State of California
Office of Administrative Law

In re:
State Water Resources Control Board

Regulatory Action:

Title 23, California Code of Regulations

Adopt sections: 3909.2
Amend sections:
Repeal sections:

NOTICE OF APPROVAL OF REGULATORY ACTION

Government Code Section 11353

OAL Matter Number: 2016-0603-04

OAL Matter Type: Regular (S)

The State Water Resources Control Board (State Water Board) submitted this action for review under Government Code section 11353 to adopt section 3909.2 in Title 23 of the California Code of Regulation regarding amendments to the Water Quality Control Plan for the North Coast Region (Basin Plan). The amendments establish a Policy for region-wide implementation of the water quality objectives for temperature and establish action plans to address temperature impairments in the Mattole, Navarro, and Eel River watersheds. The North Coast Regional Water Quality Control Board adopted the Basin Plan on March 13, 2014 in Resolution No. R1-2014-0006. The State Water Board approved the Basin Plan on April 8, 2015 in Resolution No. 2015-0020.

OAL approves this regulatory action pursuant to section 11353 of the Government Code.

Date: July 18, 2016

Thanh Huynh
Senior Attorney

For: Debra M. Cornez
Director

Original: Thomas Howard
Copy: Bryan McFadin

STATE OF CALIFORNIA — OFFICE OF ADMINISTRATIVE LAW

NOTICE PUBLICATION/REGULATIONS SUBMISSION

REGULAR 11353

(See instructions on reverse)

For use by Secretary of State only

WR-185

STD. 400 (REV. 01-2015)

OAL FILE NUMBERS	NOTICE FILE NUMBER	REGULATORY ACTION NUMBER	EMERGENCY NUMBER
	Z-	2016- 0603-04S	

For use by Office of Administrative Law (OAL) only

2016 JUN -3 P 4:33

OFFICE OF ADMINISTRATIVE LAW

NOTICE | REGULATIONS

ENDORSED - FILED
in the office of the Secretary of State
of the State of California
JUL 18 2016
1:53 PM

AGENCY WITH RULEMAKING AUTHORITY
State Water Resources Control Board

AGENCY FILE NUMBER (If any)
2015-0020

A. PUBLICATION OF NOTICE (Complete for publication in Notice Register)

1. SUBJECT OF NOTICE	TITLE(S)	FIRST SECTION AFFECTED	2. REQUESTED PUBLICATION DATE

3. NOTICE TYPE	4. AGENCY CONTACT PERSON	TELEPHONE NUMBER	FAX NUMBER (Optional)
☐ Notice re Proposed Regulatory Action ☐ Other			

OAL USE ONLY	ACTION ON PROPOSED NOTICE	NOTICE REGISTER NUMBER	PUBLICATION DATE
	☐ Approved as Submitted ☐ Approved as Modified ☐ Disapproved/ Withdrawn		

B. SUBMISSION OF REGULATIONS (Complete when submitting regulations)

1a. SUBJECT OF REGULATION(S)
Policy and action plans for implementing water temperature objectives

1b. ALL PREVIOUS RELATED OAL REGULATORY ACTION NUMBER(S)

2. SPECIFY CALIFORNIA CODE OF REGULATIONS TITLE(S) AND SECTION(S) **(Including title 26, if toxics related)**

SECTION(S) AFFECTED (List all section number(s) individually. Attach additional sheet if needed.)

ADOPT: 3909.2

AMEND:

REPEAL:

TITLE(S): 23

3. TYPE OF FILING

- ☐ Regular Rulemaking (Gov. Code §11346)
- ☐ Resubmittal of disapproved or withdrawn nonemergency filing (Gov. Code §§11349.3, 11349.4)
- ☐ Emergency (Gov. Code, §11346.1(b))
- ☐ Certificate of Compliance: The agency officer named below certifies that this agency complied with the provisions of Gov. Code §§11346.2-11347.3 either before the emergency regulation was adopted or within the time period required by statute.
- ☐ Resubmittal of disapproved or withdrawn emergency filing (Gov. Code, §11346.1)
- ☐ Emergency Readopt (Gov. Code, §11346.1(h))
- ☐ File & Print
- ☒ Other (Specify) Gov't code 11353
- ☐ Changes Without Regulatory Effect (Cal. Code Regs., title 1, §100)
- ☐ Print Only

4. ALL BEGINNING AND ENDING DATES OF AVAILABILITY OF MODIFIED REGULATIONS AND/OR MATERIAL ADDED TO THE RULEMAKING FILE (Cal. Code Regs. title 1, §44 and Gov. Code §11347.1)

5. EFFECTIVE DATE OF CHANGES (Gov. Code, §§ 11343.4, 11346.1(d); Cal. Code Regs., title 1, §100)

- ☐ Effective January 1, April 1, July 1, or October 1 (Gov. Code §11343.4(a))
- ☐ Effective on filing with Secretary of State
- ☐ §100 Changes Without Regulatory Effect
- ☒ Effective other (Specify) Upon approval (Gov't code 11353)

6. CHECK IF THESE REGULATIONS REQUIRE NOTICE TO, OR REVIEW, CONSULTATION, APPROVAL OR CONCURRENCE BY, ANOTHER AGENCY OR ENTITY

- ☐ Department of Finance (Form STD. 399) (SAM §6660)
- ☐ Fair Political Practices Commission
- ☐ State Fire Marshal
- ☐ Other (Specify)

7. CONTACT PERSON	TELEPHONE NUMBER	FAX NUMBER (Optional)	E-MAIL ADDRESS (Optional)
Bryan McFadin	707-576-2751	707-523-0135	bryan.mcfadin@waterboards.ca.gov

8. **I certify that the attached copy of the regulation(s) is a true and correct copy of the regulation(s) identified on this form, that the information specified on this form is true and correct, and that I am the head of the agency taking this action, or a designee of the head of the agency, and am authorized to make this certification.**

SIGNATURE OF AGENCY HEAD OR DESIGNEE: Matt St John

DATE: 5/9/16

TYPED NAME AND TITLE OF SIGNATORY
Matthias St. John, Executive officer, North Coast Regional Water Quality Control Board

For use by Office of Administrative Law (OAL) only

ENDORSED APPROVED

JUL 18 2016

Office of Administrative Law

004284

Concise Summary of Regulatory Provisions
Title 23. Waters
Division 4. Regional Water Quality Control Boards
Chapter 1. Water Quality Control Plans, Policies, and Guidelines
Article 1. North Coast Region

The following section 3909.2 is to be added to Title 23 of the California Code of Regulations:

Section 3909.2 – "Policy for Implementation of the Water Quality Objectives for Temperature, and Action Plans to Address Temperature Impairments in the Mattole, Navarro, and Eel River Watersheds."

On March 13, 2014, the North Coast Regional Water Quality Control Board (Regional Water Board) adopted Resolution No. R1-2014-0006 to incorporate a Policy for Implementation of Water Quality Objectives for Temperature (Policy), which a) establishes a policy for region-wide implementation of the water quality objectives for temperature and b) action plans to address temperature impairments in the Mattole, Navarro, and Eel River Watersheds (Action Plans). On April 8, 2015, the State Water Resources Control Board approved the amendment under Resolution No. 2015-0020.

The Policy describes the approach to implementing the water quality objectives for temperature, identifies activities that may result in temperature alterations, and identifies the regulatory tools that the Regional Water Board may use to address temperature concerns in one cohesive policy. The Policy explicitly identifies the shade provided by riparian vegetation as a controllable water quality factor, and directs the implementation of riparian management measures, sediment controls, and stream flow considerations through programs and permits, as appropriate and necessary to address and prevent further impairments.

The Action Plans address temperature impairments in the Mattole, Navarro, and Eel River watersheds. The Action Plans implement the Policy by identifying specific activities in the watersheds that may affect temperature, and identifies the regulatory programs and actions the Regional Water Board will implement to address temperature concerns in the respective watersheds.

STATE WATER RESOURCES CONTROL BOARD
RESOLUTION NO. 2015-0020

APPROVING AN AMENDMENT TO THE WATER QUALITY CONTROL PLAN FOR THE NORTH COAST REGION (BASIN PLAN) TO ESTABLISH A POLICY FOR THE REGION-WIDE IMPLEMENTATION OF THE WATER QUALITY OBJECTIVES FOR TEMPERATURE AND ACTION PLANS TO ADDRESS TEMPERATURE IMPAIRMENTS IN THE MATTOLE, NAVARRO, AND EEL RIVER WATERSHEDS.

WHEREAS:

1. On March 13, 2014, the North Coast Regional Water Quality Control Board (North Coast Water Board) adopted Resolution No. R1-2014-0006 amending the Basin Plan to establish the *Policy for the Implementation of the Water Quality Objectives for Temperature* (Temperature Policy, Attachment 1). The Temperature Policy directs Staff to examine and address temperature when developing permits. At a minimum, any program or permit should implement temperature shade load allocations in areas subject to existing temperature Total Maximum Daily Loads (TMDLs), including U.S. EPA-established temperature TMDLs. Any program or permit should implement riparian management measures, sediment controls, and stream flow considerations as appropriate and necessary to address and prevent further impairments. The North Coast Water Board shall do so in coordination with the State Water Resources Control Board and other local, state, and federal agencies to the extent possible.

2. The purpose of the Temperature Policy (Attachment 1) is to describe the range of tools available for protection against anthropogenically elevated water temperatures; to remediate, restore, and protect temperature-impaired waterbodies; and to control the cumulative impacts of elevated water temperature on other waterbodies. It affirms the need to address water temperatures region-wide, but on a case-by-case basis in the context of a given permit or other action to reduce impairments and prevent further impairment. It directs staff to continue implementing temperature TMDL through regional nonpoint source programs, permits, waivers, and enrollments as appropriate, and to work with other agencies to address elevated water temperatures.

3. In 2012, the North Coast Water Board adopted Resolution No. R1-2012-0013, the *Policy Statement for the Implementation of the Water Quality Objective for Temperature* (Resolution, Attachment 2), which the Temperature Policy incorporates by reference. The Resolution describes in one cohesive document the North Coast Water Board's efforts to date in implementing temperature objectives and guidance on the range of implementation tools to apply for temperature protection in future programs and permits, including coordination with other federal, state, and local agencies to the extent possible. The Resolution articulates in further detail ongoing and future efforts for implementing temperature controls in a site- or activity-specific context.

4. The *Action Plans to Address Elevated Water Temperature in the Eel River Watershed, Navarro River Watershed, and Mattole River Watershed* (Action Plans, Attachment 3) will implement the U.S. EPA-established Eel River, Navarro River, and Mattole River TMDLs.[1] The Action Plans each include a standalone implementation plan applicable to

[1] The USEPA has established the following temperature TMDLs:

actions addressing temperature impairments in each watershed. The Action Plans are consistent with the more general Temperature Policy, but include more specificity on actions to take place in the individual watersheds. The three Action Plans were developed to address temperature impairments, implement the TMDLs, and satisfy a stipulated agreement.

5. The State Water Board finds that under Clean Water Act section 303(d)(2), once U.S. EPA establishes a TMDL, the state must incorporate the TMDL into its water quality management plan, which includes the Basin Plan and other plans developed as part of the state's continuing planning process under Clean Water Act section 303(e). The Temperature Policy and Action Plans will become part of the Basin Plan, and be considered part of the continuing planning process under Clean Water Act section 303(e). The Temperature Policy not only implements existing temperature TMDLs, but is intended to implement future temperature TMDLs and prevent additional temperature impairments to avoid the need for further listings and TMDLs.

6. The State Water Board finds that the Basin Plan amendment is in conformance with Water Code section 13240, which specifies that the regional water quality control boards may revise basin plans, and 13242, which requires a program of implementation for achieving water quality objectives. First, the Policy and Action Plans describe multiple actions that are necessary for achieving the water quality objectives for temperature. The Policy directs Regional Water Board staff to prevent, minimize, and mitigate temperature alterations associated with various factors through a combination of riparian management and other temperature controls as appropriate in nonpoint source control programs, permits and waivers, grants and loans, and enforcement actions; support of restoration projects; and coordination with other agencies with jurisdiction over controllable factors that influence water temperature. This sufficiently describes actions necessary for achieving water quality objectives and includes recommendations for appropriate actions by other entities.

7. The North Coast Water Board found that the analysis contained in the California Environmental Quality Act (CEQA) "Substitute Environmental Documents" for the proposed Basin Plan amendment, including the CEQA checklist, the final staff report entitled "Supporting the Policy for the Implementation of the Water Quality Objectives for Temperature and Action Plan to Address Temperature Impairment in the Mattole River Watershed, Action Plan to Address Temperature Impairment in the Navarro River Watershed, and Action Plan to Address Temperature Impairment in the Eel River Watershed", and the response to comments complies with the State Water Boards' regulations for the implementation of CEQA as set forth in the California Code of Regulations, title 23, sections 3775 through 3871. The North Coast Water Board's analysis takes into account a reasonable range of environmental, economic, and

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- *Lower Main Eel River* (December 18, 2007)
- *North Fork Eel River* (December 30, 2002)
- *Middle Fork Eel River* (December, 2003)
- *South Fork Eel River* (December 16, 1999)
- *Middle Main Eel River* (December, 2005)
- *Upper Main Eel River* (December 29, 2004)
- *Mattole River* (December 30, 2002)
- *Navarro River (*December, 2000)

technical factors. The State Water Board has reviewed the Substitute Environmental Documents for the Basin Plan amendment and concurs with the North Coast Water Board's findings and determinations including the programmatic Statement of Overriding Considerations (CEQA Findings, Attachment 4).

8. The North Coast Water Board also adopted the Basin Plan amendment pursuant to the "Necessity" standard of the Administrative Procedures Act, Government Code section 11353, subdivision (b). It is necessary to articulate in the Basin Plan the range of implementation mechanisms that are necessary for achieving the water quality objectives for temperature, and to formally incorporate the implementation plans for U.S. EPA-established temperature TMDLs into the state's continuing planning process under Clean Water Act section 303(e).

9. The Temperature Policy and Action Plans are consistent with the provisions of Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California." The Policy and Plans identify a wide range of factors affecting temperature and compliance measures to attain temperature objectives, both within and outside of the Board's permitting jurisdiction, that will help attain temperature objectives and ensure the protection of beneficial uses of the state's waters. The Temperature Policy and Action Plans are intended to implement the antidegradation standard as it applies to unimpaired waters and waters that became impaired after 1968. The Policy directs the Regional Water Board staff to incorporate temperature protection measures into its nonpoint source permitting, which relies on implementation of best management practices and other measures that can be considered best practicable treatment or control methods. Management measures are generally applied through individual water quality plans that tailor measures to a particular site that includes an iterative planning approach based on monitoring feedback. The Policy and Action Plans do not themselves authorize or permit any activity that will discharge waste into high quality waters. A full antidegradation analysis is appropriate at the time of permit development and adoption.

   Site- or activity-specific projects that will cause degradation to existing high quality waters will undergo additional analysis to determine whether the change in water quality is consistent with maximum benefit to the people of the State, and will not unreasonably result in water quality less than that prescribed in the Basin Plan and other Policies.

10. A Basin Plan amendment does not become effective until approved by the State Water Board, the regulatory provisions are approved by the Office of Administrative Law (OAL) and the CEQA filing fee is collected by the California Department of Fish and Wildlife.

11. Occasionally during its approval process, Regional Water Board staff, State Water Board, or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity and consistency. Under such circumstances, the Executive Officer should be authorized to make such changes, provided that the Regional Water Board is informed of any such changes.

THEREFORE BE IT RESOLVED THAT:

The State Water Board:

1. Approves the amendment to the Basin Plan adopted under Regional Water Board Resolution No. R1-2014-0006.

2. Authorizes the Executive Director or designee to submit the amendment adopted under Regional Water Board Resolution No. R1-2014-0006 as approved and the administrative record for this action to the Office of Administrative Law for approval.

CERTIFICATION

The undersigned Clerk to the Board does hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the State Water Resources Control Board held on April 8, 2015.

AYE:	Vice Chair Frances Spivy-Weber Board Member Tam M. Doduc Board Member Steven Moore Board Member Dorene D'Adamo
NAY:	None
ABSENT:	Chair Felicia Marcus
ABSTAIN:	None

Jeanine Townsend
Clerk to the Board

California Regional Water Quality Control Board
North Coast Region

Resolution No. R1-2014-0006

Amending the Water Quality Control Plan for the North Coast Region to include the Policy for the Implementation of the Water Quality Objectives for Temperature, and Action Plans to Address Temperature Impairments in the Mattole, Navarro, and Eel River Watersheds

WHEREAS, the California Regional Water Quality Control Board, North Coast Region (Regional Water Board), finds that:

1. The purpose of the *Policy for the Implementation of the Water Quality Objectives for Temperature* (Temperature Policy, Attachment 1) is to describe the range of tools available for protection against anthropogenically elevated water temperatures to remediate, restore, and protect temperature-impaired waterbodies and to control the cumulative impacts of elevated water temperature on other waterbodies. It affirms the need to address water temperatures region-wide, but on a case-by-case basis in the context of a given permit or other action to reduce impairments and prevent further impairment. It directs staff to continue implementing temperature Total Maximum Daily Loads (TMDL) through regional nonpoint source programs, permits, waivers, and enrollments as appropriate, and to work with other agencies to address elevated water temperatures.

2. In 2012, the Regional Water Board adopted Resolution No. R1-2012-0013, the *Policy Statement for the Implementation of the Water Quality Objective for Temperature* (Resolution, Attachment 2), which the Temperature Policy incorporates by reference. The Resolution describes in one cohesive document the Regional Water Board's efforts to date in implementing temperature objectives and guidance on the range of implementation tools to apply for temperature protection in future programs and permits, including coordination with other federal, state, and local agencies to the extent possible. The Resolution articulates in further detail ongoing and future efforts for implementing temperature controls in a site- or activity-specific context.

3. The Temperature Policy directs Staff to examine and address temperature when developing permits. At a minimum, any program or permit should implement temperature shade load allocations in areas subject to existing temperature TMDLs, including EPA-established temperature TMDLs. Any program or permit should implement riparian management measures, sediment controls, and stream flow considerations in coordination with the State Water Resources Control Board Division of Water Rights and other local, state, and federal agencies to the extent possible region-wide as appropriate and as necessary to address and prevent further impairments.

4. The *Action Plans to Address Elevated Water Temperature in the Eel River Watershed, Navarro River Watershed, and Mattole River Watershed* (Action Plans, Attachment 3)

will implement the USEPA-established Eel River, Navarro River, and Mattole River TMDLs.[1] The Action Plans each include a standalone implementation plan applicable to actions addressing temperature impairments in each watershed. The Action Plans are consistent with the more general Temperature Policy, but include more specificity on actions to take place in the individual watersheds.

5. Under Clean Water Act section 303(d)(2), once USEPA establishes a TMDL, the state must incorporate the TMDL into its water quality management plan, which includes the Basin Plan and other plans developed as part of the state's continuing planning process under Clean Water Act section 303(e). The Temperature Policy and Action Plans will become part of the Basin Plan, and be considered part of the continuing planning process under Clean Water Act section 303(e). The Temperature Policy not only implements existing temperature TMDLs, but is intended to implement future temperature TMDLs and prevent additional temperature impairments to avoid the need for further listings.

6. Water Code section 13242 requires that a program of implementation for achieving objectives include: 1) a description of actions necessary for achieving water quality objectives, including recommendations for appropriate action by any entity, public or private; 2) a time schedule for actions to be taken; and 3) surveillance to be undertaken to determine compliance with objectives. The Temperature Policy and Action Plans meet the requirements of section 13242. First, the Policy and Action Plans describe multiple actions that are necessary for achieving the water quality objectives for temperature. The Policy directs Regional Water Board staff to prevent, minimize, and mitigate temperature alterations associated with various factors through a combination of riparian management and other temperature controls as appropriate in nonpoint source control programs; permits and waivers, grants and loans, and enforcement actions; support of restoration projects; and coordination with other agencies with jurisdiction over controllable factors that influence water temperature. This sufficiently describes actions necessary for achieving water quality objectives and includes recommendations for appropriate actions by other entities.

7. Second, the Temperature Policy and Action Plans include a time schedule for actions to be taken, albeit somewhat less structured to accommodate the multi-faceted approach. Generally, the time schedule for the entire Temperature Policy can be summarized as "current and ongoing." Specific time schedules for certain activities

[1] The USEPA has established the following temperature TMDLs:

- *Lower Main Eel River* (December 18, 2007)
- *North Fork Eel River* (December 30, 2002)
- *Middle Fork Eel River* (December, 2003)
- *South Fork Eel River* (December 16, 1999)
- *Middle Main Eel River* (December, 2005)
- *Upper Main Eel River* (December 29, 2004)
- *Mattole River* (December 30, 2002)
- *Navarro River (*December, 2000)

vary depending on the action described. The Temperature Policy references the development of future nonpoint source permitting programs, such as the Agricultural Lands Discharge Program. This Program and others like it have their own separate processes and time schedules. Other Policy components rely on the actions of other agencies, such as the Division of Water Rights, and cannot be specifically scheduled or otherwise dictated by the Regional Water Board.

8. Finally, the Temperature Policy includes a surveillance component to determine compliance with objectives. The temperature implementation work plan and associated three-year cycle of review allows for the actions taken by the Regional Water Board to be discussed and re-evaluated in a public manner, on a regular basis. In addition, the Policy directs the development of a regional temperature trend monitoring program to ensure the Temperature Policy is effective.

9. The language included in the Temperature Policy and Action Plans is necessarily broad to articulate a general strategy and to avoid the discussion of specific programs and permits. This structure eliminates the problem of antiquated language in the Basin Plan as programs and permits are developed and implemented over time. In contrast, the Resolution describes specifically how riparian management and other temperature controls are or will be incorporated into region-wide permits. Similarly, the temperature implementation work plan (Policy Action #12) provides a vehicle to describe and update the specific actions to implement the Policy.

10. The approach articulated in the Policy is consistent with the Regional Water Board's existing approach to addressing temperature. It has been described as a "tool box" because it collects in one place all the tools available to the Regional Water Board to address temperature concerns. In recent years the Regional Water Board has been addressing temperature concerns consistent with this Policy; however, it is important for the Regional Water Board to describe its approach to temperature in one place in the Basin Plan for clarity and to ensure consistent implementation. It also incorporates TMDLs into the state's water quality management plan as required under Clean Water Act section 303(d)(2).

11. The Regional Water Board's planning jurisdiction is broader than its permitting jurisdiction. "Water Quality Control" means the regulation of any activity or factor which may affect the quality of the waters of the state…." (Wat. Code, § 13050, subd. (i).) The Temperature Policy is meant to be comprehensive, and thus describes a full range of temperature implementation actions, both within the Regional Water Board's permitting jurisdiction, and actions outside of the Regional Water Board's permitting jurisdiction. This includes voluntary measures, restoration grants, and actions that other agencies may take. This concept is consistent with the high-altitude and programmatic approach of the Policy. Again, additional specifics are better articulated via Resolution No. R1-2012-0013 and the temperature implementation work plan, considering the many components of the Policy and their ongoing implementation.

12. The Temperature Policy does not specify any prescriptions for any land use activity. The Resolution contains a detailed discussion of temperature protection measures in the context of region-wide nonpoint source programs including riparian management. The Resolution describes how in many instances the same management measures can address multiple sources of pollution, and how incorporating TMDL implementation into broad-based nonpoint source programs can increase efficiency and avoid overlapping water quality regulation. The Resolution includes an extensive discussion on how the Regional Water Board can, and often does rely on existing non-Water Board programs if those actions will result in attainment of water quality standards, with a focus on the significant progress made in this regard for timber harvesting.

13. The term "site-specific potential effective shade" illustrates a general concept, but should not be construed as a hard and fast standard. Load allocations are not automatically enforceable; rather, they must be translated and implemented through some sort of permitting mechanism and for the Regional Water Board this is generally through implementation of best management practices for nonpoint source land use activities. Compliance is generally achieved by not removing or hindering vegetation that provides shade to a waterbody. This is accomplished by managing riparian areas differently than the surrounding land. Riparian buffers are also important for controlling sediment and other pollutants. The Resolution makes clear that relevant factors should be evaluated when determining shade controls and preserves the Regional Water Board's discretion to develop management measures as appropriate for a specific land use or geographic area. The Resolution and the *Staff Report Supporting the Policy for the Implementation of the Water Quality Objectives for Temperature and Action Plan to Address Temperature Impairment in the Mattole River Watershed, Action Plan to Address Temperature Impairment in the Navarro River Watershed, and Action Plan to Address Temperature Impairment in the Eel River Watershed* (Staff Report) provide more detail on how this term can be applied in a site- or activity-specific context. The Resolution states in its description of site-specific potential effective shade that the "policy is not intended to predetermine precise parameters for effective shade for a specific location or land use." (Resolution at 6.)

14. The scientific basis of the Temperature Policy and Action Plans has been reviewed by external scientific peer reviewers in accordance with section 57004 of the California Health and Safety Code. Regional Water Board staff submitted a peer-review draft Staff Report in February 2013 to three external scientific peer reviewers. The following individuals provided scientific peer review of the Peer Review Draft Report:
    1) Sally E. Thompson, Ph.D., Department of Civil and Environmental Engineering University of California
    2) John C. Stella, Ph.D., Department of Forest and Natural Resource Management State University of New York
    3) Mark T. Stacey, Ph. D., Department of Civil and Environmental Engineering University of California

Regional Water Board staff revised the Staff Report in response to peer review comments, or provided a written response that explained the basis for not making the suggested revisions.

15. Consistent with the California Code of Regulations, title 23, sections 3778-80, the Regional Water Board has provided extensive outreach and opportunity for public comment on the proposed Basin Plan amendment. Stakeholder involvement has occurred through numerous venues, including public meetings, presentations to the Regional Water Board, presentations at other organization's meetings and conferences, an informational webpage, informational e-mails, correspondences, and public comment periods since 2011. Staff also organized meetings with environmental interested parties on June 26, 2013, Farm Bureau representatives on August 9, 2013, and forestry representatives on August 13, 2013. Additionally, the Regional Water Board held a workshop on the Temperature Policy and Action Plans during its regularly scheduled meeting on September 26, 2013. Finally, the Regional Water Board held a public hearing to consider adoption of the Temperature Policy and Action Plans during its regularly scheduled meeting on November 20, 2013, wherein stakeholders had an opportunity to comment on the proposed Basin Plan amendment.

16. Pursuant to Public Resources Code section 21080.5, the Resources Agency has approved the Regional Water Boards' basin planning process as a "certified regulatory program" that adequately satisfies the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) requirements for preparing environmental documents. (Cal. Code Regs., tit. 14, § 15251, subd. (g); Cal. Code Regs., tit. 23, § 3782.) The Substitute Environmental Documents (SED) include the Staff Report, the environmental checklist and analyses, the comments and responses to comments, and the Basin Plan amendment language.

17. In preparing the accompanying SED, the Regional Water Board has considered the requirements of Public Resources Code section 21159 and California Code of Regulations, title 14, section 15187, and intends the SED to serve as a programmatic review. Many of the compliance obligations will be undertaken or approved by public agencies that will have separate obligations under CEQA. Project-level impacts will need to be considered in any subsequent environmental analysis performed by other public agencies, pursuant to Public Resources Code section 21159.2.

18. The Regional Water Board has solicited comments from interested persons and governmental agencies regarding the scope and content of the environmental information included in the SED. On February 5th, 2013, the Regional Water Board circulated a Notice to Hold CEQA Scoping Meetings for a Proposed Amendment to the Water Quality Control Plan for the North Coast Region Incorporating a Policy for the Implementation of the Water Quality Objective for Temperature and Temperature TMDL Action Plans for the Navarro, Eel, and Mattole River Watersheds. On February 15th, 27th and 28th, 2013, Regional Water Board staff held scoping meetings in Santa Rosa, Bayside, and Yreka, California, respectively.

19. Drafts of the Temperature Policy, Action Plans and Staff Report were available for formal public review and comment. The complete versions of the draft Temperature Policy, Action Plans, and Staff Report (which constitute the SED), were available for public review and comment on August 30, 2013. The public comment period closed on October 14, 2013, allowing a 45-day review and comment period. Regional Water Board staff received and responded to 17 comment letters on the draft documents. The documents and other materials that constitute the record of proceedings on which the Regional Water Board findings are based are maintained in a public file and are located at North Coast Regional Water Quality Control Board, 5550 Skylane Blvd., Suite A, Santa Rosa, California, 95403. This information is provided consistent with Public Resources Code §21081.6(a)(2) and title 14, California Code of Regulations, §15091(e).

20. The adoption of the Temperature Policy and Action Plans as a Basin Plan amendment is a regulatory action subject to the requirements of section 21159 of the Public Resources Code. Consistent with the requirements of that section, the CEQA Environmental Checklist includes an analysis of environmental impacts, mitigation measures to reduce or avoid those impacts, and alternative means of compliance that would avoid or eliminate environmental impacts (Pub. Resources Code, § 21159, subd. (a)(1)-(3); Cal. Code Regs., tit. 14, §§ 15187, subds. (b), (c)(1)-(3), 15189.) The analysis takes into account a reasonable range of environmental, economic, and technical factors.

21. The Regional Water Board has identified potentially significant impacts, including potentially significant cumulative impacts, that are less than significant with mitigation incorporated to the following resources:
    - Aesthetics;
    - Agriculture;
    - Air quality;
    - Biological resources;
    - Cultural resources;
    - Geology and soils;
    - Greenhouse gases (GHGs);
    - Hazards and hazardous materials;
    - Hydrology and water quality;
    - Land use / planning;
    - Noise;
    - Public services;
    - Recreation;
    - Transportation/traffic; and
    - Utilities and service systems.

22. The Regional Water Board has identified potentially significant impacts, that may be unavoidable to the following resources:
    - Agricultural resource and forested lands;

- Cultural resource;
- GHGs;
- Hydrology/water quality;
- Noise;
- Recreation; and
- Utilities and service systems

23. Most of the potentially significant impacts would be expected to be short term. Individual project-specific CEQA review will be necessary in some cases, as appropriate. Many can and will be mitigated to less than significant levels with the implementation of specific mitigation measures. However, because of the programmatic nature of this CEQA analyses, it is not possible to say with certainty that all impacts will be mitigated to less than significant levels. Identified mitigation will become enforceable in permits and other orders by the Regional Water Board, but we cannot be certain that other agencies will adopt the recommended mitigation for activities under the jurisdiction of other agencies. As a result, even impacts identified as less than significant with mitigation incorporated must also be considered unavoidable at this time. In addition, as discussed below, an agency may approve a project that will have significant impacts even after all feasible mitigation if the agency finds that the benefits outweigh the adverse impacts. (Pub. Resources Code, § 21081, subd. (b).) This balancing requires consideration of specific overriding social, economic, legal, technical, or other beneficial aspects of the project that justify approving the project despite the unavoidable impacts. The findings should state the agency's rationale for its decision, and may be appropriate in a restoration or other context.

24. Consistent with Public Resources Code section 21081(b), specific overriding economic, legal, social, technological or other benefits may outweigh the unavoidable adverse environmental impacts. These benefits include improved aesthetic resources, biological resources, geology and soils, hydrology and water quality, and recreation. Attaining and sustaining stream temperatures that support the cold freshwater habitat beneficial use, the beneficial use most sensitive to temperature, is also vital to supporting the socioeconomic background of the region due to the role that cold freshwater streams play in supporting recreational, commercial and subsistence fishing. These benefits are not only supportive of several threatened and endangered species, but also of local economies, communities, and cultures throughout the North Coast. The Regional Water Board finds that the potentially significant, unavoidable environmental impacts could be acceptable in light of the benefits set forth above for the attainment and protection of beneficial uses, and that each of the benefits constitute an overriding benefit warranting approval of the Basin Plan amendment, independent of the other benefits. Of course, each site-specific activity must be evaluated on a project level to balance the factors in an individual given context.

25. The Temperature Policy and Action Plans are consistent with the provisions of Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality Waters in California." The Policy and Plans identify a wide range of factors affecting

temperature and compliance measures to attain temperature objectives, both within and outside of the Board's permitting jurisdiction, that will help attain temperature objectives and ensure the protection of beneficial uses of the state's waters. The Policy and Plans are intended to implement the antidegradation standard as it applies to unimpaired waters, and waters that became impaired after 1968. The Policy directs the Regional Water Board staff to incorporate temperature protection measures into its nonpoint source permitting, which relies on implementation of best management practices and other measure that can be considered best practicable treatment or control methods. Management measures are generally applied through individual water quality plans that tailor measures to a particular site that includes an iterative planning approach based on monitoring feedback. The Policy and Action Plans do not themselves authorize or permit any activity that will discharge waste into high quality waters. A full antidegradation analysis is appropriate at the time of permit development and adoption.

In its environmental analyses, the Regional Water Board did find that foreseeable methods of compliance with the Policy could potentially result in significant individual and cumulative water quality impacts. For example, dam removal activities that would result in temporary stream channel alterations from erosion and siltation and result in increased turbidity, suspended sediment load, and reduction of dissolved oxygen, which will likely exceed Basin Plan water quality objectives. Available mitigation measures in some instances may not reduce impacts enough to prevent pollution or prevent degradation, but specific overriding economic, legal, social, technological, or other benefits outweigh any adverse environmental impacts resulting from potential impacts in compliance with the Temperature Policy. With respect to exceedences of water quality objectives, short term impacts may be acceptable in cases where long term benefits to beneficial uses outweigh short term impacts, based on detailed, site-specific information and findings. Thus, each site-specific activity must be evaluated on a project level to balance the factors in an individual given context. Site- or activity-specific projects that will cause degradation to existing high quality waters will undergo additional analysis to determine whether the change in water quality is consistent with maximum beneficial use to the people of the State, and will not unreasonably result in water quality less than that prescribed in the Basin Plan and other Policies.

26. The Regional Water Board has considered the costs of implementing the Temperature Policy and Action Plans, and finds these costs to be reasonable and minimal relative to the benefits derived from implementing the actions.

27. The Temperature Policy and Action Plans must be submitted for review and approval by the State Water Resources Control Board, then the State Office of Administrative Law.

28. The Temperature Policy and Action Plans will become effective upon submittal of the CEQA filing fee to the California Department of Fish and Wildlife, which will be submitted following approval by the Office of Administrative Law.

29. Occasionally during its approval process, Regional Water Board staff, State Board, or OAL determines that minor, non-substantive corrections to the language of the amendment are needed for clarity and consistency. Under such circumstances, the Executive Officer should be authorized to make such changes, provided that the Board is informed of any such changes.

THEREFORE, BE IT RESOLVED THAT:

The Regional Water Board:

1. Certifies the final Substitute Environmental Documents, which were prepared in accordance with the requirements of the State Water Board's certified regulatory CEQA process, and directs the Executive Officer or designee to file a Notice of Decision after the Temperature Policy and Action Plans are approved by the Office of Administrative Law to the Secretary for Natural Resources pursuant to the California Code of Regulations, title 23, section 3781, and Public Resources Code section 21080.5(d)(2)(E).

2. Pursuant to section 13240 and 13242 of the Water Code, the Regional Water Board hereby adopts, as an amendment to the Basin Plan, the *POLICY FOR THE IMPLEMENTATION OF THE WATER QUALITY OBJECTIVES FOR TEMPERATURE* as set forth in Attachment 1 to this Resolution and as supported by the Substitute Environmental Documents.

3. Pursuant to section 13240 and 13242 of the Water Code, the Regional Water Board hereby adopts, as an amendment to the Basin Plan, the *ACTION PLAN TO ADDRESS ELEVATED WATER TEMPERATURES IN THE EEL RIVER WATERSHED*, the *ACTION PLAN TO ADDRESS ELEVATED WATER TEMPERATURES IN THE NAVARRO RIVER WATERSHED* and the *ACTION PLAN TO ADDRESS ELEVATED WATER TEMPERATURES IN THE MATTOLE RIVER WATERSHED* as set forth in Attachment 3 to this Resolution and as supported by the Substitute Environmental Documents.

4. The Executive Officer is hereby directed to forward copies of the Temperature Policy, Action Plans, and the administrative record to the State Water Resources Control Board in accordance with the requirements of section 13245 of the California Water Code.

5. The Regional Water Board hereby requests the State Water Resources Control Board approve the Temperature Policy and Action Plans in accordance with sections 13245 and 13246 of the California Water Code. If approved, the Regional Water Board Executive Officer shall forward the Temperature Policy and Action Plans to the Office of Administrative Law.

6. If, during the approval process, the State Water Resources Control Board or the Office of Administrative Law determines that minor, non-substantive corrections to the language of the Temperature Policy and Action Plans are needed for clarity or

consistency, the Executive Officer may make such changes, and shall inform the Regional Water Board of any such changes.

Certification

I, Matthias St. John, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, North Coast Region, on March 13, 2014.

Original signed by

_____

Matthias St. John
Executive Officer

14_0006_TemperaturePolicy

Resolution No. R1-2014-0006
Attachment 1

[Add a new sub-section to the Water Quality Control Plan for the North Coast Region implementation chapter (Chapter 4) with the following policy. This section will be added after the "Region-wide Policies Affecting TMDLs, A. Sediment TMDL Implementation Policy". In addition to adding the following language, several editorial revisions will be made, including appropriate changes to the Title Page, Table of Contents, Summary of Basin Plan Amendments (Appendix 1), page numbers, table and figure numbers, footnote numbers, and headers and footers to reflect the new language. The final locations of tables and figures in relation to the text may also be changed to accommodate the existing formatting of the Basin Plan.]

B. POLICY FOR THE IMPLEMENTATION OF THE WATER QUALITY OBJECTIVES FOR TEMPERATURE

The strategy for implementing the intrastate and interstate water quality objectives for temperature in the North Coast Region is set forth in the *Policy Statement for Implementation of the Water Quality Objective for Temperature in the North Coast Region*.[1] The Regional Water Board shall address sources of elevated water temperature region-wide but on a case-by-case basis in the context of a given permit or other action as appropriate and necessary to reduce impairments and prevent further impairment.

The water quality objectives for temperature shall be implemented through a combination of riparian management and other temperature controls as appropriate in nonpoint source control programs; permits and waivers, grants and loans, and enforcement actions; support of restoration projects; and coordination with other agencies with jurisdiction over controllable factors that influence water temperature.[2] Controllable water quality factors affecting water temperature include, but are not limited to, any anthropogenic activity which results in the removal of riparian vegetation that provides shade to a waterbody, sediment discharges, impoundments and other channel alterations, the reduction of instream summer flows, and the reduction of cold water sources.

To attain and maintain the water quality objectives for temperature, the Regional Water Board and its staff will implement programs and collaborate with others in such a manner as to prevent, minimize, and mitigate temperature alterations associated with the following factors:

1. Activities with the potential to reduce riparian shading of waterbodies;
2. Activities with the potential to increase sediment delivery;
3. The quality, quantity, location and timing of effluent, storm water, and agricultural return flow discharges;
4. The location, size, and operation of in-channel impoundments with the ability to alter the natural temperature regime;
5. Actions with the potential to change stream channel geometry;
6. Activities with the potential to reduce instream flows or reduce sources of cold water, including cold water refugia.

This policy in no way limits the State Water Board or Regional Water Board's authority and discretion to develop riparian management measures and other measures as appropriate and necessary for a specific land use, activity, or geographic area, and in consideration of existing regulatory and non-regulatory programs in place that provide temperature protections.

The Regional Water Board shall take the following actions to achieve temperature objectives and implement temperature TMDLs, including EPA-established TMDLs:

1. Restore and maintain riparian shade,[3] as appropriate, through nonpoint source control programs; permits and waivers, grants and loans, and enforcement actions; support of restoration projects; and coordination

[1] NCRWQCB Res. No. R1-2012-0013 is hereby incorporated by reference.
[2] Section 13247 of the Porter-Cologne Water Quality Control Act requires other state offices, departments, and boards to carry out their activities in a manner that complies with water quality control plans approved or adopted by the state board.
[3] The removal of vegetation that provides shade to a waterbody is a controllable water quality factor. Riparian shade-related temperature TMDL load allocations are based on the concept of "site-specific potential effective shade," which means the shade equivalent to that provided

with other agencies with jurisdiction over controllable factors that influence water temperature, as appropriate.

2. Continue to implement the Sediment TMDL Implementation Policy as a means of addressing elevated water temperature associated with excess sediment discharges. Implement sediment controls consistent with the approach articulated in the Sediment TMDL Implementation Policy to address temperature concerns associated with sediment in areas not impaired by sediment.

3. Examine and address temperature impacts when developing and implementing permits or programs for nonpoint source activities. Consider and implement, where applicable, all available measures to prevent and control the elevation of water temperatures in permit or program development. Such measures shall include, but are not limited to, sediment Best Management Practices and cleanups, memoranda of understanding or agreement with other agencies, prohibitions against waste discharges, management of riparian areas to retain shade, and control and mitigation of tailwater and impoundments. Where appropriate, include monitoring requirements for incorporation into permits, programs, and other orders to confirm management actions required to prevent or reduce elevated temperatures are implemented and effective.

4. Address factors that contribute to elevated water temperatures when issuing 401 certifications, NPDES permits, Waste Discharge Requirements, or Waivers of Waste Discharge Requirements, or Prohibitions.

5. Use other regulatory, executive, and enforcement tools, as appropriate, to address elevated water temperatures and preserve existing cold water resources.

6. Support and encourage restoration projects that are designed to eliminate, reduce, or mitigate existing sources of temperature impairments. Administer, encourage, and support the use of grant funds to facilitate projects that address elevated water temperature concerns. Pursue non-regulatory actions with organizations, landowners, and individuals to encourage the control of elevated water temperatures, watershed restoration, and protection activities.

7. Continue to coordinate with the Division of Water Rights by participating in the water right application and petition process, providing monitoring recommendations, conducting joint compliance inspections, submitting data in support of 401 certifications related to water diversions and/or facilities regulated by the Federal Energy Regulatory Commission, and any other appropriate means to help ensure that the terms of water right permits and licenses are consistent with the water quality objectives for temperature.

8. Coordinate with the Division of Water Rights on the development of instream flow studies and flow objectives, as appropriate.

9. Provide cities, counties, state, and federal agencies guidance and recommendations on compliance with the water quality objectives for temperature. Work with local governments to develop strategies to address the prevention, reduction, and mitigation of elevated water temperatures, including, but not limited to, ordinances, general plans, and other management policies.

10. Identify statewide policies under development with implications for water temperature, collaborate with State Water Board counterparts, and provide recommendations and guidance with respect to this policy.

11. Develop and implement a region-wide water temperature trend monitoring program to assist the Regional Water Board in determining whether this Policy is effectively reducing and preventing elevated temperatures over the long-term.

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by topography and potential vegetation conditions at a site. Shade controls that are effective at correcting temperature impairments also operate to prevent impairments, and provide other water quality protections such as bank stability and filtering sediment and other waste discharges. The Regional Water Board has discretion on how to implement load allocations on a case-by-case basis. This policy is not intended to predetermine precise parameters for riparian shade for a specific location or land use,. Where non-Water Board programs provide riparian shade that result in attainment of water quality standards, the Regional Water Board will rely on and incorporate those programs.

12. Develop and maintain a temperature implementation workplan consistent with the Policy to prioritize efforts, track progress, and identify specific actions to address elevated water temperatures. The temperature implementation workplan shall describe specific actions that will be taken throughout the North Coast Region and set watershed priorities for addressing elevated water temperatures at a watershed-specific level. The temperature implementation workplan shall be presented to the Regional Water Board on a triennial basis.

Resolution No. R1-2014-0006
Attachment 2

California Regional Water Quality Control Board
North Coast Region

Resolution No. R1-2012-0013

Policy Statement

for

Implementation of the Water Quality Objective for Temperature in the North Coast Region

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

Introduction

1. Elevated water temperature is a widespread water quality impairment in the North Coast Region. The purpose of this policy is to describe the range of tools available for protection against anthropogenically elevated water temperatures to remediate, restore, and protect temperature-impaired waterbodies and to control the cumulative impacts of elevated water temperature on other waterbodies. It attempts to describe in one cohesive document the Regional Water Board's efforts to date in implementing temperature objectives and guidance on the range of implementation tools for temperature protection in future programs and permits, including coordination with other state, local and federal agencies to the extent possible. It affirms the need to address water temperatures region-wide, but on a case-by-case basis in the context of a given permit or other action to reduce impairments and prevent further impairment. It directs staff to continue implementing temperature Total Maximum Daily Loads (TMDLs) through regional nonpoint source programs and individual permits, waivers, and enrollments as appropriate, and to work with other agencies to address elevated water temperatures.

2. The prevention of water quality impacts from temperature related factors has been a high priority in the North Coast Region for many years. The Regional Water Board has ranked the control of temperature impacts as a high priority under the Triennial Review process since 2001. The Triennial Review also included two other high priority issues that are relevant in the development of a region-wide temperature control program: the stream and wetlands system protection policy and instream flow objective (also referred to as the watershed hydrology objective).

Basin Plan Temperature Standards

3. The Water Quality Control Plan for the North Coast Region (hereinafter the Basin Plan) identifies the beneficial uses of waterbodies within the North Coast Region.

These uses include, but are not limited to, municipal and domestic water supply (MUN); cold freshwater habitat (COLD); warm freshwater habitat (WARM); estuarine habitat (EST); migration of aquatic organisms (MIGR); support of habitats necessary, at least in part, for the survival and successful maintenance of rare, threatened, or endangered plant or animal species (RARE); and spawning, reproduction, and early development of fish (SPWN). The Basin Plan also establishes water quality objectives, including water temperature objectives, for the protection of these beneficial uses. The beneficial uses of waterbodies, water quality objectives, and anti-degradation policies, together, constitute water quality standards.

4. The Basin Plan defines the cold freshwater habitat (COLD) beneficial use as: "*Uses of water that support cold water ecosystems including, but not limited to, preservation or enhancement of aquatic habitats, vegetation, fish, or wildlife, including invertebrates.*" In the North Coast Region, the iconic cold water species are salmon and steelhead. In addition, there are many other organisms, such as frogs, salamanders, aquatic insects, and resident fish species that require a cold freshwater ecosystem for survival.

5. The Basin Plan defines the intrastate water quality objective for temperature as:

   "*The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Water Board that such alteration in temperature does not adversely affect beneficial uses.*

   At no time or place shall the temperature of any COLD water be increased by more than 5°F above natural receiving water temperature.

   At no time or place shall the temperature of any WARM water be increased by more than 5°F above natural receiving water temperature."

6. Natural receiving water temperatures are those that result when the factors that drive water temperatures are consistent with natural conditions. The most prominent factors are hydrology, solar radiation (the inverse of shade), air temperature, and channel geometry.

7. The Basin Plan defines the interstate water quality objective for temperature as:

   "Elevated temperature waste discharges into COLD interstate waters are prohibited," and,

   "*Thermal waste discharges having a maximum temperature greater than 5°F above natural receiving water temperature are prohibited*," and,

"*Elevated temperature wastes shall not cause the temperature of WARM interstate waters to increase by more than 5℉ above natural temperature at any time or place.*"

TMDL Development

8. Section 303(d) of the Clean Water Act requires states to address impaired waters by developing a total maximum daily load (TMDL) or implementing another program that will result in the attainment of water quality standards. TMDLs establish the maximum load of a pollutant that can be assimilated without exceeding the applicable water quality standards. Temperature TMDLs include a source analysis, interpretation of water quality objectives, and load allocations that divide the allowable loading among the sources in a way that results in attainment of the water quality standards.

9. The Regional Water Board has adopted temperature TMDLs for the Salmon, Scott, Shasta, and Klamath rivers. The U.S. Environmental Protection Agency (EPA), Region IX, has established temperature TMDLs for the following waterbodies in the North Coast Region: the Eel River (six reaches), Mattole River, and Navarro River. Each of these TMDLs includes a temperature source analysis, TMDL calculation, load allocations, and a margin of safety.

10. EPA did not adopt plans of implementation for its TMDLs because it lacks implementation authority over nonpoint source pollution. EPA did include specific implementation recommendations for achieving the temperature load allocations. Those recommendations include the use of the timber harvest permitting process to protect and restore shade, implementation of the *United States Forest Service (USFS) Northwest Forest Plan* and associated standards and guidelines, and the control of sediment to achieve temperature standards.

11. Under Clean Water Act section 303(d)(2), the state must incorporate EPA TMDLs into its Water Quality Management Plan after they are approved. Clean Water Act section 303(e) requires EPA approval of a state's continuing planning process, which includes Basin Plans, regulatory programs, monitoring and quality assurance programs, nonpoint source management programs, and funding assistance programs. Similar to the *Total Maximum Daily Load Implementation Policy Statement for Sediment Impaired Receiving Waters in the North Coast Region (Sediment Policy)* discussed below (finding 26), this policy is intended to implement temperature TMDLs, including EPA temperature TMDLs in compliance with Clean Water Act section 303(d)(2).

12. Under state law, TMDLs are adopted with programs that implement correction of the impairment. The *Water Quality Control Policy for Addressing Impaired Waters: Regulatory Structure and Options* (*Impaired Waters Policy*) is a statewide policy that describes the process for developing and adopting TMDLs. TMDLs

may be adopted in any of the following ways:

1. TMDLs and TMDL implementation strategies may be adopted with a Basin Plan amendment or another regulation or policy for water quality control that is designed to guide the Regional Water Board in correcting the impairment.

2. TMDLs and TMDL implementation strategies may be adopted with a permitting action, enforcement action, or other single regulatory action.

3. TMDLs and TMDL implementation strategies may be adopted with a resolution that certifies either that (1) a regulatory program has been adopted and is being implemented by another state, regional, local, or federal agency; or (2) a non- regulatory program is being implemented by another entity. (State Water Board Resolution No. 2005-0050, at p.8.)

If adopted under 2 or 3 above, the TMDLs must be referenced in the relevant Basin Plan before or during the next triennial review. (*Id.* at p. 9.)

13. To date, the Regional Water Board has adopted three peer-reviewed temperature TMDLs as Basin Plan amendments, each with accompanying plans of implementation, generally titled "action plans" that contain various implementation measures. All of the existing temperature TMDL action plans encourage and direct parties responsible for the management of riparian areas to implement riparian management measures that meet the riparian shade allocations and water quality standards. Temperature TMDLs developed in watersheds also impaired by sediment rely on the implementation of sediment TMDLs to achieve sediment reductions that are also necessary to achieve the temperature TMDLs.

14. In 2009, the Sierra Club, Friends of the Eel River, Friends of the Navarro Watershed, Environmental Protection Information Center, Northcoast Environmental Center and Klamath Riverkeeper filed a lawsuit alleging that the Regional Water Board violated mandatory duties under the Porter-Cologne Water Quality Control Act, Water Code section 13000 et seq., section 303(d) of the federal Clean Water Act, 33 U.S.C. section 1313(d), in failing to adopt a program of implementation for TMDLs for certain water quality-impaired waterbodies within the North Coast Region of California. Under section 303(d)(2), once EPA approves or issues a TMDL, the state must incorporate the TMDL into its water quality management plan (Basin Plans are one part of the water quality management plan). The Regional Water Board maintains that it has met all obligations for implementing TMDLs; however, it has not consolidated all of its temperature TMDL implementation efforts into a single document that could serve as an "implementation plan" for meeting the statutory requirements.

15. In February 2011, the Executive Officer entered into a settlement with petitioners

in the form of a stipulated agreement. Regional Water Board staff agreed to develop a Temperature Implementation Policy for the Regional Water Board's consideration. That rulemaking process to consider a Basin Plan amendment will follow adoption of this policy statement. As per the terms of the agreement the proposed Basin Plan amendment will be submitted to the Regional Water Board for consideration no later than December 31, 2013.

16. In 2004 the Regional Water Board adopted a Sediment Policy statement which provides for the control of sediment pollution by using existing permitting and enforcement tools. This temperature implementation policy statement is similar but broader in describing an approach that, where possible and if appropriate and necessary, encourages the combination of TMDL requirements with region-wide nonpoint source programs for efficiency and to avoid duplicative regulation.

17. Temperature TMDL analyses completed to date have consistently found the same factors to be responsible for elevated water temperatures: increased exposure to solar radiation due to loss of stream shade, physical stream channel alteration in response to elevated sediment loads, and in some cases agricultural tail water, impoundments, and water diversions.

18. Temperature impairments are predominantly associated with nonpoint source pollution, which is generally defined as pollution that is not a "point source discharge" requiring a National Pollution Discharge Elimination System (NPDES) permit under the federal Clean Water Act.[1] Under the state Porter-Cologne Water Quality Act, nonpoint source discharges of waste are regulated under waste discharge requirements (WDRs), waivers of WDRs, prohibitions, or a combination thereof. Temperature is also addressed in water quality certifications issued pursuant to section 401 of the Clean Water Act. As explained in more detail below, the Regional Water Board has been implementing temperature controls in its region-wide nonpoint source pollution programs and in individual permits on a case-by-case basis, often in the context of sediment discharges. Elevated temperature is also caused by factors outside the core regulatory programs of the Regional Water Board that may be addressed by other public agencies, for example water diversions under the jurisdiction of the State Water Resources Control Board (State Water Board),

[1] The discharge of waste associated with storm water drainage system-related point sources has the potential to increase water temperature in a receiving waterbody. However, storm water discharges predominantly occur during periods of rainfall, when water temperatures generally support beneficial uses. Discharges not associated with rainfall events (non-storm water discharges) are sometimes discharged through storm water conveyance systems, thus the possibility of water temperature impacts associated with storm water systems must be considered. The discharge of waste associated with other point sources also has the potential to increase water temperatures in the receiving waterbody. However, point source discharges are generally not permitted in any North Coast watersheds except the Russian and Eel river watersheds, where winter time discharges are permitted at high dilution ratios. These discharges, as permitted, do not exceed the water quality objective for temperature.

Division of Water Rights.

19. Implementation of temperature protection measures in the context of region-wide nonpoint source programs, particularly riparian management, is discussed in more detail below, followed by a discussion of implementation options for sources not within the Regional Water Board's core regulatory jurisdiction.

Riparian Management

20. The removal of vegetation that provides shade to a waterbody is a controllable water quality factor.

21. Temperature TMDL load allocations for solar radiation in North Coast TMDL analyses are expressed in terms of site-potential effective shade. Site-potential effective shade is equal to the shade provided by topography and full potential vegetation conditions at a site, with an allowance for natural disturbances such as floods, wind throw, disease, landslides, and fire. The Regional Water Board has discretion on how to implement load allocations on a case-by-case basis. This policy is not intended to predetermine precise parameters for effective shade for a specific location or land use.

22. Compliance with the temperature TMDL load allocations for solar radiation is generally achieved by not removing or hindering vegetation that provides shade to a waterbody. To accomplish this, responsible parties are encouraged to delineate a separate management area for riparian vegetation that has the potential to shade a waterbody, and manage these riparian areas differently than the surrounding land. These areas are often referred to variously as a riparian management zone, streamside buffer area, or a watercourse and lake protection zone.

23. Shade controls effective at correcting temperature impairments also operate to prevent impairments, as well as provide other water quality protections. Riparian management may also impact waterbodies not currently listed as impaired for temperature.

24. The establishment of riparian buffers for temperature protection is an effective and important management measure for the control of some types of sediment discharges. Maintenance of a vegetated buffer provides a control on the discharge of sediment mobilized by surface erosion. Also, the retention of mature trees (and their roots) along a stream bank provides bank stability, reducing the discharge of sediment associated with stream bank landslides and debris flows. Maintenance of a vegetated buffer along streams also can ensure a supply of large woody debris to the stream channel, which is critical for metering of sediment, channel forming processes, and fish habitat.

Incorporating Riparian Management and Other Temperature Controls into Region- Wide Permitting

25. Completed sediment and temperature TMDLs identify and assign load allocations to similar categories of land uses that generate nonpoint source discharges of waste and pollution, such as timber harvest, roads, agriculture, and grazing. Implementation actions taken to achieve load allocations should be consistent with the Porter-Cologne Water Quality Control Act, as described in the *Statewide Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program*, which requires nonpoint sources be regulated under WDRs, waivers of WDRs, a Basin Plan prohibition, or some combination of these tools.

26. Often, the same management measures can address nonpoint source water quality concerns regardless of whether or not the waterbody is impaired. In addition, often several pollutants can be addressed by the same management measure, particularly sediment and temperature, and sometimes nutrients. In the past, the Regional Water Board has included conditions that ensure compliance with TMDL load allocations and the intrastate water quality objective for temperature under one permitting structure (i.e. waiver or WDR) where possible. Incorporating TMDL implementation into a broad-based nonpoint source approach increases efficiency and avoids overlapping water quality regulation.

27. Certain nonpoint source activities may be subject to regulatory or nonregulatory actions of other entities that provide temperature protections. If the Regional Water Board determines that those actions will result in attainment of water quality standards, the Regional Water Board may include those actions as implementation measures in a permit. The Regional Water Board can, and often does, rely on existing non-Water Board programs for permit measures, adding new requirements only as necessary to provide adequate water quality protection. (See e.g. finding 32 [discussion of the USFS Waiver].)[2] When addressing compliance with the temperature objective, the geographic location, existing regulatory and nonregulatory programs, and other relevant factors should be evaluated in determining appropriate and necessary shade controls.

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[2] In some cases, an aquatic Habitat Conservation Plan (HCP) contains requirements that meet or are even more protective than necessary to meet the temperature objectives. An example of this is the Green Diamond Aquatic HCP, which includes retention and recruitment measures that exceed the Anadromous Salmonid Protection (ASP) rules in density and geographic location. The HCP riparian management standards call for high levels of canopy retention within 150 feet of fish-bearing streams and 100 feet on all other streams supporting aquatic life. These measures are being considered and are expected to be relied upon for TMDL and temperature objective compliance in the development of property-wide WDRs.

This policy in no way limits the State Water Board or Regional Water Board's authority and discretion to develop riparian management measures as appropriate for a specific land use or geographic area.

28. In 2004, the Regional Water Board adopted Resolution R1-2004-0087, the *Sediment Policy*, which directs staff to use existing authorities to strengthen regulatory controls of nonpoint source discharges of sediment. Implementation of that *Sediment Policy* also partially implements the intrastate water quality objective for temperature insofar as the control of sediment discharges partially addresses elevated water temperatures. Sediment conditions interact with water in many ways that can affect water temperatures. Therefore, practices implemented to prevent and minimize elevated sediment discharges can also help control elevated water temperatures. This policy directs staff to implement the *Sediment Policy* as a means of addressing elevated water temperature associated with excess sediment discharges.

29. The Regional Water Board has made the most progress to date in implementing comprehensive nonpoint source permit coverage for timber harvest activities. Timber harvest activities have the potential to impact water temperature, depending on how the activities are conducted. For timber harvest activities on private lands, the Regional Water Board incorporates the California Board of Forestry's *Forest Practice Rules* into water quality permits for ease of reference, for consistent terminology, and to avoid duplicative processes to the degree possible. The California Department of Forestry and Fire Protection (CAL FIRE), as the lead agency in approving timber harvest activities on private lands, convenes a multi-agency team that includes CAL FIRE, the California Department of Fish and Game, the California Regional Water Quality Control Boards, the California Geological Survey, and other agencies as needed, to conduct a review of a timber harvest plan (THP). Each agency may recommend incorporating mitigating measures into the THP to reduce adverse impacts of the operation on timberland resources, including the beneficial uses of water. Through this process, Regional Water Board staff have an opportunity to make specific THP recommendations and clarify Basin Plan requirements, if needed, so that the final THP is eligible for enrollment in the timber GWDRs or waivers. Under the *Forest Practice Rules*, timber operations within designated watercourse and lake protection zones must adhere to canopy retention standards to address stream temperature issues, sediment and nutrient loading, and recruitment of large woody debris. Recent modifications to the *Forest Practice Rules* to address anadromous fish habitat (Anadromous Salmonid Protection rules) have resulted in canopy retention standards that are generally protective of shade and water temperatures in the areas where they apply. Compliance with the intrastate water quality objective for temperature may in some instances require additional canopy protections, particularly in areas outside the range of anadromy.

30. In 2004, the Regional Water Board adopted Order R1-2004-0030: *General Waste*

Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region (Timber GWDRs). The *Timber GWDRs* contain a provision that all water quality requirements must be met to qualify for enrollment in the *Timber GWDRs*. As defined, water quality requirements include water quality objectives (narrative or numeric), prohibitions, TMDL implementation plans, policies, or other requirements contained in a water quality control plan adopted by the Regional Water Board and approved by the State Water Board, and all other applicable plans or policies adopted by the Regional Water Board or State Water Board, including, but not limited to, the State Water Board Resolution No. 68-16: *Statement of Policy with Respect to Maintaining High Quality Waters in California*. Because TMDL load allocations are established as necessary conditions for achievement of water quality standards (i.e., water quality objectives in the context of beneficial uses), applicable load allocations should be incorporated into a THP to qualify for enrollment in the *Timber GWDRs*. This policy directs staff to continue implementing temperature load allocations through *Timber GWDRs* enrollments in areas subject to existing temperature TMDLs, including EPA-established temperature TMDLs. Staff should implement similar shade controls through *Timber GWDRs* enrollments in areas listed as impaired for temperature, as appropriate. Shade controls for *Timber GWDRs* enrollments region-wide, as appropriate and necessary, will prevent future impairments and ensure compliance with the intrastate water quality objective for temperature.

31. In 2009, the Regional Water Board adopted Order R1-2009-0038: *Categorical Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities On Non-Federal Lands in the North Coast Region (Non-Federal Timber Waiver).* The *Non-Federal Timber Waiver* includes conditions that implement TMDL load allocations and meet the Basin Plan intrastate temperature objective by requiring the protection of shade producing canopy. This policy directs staff to continue implementing the *Non-Federal Timber Waiver* as a mechanism for compliance with temperature TMDLs, including EPA-established TMDLs, and the intrastate water quality temperature objective.

32. In 2010, the Regional Water Board issued Order R1-2010-0029: *Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands in the North Coast Region* (*USFS Waiver*), a conditional waiver addressing certain nonpoint source activities on United States Forest Service lands in the region, including timber, roads, and grazing. This permit, by virtue of its conditions, also implements sediment, temperature, and nutrient TMDLs, and meets the Basin Plan intrastate temperature objective. Implementation of the *USFS Waiver* and the temperature TMDL action plans meets temperature TMDL load allocations and achieves compliance with the water quality objective for temperature in over half of the North Coast Region. The *USFS Waiver* includes adequate temperature controls for livestock grazing. The *USFS Waiver* adopts the USFS program that manages and maintains designated riparian zones to ensure retention of adequate

vegetative cover that results in natural shade conditions. The USFS program requires retention of trees within 300 feet slope distance on each side of fish-bearing streams, 150 feet slope distance on each side of perennial streams, and 100 feet slope distance on each side of ephemeral / intermittent streams, or the site potential tree height distance on each side of the stream, whichever is greatest. The *USFS Waiver* provides for exceptions to these requirements if it can be demonstrated that the exception will result in a net long-term benefit to water quality and stream temperatures. This policy directs staff to continue implementing the *USFS Waiver* as a mechanism for compliance with temperature TMDLs, including EPA-established TMDLs, and the intrastate water quality temperature objective.

33. Staff should examine and address temperature when developing other permits for nonpoint source activities. Regional Water Board staff are actively developing region-wide permits for dairies, county road maintenance, and irrigated lands, and shade control is expected to be a component in each of these programs. At a minimum, any program or permit should implement temperature shade load allocations in areas subject to existing temperature TMDLs, including EPA-established temperature TMDLs. Any program or permit should implement riparian management measures in areas listed as impaired for temperature, and region- wide as appropriate and necessary to prevent future impairments and to comply with the intrastate temperature objective.

34. The use of riparian areas by livestock can lead to impacts that elevate water temperatures. However, the use of riparian areas by livestock can be conducted without these temperature impacts. The intensity, duration, and timing of livestock use are critical considerations that determine whether livestock use is or is not harmful to riparian areas. For non-USFS land, Regional Water Board staff is currently participating in a collaborative effort involving the State Water Board and multiple regions to develop a grazing regulatory program to address water quality impacts associated with livestock grazing in impaired waters. Given the potential for livestock use of riparian areas to elevate water temperatures, it is important that any program associated with grazing address factors that elevate water temperatures. This policy directs staff to participate in the grazing regulatory program development process to consider and address factors that elevate water temperatures or impact existing cold water resources.

35. The excess water diverted for flood irrigation and returned to streams (irrigation tailwater discharge) can elevate the temperature of the receiving stream. Depending on various factors, including time of year and day, the temperature of the irrigation tailwater discharge can be substantially higher than the receiving water temperature, thus elevating the temperature of the receiving water. Regional Water Board staff are currently developing an irrigated lands water quality program. Elevated water temperatures associated with irrigation tailwater discharges should be considered and addressed through the irrigated lands water quality program and watershed-

specific waivers.

Individual and Site-Specific Permitting

36. In addition to considering and addressing temperature impacts in the development of any nonpoint source region-wide programs, the Regional Water Board should continue to employ a range of available regulatory, executive, and enforcement tools to address elevated temperatures on a case-by case basis, as appropriate. These tools include, but are not limited to, investigative orders under Water Code section 13267; cleanup and abatement orders under Water Code section 13304; waste discharge requirements under Water Code section 13263; water quality certifications pursuant to section 401 of the Clean Water Act; time schedule orders under Water Code section 13300; cease and desist orders under Water Code sections 13301-303; administrative civil liabilities under Water Code section 13350 and 13375, and the grants and loans program. This policy directs staff to use all available regulatory, executive, and enforcement tools, as appropriate, to address elevated water temperatures, and preserve existing cold water resources.

37. The alteration of stream bed, banks, and floodplains has potential to elevate water temperatures. Such projects may involve removal of vegetation and/or channel alteration, and have potential to increase sediment loads. The Regional Water Board regulates these activities through the 401 water quality certification process or WDR program. This policy directs staff to address factors that contribute to elevated water temperatures when issuing 401 certifications or WDRs for projects that alter the bed, banks, and floodplains of waters of the state. At a minimum, any 401 certification or WDR should implement temperature shade load allocations in areas subject to existing temperature TMDLs, including EPA-established temperature TMDLs. If applicable, any 401 certification, WDR, or order should implement similar shade controls in areas listed as impaired for temperature, and region-wide as necessary and appropriate to prevent future impairments and to comply with the intrastate temperature objective.

38. Restoration is an important tool for achieving water quality conditions sufficient to protect and restore beneficial uses, and may be particularly necessary to address some temperature impairments. Watershed studies conducted to assess water quality and identify appropriate corrective measures in impaired watersheds have found restoration to be a critical component of any water quality attainment program. Staff should consider temperature benefits of restoration projects when reviewing and recommending grant and loan applications, and where appropriate, support implementation of restoration projects aimed to correct temperature impairments.

Other Agencies with Oversight of Activities Affecting Temperature

39. In some cases, activities contribute to temperature impairments but are outside the jurisdictional authority of the Regional Water Board. The Regional Water Board works with many agencies with jurisdiction or authority to address water quality issues.

40. The diversion and storage of water has the potential to elevate water temperatures. The State Water Board's Division of Water Rights (Division of Water Rights) issues water right permits for the diversion of surface waters and Regional Water Board staff often work with Division of Water Rights staff to ensure Basin Plan requirements are reflected in water right permits and other water right orders. The *Policy for Maintaining Instream Flows in Northern California Coastal Streams* (May 4, 2010) specifically calls for involvement by Regional Water Boards to help ensure adequate consideration of water quality concerns. The Division of Water Rights also issues 401 water quality certifications for projects requiring a Federal Energy Regulatory Commission (FERC) license. Regional Water Board staff provide recommendations and identify water quality conditions that are necessary to ensure that the activity will comply with water quality standards. This policy directs Regional Water Board staff to continue to work with the Division of Water Rights to ensure that temperature and other water quality concerns are identified and addressed in the water right permitting process in all waterbodies.

41. Regional Water Board staff often submit water quality comments to cities and counties during the development of their ordinances and general plans. State guidelines require that local general plans should incorporate water quality policies from Basin Plans to the extent they are relevant. The planning and land use authorities entrusted to cities and counties include the authority to limit impacts from land uses to waters of the state and other natural resources. This policy directs staff to continue to provide cities and counties guidance and recommendations on compliance with the Basin Plan, and specifically the intrastate water quality objective for temperature.

42. Programs and activities implemented by other state and federal agencies often address or have the potential to affect conditions that influence water temperatures. The Regional Water Board routinely reviews financial and technical assistance programs, development activities, environmental impact statements, rule making, and monitoring programs developed and/or administered by agencies, such as the US Department of Agriculture, Natural Resource Conservation Service, US Army Corps of Engineers, US Bureau of Reclamation, USFS, FERC, Department of Defense, National Park Service, CAL FIRE, California Department of Fish and Game, and Bureau of Land Management. This policy directs staff to continue to provide state and federal agencies guidance and recommendations on compliance with the Basin Plan, and

specifically the intrastate water quality objective for temperature.

43. The Regional Water Board often supports and coordinates with the Natural Resource Conservation Service, Resource Conservation Districts, and the University of California Cooperative Extension on landowner outreach and agricultural nonpoint source reduction efforts, and relies on their landowner assistance programs for implementation of appropriate nonpoint source management practices on private lands. This policy directs staff to continue to work with the Natural Resource Conservation Service, Resource Conservation Districts, and the University of California Cooperative Extension to provide landowners guidance on compliance with the intrastate water quality objective for temperature, and assistance with implementation of actions that support water quality.

Monitoring

44. Monitoring is an important element of any regulatory program. Implementation and effectiveness monitoring are often incorporated into permits and grant agreements and reported through those processes. This policy directs staff to:
    - incorporate monitoring into permits and grant agreements as necessary and appropriate in order to confirm that management actions required to prevent or reduce elevated temperatures are implemented and effective; and
    - develop and implement a region-wide water temperature trend monitoring program to determine the long-term effectiveness of the *Temperature Policy*.

Other Findings

45. This policy is consistent with the provisions of the State Water Resources Control Board Resolution No. 68-16: the *Statement of Policy with Respect to Maintaining High Quality Waters in California*. Resolution No. 68-16 incorporates the federal Anti-degradation Policy.

46. This policy does not constitute a discretionary permit or regulation or other discretionary action constituting a "project" as that term is defined by the California Environmental Quality Act (CEQA). (14 Cal. Code Regs., tit. 14,§15378.) Thus, no environmental review is required under CEQA. Moreover, if this policy were construed as a project triggering CEQA review obligations, consistent with the CEQA Guidelines' Class 7 and Class 8 Exemptions, this policy is an action taken by a regulatory agency to "assure the maintenance, restoration, or enhancement of a natural resource where the regulatory process involves procedures for protection of the environment." (14 Cal. Code Regs., tit. 14, §§15307 & 15308.)

THEREFORE, BE IT RESOLVED THAT:

1. A Temperature Implementation Policy shall be incorporated into the Basin Plan as soon as possible. The proposed Basin Plan amendment shall be submitted to the Regional Water Board for consideration no later than December 31, 2013.

2. The Regional Water Board has authority to implement temperature TMDLs through a combination of riparian management and other temperature controls as appropriate in nonpoint source control programs; individual permitting, grants and loans, and enforcement actions; support of restoration projects; and coordination with other agencies with jurisdiction over controllable factors that influence water temperature.

3. This policy in no way limits the State Water Board or Regional Water Board's authority and discretion to develop riparian management measures as appropriate and necessary for a specific land use or geographic area, and in consideration of existing regulatory and non-regulatory programs in place that provide temperature protections.

4. Staff should continue to implement the *Sediment Policy* as a means of addressing elevated water temperature associated with excess sediment discharges.

5. Staff should continue implementing the *Non-Federal Timber Waiver* and *USFS Waiver* as a mechanism for compliance with temperature TMDLs, including EPA- established TMDLs, and the intrastate water quality temperature objective.

6. Staff should continue to implement shade load allocations through *Timber WDR* enrollments in areas subject to existing temperature TMDLs, including EPA-established temperature TMDLs, based on existing legal authority. Staff should implement similar shade controls through *Timber WDR* enrollments in areas listed as impaired for temperature but lacking a TMDL, and region-wide as appropriate and necessary to prevent future impairments and to comply with the intrastate temperature objective.

7. Staff should examine and address temperature impacts when developing permits or programs for nonpoint source activities, including those for dairies, county road maintenance and construction, and irrigated agriculture. Staff should consider all available measures to prevent and control the elevation of water temperatures such as sediment best management practices and cleanups, riparian management including shade, and mitigation of tailwater and impoundments, as appropriate, in permit or program development. It is the intent of the Regional Water Board to address elevated water temperatures associated with irrigation tailwater discharges through existing TMDL action plans and a future region-wide irrigated lands water quality program.

8. Staff should participate in the State Water Board's statewide grazing program development process to ensure that factors that elevate water temperatures or preserve existing cold water resources are considered and addressed. Additionally, staff should address the water temperature impacts associated with livestock use in waivers of WDRs, as appropriate and necessary.

9. Staff should address factors that contribute to elevated water temperatures when issuing 401 certifications or WDRs (permits) for individual projects. Any permit should be consistent with the assumptions and requirements of temperature shade load allocations in areas subject to existing temperature TMDLs, including EPA- established temperature TMDLs, as appropriate. If applicable, any permit or order should implement similar shade controls in areas listed as impaired for temperature but lacking a TMDL and region-wide as appropriate and necessary to prevent future impairments and to comply with the intrastate temperature objective.

10. Staff should use other regulatory, executive, and enforcement tools, as appropriate, to address elevated water temperatures and preserve existing cold water resources.

11. The Regional Water Board supports and encourages restoration projects that are designed to eliminate, reduce, or mitigate existing sources of temperature impairments. Staff should continue to administer, encourage, and support the use of grant funds to facilitate projects that address elevated water temperature concerns. Staff should pursue non-regulatory actions with organizations, landowners, and individuals to encourage the control of elevated water temperatures, watershed restoration, and protection activities.

12. Staff shall continue to coordinate with the State Water Board's Division of Water Rights by participating in the water right application and petition process, providing monitoring recommendations, joint compliance inspections, submittal of data in support of 401 certifications related to water diversions and/or facilities regulated by the FERC, participation in instream flow studies, and any other appropriate means to help ensure that the terms of water right permits and licenses are consistent with the intrastate water quality objective for temperature.

13. Staff should continue to provide guidance and recommendations to cities and counties on compliance with the water quality objectives for temperature and work with local governments to develop strategies to address the prevention, reduction, and mitigation of elevated water temperatures, including, but not limited to, riparian ordinances, general plans, and other management policies.

14. Staff should continue to provide local, state, and federal agencies, landowners, and the public guidance and recommendations on compliance with the Basin Plan, and specifically the intrastate water quality objective for temperature.

15. Staff should continue to participate in the development of the stream and wetland system protection policy to ensure that policy and the policy direction provided herein are consistent and support each other, and in coordination with other state, local and federal policies and programs.

16. Where appropriate, staff should propose monitoring requirements for incorporation into permits, programs, and other orders to confirm that management actions required to prevent or reduce elevated temperatures are implemented and effective.

17. Staff should develop and implement a region-wide water temperature trend monitoring program to assist the Regional Water Board in determining whether this policy is effectively reducing and preventing elevated temperatures over the long-term.

CERTIFICATION

I, Catherine Kuhlman, Executive Officer do hereby certify that the foregoing is a full, true, and correct copy of a Resolution adopted by the California Regional Water Quality Control Board, North Coast Region, on January 19, 2012.

Original Signed by

_____

Catherine Kuhlman
Executive Officer

Resolution No. R1-2014-0006
Attachment 3

[Add a new sub-section to the Water Quality Control Plan for the North Coast Region implementation chapter (Chapter 4) with the following Action Plans. This section will be added after the "ACTION PLAN FOR THE KLAMATH RIVER TOTAL MAXIMUM DAILY LOADS ADDRESSING TEMPERATURE, DISSOLVED OXYGEN, NUTRIENT, AND MICROCYSTIN IMPAIRMENTS IN THE KLAMATH RIVER IN CALIFORNIA AND LOST RIVER IMPLEMENTATION PLAN." In addition to adding the following language, several editorial revisions will be made, including appropriate changes to the Title Page, Table of Contents, Summary of Basin Plan Amendments (Appendix 1), page numbers, table and figure numbers, footnote numbers, and headers and footers to reflect the new language. The final locations of tables and figures in relation to the text may also be changed to accommodate the existing formatting of the Basin Plan.]

ACTION PLAN TO ADDRESS ELEVATED WATER TEMPERATURES IN THE EEL RIVER WATERSHED

The USEPA has established Total Maximum Daily Loads (TMDL) for elevated temperature in the Upper Main Eel, Middle Main Eel, Lower Main Eel, South Fork Eel, North Fork Eel, and Middle Fork Eel River Watersheds[1]. All of those temperature TMDLs have assigned temperature load allocations corresponding to solar radiation loads that occur when the riparian vegetation is at full potential growth conditions, with allowances for the effects of natural factors that act to reduce those potential growth conditions. The goal of this Action Plan is to establish actions that achieve those TMDL load allocations. The following actions constitute the program of implementation to achieve the Eel River Watershed Temperature TMDLs and are consistent with the *Policy for the Implementation of the Water Quality Objectives for Temperature*.

Table 4-19: Actions to Address Temperature Impairments in the Eel River Watershed

Source or Land Use Activity and Responsible Party	**Implementation Actions**
Timber Harvest Activities on Non-Federal Lands Regional Water Board	Action Regional Water Board staff shall make recommendations for additional measures to ensure the TMDL load allocations and water quality objectives for temperature are achieved during the timber harvest review process, as necessary. Timeline Ongoing
Timber Harvest Activities on Non-Federal Lands Parties conducting timber harvest activities that discharge waste or have the potential to discharge waste	Action Implement riparian management measures that meet the riparian shade allocations and water quality standards. Where the Forest Practice Rules are not sufficient to meet the TMDL allocations or water quality standards, implement additional measures as directed by Regional Water Board staff during the timber harvest review process. Timeline Ongoing

[1] *Upper Main Eel River and Tributaries (including Tomki Creek, Outlet Creek and Lake Pillsbury) Total Maximum Daily Loads for Temperature and Sediment* (2004), *Middle Main Eel River and Tributaries (from Dos Rios to South Fork) Total Maximum Daily Loads for Temperature and Sediment* (2005), *Lower Eel River Total Maximum Daily Loads for Temperature and Sediment* (2007), *South Fork Eel River Total Maximum Daily Loads for Sediment and Temperature* (1999), *North Fork Eel River Total Maximum Daily Loads for Sediment and Temperature* (2002), and *Middle Fork Eel River Total Maximum Daily Loads for Sediment and Temperature* (2003), each contain a problem statement, source analysis, numeric targets, load allocations, linkage analysis, and margin of safety. Please see the individual TMDL documents for more information.

Table 4-19: Actions to Address Temperature Impairments in the Eel River Watershed

Source or Land Use Activity and Responsible Party	**Implementation Actions**
All Activities on USFS Lands Regional Water Board	Action Implement Order No. R1-2010-0029, *Waiver of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands in the North Coast Region,* and any future revisions, (USFS Waiver of WDRs) as a mechanism for compliance with the water quality objectives for temperature. Action Regional Water Board staff shall make recommendations for additional measures to ensure the water quality objective for temperature is achieved during the project review process, as necessary. Timeline Ongoing
All Activities on Lands Managed by the USFS USFS	Action Conduct land management activities in compliance with the USFS Waiver of WDRs and in accordance with project-level recommendations. Timeline As required in the USFS Waiver of WDRs.
Agricultural Activities on Non-Federal Lands Regional Water Board	Action Develop and implement the Agricultural Lands Discharge Program as a mechanism for compliance with temperature objectives. Timeline Upon adoption
Agricultural Activities on Non-Federal Lands Parties conducting activities associated with agriculture that discharge waste or have the potential to discharge waste on nonfederal land, except dairies.	Action Implement riparian management measures that meet the riparian shade load allocations and water quality standards. Timeline Ongoing Action Conduct land management activities in compliance with the Agricultural Lands Discharge Program when adopted. Timeline Upon adoption of the Agricultural Lands Discharge Program

Table 4-19: Actions to Address Temperature Impairments in the Eel River Watershed

Source or Land Use Activity and Responsible Party	**Implementation Actions**
Road Construction and Maintenance of State Highway Facilities State Water Resources Control Board Regional Water Board	Action Implement the NPDES Statewide Storm Water Permit and Waste Discharge Requirements for the State of California, Department of Transportation (Caltrans permit). Timeline Ongoing
Road Construction and Maintenance of State Highway Facilities Caltrans	Action Conduct road construction, maintenance and associated activities in compliance with the Caltrans permit. Timeline Ongoing
Road Construction and Associated Maintenance on County Lands Regional Water Board	Action Implement Order No. R1-2013-0004, *Waiver of Waste Discharge Requirements and General Water Quality Certification for County Road Management and Activities Conducted Under the Five Counties Salmonid Conservation Program In the Counties of Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity in The North Coast Region* (5C Waiver of WDRs), and any future revisions. Action In the event that a county does not show intent to implement the 5C Waiver of WDRs, develop WDRs or a conditional waiver of WDRs for that county. Timeline Ongoing
Road Construction and Maintenance on County Lands Humboldt, Mendocino, and Trinity Counties	Action Conduct road construction and maintenance in compliance with the 5C Waiver of WDRs. Timeline Pursuant to the 5C Waiver of WDRs timelines.
Dairy Operations Regional Water Board	Action Implement temperature allocations through the Water Quality Compliance Program for Dairies & Concentrated Animal Feeding Operations (Dairy Program), and any future revisions. Timeline Ongoing
Dairy Operations Dairy operators	Action Conduct land management activities in compliance with the Dairy Program. Timeline Ongoing

Table 4-19: Actions to Address Temperature Impairments in the Eel River Watershed

Source or Land Use Activity and Responsible Party	**Implementation Actions**
Dredge and Fill Activities in Waters of the State Regional Water Board	Action Incorporate measures to meet the temperature allocations in 401 water quality certifications. Timeline Ongoing
Waste Discharge Requirement Program Regional Water Board	Action Incorporate measures to meet the temperature allocations and water quality objectives for temperature in Waste Discharge Requirements and Waivers thereof. Timeline Ongoing
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Work with other agencies and non-governmental organizations to support off-stream storage projects for water diverters currently diverting directly from streams during summer. Work with other agencies and non-governmental organizations to streamline the permitting process for conversion of on-stream to off-stream storage. Timeline Ongoing
Water Use Water users	Action The Regional Water Board encourages all water users to implement water conservation practices and develop off-stream storage facilities to minimize water diversions during low flow periods. Timeline Ongoing
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Pursue instream flow studies, including the following actions: • Work with other agencies and non-governmental organizations to support instream flow studies to: (1) quantify flows necessary for beneficial use support, (2) quantify flow impacts to assist outreach and education efforts, or (3) identify opportunities to increase summer low flows. • Coordinate with the California Department of Fish and Wildlife on the development, methodologies, and any criteria relevant to instream flow studies. • Consider all sources of water, including headwaters, groundwater, and waters flowing in subterranean streams. Timeline Until complete

Table 4-19: Actions to Address Temperature Impairments in the Eel River Watershed

Source or Land Use Activity and Responsible Party	**Implementation Actions**
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Support third-party efforts to address temperature related concerns, including: • Education of water users on the importance of water conservation efforts, • Education of water users on water conservation practices and opportunities, • Assistance for water users in the implementation of water conservation practices, • Restoration of riparian vegetation, • Other efforts that address water temperature-related concerns. Timeline Ongoing
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Take actions to address the temperature impacts of marijuana cultivation through the following: • Outreach and education, • Grant support for water conservation and pollution control efforts, • Coordination with other agencies, • Enforcement actions. Timeline Ongoing
Water Use Regional Water Board	Action Continue to coordinate with the State Water Board's Division of Water Rights by participating in the water right application and petition process, providing monitoring recommendations, conducting joint inspections as appropriate, submitting data in support of 401 certifications related to water diversions and/or facilities regulated by the FERC, participating in instream flow studies, participating in proceedings related to instream flow, and participating by any other appropriate means to help ensure that the terms of water right permits and licenses are consistent with the intrastate water quality objective for temperature. Timeline Ongoing

ACTION PLAN TO ADDRESS ELEVATED WATER TEMPERATURES IN THE NAVARRO RIVER WATERSHED

The USEPA has established Total Maximum Daily Loads (TMDL) for elevated temperature in the Navarro[2]. The Navarro River Watershed Temperature TMDL has assigned temperature load allocations corresponding to solar radiation loads that occur when the riparian vegetation is at full potential growth conditions, with allowances for the effects of natural factors that act to reduce those potential growth conditions. The goal of this Action Plan is to establish actions that achieve those TMDL load allocations. The Navarro River Watershed Temperature TMDL also identifies the alteration of flow as a factor that may elevate water temperatures in some situations, and sets a

[2] The *Navarro River Total Maximum Daily Loads for Temperature and Sediment* (2000) contains a problem statement, source analysis, , numeric targets, load allocations, linkage analysis, and margin of safety. Please see the TMDL and supporting documents for more information.

target of no increases in diverted flows unless it can be demonstrated that the flow reduction will not increase water temperatures. The following actions constitute a program of implementation to achieve the Navarro River Watershed Temperature TMDL and are consistent with the *Policy for the Implementation of the Water Quality Objectives for Temperature*.

Table 4-20: Actions to Address Temperature Impairments in the Navarro River Watershed

Source or Land Use Activity and Responsible Party	**Implementation Actions**
Timber Harvest Activities on Non-Federal Lands Regional Water Board	Action Regional Water Board staff shall make recommendations for additional measures to ensure the TMDL load allocations and water quality objectives for temperature are achieved during the timber harvest review process, as necessary. Timeline Ongoing
Timber Harvest Activities on Non-Federal Lands Parties conducting timber harvest activities that discharge waste or have the potential to discharge waste.	Action Implement riparian management measures that meet the riparian shade allocations and water quality standards. Where the Forest Practice Rules are not sufficient to meet the TMDL allocations or water quality standards, implement additional measures as directed by Regional Water Board staff during the timber harvest review process. Timeline Ongoing
Agricultural Activities on Non-Federal Lands Regional Water Board	Action Develop and implement the Agricultural Lands Discharge Program as a mechanism for compliance with temperature objectives. Timeline Upon adoption
Agricultural Activities on Non-Federal Lands Parties conducting activities associated with agriculture that discharge waste or have the potential to discharge waste on nonfederal land, except dairies.	Action Implement riparian management measures that meet the riparian shade load allocations and water quality standards. Timeline Ongoing Action Conduct land management activities in compliance with the Agricultural Lands Discharge Program when adopted. Timeline Upon adoption of the Agricultural Lands Discharge Program

Table 4-20: Actions to Address Temperature Impairments in the Navarro River Watershed

Source or Land Use Activity and Responsible Party	**Implementation Actions**
Road Construction and Maintenance of State Highway Facilities State Water Resources Control Board Regional Water Board	Action Implement the NPDES Statewide Storm Water Permit and Waste Discharge Requirements for the State of California, Department of Transportation (Caltrans permit). Timeline Ongoing
Road Construction and Maintenance of State Highway Facilities Caltrans	Action Conduct road construction, maintenance and associated activities in compliance with the Caltrans permit. Timeline Ongoing
Road Construction and Associated Maintenance on County Lands Regional Water Board	Action Implement Order No. R1-2013-0004, *Waiver of Waste Discharge Requirements and General Water Quality Certification for County Road Management and Activities Conducted Under the Five Counties Salmonid Conservation Program In the Counties of Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity in The North Coast Region* (5C Waiver of WDRs) and any future revisions. Action In the event that a county does not show intent to implement the 5C Waiver of WDRs, develop WDRs or a conditional waiver of WDRs for that county. Timeline Ongoing
Road Construction and Maintenance on County Lands Mendocino County,	Action Conduct road construction and maintenance in compliance with the 5C Waiver of WDRs. Timeline Pursuant to the 5C Waiver of WDRs timelines
Dredge and Fill Activities in Waters of the State Regional Water Board	Action Incorporate measures to meet the temperature allocations in 401 water quality certifications. Timeline Ongoing
Waste Discharge Requirement Program Regional Water Board	Action Incorporate measures to meet the temperature allocations and water quality objectives for temperature in Waste Discharge Requirements and Waivers thereof. Timeline Ongoing

Table 4-20: Actions to Address Temperature Impairments in the Navarro River Watershed

Source or Land Use Activity and Responsible Party	**Implementation Actions**
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Work with other agencies and non-governmental organizations to support off-stream storage projects for water diverters currently diverting directly from streams during summer. Work with other agencies and non-governmental organizations to streamline the permitting process for conversion of on-stream to off-stream storage. Timeline Ongoing
Water Use Water users	Action The Regional Water Board encourages all water users to implement water conservation practices and develop off-stream storage facilities to minimize water diversions during low flow periods. Timeline Ongoing
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Pursue instream flow studies, including the following actions: • Work with other agencies and non-governmental organizations to support instream flow studies to: (1) quantify flows necessary for beneficial use support, (2) quantify flow impacts to assist outreach and education efforts, or (3) identify opportunities to increase summer low flows. • Coordinate with the California Department of Fish and Wildlife on the development, methodologies, and any criteria relevant to instream flow studies. • Consider all sources of water, including headwaters, groundwater, and waters flowing in subterranean streams. Timeline Until complete
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Support third-party efforts to address temperature related concerns, including: • Education of water users on the importance of water conservation efforts, • Education of water users on water conservation practices and opportunities, • Assistance for water users in the implementation of water conservation practices, • Restoration of riparian vegetation, • Other efforts that address water temperature-related concerns. Timeline Ongoing

Table 4-20: Actions to Address Temperature Impairments in the Navarro River Watershed

Source or Land Use Activity and Responsible Party	Implementation Actions
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Take actions to address the temperature impacts of marijuana cultivation, through the following: • Outreach and education, • Grant support for water conservation and pollution control efforts, • Coordination with other agencies, • Enforcement actions. Timeline Ongoing
Water Use Regional Water Board	Action Continue to coordinate with the State Water Board's Division of Water Rights by participating in the water right application and petition process, providing monitoring recommendations, conducting joint inspections as appropriate, submitting data in support of 401 certifications related to water diversions and/or facilities regulated by the FERC, participating in instream flow studies, participating in proceedings related to instream flow, and any other appropriate means to help ensure that the terms of water right permits and licenses are consistent with the intrastate water quality objective for temperature. Timeline Ongoing
Water Use State Water Resources Control Board, Division of Water Rights	Action Achieve the Flow and Temperature target contained in the Navarro River Watershed Temperature TMDL through implementation of the *Policy for Maintaining Instream Flows in Northern California Coastal Streams.* Timeline Ongoing

ACTION PLAN TO ADDRESS ELEVATED WATER TEMPERATURES IN THE MATTOLE RIVER WATERSHED

The USEPA has established a Total Maximum Daily Load (TMDL) for elevated temperature in the Mattole River Watershed[3]. The Mattole River Watershed Temperature TMDL has assigned temperature load allocations corresponding to solar radiation loads that occur when the riparian vegetation is at full potential growth conditions, with allowances for the effects of natural factors that act to reduce those potential growth conditions. The goal of this Action Plan is to establish actions that achieve those TMDL load allocations. The following actions constitute a program of implementation to achieve the Mattole River Watershed Temperature TMDL and are consistent with the *Policy for the Implementation of the Water Quality Objectives for Temperature*.

[3] The *Mattole River Total Maximum Daily Loads for Sediment and Temperature* (2002) contains a problem statement, source analysis, numeric targets, load allocations, linkage analysis, and margin of safety. Please see the individual TMDL document for more information.

Table 4-21: Action Plan to Address Temperature Impairments in the Mattole River Watershed

Source or Land Use Activity and Responsible Party	Implementation Actions
Timber Harvest Activities on Non-Federal Lands Regional Water Board	Action Regional Water Board staff shall make recommendations for additional measures to ensure the TMDL load allocations and water quality objectives for temperature are achieved during the timber harvest review process, as necessary. Timeline Ongoing
Timber Harvest Activities on Non-Federal Lands Parties conducting timber harvest activities that discharge waste or have the potential to discharge waste	Action Implement riparian management measures that meet the riparian shade allocations and water quality standards. Where the Forest Practice Rules are not sufficient to meet the TMDL allocations or water quality standards, implement additional measures as directed by Regional Water Board staff during the timber harvest review process. Timeline Ongoing
Agricultural Activities on Non-Federal Lands Regional Water Board	Action Develop and implement the Agricultural Lands Discharge Program as a mechanism for compliance with temperature objectives. Timeline Upon adoption
Agricultural Activities on Non-Federal Lands Parties conducting activities associated with agriculture that discharge waste or have the potential to discharge waste on nonfederal land, except dairies.	Action Implement riparian management measures that meet the riparian shade load allocations and water quality standards. Timeline Ongoing Action Conduct land management activities in compliance with the Agricultural Lands Discharge Program when adopted. Timeline Upon adoption of the Agricultural Lands Discharge Program
Road Construction and Associated Maintenance on County Lands Regional Water Board	Action Implement Order No. R1-2013-0004, *Waiver of Waste Discharge Requirements and General Water Quality Certification for County Road Management and Activities Conducted Under the Five Counties Salmonid Conservation Program In the Counties of Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity in The North Coast Region* (5C Waiver of WDRs). Action In the event that a county does not show intent to implement the 5C Waiver of WDRs, develop WDRs or a conditional waiver of WDRs for that county. Timeline Ongoing

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Road Construction and Maintenance on County Lands Humboldt and Mendocino Counties	Action Conduct road construction and maintenance in compliance with the 5C Waiver of WDRs. Timeline Pursuant to the 5C Waiver of WDRs timelines.
Dredge and Fill Activities in Waters of the State Regional Water Board	Action Incorporate measures to meet the temperature allocations in 401 water quality certifications. Timeline Ongoing
Waste Discharge Requirement Program Regional Water Board	Action Incorporate measures to meet the temperature allocations and water quality objectives for temperature in Waste Discharge Requirements and Waivers thereof. Timeline Ongoing
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Work with other agencies and non-governmental organizations to support off-stream storage projects for water diverters currently diverting directly from streams during summer. Work with other agencies and non-governmental organizations to streamline permitting process for conversion of on-stream to off-stream storage. Timeline Ongoing
Water Use Water users	Action The Regional Water Board encourages all water users to implement water conservation practices and develop off-stream storage facilities to minimize water diversions during low flow periods. Timeline Ongoing
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Pursue instream flow studies, including the following actions: • Work with other agencies and non-governmental organizations to support instream flow studies to: (1) quantify flows necessary for beneficial use support, (2) quantify flow impacts to assist outreach and education efforts, or (3) identify opportunities to increase summer low flows. • Coordinate with the California Department of Fish and Wildlife on the development, methodologies, and any criteria relevant to instream flow studies. • Consider all sources of water, including headwaters, groundwater, and waters flowing in subterranean streams. Timeline Until complete

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Source or Land Use Activity and Responsible Party	Implementation Actions
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Support third-party efforts to address temperature related concerns, including: • Education of water users on the importance of water conservation efforts, • Education of water users on water conservation practices and opportunities, • Assistance for water users in the implementation of water conservation practices, • Restoration of riparian vegetation, • Other efforts that address water temperature-related concerns. Timeline Ongoing
Water Use Regional Water Board State Water Resources Control Board, Division of Water Rights	Action Take actions to address the temperature impacts of marijuana cultivation, through the following: • Outreach and education, • Grant support for water conservation and pollution control efforts, • Coordination with other agencies, • Enforcement actions. Timeline Ongoing
Water Use Regional Water Board	Action Continue to coordinate with the State Water Board's Division of Water Rights by participating in the water right application and petition process, providing monitoring recommendations, conducting joint inspections as appropriate, submitting data in support of 401 certifications related to water diversions and/or facilities regulated by the FERC, participating in instream flow studies, participating in proceedings related to instream flow, and any other appropriate means to help ensure that the terms of water right permits and licenses are consistent with the intrastate water quality objective for temperature. Timeline Ongoing