

Item No. 4
 Response to Individual Comments

Commenter	Comment:	Response
Dan Kruger, Soper-Wheeler Co., Inc.	<p>Please do not adopt Resolution R1-2011-0069, "Policy For Implementation of the Water Quality Objective for Temperature in the North Coast Region".</p> <p>This order is poorly written, extremely open ended, and will undermine the work that the California Licensed Foresters Association and its partners are currently engaged in on the RWBs Waiver Process.</p>	<p>RWB staff disagree with the commenter's opinion that the resolution is poorly written.</p> <p>In regard to undermining efforts, See the response to general issue 6.</p>
Jere Melo	<p>Mr. Chairman and Board Members: I have just reviewed the Draft Resolution, R1-2011-0069, related to water temperatures in North Coast streams and rivers. I recommend that the Board take no action on it.</p>	
Jere Melo	<p>Reference Introduction #3; staff was directed in 2007 to recommend a Basin Plan Amendment. Nowhere that I could find in the Draft Resolution is there a reference to a Board action to discontinue that direction. If a Basin Plan amendment is truly needed, that direction was provided in 2007. The Draft Resolution is not necessary.</p>	<p>RWB staff disagree. The resolution identifies an approach for the RWB to pursue to address identified activities that can elevate water temperature. The clear articulation of policy benefits both staff and the regulated community.</p>
Jere Melo	<p>The Draft Resolution is 17 pages of tortured language. Yes, there are a lot of variables that affect water temperature, including many of the beneficial uses of water defined in the Porter-Cologne Act. The Draft Resolution has the potential to set up legal standards that will interfere with the legal, beneficial uses of water.</p>	<p>The Policy resolution does not establish any new programs or establish new legal standards.</p>
Jere Melo	<p>In the "Resolved" section, there are 15 "staff should" points. Well, should they, or, should they not? The first "Resolved" to bring a Basin Plan Amendment is covered by the direction to staff in 2007. It does not appear to me that the "Resolved" section provides enough specific direction to staff to bring about any specific result.</p>	<p>The proposed resolution directs staff to develop a trend monitoring plan and guidance document, in addition to the Basin Plan amendment. The resolution also makes clear what RWB staff should focus on to protect and restore water temperatures.</p>

<p>Jere Melo</p>	<p>It is my understanding that staff is working with various water user groups and land management professionals about using water to beneficial uses and returning excess to streams, or maintaining riparian cover, to affect water temperature. Tell the Executive Officer to continue that direction on a professional basis. Folks will react much more positively to a professional discussion than to see a 17-pages Resolution of complex language become the basis for the discussion.</p>	<p>See response to the previous comment. Staff have and will continue to engage in professional discussions with the regulated community regarding these issues.</p>
<p>Steve VanderHorst</p>	<p>Consideration of this resolution at this time is premature. As the resolution states, most of the measures needed for temperature protection are satisfied by the measures that would be implemented for sediment protection.</p> <p>Consideration of this resolution should be deferred at least until sometime after February, 2012 (the target date for completion of the study of the new Forest Practice Rules). Proceeding with this resolution now will undermine the current study, and be inefficient, confusing, and redundant.</p>	<p>See the response to general issues 1, and 6. Sediment management addresses one important element with the potential to affect stream temperatures, though we would disagree that sediment management measures address most actions needed for temperature protection.</p>
<p>Steve VanderHorst</p>	<p>Currently WQ staff is studying the adequacy of new Forest Practice Rules to meet WDR Waiver requirements for sediment. After Forest Practice Rules are either approved as adequate or revised to meet approval for sediment protection, they can be analyzed for temperature protection. It is likely that little or no further revisions would need to be implemented.</p>	<p>This Policy relies on the RWB's authority, as established in the Porter-Cologne Water Quality Control Act. The RWB has no authority to revise the Forest Practice Rules.</p>
<p>Steve VanderHorst</p>	<p>Consideration of this resolution should be deferred at least until sometime after February, 2012 (the target date for completion of the study of the new Forest Practice Rules). Proceeding with this resolution now will undermine the current study, and be inefficient, confusing, and redundant.</p>	<p>See the response to general issue 6.</p>

<p>Eugenia Herr</p>	<p>As you state, agricultural impoundments and water diversions cause elevated water temperatures. And as you further state, diversion and storage of water has great potential to elevate water temperatures, but control of diversion and storage is in the hands of the Division of Water Rights of the State Water Board and they are failing in their task. You have to sort that out with them, how can you do your job if the diversions proliferate unabated. That will not be solved by resolutions.</p>	<p>This Policy directs RWB staff to resolve water diversion related impacts to water quality consistent with the State Water Resources Control Board's <i>Policy for Maintaining Flows in Northern California Coastal Streams</i>. The purpose of this resolution is to identify the mechanisms by which temperature issues will be addressed.</p>
<p>Eugenia Herr</p>	<p>You direct your staff to develop regulations for temperature for dairy and grazing operations and continue to waffle on vineyards. The major land use change in watersheds in the north coast regions of Sonoma and Mendocino County is conversion of forest and grazing land to vineyards. Shade and protective habitat requirements should apply to vineyards. Sediment control policies, for roads and site preparation and cultivation, should apply to vineyards. You should state that clearly.</p>	<p>The Resolution directs staff to address temperature concerns associated with irrigated agriculture through the permitting program currently under development. The irrigated agriculture permitting program will apply to vineyard lands that are irrigated and address sediment and other nonpoint source discharges.</p>
<p>Eugenia Herr</p>	<p>You speak of working with other agencies where you share jurisdiction. You should direct counties to adopt measures in their general plans which incorporate basin plan requirements, or tell them to expect action for failure to comply.</p>	<p>The RWB has no authority to require specific content in county general plans. However, RWB staff routinely provides comments to cities and counties to clarify water quality requirements. The resolution directs staff to work with counties to provide guidance and recommendations 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.</p>
<p>Eugenia Herr</p>	<p>You favor "robust monitoring" of temperature and you have yet to clearly address robust monitoring of dewatering.</p>	<p>Monitoring is an essential component of regulatory programs. For instance, Information gained through monitoring provides information</p>

		<p>about the efficacy of the program and the need for refinement. Water temperature monitoring can also highlight the need to address specific water quality issues, such as stream dewatering. The State Water Resources Control Board's Division of Water Rights has authority over stream dewatering issues. The proposed policy outlines the avenues RWB staff will pursue to address water dewatering and other water right related temperature issues.</p>
Eugenia Herr	<p>How about "robust enforcement?" You have lots of staff to write new regulations but your enforcement staff is practically non-existent and certainly powerless. Compare the numbers on your staffing chart.</p>	<p>Enforcement is one element of the suite of tools identified as a tool for implementing the water quality objectives for temperature.</p>
Eugenia Herr	<p>Please consider allocating some serious staff time to working on an intra-agency policy for a resource agency unified command system to address water quality and quantity problems basin by basin, so that you all will be working toward the same goals and can use all the total personnel force available.</p>	<p>This Policy identifies the existing regulatory mechanisms the RWB will use to address temperature concerns. The approach suggested by the commenter is beyond the scope of this effort and the RWB's authority. However, the resolution does direct staff to provide to other agencies guidance and recommendations on compliance with the Basin Plan. RWB staff work with, and will continue to work with, other agencies to address water quality concerns effectively.</p>
Peter Bradford	<p>I am writing to ask you to not adopt and disapprove R1-2011-0069.</p>	<p>Comment noted.</p>
Peter Bradford	<p>At the March North Coast Regional Water Quality Control Board meeting in Weaverville, CA a process was started that gave me, landowners and NTMP owners hope. Specifically, that the regional board would meet with landowners in the field, listen to their concerns, review their findings and cooperatively develop and readdress R1-2011-0038 as it relates to NTMP's and timber waivers. The proposed adoption of Temperature Resolution R1-2011-0069 completely</p>	<p>The proposed Policy is consistent with the current investigation underway regarding NTMP owners. See the response to general issue 6.</p>

	ignores the work that staff and landowners have put forth regarding 0038 and will effectively end the process since it will establish assumptions prior to the conclusion of the work being done on R1-2011-0038.	
Peter Bradford	R1-2011-0069 states the need for a broad based approach to temperature control in north coast streams. To equate the similarity between coastal streams and inland streams completely ignores the streams vegetation, geology or ambient air temperature. There is no commonality, except a flow of water, to justify this order.	See the response to general issue 3.
Peter Bradford	R1-2011-0069 states that “Timber harvest can impact water temperature by reducing shade, increasing sediment loads and altering microclimates.” (Paragraph 26 of Findings). This is an unsubstantiated finding with no scientific basis and leaves the board wide open for future complaints by those opposed to timber removal in any way, shape or form. Several NTMP landowners within the north coast region have submitted actual evidence that in fact shows that there is no linkage between timber removal and water temperature on their properties.	See the response to general issue 2. RWB staff have added the following sentence to the Resolution for clarity immediately following the sentence identified in the comment: “However, timber harvest in and near riparian areas can be conducted without these impacts if conducted thoughtfully, with water quality protection in mind.”
Peter Bradford	In addition, Dr. James Cajun’s 2003 dissertation, UC Berkeley, research showed no measureable in-stream temperature increase from removal of shade canopy along a stream.	See the response to general issue 2.
Peter Bradford	R1-2011-0069 cites not one scientific report that shows evidence of a problem existing to justify the need for this order. Rather, the statements and language in the order are vague and unsubstantiated and unless they are backed up with actual scientific research this exercise becomes a solution in search of a problem and unworthy of the public dollars being spent on the development and implementation of this order. A better use of public funds would be to implement a program	Please see response to general issues 2 and 4.

	<p>to: ascertain what the actual temperatures are during the summer months on impaired rivers and streams; find out if temperature impairments are widespread on impaired rivers and streams or localized to specific sites on those same streams; discover what the land uses are immediately adjacent to actual temperature impaired sites.</p>	
<p>California Farm Bureau Federation</p>	<p>The proposed Temperature Objective Policy is an unnecessary document and does not aid the Regional Board in controlling elevated water temperatures in water bodies.</p>	<p>The proposed Policy describes how the RWB will use its authority to implement the water quality objectives for temperature. The proposed Policy also establishes the Board’s interpretation of those objectives regarding shade and temperature, and directs staff to provide a guidance document to assist the public, landowners, organizations, the RWB staff, and other agencies with the prevention of elevated water temperatures and preservation of existing cold water resources. With the Policy in place, some TMDL analyses will not be necessary, thus saving resources and tax dollars.</p>
<p>California Farm Bureau Federation</p>	<p>Further, the proposed Temperature Objective Policy is entirely redundant because the Basin Plan already establishes temperature objectives; these objectives influence every action taken by the Regional Board. As indicated within the Temperature Objective Policy, the Basin Plan already has an interstate water quality objective for temperature. This water quality objective is very specific: (commenter recites water quality objectives for temperature).</p>	<p>The purpose of this policy is not to establish water quality objectives. Rather, the policy clarifies interpretation of the objective, identifies activities in the Region that may influence temperature, identifies mechanisms to implement the objective, and directs staff to provide a trend monitoring plan and further guidance on implementation of the objective.</p>
<p>California Farm Bureau Federation</p>	<p>(Basin Plan, p. 3-4.00.) The Basin Plan determines “the future direction of water quality control” within the region. (<i>Id.</i> at p. 1-2.00.) Specifically, the “Basin Plan is used as a regulatory tool by the RWB’s technical staff.” (<i>Id.</i> at pp. 1-2.00-1.300.) These temperature objectives are implemented by all Regional Board orders, waste discharge requirements (“WDR”), waivers of waste</p>	<p>The Basin Plan does not provide specificity regarding compliance with the temperature objectives, such as the incorporation of shade controls into permits. The Basin Plan also does not identify which regulatory mechanisms may be used to implement the temperature objectives for any particular activity.</p>

	discharge requirements, prohibitions, TMDLs, and TMDL implementation plans, as all such regulatory actions must comply with the Basin Plan. (See Wat. Code, §§ 13263, 13269; Basin Plan, p. 1-3.00).	
California Farm Bureau Federation	Notwithstanding the clear directive of the Basin Plan, the Temperature Objective Policy seeks simply to “acknowledge,” “reiterate,” and “affirm” all of the already existing obligations. (See page 2 of the proposed Temperature Objective Policy that explains what the policy does – all of which are things the Regional Board staff are already doing.)	While many of the actions identified in the resolution are already being conducted by RWB staff, not all are. The Policy presents a comprehensive approach, outlining the actions that staff are doing now and should be doing in the future.
California Farm Bureau Federation	Such overarching statements are unnecessary and add another layer of regulation and confusion to the already significant compliance burden faced by the regulated community.	The proposed Policy does not create regulatory burdens. This Resolution should provide better clarity on compliance with the temperature objectives by focusing on the actions and issues of concern that are most widespread: shade, flow, and channel configuration.
California Farm Bureau Federation	<p>The Proposed Temperature Objective Policy is Unclear</p> <p>As evidenced by the numerous TMDLs, regulations, and language within the Basin Plan, the North Coast Regional Board has and continues to take steps to address and prevent temperature exceedances. As discussed <i>supra</i>, every TMDL, TMDL implementation plan, waiver, WDR, and prohibition addresses the Basin Plan’s water quality objective for temperature. Given the Regional Board’s current mechanisms in place, it is unclear as to what is the purpose and need for an additional “temperature objective policy.”</p> <p>Confounding the problem, the proposed Temperature Objective Policy does not answer this question nor give any indication as to the effect it is supposed to have. Rather, adding a Temperature Objective Policy only adds regulatory confusion.</p> <p>After numerous pages of findings, the proposed Temperature Objective Policy’s resolutions discuss a</p>	The text of the resolution has been revised to clarify the need for this Policy. Additionally, note that the proposed policy is not intended to retroactively apply to past actions.

	<p>basin plan amendment that apparently will impact everything from TMDLs (Temperature Objective Policy, p. 14, ¶ 2) to water rights (<i>id.</i> p. 16, ¶ 9) to “impacts associated with livestock use” (<i>id.</i> p. 15, ¶ 5). However, no clear direction is given regarding how such amendments will impact temperature other than <i>through the processes already in place or currently in development</i>. The effect of having such a secondary regulatory layer retroactively applied to all past actions as well as any future action is disconcerting due to the ambiguous nature and redundancy of the policy.</p>	
<p>California Farm Bureau Federation</p>	<p><i>The Proposed Policy Appears to Ignore Diversity Within the Region</i> One of the most important issues regarding water quality is the diversity of issues within a region, particularly the North Coast Region. This is why each TMDL, TMDL implementation plan, waiver, WDR, and prohibition requires unique considerations. Given such diversity, concluding that all temperature elevations can be addressed in the same manner through a single region-wide temperature policy is not appropriate. In addition to being generally redundant to already existing obligations, the Temperature Objective Policy will impair the ability to address the different conditions in the region. Simply put, the Russian River differs significantly from the Shasta River and both are very different from coastal streams in Del Norte County. An overarching region-wide temperature policy will not take into account the significant diverse areas of the region.</p>	<p>Please see response to general issues 3 and 4.</p>
<p>California Farm Bureau Federation</p>	<p><i>The Temperature Objective Policy May Conflict with Current Plans</i> In addition to the region-wide concerns described herein, Farm Bureau is concerned that the Temperature Objective Policy will confuse and</p>	<p>See the response to general issue 6. Additionally, this proposed Policy does not add any extra layer to the timber harvest process. It relies on the existing process to achieve the water quality objectives for temperature.</p>

	<p>undermine the on-going effort to resolve petitions to Order No. 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. In 2009, various entities, including Farm Bureau, petitioned the State Water Resources Control Board, seeking review of Order No. R1-2009-0038 and its conditions, including conditions regulating water temperature. Over the past two years, petitioners and the Regional Board continue to work toward finding an appropriate resolution. The additional regulatory layer imposed by the proposed Temperature Objective Policy seeks to undermine this effort.</p>	
<p>California Farm Bureau Federation</p>	<p><i>The Proposed Temperature Objective Policy Must Consider the Reasonableness of Water Quality Objectives and Implementation Plans in Light of All Beneficial Uses</i></p> <p>The proposed Temperature Objective Policy focuses exclusively on water temperature for the protection of coldwater fisheries. While we recognize the need to address activities affecting coldwater fisheries, the proposed Temperature Objective Policy focuses completely on this single beneficial use, failing to adequately consider the needs of or impacts to other beneficial uses. This does not adhere to the Water Code's requirement that the Regional Board achieve what is reasonable given all of the beneficial uses (Wat. Code, § 13000) nor does it comply with the Regional Board's Basin Plan.</p>	<p>The proposed Policy is intended to address compliance with water quality objectives in order to support all beneficial uses, not to specifically focus on a single beneficial use. Additionally, this proposed policy implements the Basin Plan, and is consistent with it.</p>
<p>California Farm Bureau Federation</p>	<p>As currently drafted, the Temperature Objective Policy presumes that all activities, especially livestock grazing, irrigated agriculture, and timber harvesting, will affect coldwater fisheries, and thus, such activities are unreasonable. In several instances, attempts are made to justify temperature requirements by explaining the processes whereby the activity could affect coldwater</p>	<p>See the responses to general issues 2 and 5. The proposed policy is a policy to address water quality objectives, which are integral to the larger approach to regulating water quality established by the Porter-Cologne Water quality Control Act. Water quality objectives are established to protect water quality for all beneficial uses. All</p>

	<p>fisheries. However, the Temperature Objective Policy does not support these assertions with evidence nor do a corresponding analysis that explains how the burden imposed on other beneficial uses, such as agriculture, is justified in light of uncertain benefit to coldwater fisheries.</p> <p>The proposed Temperature Objective Policy, by failing to examine reasonableness and balance the beneficial uses, does not comply with the requirements of the Water Code. To do so, it would have to compare the benefits of particular regulatory activities to the burdens imposed by those regulations on other beneficial uses. To remedy this problem, the Temperature Objective Policy must be modified to recognize that attempting to ensure that coldwater fisheries are “fully supported” could result in the impairment of other beneficial uses, namely agriculture, which is already significantly strained. Therefore, the Temperature Objective Policy should be analyzed for reasonableness.</p>	<p>entities engaged in activities that may affect water quality have the responsibility of conducting their operations in a way that does not exceed water quality objectives. Additionally, the proposed policy relies on regulatory mechanisms that include complete public processes (e.g. Waiver and WDR development, 401 certification, Basin Plan amendment, etc.).</p>
<p>California Farm Bureau Federation</p>	<p><i>The Factual Assertions Within the Proposed Policy Are Not Supported or Supportable</i></p> <p>The proposed Temperature Objective Policy makes a number of factual assertions about the effects of shade on temperature and the activities that affect temperature that are not supported by evidence, sound science, or scientific studies. Further, conclusions relied upon to warrant the Temperature Objective Policy are in direct conflict with current scientific studies.² (2 See James, Cajun Southern Exposure Research Project: A Study Evaluating the Effectiveness of Riparian Buffers in Minimizing Impacts of Clearcut Timber Harvest Operations on Shade-Producing Canopy Cover, Microclimate, and Water Temperature along a Headwater Stream in Northern California, UC Berkeley Dissertation, 2003.) Reliance upon such generic and unsupported statements and</p>	<p>See the response to general issue 2.</p>

	<p>assertions are improper and hamper the development of appropriate TMDLs, waivers, or other regulatory tools.</p>	
<p>Mendocino County Farm Bureau (MCFB)</p>	<p>Regarding finding 1: Is there scientific evidence to defend this statement? What temperature parameters have been used to come to this conclusion and for what species? Are these criteria applicable to Northern California tributaries and rivers? What definition of beneficial uses is this referring to?</p>	<p>The 303(d) List of Water Quality Limited Segments identifies temperature as the most widespread impairment in the north coast region. The second sentence has been revised to say the following: <i>"There is no single water quality parameter more influential in determining which aquatic species are present in North Coast water bodies."</i> This is based on the experience of RWB staff, in which temperature is a more influential parameter than turbidity, suspended sediment concentration, dissolved oxygen, pH, or specific conductivity, in determining which species are present.</p>
<p>MCFB</p>	<p>Regarding finding 4: Instead of continuing to utilize current temperature control mechanisms through specific nonpoint source pollution programs or individual permits on a case by case basis, the Board is seeking additional broad based "comprehensive" policy to further attempt to regulate temperature. This is duplicative with existing temperature control mechanisms in existence. In addition, the Board seems to be expanding upon its jurisdiction by enforcing water temperature parameters through the water rights process especially with water diversions and storage. Inserting new terms into</p>	<p>This Policy is not duplicative with existing temperature control mechanisms in existence. Instead it identifies those existing programs that implement the temperature objectives, as well as others that are not yet in place. The Policy calls for the development of a guidance document to assist the public, landowners, organizations, the RWB staff, and other agencies with the prevention of elevated water temperatures and preservation of existing cold water resources. Together, these efforts represent a comprehensive approach to implementing the</p>

	existing riparian and appropriative water rights should remain within the jurisdiction of the State Water Resources Control Board.	temperature objectives. Finally, this proposed policy relies on the existing water rights process to achieve water quality objectives.
MCFB	MCFB does not feel that multiple levels of regulation are necessary and does not encourage the use of a one size fits all approach to temperature control in all of the HIGHLY variable rivers and tributaries within the North Coast Region. If temperature is deemed to be a concern, through scientific basis, MCFB feels that temperature control should be done on a case by case basis.	This Policy does not create multiple levels of regulation. It identifies the need to address temperature concerns through existing authorities, and directs that to be done. In regards to a one size fits all approach, the policy identifies the principles that need to be considered, but still allows for site-specific application. See the response to general issues 3 and 4.
MCFB	On Finding 5: MCFB wants to remind the Board of the human and economic factors that also need to be considered in the beneficial use discussion, Under the State Water Code Section 106 it is stated that the use of water for domestic purposes is the highest use of water and that the next highest use is for irrigation. State policy or water quality control in California also lists <i>Agricultural Supply (AGR), the use of water for farming, horticulture, or ranching, including, but not limited to irrigation, stock watering, or support of vegetation for range grazing</i> , as a beneficial use.	The proposed Policy is intended to address compliance with water quality objectives in order to support all beneficial uses, not to specifically focus on a single beneficial use.
MCFB	On Finding 6: Again. MCFB encourages the Board to not apply a broad-based, one size fits all, approach to temperature control in North Coast water bodies. In Mendocino County alone there are different salmonid species present in the coastal rivers and tributaries versus the inland rivers and tributaries. Applying a temperature standard for Coho to inland rivers such as the Russian is not accurate for the Chinook and Steelhead that are present. If temperature control is necessary, this should be done on a case by case basis.	See the response to general issues 3 and 4.

<p>MCFB</p>	<p>Regarding Finding 11: It is mentioned in the Riparian Management section Point 19, that: <i>"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."</i></p> <p>The term site-potential would be indicative of specific factors that could impact temperature at a particular location within an area covered under a TMDL. This is more reasonable than a broad based approach to developing temperature standards for all water bodies in the North Coast. MCFB also encourages the Board to remember that natural occurrences such as those mentioned in point 19 need to remain in consideration when developing policy and that the burden of minimizing these natural impacts should not be the sole responsibility of water users within the system. Have/Will the large government built flood control reservoirs such as Lake Mendocino or Lake Sonoma been taken into account when discussing temperature fluctuations from impounded water or impacts to the Russian River channel and affiliated tributaries? Have the benefits of having a year round source of water released from impoundments been discussed in terms of the salmonid life cycle?</p>	<p>See the response to general issue 3. Also, note that the RWB is not contemplating new temperature standards. This resolution establishes a Policy for implementing the existing water quality objectives for temperature. This Policy in no way places the burden of minimizing natural impacts on water users. This Policy addresses human-caused impacts on water temperatures.</p> <p>The process for addressing temperature impacts associated with reservoirs such as Lake Mendocino or Lake Sonoma is described in resolved #9, which describes how RWB staff will address temperature concerns associated with flow issues. The temperature effects of a year round source of water, including effects on salmonids and any other affected beneficial use, are evaluated relative to the criteria established in the water quality objectives for temperature.</p>
<p>MCFB</p>	<p>Regarding Finding 22: MCFB again wants to emphasize that uncontrollable natural events are an equal contributor to water quality standards and that simply attempting to further control anthropogenic factors is not good policy. MCFB is also highly concerned with the use of best available information to develop water quality standards. If the</p>	<p>The RWB only has authority to regulate anthropogenic factors. Natural factors do not cause exceedences of the water quality objectives for temperature, by definition. Note that the RWB is not contemplating development of new temperature standards. Also, See the response to general issue 3.</p>

	<p>best available information is not applicable to the specific water body, then the science and related methodology is not truly pertinent. For example, applying scientific conclusions from temperature studies performed on water bodies with high snow melt to inland water bodies is not pertinent. Too often policy and regulations are developed to address a specific issue in a water body without using accurate and pertinent data. When the regulation does not fix the proposed issue, then additional layers of regulation are added. If pertinent, applicable data does not exist to fully demonstrate that a proposed issue exists, and then implementation should not take place until such a time that data can be obtained and accurately analyzed.</p>	
<p>MCFB</p>	<p>Regarding Finding 24: If a water body is not impaired and a problem does not exist, why do management measures need to be enforced? MCFB feels that Board time and resources should not be wasted on attempting to over regulate by attempting to fix problems that do not exist.</p>	<p>The RWB is mandated to protect, restore, and preserve water quality consistent with the Basin Plan. The Basin Plan contains water quality objectives that apply to all waters of the state. This Policy is intended to provide a comprehensive approach to implementing the water quality objective for temperature everywhere it applies, not just where it is not being achieved. The suggested approach of waiting until a problem exists and water quality has been degraded is inconsistent with the Basin Plan and state law.</p>
<p>MCFB</p>	<p>Regarding Finding 26: MCFB feels that the statement that timber harvest activities can impact water temperature is not supported by scientific reference to provide evidence of the accuracy of this claim. The California Forest Practice Rules are highly stringent standards and the Board should review timber harvested under these standards prior to making the claim that timber harvest activities impact water temperature.</p>	<p>See the response to general issues 1 and 2.</p>

	<p><i>"In some instances RWB permits include canopy retention requirements different from the Forest Practice Rules"</i></p> <p>Again, the California Forest Practice Rules should be sufficient in establishing limber harvest protocols and the Board should not go above and beyond these standards.</p>	
MCFB	<p>Regarding Finding 27: MCFB encourages the Board to work with existing timber harvest policy such as the California Forest Practice Rules as guidance for temperature parameters. Applying a duplicative shade control policy to timber harvest activities region wide for both impaired and unimpaired water bodies is unjustified.</p>	See the response to general issue 1.
MCFB	<p>Regarding Finding 28: MCFB hosted a tour on NTMP properties in Mendocino County for the Board and Board staff in April of this year. Board members were unable to attend, but a number of Board staff was present. The goal of this tour was to show on the ground timber harvest practices as related to NTMPs and address misconceptions perceived to be evident with Order RI-2009-0038. The property owners with NTMPs that participated in this tour were hopeful that the Board and Board staff would continue to work collaboratively with NTMP owners to readdress Order RI-2009-0038. Several NTMP property owners within the North Coast Region have submitted temperature data to the Board collected in relation to timber harvest activities. The Board should continue to work with NTMP owners prior to drawing a conclusion that NTMPs and related timber harvest practices have a negative impact on water body temperature.</p>	See the response to general issues 1, 2, 5, and 6.
MCFB	<p>Regarding Finding 29: The US Forest Service (USFS) has been complying with the Clean Water Act and Porter-Cologne Act since</p>	The RWB remains committed to working collaboratively with the USFS to achieve water quality objectives in accordance with the <i>Waiver</i>

	<p>the passage of these laws, through the Forest Service's Water Quality Management Plan (WQMP) and associated BMPs. The State Water Resources Control Board has approved this plan since 1981. When the Board adopted Order R 1-2010-0029 in 2010 there were a number of concerns expressed by stakeholders including California Farm Bureau Federation, the California Cattlemen's Association and the California Forestry Association. The main concerns were: regulatory overlap, maintaining the jurisdiction of the USFS in relation to contractors and permittees, the apparent expansion of the Board's jurisdiction (specifically with regard to land use, management practices and pesticide application) and the fiscal impact to the USFS for an additional unfunded mandate, it is true that a substantial portion of the North Coast area is made up of National Forest lands, but it is also true that the USFS is supposed to support multiple uses on USFS properties including timber harvesting, livestock grazing, recreation and habitat. At this point in time, the Board is only in the beginning stages of implementing R1-2010-0029 and the State Water Resources Control Board is currently taking public comment on a draft regulation for water quality on all California National Forest land. As the Board moves forward with implementing R1-2010-0029, MCFB encourages the Board to: work collaboratively with the USFS on implementation, avoid unnecessary expense by prioritizing monitoring requirements in known (scientifically justified) areas of concern and not to negatively impact the ability of USFS permittee's/contractors or the general public to utilize USFS lands for multiple purposes.</p>	<p><i>of Waste Discharge Requirements for Nonpoint Source Discharges Related to Certain Federal Land Management Activities on National Forest System Lands</i> , which addresses water temperature concerns.</p>
MCFB	<p>Regarding Finding 31: MCFB feels that unless a temperature issue has scientifically been proven to impact a specific water</p>	<p>See the response to general issue 4.</p>

	<p>body that temperature regulations should not be implemented. When the above region-wide permit programs are developed, shade control should not be automatically included without demonstrating a need.</p>	
<p>MCFB</p>	<p>Regarding Finding 32: MCFB feels that there are a number of scientific studies that show the benefits of livestock grazing in various situations including riparian areas. MCFB appreciates the recognition of livestock grazing as a management tool. The Board should also be made aware of the impacts of native or introduced species to riparian areas that are often believed to be caused by livestock. Species such as deer, elk and wild pigs contribute to the overall impacts to water quality and riparian areas. In situations where livestock are being grazed, MCFB encourages the Board to work with the rancher/property owner to establish site specific management protocols if warranted. Again, a one size fits all approach (such as fencing all riparian corridors) is not justified.</p>	<p>The RWB has not required “fencing all riparian corridors”, and supports the approach of developing site-specific practices to address water quality concerns associated with grazing.</p>
<p>MCFB</p>	<p>Regarding Finding 33: The State Water Resources Control Board is in the process of developing a state wide water quality regulatory program for livestock grazing on private property. Through this resolution, Board staff is being directed to participate in the regulation development process to ensure that temperature impacts are addressed. If this regulatory program is being developed for "impaired waters", MCFB feels that the Board should not expand the coverage area of the program to unimpaired waters within the North Coast Region. MCFB also recommends that the Board direct staff to have scientific validation on purported livestock factors that elevate water temperature in impaired waters within the North Coast Region and not just assumptions when participating in the regulatory</p>	<p>This proposed policy is meant to apply to all waters. See the response to general issue 4. RWB staff will rely on science when participating in the regulatory program development.</p>

	program development.	
MCFB	<p>Regarding Finding 34: As flood irrigation tailwater is not prevalent in the North Coast Region, MCFB feels that the Board should address tailwater on a site specific or watershed specific basis and not develop overly broad irrigation restrictions within the irrigated lands water quality program.</p>	<p>Given the great potential water quality impacts that are associated with irrigation tailwater, it is appropriate to address tailwater in the Irrigated Agriculture permitting program. However, the specific measures to address irrigation tailwater are not yet determined, but will be developed in a full public process.</p>
MCFB	<p>Regarding Finding 36: How will the Board contend with existing flood control reservoir projects such as Lake Mendocino and Lake Sonoma on the Russian River that have already caused alterations to the stream bed, bank and floodplain?</p>	<p>The process for addressing temperature impacts associated with reservoirs such as Lake Mendocino or Lake Sonoma is described in resolved #9, which describes how RWB staff will address temperature concerns associated with flow issues. The temperature effects of a year round source of water, including effects on salmonids and any other affected beneficial use, are evaluated relative to the criteria established in the water quality objectives for temperature.</p>
MCFB	<p>Regarding Finding 39: The State Water Resources Control Board has the jurisdiction of water rights and has allowed for water diversions to occur based on appropriative or riparian right. Water diverters have been allowed to divert based on water availability and beneficial use. These rights are affiliated with property rights and should be respected as such. Not all water diversions impact water temperature and such conclusions should not be drawn. In regards to water storage, not all water storage reservoirs impact temperature. There is a significant difference between on stream ponds and off-stream ponds that needs to be considered. Even amongst onstream ponds there is quite a variation in storage capacity, bypass flows and other criteria. In fact, a number of on-stream ponds have shown to support salmonid habitat by storing and releasing necessary</p>	<p>This proposed Policy defines a process for addressing diversions and impoundments that are identified as causing temperature impacts, but doesn't presume that all do.</p>

	<p>water supplies for various life stages. Also, large flood control or municipal reservoirs need to be considered when discussing water storage and impacts to water bodies.</p>	
MCFB	<p>Regarding Finding 41: MCFB does not support the addition of unfunded state mandates to local governments without sufficient evidence to demonstrate actual need. Counties and cities should only need to comply with specific mandates and not be duplicative in local regulation and ordinances when other state and federal agencies are already tasked with the implementation and enforcement.</p>	<p>Commenting on public documents does not constitute an unfunded mandate, nor does complying with existing laws and regulations.</p>
MCFB	<p>Regarding Finding 44: MCFB does not encourage the use of monitoring for the sake of monitoring. Proper monitoring is expensive and is only as affective as the interpretation of the data. MCFB also does not feel that downstream monitoring is always indicative of the effectiveness of management procedures implemented upstream. MCFB does not feel that additional monitoring, without substantiated need, will demonstrate the effectiveness of the Temperature Policy, but will instead be an unnecessary expense.</p>	<p>RWB staff also does not encourage the use of monitoring for the sake of monitoring, or without substantiated need. Proper monitoring may be as simple as taking pictures at points in some situations, and doesn't need to be expensive. RWB will consider costs in developing any monitoring requirements in individual permits.</p>
M. Greene	<p>Your Staff made the statement that "the 2010 Anadromous Salmonid Protection Rules (ASP Rules) were insufficient for the protection of the beneficial uses of the State." Please realize that the ASP Rules were actually written by the California Department of Fish and Game and Cal Fire and not by the Board of Forestry. They were approved by the Board of Forestry. The proposed rule package that the BOF was preparing was dropped in favor of the DFG-Cal Fire Rule Package. So for Staff to suggest that this Rule is not adequately protecting salmonid species is stepping over the line of this Boards jurisdiction. The California</p>	<p>See the response to general issue 1. Staff made the statement that the ASP rules do a good job of protecting salmonids, but it doesn't address all temperature concerns associated with forestry.</p> <p>RWB staff comments are based, in part, on the information presented in the paper titled: "Amphibians as metrics of critical biological thresholds in forested headwater streams of the Pacific Northwest, U.S.A.", by Welsh and Hodgson (Freshwater Biology (2008) Vol. 53, 1470-1488.) This paper details the temperature</p>

	<p>Department of Fish and Game is charged with the protection of wildlife in this State and the ASP Rules were created by their Staff. In addition Staff made the statement that frogs need cold water to survive. Staffs understanding of frog biology is lacking in this subject. The California redlegged frog (<i>Rana draytoni</i>) which is the one of the more wide spread Federally listed species located within the jurisdiction of North Coast Region, favors water temperatures between 39°F and 70°F, with lethal temperatures above 84°F1 (Jennings, M. R. and M. P. Hayes. 1989. Final report of the status of the California red-legged frog (<i>Rana aurora draytoni</i>) in the Pescadero Marsh Natural Preserve. Contract No. 48239018. California Academy of Sciences, pp. 56.) These water temperatures do not meet the current definition under the Basin Plan of cold water.</p>	<p>requirements of Coastal Giant Salamanders, Tailed Frogs, and Southern Torrent Salamanders. The paper discusses results of data collected in the Klamath-Siskiyou and north coast bioregions, which clearly indicate these species require cold water. The range of these species covers the majority of the north coast region. Also, note that the Basin Plan does not define “cold water”.</p>
<p>M. Greene</p>	<p>Your Staff didn't participate in the ASP rule making process until the last Board of Forestry meeting of a two year process. They should be more aware of the history of how the ASP rules were created and the science behind the rules.</p>	<p>RWB staff participated in the development of the ASP rules prior to the last meeting. Also, RWB staff is familiar with the documentation supporting the ASP rule package.</p>
<p>M. Greene</p>	<p>Staff made the statement that class II watercourses were not protected enough with the ASP Rules. Class II watercourses and in particular class II – Large watercourses were amongst the most controversial and heavily studied areas of the ASP Rules. The Technical Review that was conducted by the Sound Scientific Consultants for the ASP Rules stated that all of the scientific evidence that is available suggested: "In fish-bearing waters that are directly downstream of headwater streams, the literature indicates that temperature could be positively influenced by providing shaded conditions on headwater stream segments that</p>	<p>See the response to general issue 1. The reaches of class II-large streams more than 1000 feet upstream are also required to meet the water quality objectives for temperature.</p>

	<p>extend from 500 to 650 ft (150 to 200 m) upstream from the confluence with fish-bearing streams." (Sound Watershed Consulting, Scientific Literature Review of Forest Management Effects on Riparian Functions for Anadromous Salmonid Fishes, 2009. http://www.soundwatershed.com/board-of-forestry.html) The Dept. of Fish and Game and Cal Fire recommended doubling the size of this buffer to make sure that there were no negative influences on downstream waters, which is why class II - Large watercourses have 1,000 foot buffers.</p>	
<p>M. Greene</p>	<p>Staff also failed to know the true outcome to Dr. Cajun James PHD doctoral work when questioned by the Board, stating that "the proposed Order was in line with her findings". This is highly inaccurate as her work showed that ambient air temperature and not stream-side shade alteration caused in-stream temperature increases. Her work, which was conducted with the help of the Central Valley Regional Water Quality Control Board, showed that removing shade had no direct affect on in-stream temperatures.</p>	<p>See the response to general issue 2.</p>
<p>M. Greene</p>	<p>This Order RI-2011-0069 is being created to address apparent shortfalls in the Basin Plan and in the regulatory process. The goals of this order are:</p> <ul style="list-style-type: none"> • Acknowledges the need for a broad-based approach to temperature control in North Coast waterbodies; • Reiterates the linkage between elevated water temperatures, solar radiation, and stream shade presented in north coast temperature Total Maximum Daily Loads (TMDLs); • Affirms the need to address water temperatures on a region-wide basis to reduce impairments and prevent further impairment; • Directs staff to continue implementing 	<p>See the response to general issues 3 and 4.</p>

	<p>temperature TMDLs through regional nonpoint source programs and individual permits, waivers, and enrollments as appropriate; and</p> <ul style="list-style-type: none"> • Directs staff to work with other agencies to address elevated water temperatures. <p>A broad-based approach is not what is currently needed. The waterbodies within the jurisdiction of the North Coast Board are too vast and different for a "broad based" "region wide" approach. Watersheds within the Klamath Basin are not the same as watersheds within the redwood region. The boundaries of this Board (the North Coast Region) overlap several different vegetation types, soil and geologic formations, and environmental (ambient weather conditions) conditions. TMDLs were established for this very purpose, to look at each watershed individually as this was the best way to compare and contrast things. We should not be creating rules that stray from this idea. Each watershed needs to be looked at individually to see what is truly going on. There is no way that you can compare a watershed that is dominated by 100 degree weather to one that is dominated by summer fog.</p>	
<p>M. Greene</p>	<p>The Order states that one of its purposes is to reiterate the linkage between elevated water temperatures, solar radiation, and stream shade....However, either on purpose or by accident this Order has omitted the most important factor in in-stream temperatures, the ambient air temperature. Several documents have been presented to you, Staff and the State Board with regard to Order No. RI-2009-0038 which show that there is a direct linkage to ambient air temperature and that modifications to stream side shade may not be as critical as your Staff may believe. In addition to these studies that have been performed and peer reviewed, two other RWBs, the Central Valley and Central Coast</p>	<p>See the response to general issue 2. Also, the RWB is not addressing any temperature issues with class III channels.</p>

	<p>Boards have been conducting monitoring of timber harvesting over the years. In particular the Central Coast Board has been monitoring timber harvesting for over 15 years now. In 2009 the Central Coast Board released a summary of 13 years of temperature modeling and the results of the 13 years showed no measureable increase in in-stream temperatures following timber harvesting. These 13 years of studying were pre-ASP rules and harvesting was conducted within the WLPZ of all watercourses. In most instances, WLPZ buffers were allowed to be reduced to 65% canopy cover or less on class III watercourses (50%). This is substantially lower than what is allowed by the ASP rules or the current Timber Waiver in the North Coast Region.</p>	
<p>M. Greene</p>	<p>Chairman Hales pointed out during this hearing that the Resolution is extremely negative in nature and doesn't talk about the beneficial uses that currently exist from riparian vegetation. This Resolution does nothing to promote reforestation in those areas where forests are lacking or not properly functioning. It also doesn't give a landowner any incentive to improve existing riparian areas other than for fear of legal ramifications. Your staff needs to understand that not all activities within the Riparian area are destructive. Some can be very beneficial and rewarding if there is an incentive to long term management. No landowner is going to go through the hassles of obtaining permitting to improve riparian areas if they are going to be regulated out of them in the future.</p>	<p>Finding 30 identifies situations in which a short-term reduction in shade associated with efforts to restore and/or protect beneficial uses is appropriate. Additionally, the resolution directs staff to “continue to administer, encourage, and support the use of grant funds to facilitate projects that address elevated water temperature concerns,” and, “pursue non-regulatory actions with organizations and individuals to encourage the control of elevated water temperatures, watershed restoration, and protection activities”.</p>
<p>M. Greene</p>	<p>Item 19 says: 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 defined as "is equal to the shade provided by topography and full potential vegetation conditions at a site, with an allowance for</p>	<p>The term “site potential” refers to the inherent ability of a site to provide shade on a watercourse given the unique topographic and vegetation conditions at a site. This approach doesn't attempt to define what shade is necessary with a broad brush, rather it relies on the site-specific</p>

	<p>natural disturbances such as floods, wind throw, disease, landslides, and fire." Site-potential is a tool that foresters use to measure the potential of a site and is obtained by direct measurement in the field. This is commonly used when a forester talks about how much stuff an acre of ground can grow. However this is an economic and physiological tool, it has nothing to do with describing what historic forest (or riparian areas) look like, which is what this Board and your Staff have discussed as meaning when talking about a fully functioning riparian area. An old growth forest, which is what your Staff means when talking about "natural" or "historic" had 10 to 15 maybe 20 trees per acre. Today, second and third growth forests may have between 50 and 400 trees per acre (Pine and fir forest being on the small end of that ratio and redwood forest running much higher) depending on the type of forest and the history of management. Do you really believe that 10 to 20 trees per acre provide as much shade as 400 trees per acre?</p>	<p>conditions to dictate the amount of shade that meets the allocation. The number of trees per acre is not a helpful metric to gauge shade conditions, since 10-20 trees per acre could represent tall trees with dense canopies, whereas 400 trees per acre could represent a high density of young, short trees.</p>
<p>M. Greene</p>	<p>Item 27 makes the following statement: "Similar shade controls for Timber GWDR enrollments region-wide will prevent future impairments and ensure compliance with the intrastate water quality objective for temperature." How is this possible when ranchers, farmers, residential users and other non-timber landowners don't apply for use permits under review by your Staff? This is one of the biggest shortcomings of this Resolution, as it really only applies to those that apply for a permit.</p>	<p>This resolution identifies regulatory processes to address temperature concerns associated with irrigated agriculture, stream bank alteration, dairies, county roads, activities on USFS lands, and water diversions. The resolution also identifies processes that staff should pursue to address issues not addressed through permits at this time.</p>
<p>M. Greene</p>	<p>This resolution is poorly timed as it will undermine the work that is currently under way with Order No. 2011-0028. You directed your Staff to determine if the implementation of the ASP rules was causing an increase in Temperature. This order states the following: "Temperature TMDL analyses completed to</p>	<p>See the response to general issues 5 and 6.</p>

	<p>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" How when your Staff has written this are they going to be able to open mindedly answer the question that you have asked them to ascertain? The writing is already on the wall. I would urge this Board to consider not adopting this Resolution, it is poorly written, ill timed, and seems scientifically unjustified. This Board needs to let the science come out on Order 0038 and then make decision on how to amend the Basin Plan. As the forest community has been telling you, this could take several years to fully look at the science that is being done. Most watershed studies that look at temperature results take at least 5 to 10 years to understand long term trends. We have come a long way in the last two years and still have a long way to go, please consider putting this Resolution on the shelf.</p>	
<p>Weger</p>	<p>1. The adoption of RI-2011-0069 may circumvent the results of the investigation and cooperation resulting from the review of 2009-0038 as it relates to NTMPs. I believe that as your staff engages in an extensive on the ground investigation of NTMPs they will repeatedly discover that landowners are in fact engaging in exemplary land stewardship, and that the existing forest practice rules as they interface with the ASP rules are more than adequate to protect water quality both as to elevated temperature and sediment impairment. But whatever staff ultimately concludes is yet to be determined and should in fact be determined, not summarily decided or unfairly skewed by the proposed resolution.</p>	<p>See the response to general issues 1 and 2,.</p>
<p>Weger</p>	<p>2. Certain Findings in Resolution RI-2011-0069 are vague. Other Findings are conclusions unsupported by either evidence or facts making such findings arbitrary. Resolution 2011-0069 has 14 pages of findings, many</p>	<p>See the responses to general issues 2 and 5.</p>

	<p>of which are not supported by facts or science. But if these findings are adopted then treated as if they are facts then the conclusionary language unsupported by either evidence or science becomes a basis for a directive (or perhaps a mis-directive) for staff. For example the statement "Timber harvest can impact water temperature by reducing shade, increasing sediment loads and altering microclimates." (Paragraph 26 of Findings) may or may not be true. This statement is supported by neither evidence nor science. I would suggest that timber harvested under the California Forest Practice Rules does not increase stream water temperature. I would absolutely assert that timber harvested on our ranch under our NTMP does not impact water temperature and I have the data to support this assertion. (This water temperature data has been presented to this Board and to the State Water Board and I hereby incorporate it into this letter as Exhibit A) So this finding, however untrue, becomes in effect a "fact". I believe that such arbitrary and vague language serves no one's legitimate interest.</p>	
<p>Weger</p>	<p>3. Resolution RI-2011-0069 is duplicative and unnecessary. In 2011, the truth is that timber harvesting on the north coast is not the cause of either the temperature or sediment impairments that may exist in our rivers. For the past fifteen years, Timber has been highly regulated. By in large most timber interests, industrial and non-industrial have been tremendously cooperative with CALFIRE, Water Quality, and Fish and Game to comply with the stringent permitting process which does adequately protects stream temperature and erosion concerns. The truth is that most timber owners are themselves environmentalists and want their properties to contribute to healthy streams. Let me be so bold as to suggest that instead of adopting another Resolution,</p>	<p>See the responses to general issues 1, 2, 4, and 6. The RWB is obliged to develop water quality protections that apply to all dischargers, including those who operate based on the minimum regulatory requirements, as well as those who take extra efforts to provide good stewardship of their lands. Land managers that have harvested timber with no discernable temperature increase as a consequence should be applauded. RWB staff believe that such land managers won't have to do anything different to comply with this proposed policy.</p>

	<p>perhaps the Board might consider adopting a monitoring program for all of the "impaired rivers" to measure if in fact the water temperatures are unacceptably warm in the summer. And perhaps even discern which portions of the rivers are effected and by what likely cause. As you are aware, we have done extensive temperature monitoring on our ranch for 10 years and the temperatures are cold and have not changed pre or post harvest. These results have been duplicated on other properties that are in the Ten Mile watershed. So perhaps it is landowners engaging in other uses that are elevating water temperatures and perhaps it is time to specifically regulate them with the same fervor that has been brought against landowners who grow trees. We all want healthy rivers and streams. Let's continue the era of working together. Resolution R1- 2011-0069 undermines that process, is unnecessarily vague, arbitrary and duplicative and should not be adopted in its present form.</p>	
Forest Landowners of California	<p>FLC is concerned that adoption of the proposed Policy Statement for implementation of the water quality objective for temperature at this time will confuse and undermine the on-going effort to find resolution to Order No. 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. The fundamental issue for our membership in this proposed resolution is the same one that led FLC to petition the 2009 Waiver: that attempts to avoid increase in water temperature from timber harvesting activities through additional prohibitions on riparian canopy modification beyond the restrictions in current forest practice regulation is not supported by current available scientific studies. FLC asks the Board to defer action on this matter at this time. If Board action regarding a policy statement for</p>	<p>See the responses to general issues 2 and 6.</p>

	<p>water temperature implementation is determined to be desirable, we request that such action be considered concurrently with resolution of the issues surrounding the 2009 Waiver.</p>	
<p>Forest Landowners of California</p>	<p>The staff report included with the proposal places a great emphasis on work done in conjunction with total maximum daily load (TMDL) development on some north coast rivers. Item No. 11 on page 4 of the document states "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" Item No. 18 on page 6 states – The removal of vegetation that provides shade to a water body is a controllable water quality factor. "These are broad-brush, sweeping statements on a grand scale that do not take into account the magnitude or potential impact from a specific project or the fact that in the case of timber harvesting the removal of vegetation that provides shade to a water body is already extensively regulated for the explicit purpose of protecting water temperature among other riparian qualities.</p>	<p>See the responses to general issues 1 and 2.</p>
	<p>Item 3 of this resolution (see page 15) states: "Staff should continue to implement shade load allocations through Timber WDR, Non-Federal Timber Waiver...in areas subject to existing temperature TMDLs It then directs staff toimplement similar shade controls through Timber WDR enrollments in areas listed as impaired for temperature but lacking a TMDL, and region-wide to prevent future impairments and to comply with the intrastate temperature objective." A TMDL adopted pursuant to Section 303(d) of the Clean</p>	<p>See the responses to general issue 4 and findings 11 and 22.</p>

	<p>Water Act is supposed to be adopted for a specific water body only after specific study of the impaired water body and is supposed to be specific to that water body. Staff does not provide any information to support application of shade load allocations developed for specific rivers to other unstudied rivers in the North Coast District. At your June 22, 2011 meeting when this matter was presented, Board member John Corbett asked staff the basis for designation of temperature impairment, and if the designation was based on data. The question was not fully answered, but it underscores the need for any policy direction to be based on demonstrated cause and effect.</p>	
	<p>FLC believes that staff's proposed policy statement for implementation of the water quality objective for temperature is not supported in available current scientific research and studies. To this end we have enclosed a CD containing some information and studies related to water quality, including stream temperature. The information included is extensive but not comprehensive. Other recent studies, including important original research work by Dr. Cajun James (James. Cajun Southern Exposure Research Project: A study evaluating the Effectiveness of Riparian Buffers in Minimizing. Impacts of Clear cut Timber Harvest Operations on Shade-Producing Canopy Cover, Microclimate, and Water Temperature along a Headwater Stream in Northern California in Northern California. UC Berkeley Dissertation, 2003) are not included but should be reviewed.</p>	<p>Thank you for the literature submission. See the response to general issue 2.</p>
	<p>We are encouraged by the very positive interaction we have enjoyed with your staff as we continue to work through the related issue of the 2009 Waiver as it relates to NTMPs. We believe that the subject of this resolution is inextricably linked to the issues covered by the 2009 Waiver and should be considered as part</p>	<p>See the response to general issue 6.</p>

	<p>of the on going discussions.</p>	
<p>CLFA</p>	<p>CLFA believes that this Resolution undermines current efforts underway in response to Order No. RI-2009-0038, categorical Waiver of Waste Discharge Requirements for Discharges Related to Timber Harvest Activities on Non-Federal Lands in the North Coast Region. Within this Resolution, Staff states on page 4 Item 11, that logging increases in-stream temperatures; "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". Page 6 Item 18 goes on to state: "The removal of vegetation that provides shade to a waterbody is a controllable water quality factor". These two statements alone undermine work that is being done in response to Order No RI-2009-0038 as they both state that logging increases water temperatures. Your instructions to Staff at the Weaverville Board hearing on March 24, 2011, were to assess actively managed timberland to determine if impacts to temperature and sediment are occurring. Prior to review of the appropriate peer reviewed science, touring of actively management properties or engaging in the discovery for appropriate data, Staff has made the premature determination that timber harvesting will increase in-stream temperatures.</p> <p>In addition to these concerns, we feel that no science has been provided that supports the assumptions made by Staff. There is not one scientific study referenced within this Order that provides any evidence</p>	<p>See the response to general issues 2, 5, and 6. Additionally, the statement "Staff has made the premature determination that timber harvesting will increase in-stream temperatures" is inaccurate. Staff have made the statement that timber harvest <i>can</i> increase temperatures, which is true and has been demonstrated repeatedly in the scientific literature, including much of what the FLC submitted.</p>

	<p>of a valid problem so this Order appears to be predicated on Staff's personal opinion. CLFA would respectfully ask this Regional Board to disapprove of this Resolution for several reasons. First, it will undermine any work that is done in response to Order No RI-2009-0038 that may bring clarity to the Timber Waiver process Staff has not yet conducted the Board mandated discovery of impacts it has been asked to conduct under R1-2009-0038.</p>	
	<p>Second, it does not appear that this order is based on empirical evidence but rather Staff's personal opinion.</p>	<p>See the response to general issue 2.</p>
	<p>CLFA has submitted to this Board and the State Board several data sets collected over the past few years that indicates harvesting within the Watercourse and Lake Protection Zone (WLPZ) can be and has been conducted without a significant adverse impact on in-stream temperatures. Some of the data was collected with the full participation of the Regional Board and its Staff in the development and implementation of the project. As evidenced by the statements included in new Temperature Resolution these studies conducted in conjunction with Staff were not considered in the development of the Resolution. CLFA respectfully requests a full explanation by Staff as to why science supported by Staff was not included in the development of the Resolution.</p>	<p>See the response to general issue 2. RWB staff agree with the underlying premise of the comment: that timber harvest activities can be conducted without causing water temperature impacts. The data showing no temperature increase following timber harvest are an indication of good management practices, but does not refute the importance of preserving shade to prevent water temperature increases. Temperature data alone can be used to demonstrate changes in temperature associated with the project, but these data do not tell anything else about a harvest plan, such as how many trees were removed, where they were in relation to the stream, etc.</p>
	<p>In addition to this, the Central Coast Regional Board in 2009 summarized the results of monitoring efforts from every harvest plan that was conducted within their jurisdiction for the past 13 years and made the following determination: "Water Board staff determined that timber harvest activities in the Central Coast Region do not appear to be negatively impacting stream temperature". (Central Coast Regional Water Quality Control Board Staff Report for Regular</p>	<p>See the response to general issue 2. Also, the following statement from the Central Coast Regional Water Quality Control Board (CCRWQCB) Staff Report referenced in the comment provides clarification on the conclusions made by CCRWQCB staff: On data presented in the CCRWQCB report: "[CCRWQCB] staff concurs that it is not possible to determine the extent to which temperature</p>

	<p>Meeting of July 10, 2009, Item No. 15)</p>	<p>effects should be attributed to harvest operations. In the absence of reliable preharvest data and considering the limitations and constraints of temperature monitoring in general, it is not possible to determine if downstream monitoring points exceeding water temperature at their upstream counterparts is a natural phenomenon, the result of anthropogenic influences, or a combination of each. In any case, since the downstream levels do not indicate risk to fish, staff finds it appropriate to modify temperature monitoring requirements.”</p>
	<p>Why does Staff feel the need for a broad-based approach to temperature control in North Coast waterbodies? A broad-based approach would link waterbodies like the Garcia, Gualala, Mad and other coastal rivers with inland rivers like the Shasta, Klamath, and Trinity. These rivers systems have almost nothing in common; not the vegetation surrounding them, the native substrate through which they flow, or the ambient temperatures that persist in the different locations. Time and time again it has been suggested that parameters such as temperature should be considered on a more localized level, such as individual watersheds. To compare a watercourse in the Scott River Watershed to one in the Gualala River Watershed is not a reasonable comparison.</p>	<p>See the response to general issues 1, 3, and 4.</p>
	<p>The second point states that the linkage between elevated water temperatures, solar radiation, and stream shade presented in north coast temperature Total Maximum Daily Loads (TMDLs) needs to be reiterated. This information has already been provided in the Basin Plan and furthermore, this linkage has been proven inaccurate. (James, Cajun Southern Exposure Research Project: A Study Evaluating the Effectiveness of Riparian Buffers in Minimizing</p>	<p>CLFA’s characterization of Dr. James’ work is inaccurate. See the response to general issue 2.</p>

	<p>Impacts of Clear cut Timber Harvest Operations on Shade-Producing Canopy Cover, Microclimate, and Water Temperature along a Headwater Stream in Northern California, UC Berkeley Dissertation, 2003.) Board Member Corbett asked about the study that was conducted by Dr. Cajun James, which assessed what physiological factors played a roll in in-stream temperature fluctuations. This study determined that ambient air temperature and not stream shade was the dominant and driving factor influencing in-stream temperature increases. This real-life study removed trees providing shade to the watercourse from portions of the WLPZ, in stages, eventually all the way to the streams edge (100% removal of streamside vegetation) and saw no negative measurable in-stream temperature increases from the harvesting activity. Mr. McFadden (sic) in his presentation said that this Order supports the findings in Dr. James' Study, but we fail to see how this is possible since ambient air temperature has been completely removed from possible linkage to elevated water temperatures, and the study shows no measurable in-stream temperature increases from removing streamside canopy.</p>	
	<p>The third bullet point in finding number 4 says the exact same thing as the first bullet point. While this Order is meant to have broad reaching levels, it will only be able to be implemented in those areas where the Regional Board has jurisdictional authority. 'The only place this currently exists is legal commercial timber harvesting, where a landowner must obtain an approved timber harvest plan prepared by a Registered Professional Forester and reviewed by a multi-agency review team that includes Regional Board Staff. TMDL requirements do not currently affect any other users within a watershed, including but not limited to ranchers, farmers, or residential users.</p>	<p>The first bullet point refers to the need to be comprehensive, the third bullet point refers to the need to prevent impairment, as well as restore impaired water bodies.</p> <p>The statement that “TMDL requirements do not currently affect any other users [except timber operators] within a watershed, including but not limited to ranchers, farmers, or residential users” is not correct. The existing temperature TMDL action plans comprehensively address all sources identified, including county roads, state highways, grazing, irrigation tailwater, and activities on</p>

		USFS lands.
	Third the order, RI-2011-0069 is not clearly drafted and could reopen the process of how temperature impairments were created in the 1990's.	The Resolution is not intended to "reopen" any processes on the creation of impairments.
CFA	The proposed policy makes no specific mention of much of the work done to-date that documents the high quality water coming from managed forest and timberland in the North Coast Region. Specifically, the policy fails to recognize much of the previous work from the Board of Forestry's Hillslope Monitoring Program; research available from UC Cooperative Extension; and temperature monitoring work conducted on the Jackson Demonstration State Forest. This work shows the effectiveness of the Forest Practice Rules as it relates to the prevention of water temperature increases in areas of active timber harvesting. The requirements for streamside buffer strips under these Forest Practice Rules have effectively changed temperature regimes for streams by requiring specific stream buffers and streamside canopy requirements.	RWB staff have modified the language of the resolution to acknowledge the demonstrated benefits of sound practices.
CFA	Changes to the original Forest Practice Rules have resulted in major advancements of stream buffer protection. The most important of these changes took place in 2009, when the Board of Forestry adopted the "Anadromous Salmonid Protection" (ASP) rule package that added a number of additional shade and canopy retention requirements for the maintenance of desired stream temperatures. These rules replaced many of the "Threatened and Impaired" rules which were passed by the Board on an interim basis nearly a decade prior to the ASP rule package. Much of the scientific research for these new rules was provided by public and private research commissioned by the Board of Forestry. One of the most important of these commissioned reports included the "Scientific Literature Review of Forest Management Effects on	See the response to general issue 1.

	<p>Riparian Functions for Anadromous Salmonids," conducted by Sound Watershed Consulting in 2008. In conjunction with a technical advisory committee assembled by the Board of Forestry that consisted of many of California's esteemed forest hydrologists, the review recommended a number of specific stream-buffer changes that were finally adopted by the Board of Forestry in 2009. These stringent water-quality protection measures are currently in place.</p>	
CFA	<p>In addition to the ASP rules, other state agencies, including the Dept. of Fish and Game and the Regional Board have adopted rules and procedures for the amelioration of stream temperature increases. These rules, in conjunction with these agencies' respective involvement in Timber Harvesting Plan review and approval, have further increased protection of streamside buffers.</p>	<p>This policy relies, in part, on existing regulatory processes governing timber harvest. RWB staff agree that streamside protections have been greatly improved in recent years. However, the recent improvements have not been applied throughout the Region and to all waterbodies subject to the water quality objectives for temperature, which apply regionwide.</p>
CFA	<p>On-going research and monitoring from a number of public agencies and private organizations continue to show that timber harvesting - when conducted in conjunction with the current extensive forest regulatory framework - protect forest streams from adverse temperature increases.</p>	<p>See the response to general issue 1. RWB staff agree with the underlying premise of the comment: that timber harvest activities can be conducted without causing water temperature impacts. Also, note that there still exists a wide range of canopy requirements that apply in Region 1.</p>
CFA	<p>Current temperature-specific TMDLs adopted by the Regional Board provide an additional measure of site-specific protection on both a Timber Harvesting Plan basis, and on a watershed-wide basis. Based on the above, CFA is requesting that the Regional Board review the proposed provisions of the draft policy in context of the extensive timber-specific regulatory structure currently in place. We further request that the Regional Board propose modifications to its draft policy to reflect the regulatory structure currently in place in California's forestlands.</p>	<p>See the response to general issue 4.</p>

<p>Buckeye</p>	<p>We are writing to state our opposition to the continued development of draft Resolution R1-2011-069 regarding water temperature. The Buckeye believes this issue has been adequately and appropriately addressed in the watersheds where it has been an issue through the TMDL process and other currently existing mechanisms.</p> <p>The point of generating efficiency was brought up during the discussion on this item at your June 22, 2011 Board meeting. In other words, it is more efficient to develop one approach and apply it throughout the region. This idea runs contrary to the TMDL approach. This region has a broad spectrum of vastly different microclimate schemes. The coastal fog temperatures are often 30-40° F cooler than inland areas. Why would one temperature approach be developed for areas that are this diverse? Additionally, the TMDL program addresses temperature in areas of concern on a watershed by watershed basis which is the more appropriate level on which to deal with this. Both staff and the NCRWQC Board seem to agree 'with the idea that TMDLs adequately deal with the temperature issue. This is supported by the NCRWQC Board discussion acknowledging that the Klamath is "dealt with" through the implementation plan. This additional effort is being proposed at a time when the staff has repeatedly presented to the NCRWQC Board a conflicting scenario of high workload and lack of staff to deal with that workload. If, as the presentation mentioned, this simply brings together existing programs why spend the money and staff hours on it? We do not agree with the premise that this simply brings together currently existing programs, but instead will represent new regulatory requirements. We, therefore, do not agree with, nor support, what this Resolution and ultimately a Basin Plan Amendment for</p>	<p>See the responses to general issues 1, 3, and 4.</p> <p>Additionally, the establishment and implementation of this Policy will facilitate the Region's efforts to resolve 303(d) temperature listings, and in the process increase efficiency of staff's efforts to meet Clean Water Act obligations. Language has been added to the resolution to clarify this point.</p>
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	<p>this issue represents. In closing, The Buckeye believes that any temperature issues within the region will be adequately addressed through the normal TMDL or other currently existing mechanisms. We believe that further pursuing the Temperature Resolution and subsequent Basin Plan Amendment for temperature is not necessary.</p>	
Associated California Loggers	<p>As you give due consideration to water quality concerns in your Region, attention should be paid to the "human factor" of decreased job opportunities in a region that was once driven by the economic engine of timber harvesting.</p> <p>Against this socio- economic backdrop and given the dire California economy, your decisions as a Regional Board should be undertaken with the closest scrutiny to (a) the scientific rationale for your policy-making decisions; (b) the role of your staff in originating policy (as versus your roles as decision-makers); (c) the economic impact on your local communities from your policy decisions, as balanced with the environmental benefits and (d) the interaction of your regional decision-making with overall state water policy.</p> <p>We trust that as a board you will give due consideration to items (a) through (c) above. With this letter, we wish to concentrate on (d): the interaction of your regional decision-making with overall state water policy. In that regard, we believe that your Board - and certainly your staff -- should be well aware of various statewide regulatory and research actions taken with regard to preventing increases in water temperature and actually decreasing water temperature via specific shade and canopy retention requirements as part of stream buffer requirements under the Forest Practice Rules for timber harvesting activities.</p> <p>These activities include, but are not limited to: the</p>	See the responses to 1 and 2.

	<p>Board of Forestry's Hillslope Monitoring Program; the 2009 "Anadromous Salmonid Protection"(ASP) rules; temperature monitoring work conducted on the Jackson Demonstration State Forest, and your own Regional Boards' adoption of temperature-specific Total Maximum Daily Loads ("TMDLs") for Timber Harvesting Plans and watersheds. In addition, parties on all sides of the issue continue to pursue a RWBs Waiver process in the pursuit of environmentally sound regulatory streamlining. The question becomes one of necessity for this resolution as written, given all of the other activities that have been undertaken and all of the research that exists.</p> <p>Associated California Loggers joins with the landowners and foresters of the timber harvesting/alternative energy industry in asking you to revisit and revise this resolution before going forward with it. But we also speak to your board members' role as part of the community of individuals and families who live in rural forested California and are directly affected by your water quality policy decisions. Please keep those families in mind as you make your decisions. While we agree that it is imperative to maintain optimum water quality in those areas, we feel that this need not be done at the expense of the people who live and work there.</p>	
<p>CALFIRE</p>	<p>The resolution is unnecessary. As the resolution recounts In items 5 through 43, water temperature is already being addressed by a myriad of regulatory programs and agencies.</p>	<p>See the response to general issue 1.</p>
<p>CALFIRE</p>	<p>The proposed resolution will lead to further redundancy of efforts addressing water temperature. Since activities affecting water temperature are already regulated by FPRs, CEQA, TMDLs, ESA, and other programs; directing water board staff to add additional</p>	<p>RWB staff disagree that the proposed resolution will add redundancy, since it largely relies on the system already in place. This policy resolution, and the guidance document it directs will add clarification regarding interpretation of the water</p>

	<p>layers of effort to address water temperature will lead to redundancy of efforts, with no demonstrated additional benefit to the protection of the resource and with additional expense to the landowners. For example, the proposed will add additional expense to CAL FIRE's management of Jackson Demonstration State Forest with no increase in resource protection.</p>	<p>quality objectives for temperature for those preparing timber harvest plans and other projects in the riparian zone.</p>
<p>CALFIRE</p>	<p>The proposed resolution fails to acknowledge recent significant changes to the Forest Practice Rules, known as the Anadromous Salmonid Protection rules, adopted by the Board at Forestry and Fire Protection. The proposed resolution states in item 2 that "past Implementation of regulatory controls for protection against anthropogenically elevated water temperatures is not adequate to remediate, restore and protect temperature impaired water bodies and to control the cumulative impacts of elevated water temperature on (listed) watersheds." However, the Issue is not whether past implementation adequately protected water temperature; the issue is whether the current rules adequately protect water temperature. What the proposed resolution fails to recognize is that regulatory controls protecting water temperature were recently and substantially increased by the BOF when they adopted the ASP rule package. The ASP rules are based on current science. Before adding new layers of regulation as the proposed resolution envisions, there should be some demonstrated need for improvement over the current existing protections.</p>	<p>See the response to general issue 1. In addition, text has been added to the resolution acknowledging the recent change in rules. Despite the change in rules, however, there still exists a wide range of canopy requirements that apply in Region 1.</p>