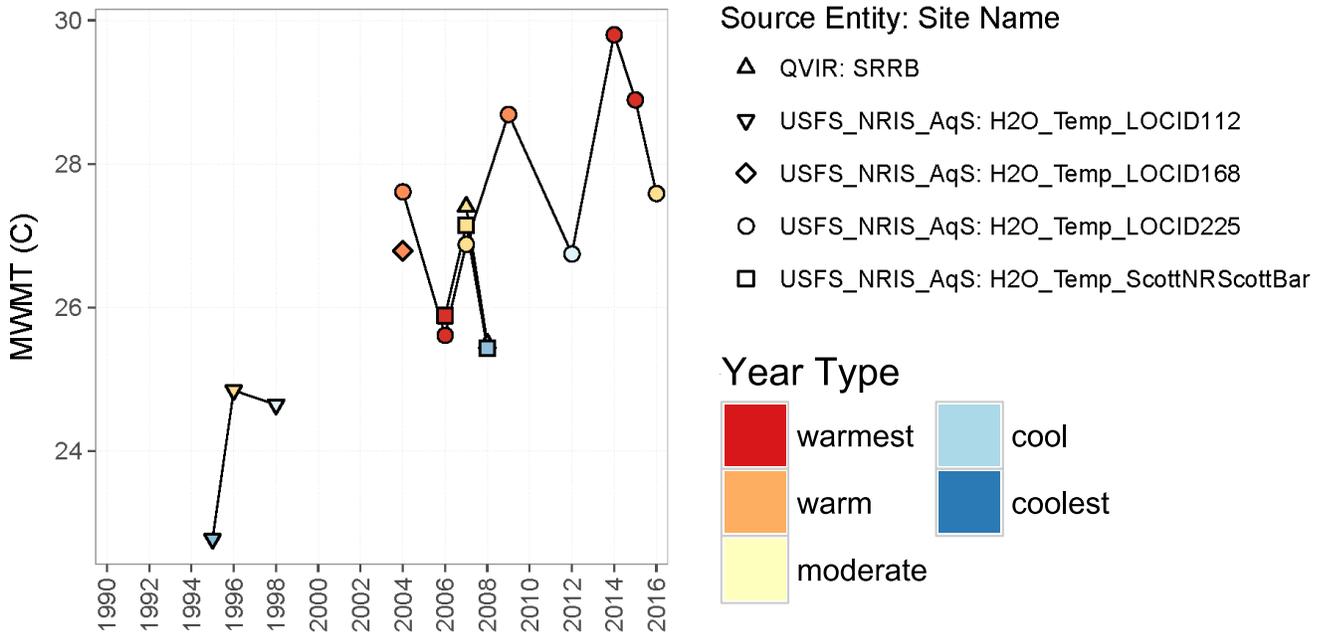


Figure 3. Time series of Maximum Weekly Maximum Temperature (MWMT) at the Scott River near its mouth. Each point is one year, site, and source entity. Each site is shown as a unique symbol shape, which is then colored by MWMT according to year type.

Scott River at second bridge (river mile 1.5):

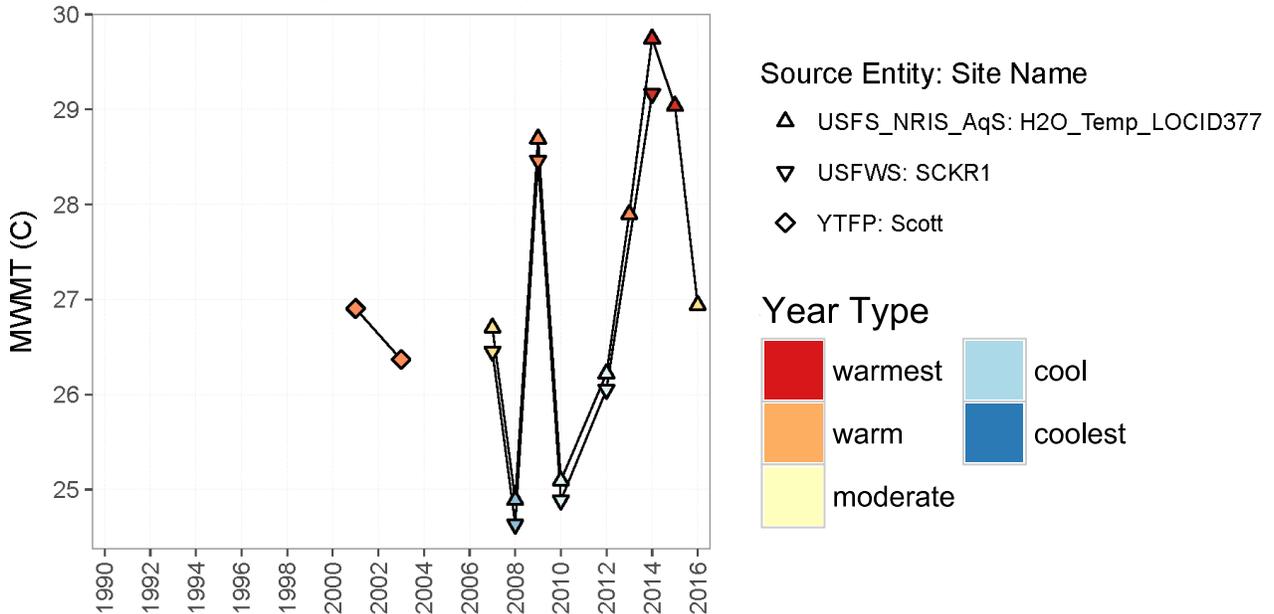


Figure 4. Time series of Maximum Weekly Maximum Temperature (MWMT) at the Scott River 1.5 miles upstream from its mouth. Each point is one year, site, and source entity. Each site is shown as a unique symbol shape, which is then colored by MWMT according to year type. Data from USFWS site in 2013, 2015-2016 are omitted from this graph because they do not match the pattern observed at adjacent sites and may be erroneous.

Scott River near USGS gage:

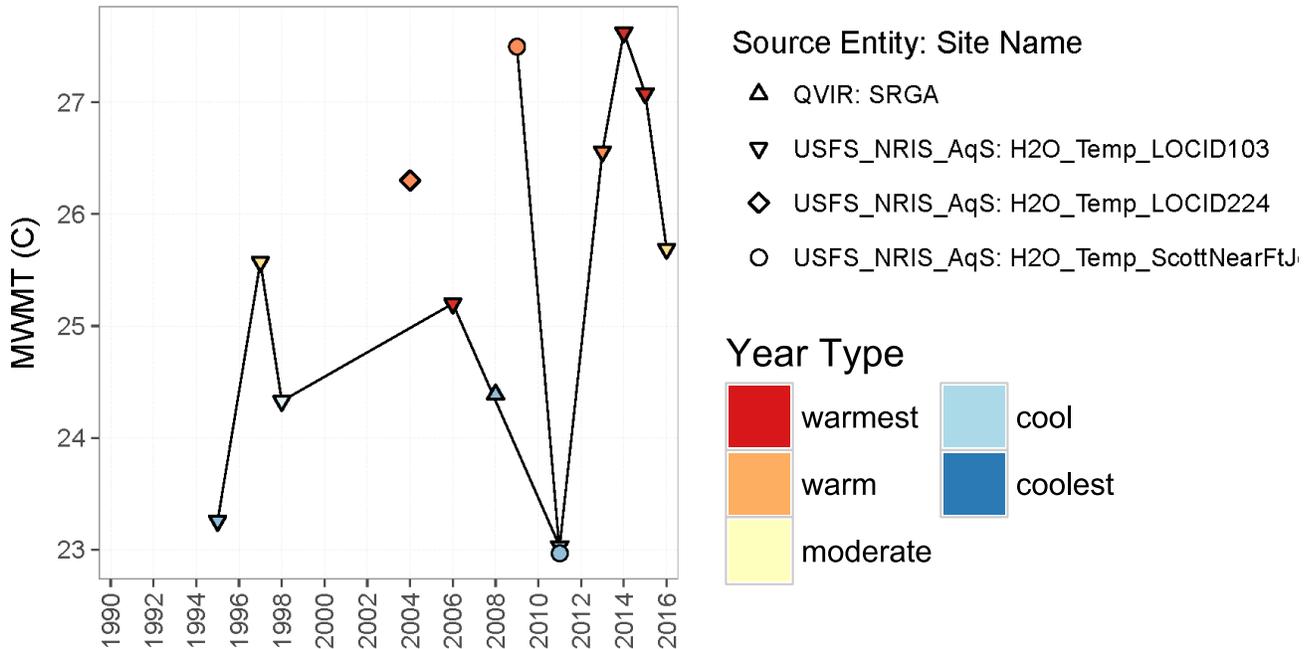


Figure 5. Time series of Maximum Weekly Maximum Temperature (MWMT) at the Scott River at the US Geological Survey streamflow gage at the outlet of Scott Valley. Each point is one year, site, and source entity. Each site is shown as a unique symbol shape, which is then colored by MWMT according to year type.

East Fork Scott River upstream of confluence with mainstem Scott River:

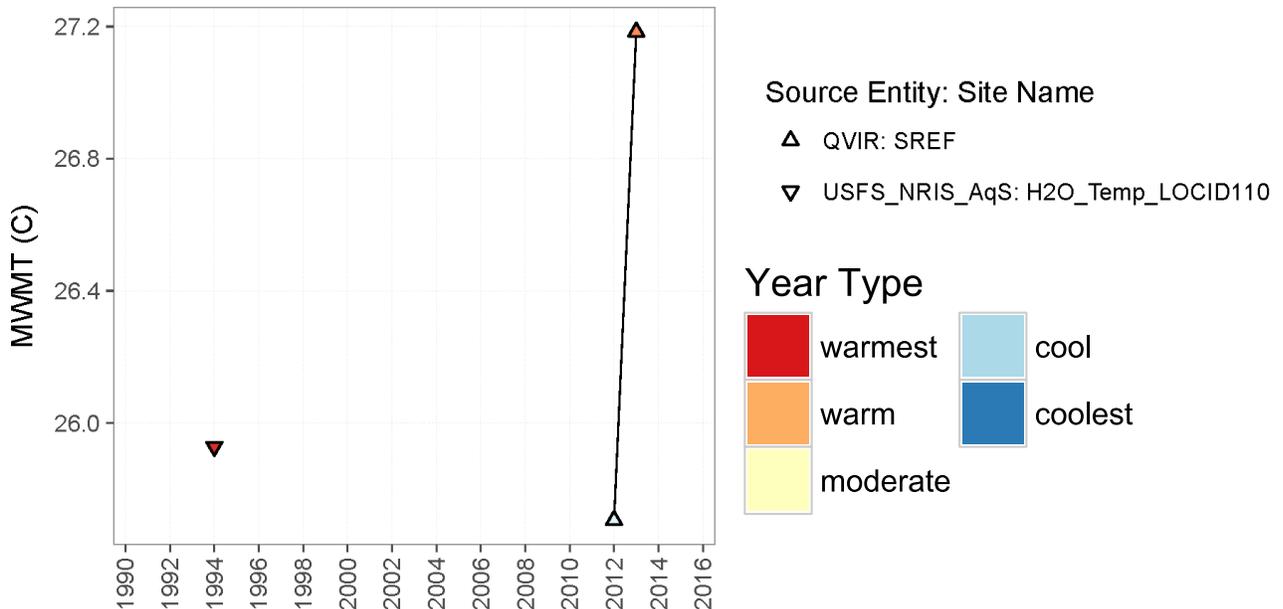


Figure 6. Time series of Maximum Weekly Maximum Temperature (MWMT) at the East Fork Scott River upstream of the confluence with the mainstem Scott River. Each point is one year, site, and source entity. Each site is shown as a unique symbol shape, which is then colored by MWMT according to year type.

Shasta River near mouth:

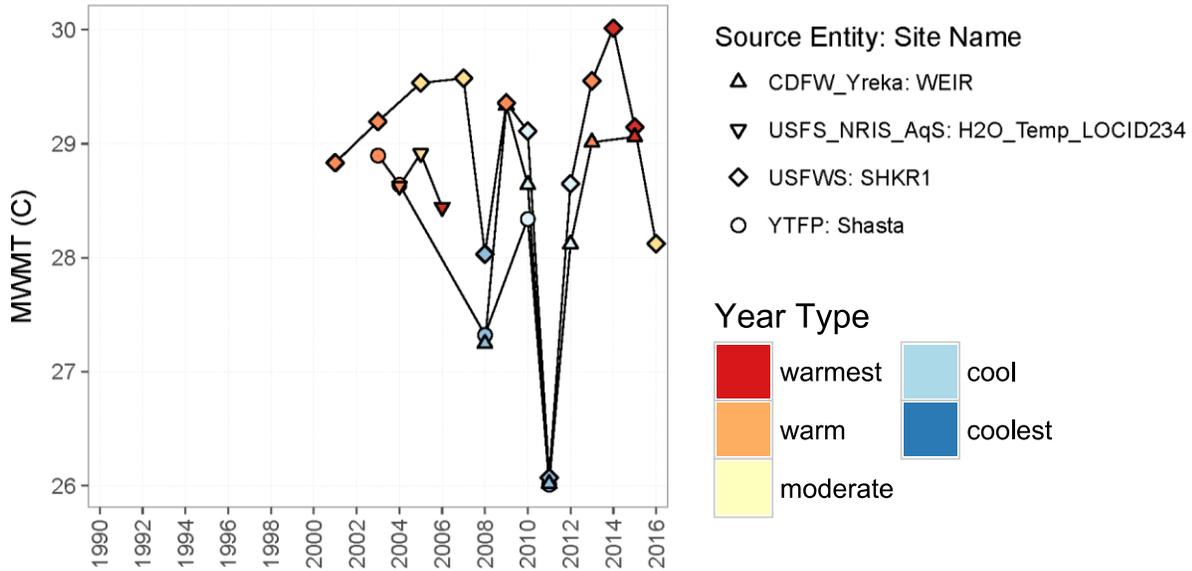


Figure 7. Time series of Maximum Weekly Maximum Temperature (MWMT) at the Shasta River near its mouth. Each point is one year, site, and source entity. Each site is shown as a unique symbol shape, which is then colored by MWMT according to year type.

Shasta River upstream of confluence with Parks Creek:

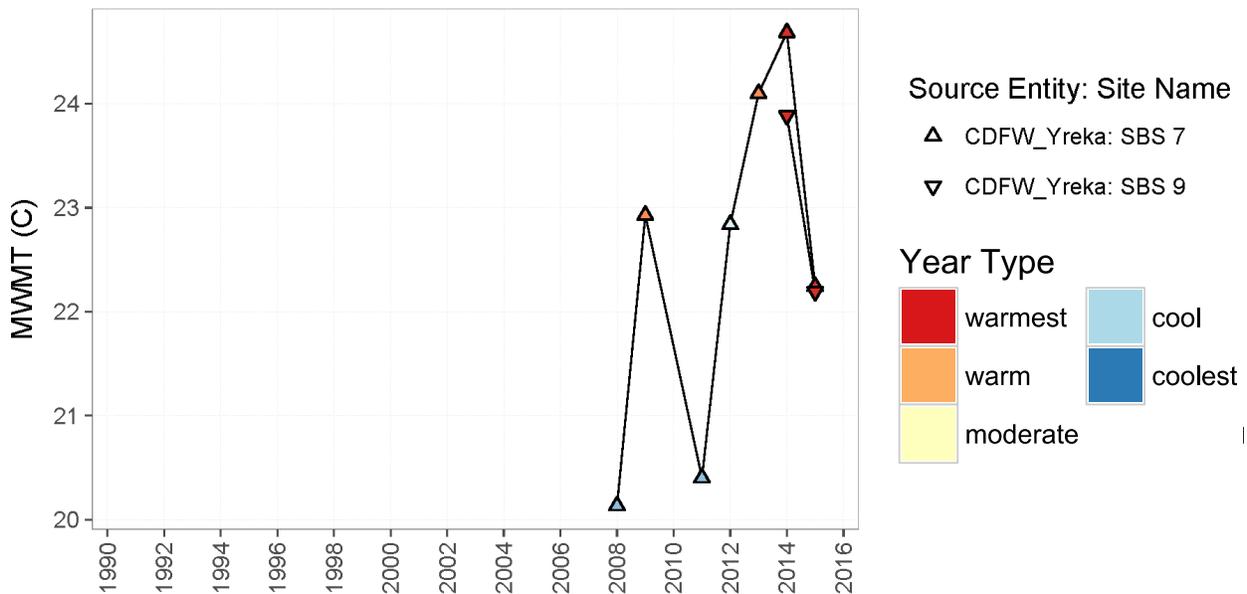


Figure 8. Time series of Maximum Weekly Maximum Temperature (MWMT) at two adjacent sites on the Shasta River monitored by CDFW. SBS 9 is the upstream of the confluence of Parks Creek and SBS 7 is another 75 meters upstream. Each point is one year, site, and source entity. Each site is shown as a unique symbol shape, which is then colored by MWMT according to year type.

Lower and middle reach of Big Springs Creek (tributary to Shasta River):

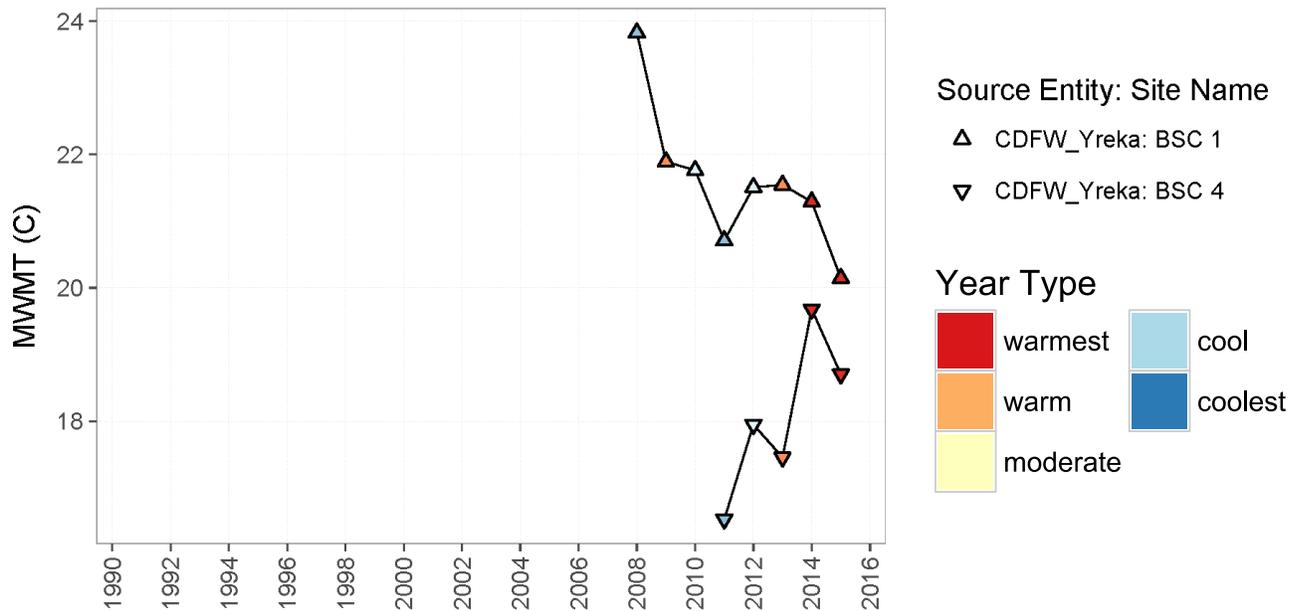


Figure 9. Time series of Maximum Weekly Maximum Temperature (MWMT) at two sites in Big Springs Creek monitored by CDFW. BSC 1 is the mouth of Big Springs Creek and BSC 2 is approximately halfway between Big Springs Lake and the mouth of Big Springs Creek (between the second and third road crossing). Each point is one year, site, and source entity. Each site is shown as a unique symbol shape, which is then colored by MWMT according to year type.

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Exhibit C

SUPERIOR COURT OF CALIFORNIA

COUNTY OF SACRAMENTO

MONTEREY COASTKEEPER, et al.

v.

**CALIFORNIA STATE WATER
RESOURCES CONTROL BOARD**

OCEAN MIST FARMS, et al.

Case Number: 34-2012-80001324

RULING ON SUBMITTED MATTER

Date: May 15, 2015

Time: 10:00 a.m.

Dept.: 29

Judge: Timothy M. Frawley

I.

Introduction

On March 15, 2012, the Central Coast Regional Water Quality Control Board (Regional Board) adopted a Conditional Waiver of Waste Discharge Requirements (Order No. R3-2012-0011) and related Monitoring and Reporting Program (Order Nos. R3-2012-0011-01, R3-2012-0011-02, and R3-2012-0011-03) governing discharges from irrigated agricultural lands in the Central Coast region. The "Waiver" waives the requirement for dischargers to file a "Report of Waste Discharge" and obtain "Waste Discharge Requirements" (a permit) for surface and ground water discharges from irrigated lands, provided dischargers comply with certain specified conditions.

Respondent California State Water Resources Control Board (State Board) received five petitions for review of the waiver. One of the petitions was filed by Petitioners Monterey Coastkeeper and Santa Barbara Channelkeeper (among others). Petitioners are non-profit corporations seeking to protect and enhance the State's water resources. The other four petitions were filed by entities representing farmers or agricultural

interests, including the Respondent-Intervenors in this action. Together, the five petitions alleged over forty deficiencies in the Regional Board's proposed Waiver. The State Board accepted the petitions for review and elected to review the Regional Board's proposed Waiver.

On September 24, 2013, the State Board adopted an Order (Order WQ 2013-0101), resolving the petitions for review and making amendments to the Waiver. Regional Board staff subsequently incorporated the State Board's amendments into a final "Modified Waiver."

This action followed. Petitioners Monterey Coastkeeper, Antonia Manzo, Environmental Justice Coalition for Water, California Sportfishing Protection Alliance, Pacific Coast Federation of Fishermen's Association, and Santa Barbara Channelkeeper seek a peremptory writ of mandate finding that the Modified Waiver violates the California Water Code, the Regional Basin Plan, the State Antidegradation Policy, Government Code § 11513, and CEQA; and commanding the Board to set aside the Waiver and prepare a new waiver after supplemental environmental review under CEQA. The court shall grant the petition and issue a peremptory writ of mandate commanding Respondent State Board to reconsider the Waiver.

II.

Background Law

The Porter-Cologne Water Quality Control Act is the principal law governing water quality regulation in California. Enacted in 1969, the Porter-Cologne Act establishes as state policy that "the quality of all waters of the state will be protected for use and enjoyment by the people of the state." (Water Code § 13000.) The Act provides that "activities and factors which may affect the quality of the waters of the state shall be regulated to attain the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible." (*Ibid.*)

The Legislature designated the State Board and nine regional water quality control boards (regional water boards) as the agencies with primary responsibility for the regulation of water quality under the Porter-Cologne Act. (Water Code § 13001.) The State Board formulates and adopts state-wide policy for water quality control, allocates funds, and oversees the activities of the regional water boards. (Water Code §§ 13140, 13320.) Each regional water board is responsible for, among other things, water quality protection, permitting, inspection, and enforcement actions within its region. (Water Code § 13225(a).)

A. Central Coast Basin Plan

The Porter-Cologne Act requires each regional water board to adopt a "water quality control plan" (also called a "basin plan") for areas within its region. (Water Code § 13240.) In the basin plan, a regional water board is required to identify and designate the "beneficial uses" of each water body in the region. (Water Code §§ 13050(j), 13240.) Among the beneficial uses that can be designated for a water body are: municipal water supply, contact recreation, non-contact recreation, warm water habitat, cold water habitat, and agricultural supply.

Basin plans also are required to establish "water quality objectives" (aka, "water quality standards"). Water quality objectives are numeric or narrative standards that must be met in order to ensure water bodies will be suitable for their particular beneficial uses and will not constitute a nuisance. (Water Code § 13241.) Factors a regional water board must consider in establishing water quality objectives include, but are not limited to, the following:

- (a) Past, present, and probable future beneficial uses of water.
- (b) Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.
- (c) Water quality conditions that could reasonably be achieved through the coordinated control of all factors which affect water quality in the area.
- (d) Economic considerations.
- (e) The need for developing housing within the region.
- (f) The need to develop and use recycled water. (Water Code § 13241.)

Basin plans also must contain an implementation plan that describes the actions necessary to achieve the relevant water quality objectives. (Water Code § 13242.) An implementation plan must include "a description of the nature of the actions which are necessary to achieve objectives," a time schedule for the actions to be action, and a description of monitoring activities that will be used to determine whether water quality objectives are being achieved. (*ibid.*)

Basin plans distinguish between "point sources" of pollution, which are discharges that come from specifically identifiable sources such as waste water treatment facilities, industrial drain pipes, and municipal storm drains, and "nonpoint sources," which are discharges from diffuse, land-use driven sources such as agricultural runoff, road

construction, and logging. Nonpoint sources of water pollution are not as easily regulated or controlled as point sources.

The relevant basin plan is the Central Coast Water Quality Control Plan (the "Basin Plan"), which was adopted by the Regional Board in 1975. The Basin Plan has been amended many times over the years and is subject to regular review every three years. Consistent with the Porter-Cologne Act, the primary objective of the Basin Plan is to show how the quality of the surface and ground waters in the Central Coast should be managed to provide the highest water quality reasonably possible. (RB 9165.)

As required by the Porter-Cologne Act, the Basin Plan establishes beneficial uses for water bodies in the Central Coast region, identifies water quality objectives to protect the established beneficial uses, and includes a program of implementation that describes the actions necessary to achieve the objectives. (RB 9173-209.) The implementation program includes a description of the nature of actions necessary to achieve the objectives, a time schedule for the actions to be taken, and a description of monitoring to be undertaken to determine compliance with the objectives.

B. The Nonpoint Source (NPS) and Antidegradation Policies

Basin plans must be consistent with state water quality policies. (Water Code § 13146.) Two water quality policies are relevant to this case: the State Board's Policy for Implementation and Enforcement of Nonpoint Source Pollution Control Program, also known as the "NPS Policy", and the Statement of Policy with Respect to Maintaining High Quality of Water, Resolution No. 68-16, which is commonly referred to as the "Antidegradation Policy."

The State Board adopted the NPS Policy in 2004. The NPS Policy guides regional water boards regarding nonpoint sources of pollution, consistent with the legislative direction in Water Code § 13369. The NPS Policy has the force and effect of a regulation.

The NPS Policy requires that nonpoint source pollution control programs contain five "key elements." In particular, a nonpoint source pollution control program must (1) explicitly address nonpoint source pollution in a manner that achieves and maintains water quality objectives; (2) include a description of management practices and program elements expected to be implemented; (3) include a time schedule and quantifiable milestones designed to measure progress towards achieving water quality objectives; (4) include sufficient feedback mechanisms to ensure that the program is achieving its stated purpose, and ascertain whether additional or different actions are required; and

(5) state the potential consequences for failure to achieve the program's objectives. (RB 9417-20.)

The NPS Policy recognizes that nonpoint source pollution control is a complicated endeavor that addresses longstanding problems and that achieving objectives will take a significant amount of time. (RB 9422.) The NPS Policy recognizes that implementing management practices may be an effective way to control nonpoint source pollution. (RB 9413.)

The State Board adopted the Antidegradation Policy in 1968. The Antidegradation Policy applies whenever (a) there is high quality water, and (b) an activity which produces or may produce waste or an increased volume or concentration of waste that will discharge into such high quality water. The Antidegradation Policy provides, in relevant part:

Whenever the existing quality of water is better than the quality established in policies as of the date on which such policies become effective, such existing high quality will be maintained until it has been demonstrated to the State that any change will be consistent with maximum benefit to the people of the State, will not unreasonably affect present and anticipated beneficial use of such water and will not result in water quality less than that prescribed in the policies.

Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained. (RB 9377.)

High quality waters are determined based on specific properties or characteristics. Because the determination is made on a constituent by constituent basis, waters can be considered high quality for some constituents, but not for others. (*Asociacion de Gente Unida por el Agua v. Central Valley Regional Water Quality Control Bd.* ["AGUA"] (2012) 210 Cal.App.4th 1255, 1271.)

By its terms, the Antidegradation Policy seems to require a comparison of existing water quality to water quality objectives as of the date on which those water quality objectives were established. Such an interpretation prevents the Policy from being triggered when

existing water quality is equal to or less than the water quality objectives as of the date those objectives took effect, even if historically water quality exceeded applicable objectives.

However, courts and the State Board have interpreted the phrase “existing quality of water” to mean “baseline water quality,” which, in turn, is defined as the “best quality that has existed” since the Antidegradation Policy took effect in 1968, unless subsequent lowering was due to regulatory action consistent with state and federal antidegradation policies. (*Id.* at p.1270; see also Administrative Procedures Update 90-004, pp.4-5 [providing guidance in implementing the policy as part of the NPDES permitting process].)

Thus, when undertaking an antidegradation analysis, the regional water board must determine the baseline water quality, and compare that baseline water quality with current water quality objectives. If the baseline water quality is equal to or less than the objectives, the water is not “high quality” and the Antidegradation Policy is not triggered. The relevant water quality objectives govern the water quality that must be maintained or achieved. . (*AGUA, supra*, at p.1270.) But if the baseline water quality is better than the water quality objectives, the Policy is triggered and the baseline water quality must be “maintained” unless the water board makes the findings required to permit degradation.¹ (*AGUA, supra*, at p.1270.)

To permit a proposed discharge that will degrade “high quality” water, a regional water board must find that the discharge (1) will be consistent with maximum benefit to the people of the State; (2) will not unreasonably affect present and anticipated beneficial use of the water; and (3) will not result in water quality less than that prescribed in water quality plans and policies. In addition, the board must ensure the discharge is utilizing the “best practicable treatment or control (BPTC)” to ensure pollution or nuisance will not occur and that the highest quality consistent with the maximum benefit to the people of the State will be maintained. (RB 9377-78.)

Any actions that can adversely affect high quality surface waters are also subject to the federal antidegradation policy developed under the Clean Water Act. (40 C.F.R. § 131.12.) Where the federal antidegradation policy is applicable, the State Board has interpreted its Antidegradation Policy as incorporating the federal policy. (See State Water Board Order WQ 86-17, pp.16-19.)

¹ Under this interpretation, use of the term “maintained” might be a misnomer because actual, current water quality will in some cases have degraded below applicable water quality objectives. In such instances, the water is considered “high quality” only in the sense that its quality was, at some point between 1968 and the present, better than current water quality objectives.

C. Waste Discharge Requirements

Under the Porter-Cologne Act, anyone discharging or proposing to discharge waste that could affect water quality must file a report (aka, a "Report of Waste Discharge") and obtain either a permit (aka, "Waste Discharge Requirements") or a waiver (aka, a "Conditional Waiver of Waste Discharge Requirements").²

Waste Discharge Requirements can be issued to an individual discharger who has filed a Report of Waste Discharge and requested the permit. (Water Code § 13260). Alternatively, a regional water board may issue Waste Discharge Requirements for a group of dischargers if the board determines that (i) the discharges are produced by the same or similar operations, (ii) the discharges involve the same or similar types of waste, (iii) the discharges require the same or similar treatment standards, and (iv) the discharges are more appropriately regulated under general discharge requirements than under individual discharge requirements. (Water Code § 13263(i).)

Waste Discharge Requirements must be consistent with any applicable state and regional water quality control plans (basin plans) and policies. When issuing Waste Discharge Requirements, regional water boards are required to consider a number of factors, including the beneficial uses to be protected, the water quality objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Water Code section 13241.

Waste Discharge Requirements may contain any number of conditions, including effluent limitations, treatment standards, monitoring requirements, and a compliance schedule. (Water Code § 13263.) However, water boards generally may not specify the design, location, type of construction, or particular manner of compliance with the requirements. (Water Code §13360; *Tahoe-Sierra Pres. Council v. State Water Res. Control Bd.* (1989) 210 Cal.App.3d 1421, 1438 ["Section 13360 is a shield against unwarranted interference with the ingenuity of the party subject to a waste discharge requirement It preserves the freedom of persons who are subject to a discharge standard to elect between available strategies to comply with that standard."])

² The federal Clean Water Act also requires a permit to discharge pollutants from point sources to surface waters. These permits are known as National Pollutant Discharge Elimination System (NPDES) permits. Congress has delegated to states with approved water quality programs, like California, the authority to issue NPDES permits. (Water Code § 13374.) Hence, Waste Discharge Requirements issued by regional water boards ordinarily also serve as federal NPDES permits. (Water Code § 13374; *Waterkeepers Northern California v. State Water Resources Control Bd.* (2002) 102 Cal.App.4th 1448, 1452.) Nonpoint source discharges to surface waters, and discharges to groundwater, are exempt from the permitting provisions of the Clean Water Act.

D. Conditional Waivers of Waste Discharge Requirements

The Porter-Cologne Act authorizes a water board to waive Waste Discharge Requirements for a specific discharge or specific type of discharge if the board determines that a waiver is consistent with any applicable state or regional water quality control plan (basin plan) and is in the public interest. (Water Code § 13269.) Waivers must have conditions and persons subject to the waiver must comply with such conditions. (*Ibid.*) Thus, in practical terms, Conditional Waivers operate in the same manner as Waste Discharge Requirements: the discharger is permitted to discharge waste provided the discharger meets the conditions specified in the Waiver.

Such conditions generally "shall" include, but are not limited to, individual, group, or watershed-based monitoring requirements, unless the board determines that the discharges at issue do not pose a significant threat to water quality. When imposed, monitoring requirements must be designed to support the development and implementation of the Waiver program, including verifying the adequacy and effectiveness of the Waiver's conditions. In establishing monitoring requirements, the water board may consider the volume, duration, frequency, and constituents of the discharge; the extent and type of existing monitoring activities; the size of the project area; and other relevant factors. Monitoring results must be made available to the public. (*Ibid.*)

Conditional Waivers are limited to five-year terms, but subject to renewal. As with Waste Discharge Requirements, a water board may issue an individual or a group Waiver.

III.

Background Facts and Procedure

The Central Coast region has approximately 435,000 acres of irrigated land and approximately 3000 agricultural operations generating discharges of waste.³ It also has more than 17,000 miles of surface waters and approximately 4000 square miles of groundwater basins that may be affected by discharges of waste from irrigated lands.

Because agricultural discharges are non-point source discharges, historically they have been subject to minimal regulation. Regulatory authorities instead focused on addressing point source discharges such as wastewater treatment plants and industrial dischargers. However, agricultural discharges have not been exempt from regulation.

³ In 2004, the region had approximately 600,000 acres of irrigated crop land, but only about 2,500 agricultural operations. (See RB 60.)

The Regional Board first approved a “blanket” waiver of waste discharge requirements for irrigation return flows and stormwater runoff in 1983. The 1983 waiver was not especially demanding: the waiver did not require any monitoring or reporting of wastewater discharges.

At the time the 1983 waiver was adopted, the Water Code allowed water boards to approve a waiver provided it was “not against the public interest.” (Former Water Code § 13269.) The Legislature subsequently amended the Water Code to require that waivers be consistent with applicable water quality control plans (basin plans), include monitoring provisions, and expire after a five-year term. The legislation also provided that waivers in effect on January 1, 2000, if not specifically renewed, would sunset on January 1, 2003.

In response to the change in the law, on July 9, 2004, the Regional Board adopted Order No. R3-2004-0117, a conditional waiver of waste discharge requirements for discharges from irrigated lands in the Central Coast region (the “2004 Waiver”).⁴ In adopting the 2004 Waiver, the Regional Board found that water quality in the Central Coast region “has been shown to be impaired by such constituents as pesticides and nutrients, lending . . . urgency to the need to adopt additional requirements for irrigated operations.” (RB 9.)

The 2004 Waiver classified dischargers into one of two tiers, and imposed the following conditions: completion of 15 hours of farm water quality education; development of a farm water quality management plan (that addresses, at a minimum, erosion control, irrigation management, nutrient management, and pesticide management); implementation of management practices in accordance with the Farm Plan; surface receiving water quality monitoring (individual, group/cooperative, or watershed-based); and reporting. (RB 60 et seq.) The Waiver did not require any groundwater monitoring.

The Waiver included a time schedule and milestones to achieve compliance with the conditions of the Waiver, but the time schedule and milestones only covered reporting and monitoring.

The goal of the 2004 Waiver was to improve and protect water quality by providing a program to manage discharges from irrigated lands that cause or contribute to exceedances of water quality standards. The Waiver sought to achieve this goal through education and by requiring dischargers to prepare and implement farm water

⁴ The 2004 Waiver also waived the requirement for a Report of Waste Discharge if dischargers submit a “Notice of Intent” to comply with the conditions of the 2004 Waiver.

quality management plans (Farm Plans). A Farm Plan is a document that, among other things, identifies practices that are or will be implemented to manage discharges of pesticides, nutrients, and other pollutants, to protect water quality. In adopting the 2004 Waiver, the Regional Board hoped to improve irrigation efficiency and minimize fertilizer applications, by ensuring that growers evaluate crop nutrient requirements and consider the nitrate content of their irrigation water and soil in making fertilizer decisions. (RB 73.)

Regional Board staff recognized that the goal of achieving water quality standards represents a “long-term” effort that “cannot be achieved” during the five-year waiver term. (RB 15, 62.) The intent of the program during the first five-year cycle was to enroll growers in the program, educate growers about management practices, improve management practices and recordkeeping, gather information, and improve water quality. Staff indicated that few, if any, enforcement actions would be initiated based on water quality data, unless there was clear evidence of a flagrant or deliberate attempts to degrade water quality. (RB 17.)

The 2004 Waiver took effect on July 9, 2004, and had a term a five years, meaning it was due to expire on July 9, 2009. In anticipation of the expiration of the 2004 Waiver, Regional Board staff initiated a stakeholder process in December 2008, and extended the 2004 Waiver for one additional year, until July 10, 2010, to afford the stakeholder process time to reach a consensus.

Unfortunately, the stakeholder process was not successful. Thus, in February 2010, the Regional Board released a preliminary draft waiver to replace the 2004 Waiver (the “2010 Draft Waiver”), along with a corresponding staff report. (RB 1194-1272.)

The staff report explains the rationale behind the recommendations contained in the 2010 Draft Waiver as follows:

The intent of the 2004 Conditional Waiver was to regulate discharges from irrigated lands to ensure that such dischargers are not causing or contributing to exceedances of any Regional, State, or Federal numeric or narrative water quality standard. The requirements of the 2004 Conditional Waiver focused on enrollment, education and outreach, the development of Farm Water Quality Management Plans (Farm Plans), and receiving (watershed-scale) water quality monitoring. However, substantial evidence indicates discharges of waste are causing significant exceedances of numeric and narrative water quality standards resulting in negative impacts on beneficial uses. (RB 1131; see also RB 1140.)

The staff report indicates that agricultural discharges "continue to contribute to already significantly impaired water quality and impose certain risk and massive costs to public health, drinking water supplies, aquatic life, and valued water resources." (RB 1130.) It concludes that while the 2004 Waiver was a significant step, the 2004 Waiver "lacks clarity and focus on water quality requirements and does not include adequate compliance and verification monitoring." (RB 1141.) "At a minimum, agricultural discharges continue to severely impact water quality in most receiving waters." Thus, achievement of desired water quality outcomes is "uncertain and unmeasured." (*Ibid.*)

Building upon the 2004 Waiver, the 2010 Draft Waiver retained the requirement that dischargers prepare a Farm Plan (with corresponding management practices), and it retained the 2004 Waiver's surface receiving water monitoring requirements. However, to further reduce or eliminate waste discharges, the 2010 Draft Waiver proposed to impose new, more stringent monitoring and reporting requirements, with an emphasis on "high risk" dischargers in the most severely impaired areas. (RB 1142, 1246 et seq.)

Unlike the 2004 Waiver, the 2010 Draft Waiver proposed to require all farm operations to conduct individual surface water discharge monitoring of their farm operation. If discharge monitoring demonstrates the discharge is impairing or has the potential to impair surface waters, the Draft Waiver required that discharge to be eliminated or treated/controlled to meet water quality standards. (RB 1144-45.)

In addition, the Draft Waiver required all dischargers to conduct annual groundwater monitoring of all irrigation and drinking water wells, and develop a plan to monitor and characterize groundwater quality in the area.

The 2010 Draft Waiver required dischargers to identify, select, and implement management practices to meet water quality standards, maintain existing high quality water, and achieve compliance with the Waiver. (RB 1256.) It also required dischargers to update their Farm Plan at least annually, with monitoring and site evaluation results. (RB 1248, 1255.)

The 2010 Draft Waiver included new requirements for pesticide runoff, nutrient and salt management, sediment/erosion control, and aquatic habitat protection (including minimum riparian buffer widths for streams). (RB 1265.) And it prohibited application of fertilizer "in excess of crop needs." (RB 1251.)

The 2010 Draft Waiver included a time schedule for compliance. Under the Draft Waiver, irrigation runoff either must be eliminated within two years, or the following pollutants must be eliminated or treated/controlled to meet applicable water quality standards by the specified dates: toxicity (within two years); turbidity (within three years); nutrients (within four years), and salts (within four years). (RB 1147, 1267 et seq.) Additionally, the Draft Waiver required dischargers to implement management practices to reduce pollutant loading to groundwater. (*Ibid.*)

Staff acknowledged that to “fully control” all discharges and achieve compliance with water quality standards would take longer than the five-year period of the Waiver, but staff recommended adoption of the Draft Waiver as a reasonable starting point to improve water quality. (*Ibid.*)

After holding public workshops and receiving comments, Regional Board staff released further revised versions of the draft order in November 2010, March 2011, July 2011, and August 2011.⁵ (RB 3766-4213, 4901-5700, 6388-6555; SB 7337.) Ultimately, on March 15, 2012, the Regional Board adopted Order No. R3-2012-0011, renewing and revising the 2004 Waiver. (RB 8465-628.) (For ease of reference, the court shall refer to the Regional Board’s Order approving a Conditional Waiver of Waste Discharge Requirements and Report of Waste Discharge, and the related Monitoring and Reporting Programs, as the “2012 Waiver”).

In adopting the 2012 Waiver, the Regional Board made a number of findings, including the following:

5. **Since the issuance of the [2004 Waiver], the Central Coast Water Board has compiled additional and substantial empirical data demonstrating that water quality conditions in agricultural areas of the region continue to be severely impaired or polluted by waste discharges from irrigated agricultural operations and activities that impair beneficial uses, including drinking water, and impact aquatic habitat on or near irrigated agricultural operations. The most serious water quality degradation is caused by fertilizer and pesticide use, which results in runoff of chemicals from agricultural fields into surface waters and percolation into groundwater. . . . [¶]**

⁵ The Board also extended the 2004 Waiver, several times, through September 30, 2012, to allow further time to develop a new conditional waiver.

- 6. Nitrate pollution of drinking water supplies is a critical problem throughout the Central Coast Region. Studies indicate that fertilizer from irrigated agriculture is the largest primary source of nitrate pollution in drinking water wells and that significant loading of nitrate continues as a result of agricultural fertilizer practices. Studies indicate that irrigated agriculture contributes approximately 78 percent of the nitrate loading to groundwater in agricultural areas. Hundreds of drinking water wells serving thousands of people throughout the region have nitrate levels exceeding the drinking water standard. This presents a significant threat to human health as pollution gets substantially worse each year, and the actual numbers of polluted wells and people affected are unknown. Protecting public health and ensuring safe drinking water is among the highest priorities of this Order. This Order prioritizes conditions to control nitrate loading to groundwater and impacts to public water systems. . . . [¶]**
- 7. Agricultural use rates of pesticides in the Central Coast Region and associated toxicity are among the highest in the State. Agriculture-related toxicity studies conducted on the Central Coast since 1999 indicate that toxicity resulting from agricultural discharges of pesticides has severely impacted aquatic life in Central Coast streams. Some agricultural drains have shown toxicity nearly every time the drains are sampled. Twenty-two sites in the region, 13 of which are located in the lower Salinas/Tembladero watershed area, and the remainder in the lower Santa Maria area, have been toxic in 95% (215) of the 227 samples evaluated. This Order prioritizes conditions to address pesticides that are known sources of toxicity and sources of a number of impairments on the 2010 List of Impaired Waterbodies, specifically chlorpyrifos and diazinon. . . . [¶]**
- 8. Existing and potential water quality impairment from agricultural waste discharges takes on added significance and urgency, given the impacts on public health, limited sources of drinking water supplies and proximity of the region's agricultural lands to critical habitat for species of concern.**
- 10. This Order requires compliance with water quality standards. Dischargers must implement, and where appropriate update or improve, management practices, which may include local or regional control or treatment practices and changes in farming practices to effectively**

control discharges, meet water quality standards and achieve compliance with this Order. **Consistent with the Water Board's Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (NPS Policy, 2004), dischargers comply by implementing and improving management practices and complying with the other conditions, including monitoring and reporting requirements. This Order requires the discharger to address impacts to water quality by evaluating the effectiveness of management practices (e.g., waste discharge treatment and control measures), and taking action to improve management practices to reduce discharges.** If the discharger fails to address impacts to water quality by taking the actions required by this Order, including evaluating the effectiveness of their management practices and improving as needed, the discharger may then be subject to progressive enforcement and possible monetary liability.

14. Dischargers have the option of complying with surface receiving water quality monitoring conditions identified in MRP Order No. R3-2012-0011, either individually or through a cooperative monitoring program. **The Central Coast Water Board encourages Dischargers to participate in a cooperative monitoring program to comply with surface receiving water quality monitoring conditions.**

16. Many owners and operators of irrigated lands within the Central Coast Region have taken actions to protect water quality. In compliance with the 2004 Agricultural Order, most owners and operators enrolled in the 2004 Agricultural Order, implemented the Cooperative Monitoring Program (CMP), participated in farm water quality education, developed farm water quality management plans and implemented management practices as required in the 2004 Agricultural Order. The 2004 Agricultural Order did not include conditions that allowed for determining individual compliance with water quality standards or the level of effectiveness of actions taken to protect water quality, such as individual discharge monitoring or evaluation of water quality improvements. This Order includes new or revised conditions to allow for such evaluations. Many owners and operators of irrigated lands within the Central Coast Region have taken actions to protect water quality. In compliance with the 2004 Agricultural Order, most owners and operators enrolled in the 2004 Agricultural Order, implemented the Cooperative Monitoring Program (CMP), participated in farm water

quality education, developed farm water quality management plans and implemented management practices as required in the 2004 Agricultural Order. **The 2004 Agricultural Order did not include conditions that allowed for determining individual compliance with water quality standards or the level of effectiveness of actions taken to protect water quality, such as individual discharge monitoring or evaluation of water quality improvements. This Order includes new or revised conditions to allow for such evaluations.** (See RB 8299-303 [emphasis added].)

The 2012 Waiver was similar to the 2004 Waiver in that it required farm water quality education and farm water quality management plans (or an approved alternative water quality improvement program), required dischargers to implement management practices, required surface receiving water quality monitoring and reporting, imposed time schedules and milestones, and required compliance reporting. Like the 2004 Waiver, the 2012 Waiver encouraged "cooperative" monitoring and reporting efforts.

The 2012 Waiver was more demanding than the 2004 Waiver. The 2012 Waiver (1) classified dischargers into three tiers based on criteria intended to assess a discharger's threat to water quality; (2) required groundwater monitoring and reporting; (3) required maintenance of riparian/vegetative cover in aquatic habitat areas; (4) required the installation of back flow prevention devices; and (5) imposed heightened requirements on the dischargers posing the biggest threats to water quality, including nitrogen balance ratios, irrigation and nutrient management plans, water quality buffer plans, individual surface discharge water quality monitoring and reporting, photo monitoring, total nitrogen reporting, and annual compliance forms.

But some provisions of the 2012 Waiver were less demanding than the 2010 Draft Waiver. For example, the 2010 Draft Waiver required all dischargers within 1000 feet of any surface waterbody to implement management practices sufficient to eliminate discharge of nutrients and salts within four years, and required all dischargers to meet this standard within six years. The 2010 Draft Waiver required the nutrient management element of the Farm Plan to include an estimation of the amount of fertilizer applied in excess of crop needs (if applicable) and an estimation of excess/residual fertilizer/nutrients in the root zone at the end of the growing season. (RB 1259-60.)

Under the 2012 Waiver, only "Tier 2 and 3" dischargers determined to have high nitrate loading risks were subject to additional nutrient management practices. Only Tier 3 dischargers were required to initiate individual surface water discharge monitoring and

reporting, and only Tier 3 dischargers with high nitrate loading risk farms were required to determine crop nitrogen uptake values and report progress toward nitrogen balance ratio targets. Only Tier 3 dischargers with farms adjacent to an impaired waterbody were required to prepare and implement a Water Quality Buffer Plan.

The 2012 Waiver required dischargers to comply with water quality standards and with the Regional Basin Plan, and to "effectively control" discharges of pesticides, toxic substances, sediment, turbidity, and nutrients, within specified time lines, but staff acknowledged that, in practice, staff would withhold enforcement if dischargers were meeting conditions of the Waiver regarding implementation, monitoring and reporting. (See SB 2345-46.)

To comply with CEQA, the Regional Board prepared a Subsequent Environmental Impact Report ("SEIR"). The SEIR originally was based on the 2010 Draft Waiver. On August 10, 2011, the Regional Board issued an Addendum to the SEIR to reflect the subsequent revisions to the Draft Waiver and the Board's conclusion that a new SEIR was not required. The Board ultimately concluded that the proposal to "renew" the 2004 Waiver, with "clarifications and new conditions," might have significant environmental effects on biological resources. Thus, the Board adopted a Statement of Overriding Considerations with respect to biological resources. In all other respects, the Board concluded that the 2012 Waiver would not have any new significant environmental effects that had not already been evaluated in the Negative Declaration for the 2004 Waiver.

Five parties petitioned the State Board for review of the Regional Board's 2012 Waiver. (SB 1-1646; see also SB 7164.) One of the five petitions was filed by Petitioners Monterey Coastkeeper and Santa Barbara Channelkeeper (as well as San Luis Obispo Coastkeeper). The other four petitions were filed by entities representing agricultural interests, including Respondent-Intervenors.

In their petition for administrative review, Petitioners argued that the Regional Board had "substantially weakened" staff's proposed controls on nitrate pollution, removing any "firm targets" for nitrate discharges. In the 2010 Draft Waiver proposed by staff, dischargers were required to calculate and "meet" nitrogen balance ratio targets. However, in the 2012 Waiver, the Regional Board revised this requirement to require only that dischargers "report progress towards" achieving nitrogen balance ratio "milestones." Petitioners argued that the revisions rendered the Waiver's controls on nitrate pollution "too weak" to achieve compliance with the Basin Plan, in violation of Water Code section 13269. Thus, Petitioners urged the State Board to reject the

Regional Board's revision "eliminating nitrate ratio balance targets" for Tier 3 dischargers.

The agricultural interests raised a variety of procedural and substantive challenges to the 2012 Waiver. Among other things, they argued that the Waiver's conditions are unreasonable and excessive and inconsistent with the Basin Plan and the Porter-Cologne Act. They also argued that the Board's SEIR is inadequate and that the Board failed to comply with CEQA by relying on the 2004 Negative Declaration and failing to adequately analyze and mitigate the adverse environmental effects of the new, 2012 Waiver.

The agricultural interests also requested the State Board stay certain provisions of the 2012 Waiver pending resolution of the petitions. The State Board granted the request and issued a stay order on September 19, 2012, staying Provisions 44(g), 68, 74, and 67 of the 2012 Waiver (and Part 3 of the related Tier 2 and Tier 3 Monitoring and Reporting Programs).

On September 17, 2012, the State Board initiated its review of the petitions by transmitting a "30-day letter" inviting the Regional Board and all interested persons to respond to the petitions. In response to the 30-day letter, the State Board received responses from several parties, including Petitioners and Respondent-Intervenors.

On June 6, 2013, the State Board released a first revised draft Waiver and received public comments. On August 20, 2013, the State Board released a second revised draft Waiver, followed by another public comment period. On September 9, 2013, the Board released a third revised draft Waiver, followed by yet another public comment period. A final draft Waiver was released on September 20, 2013, prior to the September 24, 2013, Board hearing.

On September 24, 2013, after receiving testimony from the public and interested parties, as well as Regional and State Board staff, the State Board adopted its final Order WQ 2013-0101. (See SB 7162-234 [redline version].) The State Board's Order upheld most of the provisions of the Regional Board's 2012 Waiver, but also amended several requirements. The most significant revision was to replace the Waiver's nitrogen balance ratio requirement with an expanded nitrogen reporting protocol.

In its Order, the State Board indicated that it was in the process of convening a panel of experts to assess existing agricultural nitrate control practices and propose new practices to protect groundwater in the Central Coast region. The State Board indicated that many of the groundwater issues contested in the petitions should be addressed by

the expert panel. Thus, the State Board emphasized that its Order constitutes only an interim determination as to how to move forward on the “difficult and complex questions presented in the petitions,” pending the expert panel’s “more thorough examination of the underlying issues.” (SB 7165.)

The Regional Board staff modified Order No. R3-2012-0011 as directed by the State Board’s Order WQ 2013-0101. (For ease of reference, the court shall refer to the Regional Board’s modified Order, and the related Monitoring and Reporting Programs, as the “Modified Waiver”).

This lawsuit followed. The Amended Petition alleges that the State Board abused its discretion in adopting Order No. WQ 2013-0101, modifying the 2012 Waiver, because the Order violates the California Water Code, the Basin Plan, and California’s Antidegradation Policy, and because the Board improperly excluded highly-relevant scientific evidence that Petitioners submitted during the public review and comment period (namely, a report by Thomas Harder and Jay. R Lund entitled “Addressing Nitrate in California’s Drinking Water,” also known as the “U.C. Davis Report”). The Amended Petition also alleges that the State Board violated CEQA by failing to undertake additional environmental review before adopting its final Order.

The Amended Petition seeks a peremptory writ of mandate commanding Respondent State Board to set aside its Order No. WQ 2013-0101, remanding this matter for further proceedings consistent with this court’s order, and reinstating the Regional Board’s 2012 Waiver until the State Board complies with the writ. Petitioners also seek an award of reasonable attorney fees under California Civil Procedure Code section 1021.5.

Respondents oppose the petition. Respondent State Board also has filed a demurrer alleging that the Fifth Cause of Action (CEQA) fails to state facts sufficient to constitute a cause of action due to Petitioners’ failure to exhaust administrative remedies. (Because the demurrer is duplicative of the State Board’s arguments opposing the petition, the court need not, and does not, address it further in this ruling.)

IV. Standard of Review

The challenges to the Board’s actions are reviewed under Code of Civil Procedure section 1094.5. (Water Code § 13330(e).) The inquiry under section 1094.5 is whether the agency has (1) proceeded without, or in excess of, jurisdiction; (2) whether there was a fair trial; and (3) whether there was any prejudicial abuse of discretion. Abuse of

discretion is established if the agency has not proceeded in the manner required by law, the order or decision is not supported by the findings, or the findings are not supported by the evidence. (Civ. Proc. Code § 1094.5(b).)

Under Water Code section 13330(e), the Court is authorized to exercise its independent judgment on the evidence. In applying the independent judgment test, the trial court reweighs the evidence from the hearing and makes its own determination as to whether the administrative findings are supported by the weight (i.e., preponderance) of the evidence. (*Vaill v. Edmonds* (1991) 4 Cal.App.4th 247, 257.)

Even where the independent judgment test applies, the factual findings of the agency come before the court with a presumption of correctness. (*Fukuda v. City of Angels* (1999) 20 Cal.4th 805, 811-12, 817.) It is presumed that the agency regularly performed its official duty. (*Id.*; *Elizabeth D. v. Zolin* (1993) 21 Cal.App.4th 347, 354.) The burden falls on the petitioner attacking the administrative decision to convince the court that the administrative proceedings were unfair, were in excess of jurisdiction, or that the agency's findings are contrary to the weight of the evidence. (*Fukuda, supra*, at pp. 811-12.)

The amount of deference to be afforded to an agency's interpretation of a statute or regulation is "contextual," and must be considered in light of the agency's expertise and technical knowledge, its thorough analysis of the issues, and its consistency over time. (*California Society of Anesthesiologists v. Brown* (2012) 204 Cal.App.4th 390, 405; *McCormick v. County of Alameda* (2011) 193 Cal.App.4th 201, 207-08; see also *Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 7-8.) In general, where an agency is charged with enforcing a statute or regulation, its interpretation is entitled to considerable weight. (*Family Planning Associates Med. Group, Inc. v. Belshe* (1998) 62 Cal.App.4th 999, 1004.) However, the court itself is the ultimate arbiter of the interpretation of the law. (*C.E. Buggy, Inc. v. Occupational Safety & Health Appeals Bd.* (1989) 213 Cal.App.3d 1150, 1156.)

The court reviews the State Board's compliance with CEQA by evaluating whether there was a prejudicial abuse of discretion. (Pub. Res. Code § 21168.5.)

In a mandate proceeding to review an agency's decision for compliance with CEQA, the court reviews the administrative record to determine whether the agency abused its discretion. Abuse of discretion is shown if the agency has not proceeded in the manner required by law, or the determination is not supported by substantial evidence. (*Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1106.) Judicial review differs significantly depending on whether the claim is

predominantly one of improper procedure or a dispute over the facts. (*Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200, 211-12.)

Where the alleged defect is that the agency has failed to proceed in the manner required by law, the court's review is de novo. (*Ibid.*) Although CEQA does not mandate technical perfection, CEQA's information disclosure provisions are scrupulously enforced. (*Ibid.*) A failure to comply with the requirements of CEQA which results in an omission of information necessary to informed decision-making and informed public participation constitutes a prejudicial abuse of discretion, regardless whether a different outcome would have resulted if the agency had complied with the disclosure requirements. (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1198.)

Where the alleged defect is that the agency's factual conclusions are not supported by substantial evidence, the reviewing court must accord deference to the agency's factual conclusions. The reviewing court may not weigh conflicting evidence to determine who has the better argument and must resolve all reasonable doubts in favor of the administrative decision. The court may not set aside an agency's approval of an EIR on the ground that an opposite conclusion would have been equally or more reasonable. (*Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal. 4th 936, 945.)

Regardless of what is alleged, an EIR approved by a governmental agency is presumed legally adequate, and the party challenging the EIR has the burden of showing otherwise. (*Santa Clarita Organization for Planning the Environment v. County of Los Angeles* (2007) 157 Cal.App.4th 149, 157-58.)

V.

Requests for Judicial Notice

The request for judicial notice filed by Respondent-Intervenors, although unopposed, is denied because Respondent-Intervenors have failed to furnish the court with sufficient information to enable it to take judicial notice of the matters listed.

VI.
Discussion

A. Did Petitioners exhaust their administrative remedies?

As a preliminary matter, Respondents contend that a number of the issues Petitioners raise in their Opening Brief were not presented to the State Board or were presented in contravention of a State Board rule restricting comments to revisions made since the prior draft.⁶ The issues that Respondents contend were not properly presented to the State Board relate to provisions of the Modified Waiver addressing (i) pesticide controls [specifically, monitoring use of certain categories of pesticides], (ii) vegetation buffers, (iii) tile drains, (iv) tiering, (v) individual surface water discharge monitoring, (vi) compliance with the State's Antidegradation Policy, and (vii) compliance with CEQA. Because the State Board did not have the opportunity to fully consider those issues, Respondents contend that Petitioners failed to exhaust their administrative remedies.

Petitioners respond that all of the issues presented in this litigation were raised by Petitioners or other interested parties during the administrative process, and therefore are properly before this court.

In general, the court agrees with Petitioners that the purpose of exhaustion of administrative remedies is satisfied if the issue properly was raised during the administrative process, regardless of who raised it. (See *Evans v. City of San Jose* (2005) 128 Cal.App.4th 1123, 1137.)

On the other hand, as Petitioners concede, consideration of whether exhaustion has occurred depends upon the particular procedures applicable to the public agency in question. (See Reply Brief, p.4, lines 1-3 [citing *Citizens for Open Government v. City of Lodi* (2006) 144 Cal.App.4th 865, 876].) In this case, the applicable procedures include State Board regulations governing the administrative process.

Under State Board regulations, any petition for State Board review of an action by a regional board must be in writing and must include a full and complete statement of the reasons the regional board's action was inappropriate or improper. (See 23 C.C.R. § 2050.) Further, if the action that is the subject of the petition for review was taken by the regional board after notice and opportunity to comment, the petition to the State Board shall be limited to those substantive issues or objections that were raised before

⁶ Under State Board regulations, where staff makes revisions to a proposed order, subsequent comments are limited to the revisions. (23 C.C.R. § 2067; see also SB 6673.)

the regional board. (*Ibid.*) In short, an “aggrieved person” cannot present issues for the first time to the State Board.

Upon receipt of a petition that complies with § 2050, the State Board may solicit responses to the petition. (23 C.C.R. § 2050.5.) After review of the regional board’s records pertaining to the matter, the State Board may deny the petition, set aside or modify the regional board order, or direct the regional board to take appropriate action. (23 C.C.R. § 2052.)

Before taking final action, the state board may, in its discretion, hold a hearing for the purpose of oral argument, receipt of additional evidence, or both. (*Ibid.*) When a state board hearing is held, the decision of the State Board will be based on that evidence and testimony in the record of the hearing. When no hearing is held, the decision of the Board will be based on the record before the regional board, except that, in either case, the record may be supplemented by other evidence and testimony pursuant to section 2050.6. (23 C.C.R. § 2064.)

The State Board also has the authority to order review of a regional board’s action on its own motion. (23 C.C.R. § 2050.5.) When review is undertaken on the Board’s own motion, all affected persons known to the Board shall be notified and given an opportunity to submit information and comments, subject to such conditions as the Board may prescribe. (23 C.C.R. § 2055.)

Formal disposition of petitions occurs at board meetings. At such meetings, the Board may invite comments from interested persons. Comments must be based on evidence contained in the record or legal argument. No new evidence is submitted at the meeting. (23 C.C.R. § 2067.)

The regulations further provide that when the Board makes revisions to a proposed order, subsequent written comments are limited to those revisions. (23 C.C.R. § 2067.)

In this case, even though petitions challenging the Regional Board’s Waiver were filed by Petitioners and by agricultural interests, the Board ultimately decided to review the Regional Board’s actions on its own motion – apparently because the Board could not meet the time limits for deciding the petitions. (See 23 C.C.R. § 2050.5.)

The only issue raised in the petition filed by Petitioners was the Regional Board’s decision to “eliminate” the nitrogen balance ratio targets – specifically, by replacing the requirement to “meet” nitrogen balance ratio targets with the requirement merely to “report progress” towards nitrogen balance ratio milestones. In contrast, the agricultural

interests raised numerous objections to the Waiver, challenging nearly every aspect of the Waiver as well as the Regional Board's compliance with CEQA.

Petitioners submitted a written response to the petitions filed by the agricultural interests. Rather than challenging the Regional Board's Waiver, Petitioners defended it. Petitioners argued that the petitions are "wholly without merit" and should be denied. Among other things, Petitioners argued that the Regional Board "acted properly and appropriately in issuing the 2012 Waiver" after an extensive public process, and that the Waiver is "consistent with the Basin Plan and squarely within the public interest." (See SB 5434.) Petitioners argued that the 2012 Waiver is a "proper and appropriate" application of the Regional Board's mandate. (SB 5434.) Petitioners specifically defended the Waiver's tiering system, vegetation buffer/filter strip requirements, and time schedules to achieve compliance over the "longer term," among other provisions. (See SB 5434-42.)

In addition, Petitioners defended the Regional Board's CEQA determinations, arguing that the Regional Board "adhered to CEQA requirements" when it incorporated the analysis from the 2004 Negative Declaration into an SEIR, and when it issued an addendum to that SEIR. (SB 5454-58.)

Petitioners continued to defend the Waiver through the State Board's first draft order. In their comments to that draft, Petitioners stated that their petition "likely would have been withdrawn" were it not for the efforts by agricultural interests to "overturn" the 2012 Waiver and revert to the 2004 Waiver. (SB 5726.) However, in the course of defending the Regional Board's Waiver, Petitioners expressed some dissatisfaction with a perceived weakening of the Waiver to "appease" growers. (SB 5727.)

Petitioners' main objection to the Waiver continued to be the elimination of the requirement to "meet" nitrogen balance ratio targets. Rather than restore the requirement to "meet" nitrogen balance ratios, the State Board proposed to eliminate nitrogen balance ratio targets entirely (and eliminate the requirement to report crop nitrogen uptake values), and instead require high-risk dischargers to report total nitrogen applied. Petitioners objected to this because it would give staff no estimate of the amount of nitrogen removed at harvest, and therefore no means to assess the amount of nitrogen being discharged as waste.

Petitioners also objected to other changes made by the State Board in its draft order, including the Board's proposal to reduce the requirements applicable to containment structures (Provision 33). Petitioners also expressed concerns about the Board's

proposal to convene an expert review panel, and the Regional Board's Cooperative Groundwater Monitoring Program. (See SB 5724 *et seq.*)

Agricultural interests, other environmental organizations, and the Regional Board also submitted comments. The comments submitted by the environmental groups and Regional Board discussed a range of issues, including that the Waiver fails to comply with the anti-degradation requirements; that the Board had inappropriately weakened Provision 11 (third party water quality projects), Provisions 44.d and 44g (Farm Plan effectiveness and compliance), Provisions 76 & 77 and Section B.1 of Part 6 of the Tier 3 MRP (nutrient reporting), Provision 78 (nitrogen balancing ratios), Provision 82 (control of pollutant discharges), Part 3A of the Tier 2 and 3 MRP (reporting of management practice effectiveness), and Part 5A of the Tier 3 MRP (individual surface water discharge monitoring), among other provisions.

In response to the State Board's second draft order, Petitioners objected that the changes had further weakened the Waiver, such that it bore little resemblance to the original February 2010 Draft Waiver. Petitioners argued that if the Waiver is going to provide meaningful water quality protection, the State Board must: (1) require growers to meet and report nutrient balancing ratios; (2) require Tier 3 growers participating in cooperative groundwater monitoring programs to monitor and report results annually; and (3) ensure that growers implement "effective" management practices, not just "modified" management practices.

In addition, Petitioners commented that the initial 2010 Draft Waiver included a "comprehensive list of pesticides," but the most recent draft only focuses on diazinon and chlorpyrifos. Petitioners argued this represented a "missed opportunity" for the Board to reduce discharges of toxic pesticides. (See SB 6301 *et seq.*)

Agricultural interests, other environmental organizations, and the Regional Board also submitted comments. The topics addressed in such comments included Provision 51 (groundwater monitoring), Provisions 76-77 (nutrient balance ratios), Provision 11 (third party water quality programs), Provision 33 (containment structures), Provisions 22-23, 84-87, and 87A (compliance), and Provision 72 (individual surface water discharge monitoring), among others.

By the time of the State Board's third draft order, Petitioners, exasperated with the perceived weakening of the Waiver, indicated that they no longer supported the Waiver and urged the Board to restore many of the provisions from the 2010 Draft Waiver, including (1) the pesticide/toxicity provisions; (2) the requirement for all Tier 2 and 3 growers to report crop nitrogen uptake values and nitrogen balance ratios; (3) the

requirement for all Tier 3 growers to “meet” nitrogen balance ratios; (4) sediment control requirements; and (5) aquatic habitat control requirements. Petitioners also urged the Board to admit the U.C. Davis report into evidence; to delete cooperative groundwater monitoring provisions allowing “statistical characterization” of water quality based on existing and collected data; and to delete language providing that iterative implementation of “modified management practices” would be sufficient to comply with the Waiver. (See SB 6730 *et seq.*)

Again, Petitioners were not the only ones to comment. Agricultural interests, other environmental organizations, and the Regional Board also submitted comments in response to the State Board’s draft order. Topics covered by such comments included Provision 11; Provision 33; Provision 51; Part 2, Section A.6-7 of the Tier 1-3 MRPs; and provisions addressing nutrient management, among others.

The court is sympathetic to the Board’s position that Petitioners should be limited to the issues specifically raised by Petitioners in their petition for review and during the course of administrative proceedings before the State Board. However, as described above, the purpose of the exhaustion doctrine is satisfied as long as the issue was raised during the administrative process, regardless who raised it. In light of the long and complicated history behind the Board’s adoption of the Modified Waiver, the court is persuaded that the issues raised by Petitioners have been fully exhausted. Thus, the court shall proceed to decide the issues on their merits.⁷

B. Does the Modified Waiver violate Water Code section 13269?

The Porter-Cologne Act authorizes a waiver of waste discharge requirements only if the waiver is both consistent with the applicable basin plan and in the public interest. (Water Code § 13269.) In addition, Water Code section 13269 requires a waiver to include monitoring requirements “designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver’s conditions.” (*Ibid.*) Petitioners contend that the Modified Waiver violates Water Code section 13269 because it is not consistent with the Basin Plan, does not include adequate monitoring provisions, and is not in the public interest. The court agrees.

⁷ In the course of reaching this decision, the court has not reviewed or considered Petitioners’ Supplemental Brief on Administrative Exhaustion, which was filed without leave.

1. Is the Modified Waiver consistent with the Basin Plan?

Petitioners argue that the Modified Waiver is not consistent with the Basin Plan because it lacks specific, enforceable measures necessary to meet the Basin Plan's water quality objectives, and because it fails to comply with the NPS Policy and the Antidegradation Policy.

a. Compliance with Water Quality Objectives

The Central Coast Basin Plan establishes water quality objectives to protect beneficial uses of water, establishes a program of implementation to achieve water quality objectives, and incorporates state plans and policies, including the NPS Policy and the Antidegradation Policy. (RB 9165, 9193-94.)

As relevant here, the objectives for nitrates, toxicity, pesticides, and sediment provide, in relevant part:

Nitrates: Water shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses. (RB 9195.) For municipal and domestic water supplies, the narrative standard has been converted into a numeric Maximum Contaminant Level (MCL) of 45 mg/L as Nitrate (NO₃) or 10 mg/L as Nitrogen (N), which is equivalent to the State's drinking water standard. (RB 9197, 9199, 9357; see also RB 5450.) In addition, although not part of the Basin Plan, Regional Board staff has estimated that a standard of 1 mg/L as Nitrogen is necessary to protect aquatic life from biostimulation. (RB 5450.)

Toxicity: All waters shall be maintained free of toxic substances in concentrations which are toxic to, or which produce detrimental physiological responses in, human, plant, animal, or aquatic life. (RB 9196.)

Pesticides: No individual pesticide or combination of pesticides shall reach concentrations that adversely affect beneficial uses. There shall be no increase in pesticide concentrations found in bottom sediments or aquatic life. (RB 9196.)

Sediment: The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses. (RB 9195.)

To achieve these objectives, the Basin Plan provides, among other things, that:

- The discharge of pollutants into surface fresh waters shall be discontinued. (RB 9353.)
- Waste discharges shall not contain materials in concentrations which are hazardous to human, plant, animal, or aquatic life. (RB 9355.)
- Wastewaters percolated into the ground waters shall be of such quality at the point where they enter the ground so as to assure the continued usability of all ground waters of the basin. (RB 9353.)

The Basin Plan includes a program of implementation to meet the objectives, a time schedule for actions to be taken, and enforcement mechanisms to ensure compliance with the objectives. The Basin Plan provides that control measures implemented by the Regional Board must provide for the attainment of the Basin Plan's beneficial uses and water quality objectives. (RB 9211.)

The Modified Waiver ostensibly requires compliance with the Basin Plan and its water quality objectives. (See SB 7238, 7253, 7347; see also SB 7347.) It does so by means of a "long term" approach that seeks to achieve compliance with water quality objectives over time through "iterative" implementation of management practices.

This iterative approach is described in Provision 83.5 of the Modified Waiver [or Provision 87.5 of the Order], which provides:

To comply with Provisions 22, 23, 33, and 80 - 83 of this Order, Dischargers must (1) implement management practices that prevent or reduce discharges of waste that are causing or contributing to exceedances of water quality standards; and (2) to the extent practice effectiveness evaluation or reporting, monitoring data, or inspections indicate that the implemented management practices have not been effective in preventing the discharges from causing or contributing to exceedances of water quality standards, the Discharger must implement improved management practices. (SB 7362.)

Petitioners argue that the State Board's iterative approach is not sufficient to achieve compliance with the Basin Plan's water quality objectives because it lacks specific, enforceable standards against which to measure existing management practices; lacks meaningful deadlines/timeframes; lacks adequate feedback mechanisms to determine if management practices are effective.

Petitioners further complain that the Modified Waiver is less protective of water quality than the 2012 Waiver and previous draft waivers circulated by the Regional Board and its staff. Petitioners note that the Regional Board's 2010 Draft Waiver would have required Tier 3 dischargers to meet nitrogen balance ratio targets. Petitioners argue that, at growers' insistence, the Regional Board weakened this requirement so that, instead of requiring Tier 3 dischargers to "meet" nitrogen balance ratio targets, they merely had to "report progress towards" achieving nitrogen balance ratio "milestones." (RB 8327.) Then, in the Modified Waiver, the State Board eliminated the nitrogen balance ratio requirement altogether. (SB 7210-16, 7359-60.) Under the Modified Waiver, Tier 2 and 3 dischargers determined to have high nitrate loading risk merely are required to report total nitrogen applied. Petitioners contend that requiring dischargers to calculate and meet nitrogen balance ratio targets is essential to prevent excessive use of fertilizer and make progress toward achieving the Basin Plan's water objectives.

Petitioners contend that the State Board's elimination of nitrogen balancing and reporting might be acceptable if the Board adopted other enforceable standards to control nitrate pollution. However, Petitioners contend, as a result of the Board's modifications, there is not a single enforceable standard in the Modified Waiver that will require agricultural dischargers to use less nitrogen. Thus, Petitioners argue, nitrate contamination will continue to worsen and the Waiver will not achieve the Basin Plan's objectives.

Apart from the lack of enforceable standards, Petitioners contend the State Board also weakened other provisions that were critical to achieve compliance with the Basin Plan's water quality objectives. Petitioners cite several examples.

First, Petitioners contend the State Board eliminated the requirement of Farm Plans to describe and report the results of methods used to verify the effectiveness of management practices, treatment/control measures, and farming practices. Petitioners contend that the Regional Board already had watered down an earlier proposal to require dischargers to show that their discharges do not impair water quality. (RB 3786; see also RB 1129.) Petitioners contend that the State Board then further weakened the Waiver to require only a "description of the method and schedule" for assessing the effectiveness of each management practice, treatment, and control measure. (SB

7190.) Thus, Petitioners argue, the requirement went from dischargers having to show discharges do not impair water quality; to dischargers only having to describe their verification methods and results; to dischargers only having to describe their methods for evaluating effectiveness, with no need to demonstrate compliance or provide results.

Second, Petitioners contend the State Board weakened the Waiver's pesticide controls. In the 2010 Draft Waiver, Regional Board staff proposed to require that within two years dischargers within 1000 feet of a surface waterbody implement management practices sufficient to "eliminate toxicity in irrigation runoff or eliminate the discharge of irrigation runoff" or demonstrate that any irrigation runoff has been sufficiently treated or controlled that it will not cause or contribute to exceedances of any toxicity water quality standards. (RB 1258.) The Modified Waiver requires monitoring for certain pesticides and provides that Tier 3 dischargers must "effectively control" individual waste discharges of pesticides, but relies on the iterative management practices approach to achieve compliance. (SB 7361.) For the reasons describe above, Petitioners contend the iterative approach is not sufficient to attain water quality standards.

Third, Petitioners contend the State (and Regional) Board weakened the requirement for vegetation buffers. Petitioners argue that in the 2010 Draft Waiver, the Regional Board initially proposed to require all growers either to maintain vegetation buffers or develop and implement a Riparian Function Protection and Restoration Plan, as part of the discharger's Farm Plan. (RB 165-67.) However, in the 2012 Waiver, the Regional Board required only a small number of growers – a subset of Tier 3 dischargers – to comply with this requirement, and the State Board upheld this change. Petitioners contend this change stripped the Waiver of necessary buffer requirements.

Fourth, Petitioners contend that the Modified Waiver fails to adequately regulate the discharge of pollutants from "tile drains," merely requiring dischargers to describe tile drain discharges and management measures that dischargers have implemented or will implement to "minimize" impacts to water quality. (See SB 7351.)

Fifth, Petitioners contend the State Board reduced the number of growers subject to the Modified Waiver's most stringent requirements. As described above, the Modified Waiver assigns each discharger to one of three tiers, which determine the requirements applicable to the discharger. (SB 5659.)

The tier designations are based on criteria intended to capture the risk to water quality, including whether the discharger uses the pesticides chlorpyrifos or diazinon, proximity of the discharger's farm to an impaired surface waterbody, farm size, and whether the discharger grows crop types with high potential to discharge nitrogen to groundwater. A

discharger is classified as a Tier 3 discharger – the tier expected to pose the highest threat to water quality – if (a) the discharger grows crop types with high potential to discharge nitrogen to groundwater and the farm total irrigated acreage is 500 acres or more, or (b) the discharger applies chlorpyrifos or diazinon at the farm, and the farm discharges irrigation or stormwater runoff to a waterbody listed as impaired for toxicity or pesticides. (SB 7344-45.)

A discharger is classified as a Tier 1 discharger – the lowest threat tier – if the discharger is a certified sustainable agriculture program or if all of the following conditions are true: (a) the discharger does not use chlorpyrifos or diazinon; (b) the discharger is located more than 1,000 feet from a surface waterbody listed as impaired for toxicity, pesticides, nutrients, turbidity, or sediment; and (c) the discharger either does not grow crop types with high potential to discharge nitrogen to groundwater or, if the discharger does grow such crops, the farm has less than 50 acres of total irrigated area and is not within 1,000 feet of a well that is part of the public water system and that exceeds the maximum contaminant level (MCL) for nitrogen-related pollutants. (*Ibid.*)

Dischargers that do not meet the criteria for Tier 1 or Tier 3 are classified as Tier 2 dischargers. (*Ibid.*)

Tier 3 dischargers must comply with more stringent requirements than Tier 2 dischargers, and Tier 2 dischargers must meet more stringent requirements than Tier 1 dischargers. For example, dischargers in all three tiers must prepare Farm Plans, obtain water quality education, maintain riparian areas, and conduct groundwater and surface receiving water quality monitoring and reporting. However, only Tier 2 and Tier 3 dischargers are required to submit annual compliance forms and report nitrate loading risk levels. Only Tier 2 and Tier 3 dischargers with high nitrate loading risks are required to report total nitrogen applied in their annual compliance forms. Only Tier 2 and Tier 3 dischargers with farms adjacent to impaired waterbodies are required to conduct photo monitoring. Only Tier 3 dischargers are required to conduct and report individual surface water discharge monitoring. Only Tier 3 dischargers with high nitrate loading risks are required to develop and implement an Irrigation and Nutrient Management Plan (INMP). And only Tier 3 dischargers with farms adjacent to impaired waterbodies are required to develop and submit vegetation buffer plans.

Although the State Board concluded that the Modified Waiver is “more stringent” than the 2004 Waiver, (SB 7281), this conclusion was based primarily on the Tier 3 requirements. Regional Board staff found the 2012 Waiver imposed “fewer” requirements on Tier 1 dischargers, and “comparable” requirements on Tier 2 dischargers, as compared to the 2004 Waiver. (RB 7756; see also SB 487, 1978.)

The Regional Board's early proposals would have placed approximately 11% of farms and 54% of irrigated acreage in Tier 3. (RB 4863-64.) In contrast, the Modified Waiver placed only about 3% of farms and 14% of irrigated acreage into Tier 3. (RB 7779.) Under the Regional Board's early proposals, about 59% of farms and 79% of irrigated acreage would be in either Tier 2 or 3, whereas under the Modified Waiver, about 45% of farms and 61% of irrigated acreage would be in Tier 2 or 3.

Further, under the Modified Waiver, a discharger may request to be moved to a lower, less stringent tier. (See SB 7346.) Dischargers may qualify for a tier change by participating in an alternative third party water quality improvement project or program demonstrating a "reasonable chance of improving water quality and/or reducing pollutant loading." (SB 7343.)

Even if the Tier 3 requirements are more stringent than the 2004 Waiver, Petitioners argue that the number of growers subject to the "more stringent" Tier 3 requirements is too small to achieve the Basin Plan's water quality objectives. In sum, Petitioners argue the Modified Waiver is, at most, only marginally stronger than the 2004 Waiver, and it is not strong enough to comply with the Basin Plan. The Regional and State Boards have removed or weakened nearly every substantive standard, pollution control, and monitoring provision needed to protect water quality.

Respondents do not dispute that nitrate and pesticide pollution are problems in the Central Coast region. But Respondents contend it is irrelevant whether the final Waiver is more or less protective of water quality than previous drafts, especially drafts published by Regional Board staff. Respondents contend that only the portions of the 2012 Waiver actually issued by the Regional Board and timely challenged in the petitions to the State Board, and the limited amendments made by the State Board, are properly before this court.

Further, Respondents contend the Modified Waiver's approach to solving the water quality problems in the Central Coast region is consistent with the Basin Plan. While Petitioners may prefer a program that achieves immediate compliance with all water quality objectives, Respondents argue that the Basin Plan permits the State Board to adopt an iterative, long-term approach to address the long-term water quality issues. (See SB 7186.) Implementation of increasingly more effective management practices over time constitutes compliance with water quality requirements. In fact, Respondents contend, such an approach is the only realistic way to improve water quality in a watershed degraded by decades of past practices.

Respondents deny that the State Board's modifications gutted the Waiver's requirements, rendering it inadequate. Rather, they contend, the State Board made the Waiver clearer, more reliable, and easier to implement and enforce.

With regard to nitrogen balance ratios, Respondents argue that the State Board reasonably exercised its discretion in deciding to replace provisions that would have required dischargers to calculate data based on speculative and unreliable variables, with a more detailed nitrogen application reporting requirement.

In regard to farm plans, Respondents argue that the State Board reasonably responded to concerns expressed by agricultural interests and the Regional Board that the term "verify" implied the need for costly studies and statistical analyses, and modified the language to clarify that standard farming practices would be sufficient to evaluate practice effectiveness. (SB 5537, 7188-90, 7351.) Respondents contend this minor change does not change the nature of the Farm Plan requirement.

In regard to pesticide controls, vegetation buffers, tile drains, and the tiering criteria, Respondents argue that the State Board did not modify anything in the Waiver relating to these provisions. Thus, Respondents argue that Petitioners' arguments are not properly before the court. In any event, Respondents argue, they lack merit.

On balance, the court agrees with Petitioners that the Modified Waiver is not consistent with the Basin Plan because it lacks sufficiently specific, enforceable measures and feedback mechanisms needed to meet the Basin Plan's water quality objectives.

The court recognizes, as did the Regional Board, the State Board, and staff, that immediate compliance with water quality standards is not possible without complete cessation of agricultural activity – which is not a "viable or desirable" waste discharge control option. (SB 2362.) The NPS Policy recognizes that, where water already is degraded, it may take time to achieve water quality objectives. Even Petitioners do not contend that the Modified Waiver must achieve "instantaneous compliance" with the Basin Plan's water quality standards. Rather, Petitioners argue, the Modified Waiver must include requirements reasonably designed to show measurable progress toward improving water quality over the short-term and achieving water quality standards in a meaningful timeframe. The court agrees.

The problem with the Modified Waiver is that there is little to support a conclusion that the Waiver will lead to quantifiable improvements in water quality or even arrest the continued degradation of the region's waters.

For the most part, the Modified Waiver continues the approach adopted by the 2004 Waiver. This is problematic because the 2004 Waiver has failed to make meaningful progress in improving water quality or attaining water quality standards. The 2004 Waiver has been "successful" in getting growers to join cooperative monitoring groups, prepare Farm Plans, and provide reports. But it has failed to improve water quality or even halt the continued degradation of the region's water resources.

The focus of the 2004 Conditional Waiver was on enrollment, education, and assessing agricultural water quality. The 2004 Conditional Waiver did not emphasize compliance with water quality standards or follow the State Board's NPS Policy. (RB 2132, 2151.) The 2004 Waiver lacked clarity regarding water quality requirements, did not include time schedules or milestones to achieve compliance with water quality standards, and did not include compliance and verification monitoring to measure and assure progress towards restoration of water quality and protection of beneficial uses. (RB 1141, 2133, 2151.)

Since the adoption of the 2004 Waiver, the Regional Board has documented that agricultural discharges continue to load pollutants to already-severely-impaired water bodies, further degrading water quality and impairing beneficial uses. (RB 2133, 2145, 2149; see also RB 3767, 3897-98, 3974; SB 17, 61.)

The 2004 Waiver has not been successful because it lacks adequate standards and feedback mechanisms to assess the effectiveness of implemented management practices in reducing pollution and preventing further degradation of water quality. The Modified Waiver suffers from the same defect.

The Modified Waiver is based on an "iterative approach" to attain water quality standards, by which dischargers must implement "management practices" to prevent or reduce discharges of waste that are causing or contributing to exceedances of water quality standards. To the extent monitoring data shows implemented management practices have not been effective in preventing discharges from causing or contributing to exceedances, the Modified Waiver requires the discharger to implement "improved" management practices. (SB 7362.)

In theory, the Modified Waiver ensures that dischargers will, over time, implement "effective" management practices because it requires them to implement increasingly "improved" management practices until there are no more discharges causing or contributing to exceedances of water quality standards. Thus, if there is an exceedance at one of the 50 surface receiving water monitoring locations, all growers with

discharges that "contribute" to that exceedance must implement increasingly "improved" management practices until the exceedance is eliminated.⁶

In practice, this approach is highly unlikely to work because the receiving water monitoring data, submitted in most cases by a cooperative monitoring group, does not identify the individual discharges that are "causing or contributing" to the exceedance. As a result, neither the Board, nor the cooperative monitoring group, nor (in many cases) the grower, can identify where the pollution is coming from or whether the grower's management practices are effectively reducing pollution and degradation.

It is possible for an iterative management practice approach to meet statutory requirements without requiring individual surface discharge monitoring for all discharges. But there must be some means to verify that implemented management practices are effectively controlling the relevant discharge. If they are not, the Waiver must ensure that dischargers will implement effective management practices that will make measurable progress towards attaining water quality standards. The Modified Waiver does not do that.⁹

While the court agrees that implementation of management practices may be an acceptable means to achieve water quality standards, as the NPS Policy makes clear, implementing management practices is not a substitute for actual compliance with water quality standards. Management practices are merely a means to achieve water quality standards. Adherence to management practices does not ensure that standards are being met. The Modified Waiver recognizes this, but fails to do anything about it. Under the Modified Waiver, if monitoring or inspections indicate that implemented management practices are not effective, the discharger simply must make a "conscientious effort" to identify and implement "improved management practices."

The Modified Waiver does not define what constitutes "improved" management practices, or include any additional monitoring or standards by which to verify the "improved" management practices are effectively reducing pollution. Under the Modified Waiver, compliance is achieved as long as the discharger implements a new

⁶ If monthly monitoring is required, as is the case with nitrates, growers would have to implement "improved" management practices every month until the exceedance is eliminated.

⁹ The court is aware that Tier 3 dischargers with a high nitrate loading risk, must submit an INMP Effectiveness Report to evaluate reductions in nitrate loading to surface water and groundwater based on the implementation of irrigation and nutrient management practices. (See SB 7214.) However, this appears to be a one-time requirement that applies to only a small subset of growers. The Effectiveness Report does not "save" the Waiver.

management practice which the discharger *believes* will be an improvement.¹⁰ In this court's view, this is inadequate to ensure any meaningful progress toward achieving quantifiable reductions in pollutant discharges. (See RB 5149 [Regional Board staff rejecting a similar proposal by agricultural interests because the proposal did not contain adequate verification monitoring or feedback mechanisms to determine if management practices were working or whether additional management practices should be taken].)

For Tier 3 dischargers required to conduct individual surface discharge monitoring, there is a mechanism at least to determine whether the grower's implemented management practices are reducing pollution.¹¹ But the Waiver does not set any benchmarks for defining how much "improvement" a grower must show to demonstrate compliance. The Waiver seems to assume that any perceived improvement is enough, as long as the improved management practice was implemented in good faith. It is difficult for the court to see how this is an enforceable standard. In effect, the Modified Waiver guarantees that the Regional Board will not take enforcement action against a discharger as long as the discharger believes it is implementing "improved" management practices, even if the "improved" management practices remain completely ineffective at controlling discharges of waste.

In addition, there is another, more fundamental problem with the Waiver, which is the small number of growers subject to the "more stringent" requirements of Tier 3. Tier 3 includes only about 3% of growers and only about 14% of the irrigated acreage in the region. In addition, Tier 3 growers can move to a lower tier by participating in an approved alternative third-party project/program (determined to have a "reasonable chance of improving water quality and/or reducing pollutant loading") or, some cases, simply by switching to pesticides other than diazinon or chlorpyrifos. Thus, at most, about 3% of growers will be subject to the "more stringent" requirements of the Modified Waiver. The vast majority of growers, 97% or more, will be subject to requirements equal to, or less stringent than, the 2004 Waiver. And for the vast majority of growers, the Waiver does not require any individual surface discharge monitoring or other focused monitoring to identify the sources of exceedances or assess the effectiveness of individual farm management practices. It is unreasonable for the Board to keep doing the same things it has been doing and expect different results.

¹⁰ This assumes, of course, that growers acknowledge their operations are "causing or contributing to" the exceedance. As a practical matter, growers may deny that their operations are responsible, and point the finger at other operations. It is not clear how the Regional Board would prove otherwise.

¹¹ The same is true of the groundwater monitoring program because even in the case of a cooperative groundwater monitoring program that relies on representative sampling, the Waiver requires direct sampling of the individual well level if there is a concern that nitrate concentration in the well may approach the Maximum Contaminant Level. (See SB 7193.)

The court is not persuaded that an adequate Waiver necessarily must include nitrogen balancing ratios,¹² broader farm plan reporting, more rigorous pesticide controls, mandatory vegetation/riparian buffers, and/or more comprehensive tile drain monitoring. The court simply concludes that the Modified Waiver, as currently structured, lacks sufficient measures to meet the Basin Plan's water quality objectives and, as a result, the Waiver is not consistent with the Basin Plan.

b. Compliance with the NPS and Antidegradation Policies

Petitioners also argue that the Modified Waiver does not comply with the Basin Plan because it does not comply with California's NPS and Antidegradation Policies.

i. The NPS Policy

The Basin Plan incorporates California's NPS Policy. (RB 9348.) As described above, the NPS Policy requires that nonpoint source pollution control programs include the following five "key elements:"

¹² Although the court does not find that nitrogen balance ratio targets are *required* to meet water quality standards, the court fails to understand why they were not included as reportable milestones. In eliminating the requirement, the Board bemoans the lack of reliable data on crop nitrogen uptake values. However, the Board retained the requirement for certain Tier 3 dischargers to identify crop nitrogen uptake values in their INMP for use in nutrient balance calculations. The Board stated that this information is "important" to both the discharger and the professional certifying the INMP in determining the appropriate amount of nitrogen to be applied at the farm. (SB 7209.) The Board also stated that the practice of recording and budgeting of nitrogen application is a relatively low-cost, standard industry practice that is widely recommended by agronomists and crop specialists and already utilized by many growers. (SB 7205.) Thus, the lack of reliable crop nitrogen uptake values does not appear to be an impediment to nitrogen balancing. Further, if the Board currently lacks reliable crop nitrogen uptake values, it presumably could obtain that information from growers under the Waiver. Yet the Board struck the requirement to have crop nitrogen uptake values reported to the Board. (SB 7210.)

Likewise, it is unclear why the Board deleted in Provision 44(g) the requirement for Farm Plans to describe the "results" of methods used to verify practice effectiveness. This is critical information that needs to be reported to the Board. Although it doesn't necessarily have to be reported as part of the Farm Plans, the NPS Policy requires sufficient feedback mechanisms to ensure that the Waiver is achieving its stated purpose, and/or determine whether additional or different actions are required. For Tier 2 and 3 dischargers, this change is arguably of little importance, because those dischargers are required to report the information in their Annual Compliance Form. (See SB 7219.) But the change could be important as to Tier 1 dischargers.

Nevertheless, the court realizes that these are issues that cannot be decided in a vacuum; they must be considered in the context of the Waiver as a whole. Here, for example, instead of requiring dischargers to report progress toward nitrogen balancing ratios, the Board imposed nitrogen application reporting requirements. The court refuses to tell the Board what elements must be included in the Waiver. Rather, the court shall review the Waiver as a whole and decide whether it meets legal requirements.

KEY ELEMENT 1: An NPS control implementation program's ultimate purpose shall be explicitly stated. Implementation programs must, at a minimum, address NPS pollution in a manner that achieves and maintains water quality objectives and beneficial uses, including any applicable antidegradation requirements.

KEY ELEMENT 2: An NPS control implementation program shall include a description of the MPs [Management Practices] and other program elements that are expected to be implemented to ensure attainment of the implementation program's stated purpose(s), the process to be used to select or develop MPs, and the process to be used to ensure and verify proper MP implementation.

KEY ELEMENT 3: Where a RWQCB determines it is necessary to allow time to achieve water quality requirements, the NPS control implementation program shall include a specific time schedule, and corresponding quantifiable milestones designed to measure progress toward reaching the specified requirements.

KEY ELEMENT 4: An NPS control implementation program shall include sufficient feedback mechanisms so that the RWQCB, dischargers, and the public can determine whether the program is achieving its stated purpose(s), or whether additional or different MPs or other actions are required.

KEY ELEMENT 5: Each RWQCB shall make clear, in advance, the potential consequences for failure to achieve an NPS control implementation program's stated purposes. (RB 9417-20.)

Most nonpoint source management programs depend, at least in part, on implementation of management practices to control nonpoint sources of pollution. (RB 9413.) Successful implementation of management programs typically requires (i) adaptation to specific conditions, (ii) monitoring to assure practices are properly applied and are effective in attaining and maintaining water quality standards, (iii) immediate mitigation if practices are not effective, (iv) improvement of management practice implementation or additional management practices when needed to resolve a deficiency. (*Ibid.*)

Before approving a specific NPS pollution control program, the water board must determine there is a "high likelihood" that implementation of the program will be

successful and attain the applicable water quality objectives. (RB 9417.) This includes consideration of the management practices to be used and the process for ensuring their proper implementation, as well as assessment of their effectiveness. (*Ibid.*)

The NPS Policy recognizes that there are instances where it will take time to achieve water quality requirements. (RB 9419.) Where a water board determines it is necessary to allow time to achieve water quality requirements, the NPS Policy requires the program to include specific time schedules and quantifiable milestones designed to measure progress toward reaching the specified goals. (*Ibid.*) A time schedule may not be longer than that which is necessary to achieve an NPS implementation program's water quality objectives. (*Ibid.*)

Adherence to best management practices does not excuse compliance with water quality requirements. (RB 9413.) A nonpoint source pollution control program must include verification measures adequate to determine whether the program is meeting its objectives, and a description of the course of action to be taken if the verification/feedback mechanisms indicate or demonstrate the program is failing to achieve its stated objectives. (RB 9419-20.)

The Modified Waiver does not meet the requirements of the NPS Policy because it lacks adequate monitoring and reporting to verify compliance with requirements and measure progress over time; specific time schedules designed to measure progress toward reaching quantifiable milestones; and a description of the action(s) to be taken if verification/feedback mechanisms indicate or demonstrate management practices are failing to achieve the stated objectives. The Board has failed to show a "high likelihood" that implementation of the Modified Waiver will be successful in attaining the applicable water quality standards.

For these reasons, the court agrees with Petitioners that the Modified Waiver does not comply with the NPS Policy.

i. The Antidegradation Policy

The Basin Plan also incorporates California's Antidegradation Policy. (RB 9194, 9418, 9348.) The Antidegradation Policy is designed to protect water quality that is higher than necessary to protect designated beneficial uses. (RB 9418.) The Policy prohibits the degradation of "high quality" waters absent specific findings, and requires restoration of high quality waters that have been degraded below water quality standards. (RB 9377.)

To permit a proposed discharge that will degrade “high quality” water, a water board must find that the discharge (1) will be consistent with maximum benefit to the people of the State; (2) will not unreasonably affect present and anticipated beneficial use of the water; and (3) will not result in water quality less than that prescribed in water quality plans and policies. In addition, the board must ensure the discharge is utilizing the “best practicable treatment or control (BPTC)” to ensure pollution or nuisance will not occur and that the highest quality consistent with the maximum benefit to the people of the State will be maintained. (RB 9349, 9377-78; see also RB 8548.)

As described above, the first step in an antidegradation analysis is to determine whether there are “high quality” waters that may be affected by discharges. If the receiving water is high quality and an activity will discharge waste into the water, the Policy presumes that the quality of the water will be degraded by the discharge. (*AGUA*, *supra*, 210 Cal.App.4th at p.1272.)

To determine if water is “high quality,” the Policy requires the water board to compare the “baseline water quality” to the water quality objectives established to protect designated beneficial uses. The baseline water quality is the “best quality of the receiving water that has existed since 1968 . . . unless subsequent lowering was due to regulatory action consistent with State and federal antidegradation policies.” (*Id.* at p.1270.)

If the baseline water quality is equal to or less than the established water quality objectives, the water is not “high quality” and the objectives set forth the water quality that must be maintained or achieved. The Antidegradation Policy is not triggered. (*AGUA*, *supra*, at p.1270.) If the baseline water quality is better than the water quality objectives, the Policy is triggered and the baseline water quality must be “maintained” in the absence of the findings required by the Policy. (*Ibid.*)

The Regional Board found the Waiver to be consistent with the Antidegradation Policy because it will “improve” water quality. (RB 8509; see also SB 7229.) Petitioners contend that the Waiver violates the Antidegradation Policy because it allows continued degradation of high quality waters and the Board has not made the findings required to allow such degradation.

The court is unable to decide whether the Waiver violates the Antidegradation Policy because the Board has failed to apply the Policy in the manner directed by the Court in *AGUA*, including any consideration of whether the waters are “high quality” waters. On remand, the Board is directed to consider whether the Waiver is consistent with the Antidegradation Policy, as interpreted by the Court in *AGUA*.

2. Does the Modified Waiver have adequate monitoring provisions?

As described above, Water Code section 13269 requires a conditional waiver of waste discharge requirements to include monitoring requirements “designed to support the development and implementation of the waiver program, including, but not limited to, verifying the adequacy and effectiveness of the waiver's conditions. (Cal. Water Code § 13269(a)(2).) Additionally, monitoring results must be made available to the public. (*ibid.*) A water board may waive monitoring requirements only for discharges that “do not pose a significant threat to water quality.” (Water Code § 13269(a)(3).) Petitioners argue that the Modified Waiver violates section 13269 because its monitoring program is inadequate to verify its effectiveness, and the Waiver fails to disclose adequate monitoring data to the public.

Petitioners contend that the Modified Waiver's surface water monitoring program suffers from two fatal flaws. First, it does not require surface discharge water quality monitoring and reporting from all dischargers. (It only requires surface discharge monitoring from Tier 3 dischargers, and then only for some discharges -- “outfalls,” but not sheet flows.) In all other cases, the Waiver measures receiving water pollution concentrations, rather than actual discharges. Second, the Waiver allows dischargers to join cooperative monitoring groups in lieu of individual monitoring.

Petitioners contend the Modified Waiver's groundwater monitoring program is equally flawed. First, the Waiver only requires dischargers to monitor the primary irrigation well and wells used for drinking water purposes. Growers can simply avoid identifying their wells as “drinking water wells” to avoid having to do any monitoring. Second, the Waiver does not require growers to sample their primary irrigation well. Instead, Tier 1 and 2 growers and growers who join cooperative groups can use existing data or studies to estimate pollution levels. Third, the frequency of monitoring – twice the first year and once every five years for Tier 1 and 2, once every year for Tier 3 – is inadequate.

Respondents contend the State Board did not materially change the monitoring standards for surface water and groundwater quality, except to make some clarifying revisions to the cooperative groundwater monitoring provisions. Thus, Respondents argue that Petitioners' arguments are not properly before the court. Regardless, Respondents contend the Waiver's monitoring provisions comply with the requirements of the Water Code.

Petitioners have failed to persuade the court that surface discharge monitoring of all discharges is required – or even possible given that there are approximately 435,000 acres of irrigated land and approximately 3000 agricultural operations generating discharges of waste. The Board struck an appropriate balance in requiring individual surface discharge water monitoring for “high risk” dischargers, while retaining surface receiving water monitoring for other dischargers.

Likewise, both the Water Code and the NPS Policy expressly allow the use of cooperative or watershed-based monitoring. (RB 9414-16; Wat. Code § 13269.) While individual monitoring might provide more information, it would be complicated, costly, and would threaten to overwhelm Regional Board staff. The Board acted within its discretion in generally supporting the use of cooperative or watershed-based monitoring, and limiting individual surface discharge reporting to “high-risk” dischargers.

Petitioners have failed to show that the frequency of groundwater sampling is insufficient, that the proposed statistical monitoring is impermissible,¹³ or that the Waiver fails to disclose adequate monitoring data to the public.¹⁴

The court agrees with Petitioners, however, that the Waiver’s compliance/verification monitoring is inadequate. Because the Waiver relies on implementation of management practices to achieve water quality standards, monitoring must be sufficient to verify the effectiveness of the management practices that are implemented. Problems arise when the implemented management practices are not effectively controlling discharges of pollution. The limitations of the cooperative surface receiving water monitoring in identifying the source of exceedances was the impetus behind the inclusion of the individual surface water discharge monitoring for Tier 3 dischargers in this Waiver.

The Board acknowledged the limitations of the representative monitoring approach, and even suggested possible solutions, but failed to include the necessary changes in its Waiver. (See SB 7198-99.) As a result, the Waiver continues to be inadequate to identify and resolve exceedances for all but the small class of dischargers subject to individual surface discharge monitoring.¹⁵ The Waiver does not contain adequate

¹³ The Board’s Waiver required direct sampling where the statistical method projected nitrate at half the safe level, and repeat sampling if the statistical method projected nitrate at 80% of the safe level. The court agrees with Petitioners, however, that the Waiver should define what it means to be “statistically valid.”

¹⁴ As discussed above, the court is troubled by the amendments to Provision 44(g) alleviating Tier 1 dischargers of the requirement to report results of methods used to verify practice effectiveness in their Farm Plans.

¹⁵ It is noteworthy that the Board admitted that compliance monitoring was not a “primary” focus of the Waiver’s groundwater monitoring provisions. (See SB 7191.) Rather, the monitoring was focused on

monitoring provisions to verify that management practices are effectively controlling pollution.

3. Is the Modified Waiver in the public interest?

As described above, the Porter-Cologne Act prohibits waivers unless they are “in the public interest.” (Cal. Water Code § 13269(a)(1).) Petitioners argue that the Modified Waiver is not in the public interest because there is no evidence it will lead to quantifiable improvements in water quality or arrest the continued degradation of the Central Coast Region’s waters. The court agrees, for the reasons stated above.

C. Did the Board abuse its discretion by excluding the U.C. Davis report?

Recognizing a need to protect the public health by preventing or reducing the contamination of groundwater, the California Legislature appropriated about fifty million dollars for grants for projects to protect public health by preventing or reducing the contamination of groundwater that serves as a major source of drinking water for a community. (Water Code § 83002(b)(2)(D).)

Of this amount, two million dollars was appropriated for pilot projects in the Tulare Lake Basin and the Salinas Valley focusing on nitrate contamination. The stated purpose of the pilot projects was to identify sources of groundwater nitrate contamination; estimate the proportionate contributions to such contamination by source and category of discharger; identify and analyze options to reduce nitrate levels and prevent continuing nitrate contamination and the estimated costs associated with such options; identify methods and costs to treat nitrate contaminated groundwater for use as drinking water; identify methods and costs to provide an alternative water supply to affected communities; and identify potential funding sources to pay for treatment or alternative drinking water supplies. (Water Code § 83002.5.)

In June 2010, the State Board selected experts at the University of California, Davis, to study the causes of, and solutions for, nitrate contamination in the Salinas Valley. The final U.C. Davis Report was published on March 13, 2012.

On March 15, 2012, Petitioner Monterey Coastkeeper attempted to introduce the Report during the public hearing on the 2012 Waiver. The Regional Board declined, stating

monitoring drinking water quality. This is telling. The monitoring required by the Waiver may be adequate for the purpose of monitoring drinking water quality, but it is not sufficient for the purpose of verifying the effectiveness of implemented management practices.

that the Report was submitted too late to be included in the administrative record. (RB 8130-32.)

After Petitioners and the agricultural interests filed their petitions for administrative review with the State Board, however, the Regional Board requested the State Board to take official notice of the U.C. Davis Report. (SB 7163.) The State Board recognized the "significance of the information and analysis contained in the Report," but declined to take official notice of it, stating:

[F]or the short-term purposes of resolving the Petitions, we find that the administrative record already before us contains sufficient evidence of the impact of agricultural practices on drinking water in the Central Coast region as well as practices that may ameliorate the problem. (*Ibid.*)

The State Board committed to convene an expert panel to consider the findings of the Report and assess agricultural nitrate control practices. (*Ibid.*)

While Petitioners recognize the Board has discretion to decide whether to accept additional evidence, Petitioners contend that the Board abused its discretion in refusing to consider the U.C. Davis Report because it is unique, highly relevant, and the most current scientific information available addressing groundwater contamination in the Salinas Valley.

Respondents contend the Board appropriately declined to consider the U.C. Davis Report because it was not published until the day before the Regional Board adopted the 2012 Waiver, was not part of the administrative record, and was cumulative of other evidence already in the record (including a PowerPoint presentation of the draft U.C. Davis Report itself). Instead, the State Board appropriately committed to convene an expert panel to consider fully the findings of the U.C. Davis Report.

The court is not persuaded that the Board abused its discretion in refusing to admit the U.C. Davis Report. However, on remand the Board is directed to reconsider whether the Report should be admitted into the record.

D. Did the Board violate CEQA by failing to undertake additional environmental review before adopting its final Order?

Petitioners' final contention is that the State Board violated CEQA by making substantial changes to the 2012 Waiver without conducting supplemental environmental review.

Respondents contend the Modified Waiver did not constitute a substantial change to the 2012 Waiver such that it required additional environmental review.

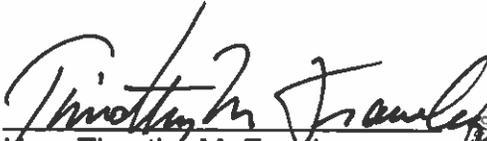
While the court is not persuaded that the Board's incremental changes to the Waiver necessarily required a Subsequent EIR, it is possible that some additional environmental review was required to address the changes to the Waiver since preparation of the Regional Board's SEIR, which was based on the 2010 Draft Waiver. On remand, the Board is directed to consider what, if any, supplemental review may be required to comply with CEQA in connection with the Waiver.

VII.
Disposition

For the reasons described above, the court shall grant the petition and issue a peremptory writ of mandate compelling Respondent State Board to set aside its Order No. WQ 2013-0101 and reconsider the Conditional Waiver of Waste Discharge Requirements (Order No. R3-2012-0011) and related Monitoring and Reporting Program (Order Nos. R3-2012-0011-01, R3-2012-0011-02, and R3-2012-0011-03). The State Board may choose to allow the Modified Waiver to remain in effect on an interim basis while the State Board takes action to formulate a new waiver consistent with this ruling.

Counsel for Petitioners is directed to prepare a formal judgment and writ (consistent with this ruling); submit them to opposing counsel for approval as to form; and thereafter submit them to the court for signature and entry of judgment in accordance with Rule of Court 3.1312.

Dated: August 10, 2015


Hon. Timothy M. Frawley
California Superior Court Judge
County of Sacramento



CERTIFICATE OF SERVICE BY MAILING
(C.C.P. Sec. 1013a(4))

I, the undersigned deputy clerk of the Superior Court of California, County of Sacramento, do declare under penalty of perjury that I did this date place a copy of the above entitled RULING in envelopes addressed to each of the parties, or their counsel of record as stated below, with sufficient postage affixed thereto and deposited the same in the United States Post Office at Sacramento, California.

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Dated: August 10, 2015

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