

RESPONSE TO WRITTEN COMMENTS ON THE REVISIONS TO THE SUBSTITUTE ENVIRONMENTAL DOCUMENT

PREPARED FOR THE

POLICY FOR MAINTAINING INSTREAM FLOWS IN NORTHERN CALIFORNIA COASTAL STREAMS

OCTOBER 2013

Pursuant to California Code of Regulations, title 23, section 3779 (d), this document contains the comments received in response to the February 2013 revisions to sections 6.2, 6.9, and 7 of the 2008 Substitute Environmental Document (SED), the Supplement to Appendix D of the 2008 SED, and revisions to portions of the 2010 Response to Public Comments, Volumes 1 and 2, and the State Water Board's written responses. This document is organized in two parts: 1) written comment letters and responses, and 2) oral comments received during the public hearing process and responses. Each letter or oral presenter has been assigned an acronym code (see List of Acronyms), and individual comments within each letter or oral presentation have been coded numerically to facilitate responses. Revisions and clarifications to the SED made in response to comments and information received are shown using red font for additions and strikethrough for deletions.

**DIVISION OF WATER RIGHTS
STATE WATER RESOURCES CONTROL BOARD**
California Environmental Protection Agency

List of Acronyms

2008 SED	Substitute Environmental Document prepared for the Policy for Maintaining Instream Flows in Northern California Coastal Streams (March 2008)
Appendix D	Appendix D to the 2008 SED: North Coast Instream Flow Policy Restrictions on Flow Diversions and Storage. Potential Indirect Impacts on Municipal, Industrial and Agricultural Water Use and Related Indirect Impacts on Other Environmental Sources. (Stetson Engineers, Inc., March 2008)
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CMK	Carter, Momsen & Knight, LLP
Superior Court / Court	Alameda County Superior Court
Delineation maps	Delineation of Subterranean Streams and Potential Streamflow Depletion Areas (Stetson Engineers, Inc. 2008)
Division	Division of Water Rights
EIR	Environmental Impact Report
KB	Kimberly Burr
LRC	Living Rivers Council
MCFB	Mendocino County Farm Bureau
NC	North Coast Stream Flow Coalition
NMFS	U.S. National Marine Fisheries Service
Policy	Policy for Maintaining Instream Flows in Northern California Coastal Streams
PSDA	Potential Stream Depletion Area (also see delineation maps)
Revised SED	Revised Sections 6.2, 6.9, and 7 and Supplement to Appendix D of the Substitute Environmental Document (February 2013)
State Water Board / Board / SWRCB	State Water Resources Control Board
Supplement to Appendix D	Supplement to Appendix D: Analysis of the Potential Impacts of Groundwater Pumping as an Alternative Source Due to Policy Adoption (February 2013)
TU	Trout Unlimited

Responses to Written Comments

This section includes copies of comment letters received from individuals, groups and organizations, and federal, state, and local agencies.

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April 7, 2013



State Water Resource Control Board (SWRCB) or State Water Board (SWB)

Jeanine Townsend, Clerk to the Board
Executive Office
Cal/EPA Headquarters
1001 "I" Street, 24th Floor

Comments due: April 8, 2013 12:00 p.m.

Project Title: Draft Policy for Maintaining Instream Flows in Northern California Coastal Streams

Contact Person: Division of Water Rights

Telephone Number: (916) 327-2414

Project Location: Coastal streams from the Mattole River to San Francisco and coastal streams entering San Pablo Bay in Marin, Sonoma, and portions of Napa, Mendocino, and Humboldt counties.

Project Description: Water Code 1259.4, which was added by Assembly Bill 2121 (Stats.2004, ch.943 3), requires the SWRCB to adopt principles and guidelines for maintaining instream flows in northern California coastal streams for the purposes of water right administration. The State Water Board adopted the Policy for Maintaining Instream Flows in Northern California Coastal Streams (Policy) in 2010 in order to comply with Water Code section 1259.4. The State Water Board (SWB) has vacated the Policy as a result of litigation and will consider re-adoption of the Policy at a later date. The Policy will apply to applications to appropriate water, registrations and water right petitions. The Policy will establish principles and guidelines for maintaining instream flows for the protection of fishery resources. It will prescribe protective measures regarding the season of diversion, minimum bypass flows and maximum cumulative diversion. The policy contains guidelines for evaluating whether a proposed water diversion, in combination with existing diversions in a watershed, may affect instream flows needed for the protection of fishery resources.

In *Living Rivers Council v. SWRCB* (Sup. Ct. Alameda County, No. RG10-5435923), a case challenging the 2010 Policy pursuant to CEQA, the Superior Court held that the analysis of mitigation measures contained in the Substitute Environmental Document (SED) was inadequate in two respects: 1) it did not evaluate certain subterranean stream delineations as a potentially feasible mitigation measure for the anticipated increased use of percolating groundwater attributable to the Policy, and; 2) it did not present sufficient information to enable decision makers and the public to understand and consider meaningfully the limited legal options facing the SWB to mitigate the expected increase in the use of percolating groundwater and implications for the effectiveness of the Policy. The court issued a Writ of Mandate to the SWRCB directing the SWB to set aside Resolution N. 2010-0021, thereby vacating the SWB's adoption of the Policy

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Environmental Protection Information Center * Community Clean Water Institute * Coast Action Group * Friends of the Navarro Watershed * Friends of the Gualala River * Friends of the Eel River * Humboldt Baykeeper * Institute for Conservation Advocacy, Research and Education * Klamath Forest Alliance * Klamath Riverkeeper * Maacama Watershed Alliance * Willets Outlet Creek Watershed Group * Pacific Coast Federation of Fisherman's Associations * Institute for Fisheries Resources * Sonoma County Water Coalition * Living Rivers Council * Earth Defense for the Environment Now * Save Mark West Creek* Forest Unlimited

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and certification that the SED had been completed in compliance with CEQA. The SWB complied with this directive on October 16, 2012 (SWB Resolution No 2012-0058).

The SWRCB will hold oral public comments regarding the adequacy of the draft Revised SED on April 23, 2013.

The North Coast Stream Flow Coalition (NCSFC) was formed March 5, 2010. This Coalition consists of 19 North Coast non-profit organizations, including commercial fishermen's associations, from the San Francisco Bay to the Oregon boarder. Our goal is to restore source stream flows for wildlife, swimming, fishing and recreation. Among other things the NCSFC advocates for and educates the public about our ancient Justinian rights promised in the Public Trust Doctrine (PTD) giving the people the right to fish, swim and recreate also known as beneficial rights. This is clearly the spirit and intent of AB2121.

The SWRCB approved the "Maintaining Instream Flows for Northern California Streams" Policy Document in March of 2010. New policies and guidelines for diversion of water were established. Maintaining adequate flows for fish while preserving the public trust are required before water users can take additional water from streams. The State Legislature passed AB2121 in 2004 partially due to a backlog of over 600 water right applications to divert water and applicants had been waiting years for permits to divert water. The reason for the backlog was that stream stakeholders and environmental groups (including groups from the NCSFC) were filing water right protests and complaints about streams being dewatered not only due to small instream dams, riparian diverters and off stream storage (appropriative), but also by excessive groundwater pumping. Additionally, the SWRCB did not have a handle on water availability.

NCSFC member organizations have been filing complaints and protests about dewatering of streams and fish kills within their policy area for years, and this is well known to the SWRCB enforcement department (see 2010 comments from fisheries consultant Patrick Higgins) i.e.:

- Save Mark West Creek-Mark West Creek is a tributary to the Russian River where ground water pumping is devastating the public trust and extirpating coho salmon and threatening steelhead.
- Friends of the Navarro River-Navarro River on-going dewatering.
- Living Rivers Council-Napa River-the main stem of the Napa River now has loosing reaches of groundwater due to excessive groundwater pumping, and tributaries are drying from groundwater pumping. There have been years of dewatering protests and complaints (i.e. Kreuse Creek, Murphy Creek, etc.).
- Most streams in the NCSFC region are experiencing depleted stream flows due to groundwater pumping. (see 2010 Ca. 303 (d) list of impaired water quality stream segments on the SWRCB website)

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Does Phil Crader, author of this Revised Policy, consult with enforcement on the issues of groundwater pumping complaints documenting where streams are being dewatering in the Policy area?

NC-1 If the SWRCB continues to ignore our comments, protests, complaints and demands for enforcement actions on all forms of water diversions including groundwater pumping, then streams will continue to lack healthy flows for fishing, swimming and recreation all being beneficial uses.

The SWRCB has been Court ordered to address the issues of some water users possibly pumping groundwater instead of diverting surface flows from streams. The March 2010 approved SED identified significant environmental impacts from pumping groundwater should diverters decide to avoid the new regulations for diverting surface flows and instead pump groundwater. However, now the Revised SED March 2013 states that “pumping groundwater instead of diverting surface flows is not likely to impact stream flows.” This assertion is categorically incorrect. There are many places where surface waters and groundwater are directly or indirectly connected. In fact, spring-fed groundwater sources are the origin of much of the stream flows in many river systems coastwide.

NC-2 This new position of groundwater pumping impacts (March 2010 Policy vs. Revised Policy 2013) by the SWRCB is not based in solid and relevant groundwater science. See USGS Circular 1376, Streamflow Depletion by Wells-Understanding and Managing the Effects of Groundwater Pumping on Streamflow, sent to the SWRCB staff on 3.29.2013 and again here: <http://pubs.er.usgs.gov/publication/cir1376>. In summary of the USGS Circular 1376, it states that groundwater can supply 90% of the recharge to streams. Groundwater and surface water systems are frequently connected and many of these interconnections are well-known. Groundwater pumping frequently reduces the amount of groundwater that flows to nearby streams and can draw down streamflow into the underlying groundwater systems.

The SWRCB Draft makes several statements to support their flawed position that groundwater pumping is “unlikely” to cause a reduction in surface water streamflows, such as:

1. Groundwater pumping is not a “one to one ratio” like riparian or appropriative rights. Here the SWRCB’s asserts that water users diverting or pumping directly from the stream directly dewater the stream, especially during the summer months. The SWB continues to reason that groundwater pumping does not hold this type of “ratio” therefore is “not likely to impact the stream.”

Where does the SWRCB get this comparative science? Is this statement reasoned by or asserted by the SWRCB’s senior scientists in their departments?

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NC-2

Rationale: While pumping or diverting from the stream can dewater the stream quickly, especially during the summer, groundwater pumping usually has a direct connection with the stream subsurface where for example the location of the well, length of time pumping, and cubic feet per second (cfs) will determine how fast the stream will be dewatered. Surface water diversions and subsurface groundwater pumping can both dewater the stream and kill fish thereby failing the purpose and intent of AB2121.

NC-3

2. Out of the 255 current applications only one large agency is “switching” to groundwater pumping. SWB states future applicants are “unlikely” to “switch” to groundwater pumping.

How can the SWRCB predict the future of groundwater pumping based on a few months of backlogged applications fees? Did the SWRCB ground truth these applications to support their assertion that all of the existing 230 of the 255 applications which have existing diversion structures illegally built without a permit to divert are not already pumping groundwater in addition to their water right diversion applications? Did the applications themselves disclose information about existing or future groundwater pumping? If the applicants submitted information about groundwater pumping how many applicants reported they are or would use groundwater pumping?

Rationale: This assertion by the SWRCB lacks credibility and is based purely on speculation. This is flawed reasoning and fails to implement AB2121.

NC-4

3. If a small diverter may use groundwater, the SWRCB will look at this upon application to divert water where the project may undergo further analysis. SWB claims “it is speculative that groundwater pumping will occur in the Policy area.”

Since groundwater pumping is already occurring and currently harming fish in the Policy area as witnessed by all Coalition members who live and work in these watersheds, the SWB should delete this unfounded and highly speculative statement from the Revised record?

NC-5

4. The SWRCB position in this Revised Policy is that percolating groundwater aquifers in the Policy area

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are geologically removed from the surface flow of the stream and so groundwater usually does not directly “connect with the stream” causing dewatering.

Can you quote your source information for this statement? Have these impacts been analyzed by the USGS or demonstrated by any USGS or similar agency flow modeling? Isn't this contrary to the SWRCB's expert Stetson Engineer's Technical Memorandum, 'Delineated Subterranean Streams and Determine Potential Streamflow Depletion Areas'? Did you know that groundwater is often directly connected to stream flows in many of these areas? Do you have compelling evidence that it is not? If so, what is that evidence? Without that compelling evidence otherwise, it should then be assumed as a precautionary mitigation measure that pumping groundwater directly can dewater nearby streams depending, for example, on: a) distance from the stream; b) cfs flows and pumping involved; c) length of time pumping; d) impacts of other wells also pumping from the same groundwater source (i.e., cumulative effects of pumping groundwater); e) impacts of periodic drought conditions, etc.

The SWB analysis of 255 new water right applications surmises that large agencies are unlikely to pump groundwater instead of diverting surface water. This Revision fails to address the individual water diverters currently diverting groundwater and the likelihood of new groundwater diverters in the future, particularly as minimum in-stream flows begin to become a greater limiting factor of future stream diversion water rights. The SWB utterly fails to address significant cumulative impacts of all current and future small groundwater pumping wells by simply trying to assume them away.

Additionally, the SWRCB's expert, Stetson Engineering, advised that wells pumping groundwater should be set back from the creek to areas of geologic formations consisting of bedrock to reduce the likelihood of (see Stetson Engineer map 12160) dewatering streams. Wells pumping groundwater in close proximity to streams (demonstrated by USGS and Stetson Engineers) have a higher probability of dewatering the nearby stream. Groundwater, whether it is percolating or subterranean, is frequently connected to nearby streams. Well drillers need only drill further into the earth's subsurface to reach the percolating groundwater which is stored deeper in the earth than subterranean groundwater which is directly beneath the stream. For the SWB to take the categorical position that groundwater pumping is inherently unlikely to dewater streams brings into question the credibility and integrity of the SWB's analysis, and ultimately undercuts the Public Trust Doctrine.

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With AB2121 the SWRCB has a statutory responsibility and obligation to supervise the health of streams and to prevent waste and improper use of the State's water. This Revision of AB2121 policy clearly demonstrates that the SWB is not upholding AB2121 as stated.

The SWB was ordered to define the statutory limits of the SWB's authority regarding groundwater, which is as follows:

1. The SWB has permitting authority over subterranean streams flowing through known and definite channels.
2. While limited the SWB has permitting authority over groundwater use under the State of California Constitution Section, article X, section 2 and from the Water Code section 100. The SWB regulates the waste, unreasonable use, unreasonable method of use and unreasonable method of diversion. This constitutional doctrine of reasonable use applies to all water diversions including surface and groundwater diversions regardless of the basis of the water right, which can serve as a limitation on every water right and every method of diversion.
3. The California Constitution also declares that the general welfare requires that the State's water resources be put to beneficial use to the fullest extent capable. Therefore, in determining the reasonableness of a particular use of water or method of diversion, other completing water demands and beneficial uses of water must be considered.

Given this, the SWRCB is within their permitting authority and statutory requirements to require that applicants to appropriate water such as pumping groundwater (subterranean or percolating) must prove through the Policy Document requirements that they will not dewater the streams. This puts the burden of proof on the water users that water is available to pump while at the same time leaving water in the stream for fishing, swimming and recreation. Additionally, streams with healthy flows will help reduce pollutant impacts that continue to degrade our watersheds.

The court ordered the SWB to evaluate certain subterranean stream delineations as a potentially feasible mitigation measure for the anticipated increased use of percolating groundwater attributable to the Policy. The SWB developed a scenario that using the Stetson Engineer Groundwater Depletion Area Maps as a mapping tool for mitigation of groundwater conservation was infeasible because the mapping science used to develop the

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maps would have to undergo public hearings in each County of the Policy for rendering of the subterranean stream delineation maps as an acceptable mapping tool would be financially infeasible.

We question whether this highly restrictive reading of the SWB's public comment obligations is legally accurate? There are many past instances where an analytical methodology, even if submitted for public comments, was not required to have public comment sessions held in every affected County, so long as there is adequate notice to the public of the process for public review.

But even if County-by-County public hearing sessions are legally necessary, by comparison to those additional costs how much in tax dollars goes annually to stream habitat restoration and salmonid recovery? These efforts are being undercut, and these tens of millions of tax dollars potentially being wasted, because these key coastal streams are going dry from excessive water diversions, including interconnected groundwater diversions. Can the SWB address these monetary concerns in context of the much lower costs of dewatering prevention? The costs of publicly "vetting" the Stetson mapping methodology, even in County-by-County public hearings in the Policy area if legally required, is vastly outweighed by the very high potential costs of wasted taxpayer restoration efforts, not to mention the costs to the public and to the regional economy of the continued loss of commercial, recreational and Tribal fisheries from continued stream depletion, and the loss to the public of the economic values of recreational, domestic use and other beneficial uses if coastal streams are allowed, through SWB inaction, to continue on their current trajectory toward complete dewatering. If any cost-benefit analysis of this regulation is undertaken, it must include both the "costs of doing nothing" as well as the economic benefits to both taxpayers and society of maintaining healthy and economically productive coastal rivers and fisheries, rather than drying them all up.

Rationale: We believe that the SWB could put the burden of proof on the individual applicant to prove if groundwater pumping according to Stetson Engineer's groundwater depletion maps (see Stetson's Technical Memorandum, November 14, 2007) could dewater the stream prior to permitting the extraction of groundwater by the SWRCB. Therefore, county by county public hearings would not be necessary.

In summary, if the SWRCB would assert their permitting authority pertaining to subterranean groundwater given the new Policy Document, 'Maintaining Instream Flows for Northern California Streams' while requiring that the applicants utilize groundwater delineation maps to prove that applying for their water right will not dewater streams both from surface and subsurface, then the public could trust that the SWB is leaving adequate water in the stream for fish. Percolating groundwater has hydrologic connections to streams and therefore requires sufficient protection not yet adequately defined by the legislature except under the misuse and waste

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NC-10 | doctrine. In order to fully protect groundwater and stream flows for future generations, the SWB must assert their authority to maintain instream flows for beneficial uses or ask the legislature for laws that fully define this authority.

Chris Malan
North Coast Stream Flow Coalition
Chair

North Coast Stream Flow Coalition Member Organizations

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North Coast Stream Flow Coalition, Chris Malan, April 7, 2013

NC-1 This comment appears to be directed towards Division internal procedures and practices with respect to enforcement, complaints, and protests and thus is outside the scope of the revisions to the SED analysis. The vacated Policy specifically addresses enforcement, especially prioritization of enforcement actions, in Policy Section 8.0 and Appendices G and H. In the absence of the Policy the Division continues to undertake enforcement actions in accordance with this prioritization scheme.

Complaints and protests received through the proper channels are incorporated into the appropriate public files and considered consistent with the requirements of the Water Code and California Code of Regulations. The revised SED has no bearing on these existing and continuing practices.

NC-2 This comment suggests that the Superior Court ordered the State Water Board to address issues associated with pumping groundwater instead of diverting surface flows. To clarify, the Alameda County Superior Court directed the State Water Board to evaluate the "Groundwater Delineations" (i.e., the delineation maps) as a potentially feasible mitigation measure for the anticipated increased use of percolating groundwater and make appropriate disclosures regarding that evaluation and resulting decision. This comment implies that the Superior Court directed changes to the impact analysis associated with affected persons switching to groundwater pumping as a result of Policy adoption. As described in **Response to Comment CMK-5**, the Superior Court did not find inadequacies with the impact analysis.

In addition, this comment misconstrues the content of the impact analysis. The revised SED analysis of potential impacts associated with affected persons switching to groundwater pumping is not predicated on an assumption that there is no connection between groundwater in the Policy area and surface water flows, and it is not based on the assumption that groundwater pumping will not affect surface water flows. Staff recognizes that groundwater pumping, like surface water diversions, can affect surface water flows. The revised SED considers the causal effect of Policy adoption influencing affected persons to switch to groundwater pumping. Groundwater pumping will not deplete hydrologically connected surface water flows by more than the amount of groundwater pumped, and in some cases the groundwater and surface water may lack hydraulic connection entirely, or the hydraulic connection may be indiscernible. Where diverters switch from surface water diversions to groundwater diversion in response to the Policy, the increase in groundwater pumping will be accompanied by an equivalent decrease in surface water diversion. Accordingly, a switch to groundwater pumping is unlikely to cause a significant reduction in surface flows, even if the groundwater and surface water are hydraulically connected.

A switch to groundwater pumping could cause a delay in surface flow depletion, which could cause an environmental impact. However, in general, the more closely the groundwater well is connected to surface flows, the less likely there is to be an impact associated with a delay. In addition, wells that could cause a significant

delay in surface water flow depletion may be recharged from other sources, thereby eliminating or reducing the associated surface water flow depletion. These concepts, as well as information about the Policy area geology and hydrology and information about water use and behavior of diverters in the Policy area, were assessed in evaluating the likelihood of potential impacts associated with affected persons switching to groundwater pumping. These revisions to the SED clarified but did not change the associated impact finding. The 2008 SED analysis was misleading because it did not explain that the potential shift from surface water diversions to groundwater pumping due to adoption of the proposed Policy is speculative, and furthermore that the circumstances under which a potential shift could cause a significant reduction in surface water flows are unlikely to occur in the Policy area.

NC-3 This comment confuses the discussion in in the Supplement to Appendix D regarding the one prospective surface water diverter that switched to groundwater pumping and the separate discussion in the Supplement to Appendix D regarding groundwater as a potential future alternative supply source for large water agencies. Also see **Response to Comment NC-6**.

The Supplement to Appendix D stated that in the Policy area, the Division was only aware of one pending prospective surface water diverter that switched to groundwater pumping either as a result of the 2010 Policy adoption or to avoid water right permitting requirements in general. It was not stated that this was a large agency. Furthermore, for this project, the associated groundwater assessment (2010 O'Connor Environmental Study) found no evidence suggesting significant connectivity of the aquifer with surface water at the project site, and that pumping of the well was unlikely to reduce surface water flows.

The statement that the State Water Board is aware of only one diverter that has switched to groundwater in lieu of a surface water appropriation was not intended to indicate that there may not be others that also may switch to groundwater sources. This statement was included to illustrate that there does not appear to be a wholesale movement of surface water appropriators switching to groundwater sources as a result of Policy adoption.

The Supplement to Appendix D also includes a discussion, in a separate context from the discussion of the one prospective water diverter, regarding the unlikelihood of groundwater being an adequate alternative supply source for future large agency demands in the Policy area. This information was cited directly from **Appendix D (Section 5.2 Groundwater)** prepared in 2008 by Stetson Engineers, Inc, which found that large agencies would be limited by hydrogeologic factors in the Policy area.

This comment also misconstrues the discussion contained in the Supplement to Appendix D concerning the estimated number of existing, unauthorized water development projects within the Policy area. The Supplement to Appendix D used data from the Division's eWRIMS database to assess whether or not pending water right applications in the Policy area included existing water diversions, diversion works, or clearing of land. A previous estimate of pending applications with existing diversions (reservoirs) was also included in the 2010 Response to Comments (**2010**

Response to Comments Volume 2, Response to Comment 18.6.1); at that time it was approximately 80 percent. The estimate of existing diversions was included in the introductory statements of the Supplement to Appendix D to illustrate the potential improvements to the existing baseline condition upon Policy adoption. This data is not intended to evaluate how many pending applications are currently pumping groundwater or predict future groundwater use. If the commenter would like to know whether pending applications include information concerning groundwater use, these records are readily available to the public at the Division of Water Right's headquarters.

NC-4 The State Water Board did not claim that the occurrence of groundwater pumping is speculative. In fact, both the revised SED and the 2008 SED included analyses related to future water demands and the adequacy of water supplies with a particular focus on the potential future increases in groundwater pumping. Although it is not speculative that groundwater pumping is occurring and will continue to occur in the Policy area, it is speculative whether re-adopting the Policy will cause surface water diverters to use groundwater instead, or whether any change in the source of water diverted will in turn cause a reduction in surface water flows.

NC-5 The comment mischaracterizes the description of Policy area geology and groundwater sources included in the revised SED. Contrary to this comment, the State Water Board has not taken the position that groundwater in the Policy area usually is not connected to surface flows of streams. **See Response to Comment NC-2.**

NC-6 The first sentence of this comment appears to incorrectly assume that the estimate of existing diversions associated with pending applications in the Policy area is associated with the discussion of the likelihood of large agency groundwater demand. To clarify, the estimate of existing diversions was included in the introductory statements of the Supplement to Appendix D to illustrate the potential improvements to the existing baseline condition upon Policy adoption. The separate discussion of the likelihood of large agency groundwater demand was included for purposes of describing the potential for users switching to groundwater pumping as a result of Policy adoption to result in delays to surface water flow depletion. This discussion is unrelated to the existing diversion estimate and is included much later in the document in the Summary of Impacts section.

The remainder of the comment asserts that the revised SED did not address the cumulative impacts of current and future groundwater pumping. It bears emphasis that the purpose of the SED is to evaluate the environmental impacts of adopting the Policy, not to evaluate the environmental impacts of all current and future groundwater pumping in the Policy area. Adoption of the Policy did not cause pre-existing groundwater pumping to occur, and it is uncertain whether any future groundwater pumping will be caused by adoption of the Policy. Moreover, the 2008 SED evaluated the cumulative impacts of the Policy, and the cumulative impacts analysis has not been revised or recirculated, with the exception of some additional text clarifying that four out of five counties within the Policy area are unlikely to mitigate the potential cumulative impacts of any groundwater pumping caused by the Policy. Accordingly, the comment concerning the adequacy of the cumulative impacts analysis does not relate to any of the substantive revisions to the SED, and

does not require a response. (Cal. Code Regs., tit. 14, § 15088.5, subd. (f)(2).)

NC-7 It is unclear how the first part of this comment relates to the substantive revisions to the SED.

In addition, contrary to this comment, the State Water Board has not taken the position that groundwater pumping is unlikely to dewater streams. Rather, the revised SED clarifies that Policy adoption is unlikely to cause a switch to groundwater pumping that causes, in turn, a significant reduction in surface flows. **See Response to Comment NC-2.**

NC-8 The Alameda County Superior Court directed the State Water Board to a) evaluate the delineation maps as a potentially feasible mitigation measure for the anticipated increased use of percolating groundwater and make appropriate disclosures regarding that evaluation and resulting decision, and b) to present sufficient information to enable the decision makers and the public to understand and to consider meaningfully the **limited legal options facing the State Water Board to mitigate the expected increase in the use of percolating groundwater and the implications for the effectiveness of the vacated Policy** (emphasis added). The comment suggests that the State Water Board has permitting authority over percolating groundwater. That is not the case. The State Water Board's permitting authority is limited to surface water and subterranean streams flowing through known and definite channels. (Wat. Code, § 1200.) As one authority has observed:

Scientists have long delighted in pointing out to lawyers that all waters are interrelated in one continuous hydrologic cycle. As a result, it has become fashionable to argue that an effective legal regime should govern all forms and uses of water in a consistent and uniform manner. The law is otherwise.

(Kelley, 1 Waters and Water Rights § 6.02 (3rd ed. 2011) p. 6–141.) A showing that groundwater is interconnected with surface waters is not sufficient to bring groundwater within the water right permitting authority of the State Water Board. (See *North Gualala Water Co. v. State Water Resources Control Bd.* (2006) 139 Cal.App.4th 1577, 1590 [“the legal categories (e.g., “subterranean streams flowing through known and definite channels,” ‘percolating water’) are drawn from antiquated case law and bear little or no relationship to hydrological realities.”])

The remainder of this comment does not concern any of the substantive revisions to the SED and does not require a response.

NC-9 State Water Board staff estimated the potential resource investment associated with the additional review and assessment needed to refine and consider adoption of the delineation maps. As a first step in developing the cost and time estimate, staff identified potential focus areas for *watershed-based* workshops. To the extent that the comment assumes that workshops would be held on a “County-by-County” basis or that the workshop areas were derived from a requirement “to have public comment sessions held in every affected County,” this is incorrect.

The comment suggests that the cost of adopting the subterranean stream

delineation maps is outweighed by the potential cost of restoration efforts and the cost of continued loss of resources. In determining the feasibility of adopting the maps, however, the cost of adopting the maps should be weighed against the potential impacts of the Policy, not the impacts of groundwater pumping in general. In addition, the effectiveness of adopting the maps as a mitigation measure should be taken into consideration. As explained in the Supplement to Appendix D, the potential groundwater impacts of the Policy are speculative, and the effectiveness of adopting the maps as a mitigation measure would be limited because the majority of wells in the Policy area are located outside the subterranean streams delineated on the maps.

Finally, the comment suggests that that “county by county public hearings would not be necessary” if the State Water Board were to require applicants to prove if groundwater pumping according to the “Stetson Engineer’s groundwater depletion maps...could dewater the stream prior to permitting the extraction of groundwater.” Staff assumes the comment is referring to the subterranean stream delineation maps. The delineation maps were developed to potentially improve the effectiveness of the Policy by identifying locations where the State Water Board’s permitting authority could be applicable. They do not describe the extent to which particular groundwater aquifers are hydrologically connected to surface flow.

The comment appears to assume that hydrologically connected groundwater and subterranean streams are the same thing, but the two classifications of groundwater are distinct and do not necessarily overlap. (See also **Response to Comment LRC-24** for a discussion of groundwater and subterranean streams.)_Groundwater can meet the definition of a subterranean stream regardless of whether it is hydrologically connected to a surface stream. Conversely, groundwater that is hydrologically connected to a stream may not meet the definition of a subterranean stream. Thus, whether a given applicant is dewatering a stream has no bearing on the issue of whether the applicant is pumping from a subterranean stream. And requiring applicants to provide information concerning the impacts of their diversions on surface streams would not eliminate the need to conduct technical workshops to allow stakeholders to submit and evaluate information concerning whether the maps prepared by Stetson Engineers accurately delineate subterranean streams within the Policy area.

NC-10 See **Response to Comment NC-8** regarding the State Water Board’s permitting authority and **Response to Comment NC-9** regarding the purpose and function of the subterranean stream delineation maps.



Mendocino County Farm Bureau

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Affiliated with the California Farm Bureau Federation and the American Farm Bureau Federation

April 8, 2013

Jeanine Townsend, Clerk to the Board
Executive Office
State Water Resources Control Board
Cal/EPA Headquarters
1001 "I" Street, 24th Floor
Sacramento, CA 95814

RE: Comment Letter - Revised Sections of the SED

The Mendocino County Farm Bureau (MCFB) is a non-governmental, non-profit, voluntary membership, advocacy group whose purpose is to protect and promote agricultural interests throughout the county and to find solutions to the problems facing agricultural businesses and the rural community. Mendocino County Farm Bureau currently represents approximately 1300 members.

MCFB would like to submit the following general comments on revised sections 6.2, 6.9 and 7 as well the supplement prepared for the policy for maintaining instream flows in Northern California coastal streams.

MCFB encourages the SWRCB to:

- MCFB-1 | ● Not create new terms that make the permitting of off stream reservoirs more onerous.
- MCFB-2 | ● Understand the challenges/impossibilities involved with deviating between percolating ground water and hydraulically connected groundwater
- MCFB-3 | ● Understand the current jurisdictional boundaries of the SWRCB in regulating percolating ground water
- MCFB-4 | ● Continue to work with property owners in a reasonable fashion for resolving any permitting issues with existing on stream storage facilities.

MCFB appreciates the opportunity to submit comments on the revised sections of the SED.

Sincerely,

Michael J. Braught
President

Mendocino County Farm Bureau, Michael J. Braught, April 8, 2013

- MCFB-1 Comment noted. The 2008 SED disclosed that the Policy might lead to dam removal and construction of offstream storage, evaluated the potential impacts of those activities, and disclosed that the State Water Board and other agencies will need to implement mitigation efforts based on the specific impacts of each project. The 2010 Response to Comments documents included additional information regarding potential mitigation options that might be appropriate for potential future projects. These mitigation options include standard permit terms which are included in new and amended water rights where applicable. California Code of Regulations, title 23, section 780 requires all water right permits issued by the State Water Board to contain applicable standard permit terms and conditions. The substantive changes to the SED do not include any additional terms that would make permitting of offstream reservoirs more onerous.
- MCFB-2 It is assumed that this comment is referring to the difference between percolating groundwater over which the State Water Board does not have permitting authority, and water flowing in subterranean streams over which the State Water Board has permitting authority. This comment does not concern the substantive revisions to the SED and does not require a response; however, with respect to differentiating between the two types of groundwater, the Division's website has a general guide to help the public determine if a well is diverting water from a subterranean stream versus percolating groundwater (see http://www.waterboards.ca.gov/waterrights/board_info/docs/criteria_substream.pdf). Furthermore, the delineation maps are available on the Division's website at http://www.waterboards.ca.gov/waterrights/water_issues/programs/instream_flows/subterranean_streams.shtml and may be accessed by individuals to supplement the foregoing general guide.
- MCFB-3 Comment noted. The current jurisdictional boundaries of the SWRCB were fully disclosed in the revisions to Section 7 of the SED.
- MCFB-4 Comment noted. The substantive revisions in the SED do not change the analysis related to onstream water storage and regulatory dams included in section 6.5 of the 2008 SED and do not recommend changes to the onstream dam provisions in the Policy.

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March 15, 2013



VIA U.S. MAIL

Jeanine Townsend, Clerk of the Board
Executive Office
State Water Resources Control Board
Cal/EPA Headquarters
1001 "I" Street, 24th Floor
Sacramento, CA 95814

Re: Comment Letter/Revised Sections of the SED

Dear Members of the Board:

This firm represents several land owners who will, or may be, affected by the Water Board's efforts to adopt a regulation for maintaining instream flows in Northern California Coastal streams. These comments are precipitated by the "Notice of Filing" (hereinafter "**Notice**") promulgated by Jeanine Townsend dated February 22, 2013.

We and our experts, upon whom we rely for substantive comments, have not completed our substantive review of the substitute policies referred to in your Notice. These comments pertain to legal and collateral issues that can be considered apart from the detailed substance of your new policy:

1. As reflected in the first paragraph, project description, of your Notice, your policy is not limited to water subject to the Board's regulatory jurisdiction - i.e. water not subject to riparian water rights or pre-1914 water rights. Your letter says:

"The Policy will apply to applications to appropriate water, registrations, and water rights petitions. The Policy will establish principles and guidelines for maintaining instream flows for the protection of fishery resources. It will prescribe protective measures regarding the season of diversion, minimum bypass flows, and maximum cumulative diversion. ..."

CMK-1

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Article X, Section 2 of the California Constitution provides, in part:

"Riparian rights in a stream or water course attach to, but to no more than so much of the flow thereof as may be required or used consistently with this section, for the purposes for which such lands are, or may be made adaptable, in view of such reasonable and beneficial uses; provided, however, that nothing herein contained shall be construed as depriving any riparian owner of the reasonable use of water of the stream to which the owner's land is riparian under reasonable methods of diversion and use, or as depriving any appropriator of water to which the appropriator is lawfully entitled. This section shall be self executing ..."

The California Supreme Court has held that this provision prohibits the legislature from adopting any law limiting a riparian's right to water being exercised or foreseeably usable in the future, in order to increase the amount of unappropriated water subject to the Board's jurisdiction under the 1914 Water Commission Act. Tulare Dist. v. Lindsay-Strathmore Dist. (1935) 3 Cal. 489, 525, 531. In our opinion, the same rule applies to any valid pre-1914 appropriative right. While the 1928 Constitutional Amendment extended the "reasonable use" doctrine to riparian rights, as well as to pre-1914 and post-1914 appropriative right holders, the quoted constitutional language prohibits the Legislature or the Board from further restricting such rights. What is a "reasonable use" within the meaning of Article X, Section 2 of the California Constitution is a "judicial" question, not a question subject to manipulation by the Legislature or the Board to elevate protection of fisheries resources over other beneficial uses.

The Board's instream policies will obviously affect riparian holders and the holders of pre-1914 rights because the regulations apply to "registrations"; and, at least as presently advised, it is clear that the Water Code requires, and we presently think legally so, riparians and pre-1914 water rights holders to register their uses.

Jeanine Townsend, Clerk of the Board
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CMK-1

The Board has, in other regulations, such as the attempt to adopt Regulation 862 in the last few years, ignored these constitutional limitations, causing great expense and uncertainty to water rights holders, only to have its regulations invalidated by the courts. (See Rudolph Light and Linda Light v. The California State Water Resources Control Board Mendocino County Superior Court Case No. SCUK CVG 1159127). These mistakes should not be repeated; and the Board should exempt from the current regulations riparian water rights holders and pre-1914 water rights holders.

2. The Notice also says on page 2 in the second paragraph on that page:

"The revisions [in the new document] also clarify the impact analysis to reflect the fact that the potential switch from surface water diversions to groundwater pumping due to the Policy is unlikely to cause a significant reduction in surface water flows, and update section 7 to incorporate responses to comments developed for the 2008 SED. ..."

CMK-2

The phrase "groundwater pumping" is not defined. In the aforementioned Regulation 862, adopted September 20, 2011, and recently invalidated by the Mendocino County Superior Court, the Regulation specifically presumed that groundwater pumping would have an almost immediate and direct affect on stream flow. Ground water diverters were allowed to avoid the impacts of Regulation 862 only if they could prove that there was no "hydrologic connection" between the groundwater they were diverting and any part of the Russian River system. This direct disparity, and the Board's analysis and conclusion, must be explained for the citizens to have any basis for comprehending the Board's regulatory actions. A major purpose of CEQA is to assure that persons exercising rule making authority understand the environmental impacts of what they do and clearly explain their thought process to a concerned public.

CMK-3

While it has long been the law that the Board has jurisdiction over underflow to the same extent that it does over surface flow in the stream, (North Gualala Water District v. State Water Resources Control Board (2006) 139 Cal.App., 4th 1577), it has also been equally clear that the Board has no jurisdiction over "ground water". Any legislative effort to

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grant the Board regulatory authority over ground water would have to meet Federal and State constitutional limitations pertaining to due process and just compensation (United States v. State Resources Control Board (1986) 182 Cal.App.3d 82, 100).

CMK-4 The trial court in Living Rivers Council v. State Water Resources Control Board (Superior Court Alameda County, 2012 #RG 10-5435923) held that the Board's previous CEQA analysis for its Policy was inadequate because it did not consider what environmental impacts might result from a switch from surface water diversions to ground water pumping. There is no indication in the court's opinion that it was limiting its requirement to explain the Policy's impacts to the pumping of "ground water" as opposed to pumping "underflow". The Board's current effort certainly makes no scientifically adequate effort to distinguish between pumping from underflow and groundwater to meet the obligation imposed by the Alameda Superior Court. Certainly the court can't blow off this requirement by the simple, unsupported conclusion without any significant analysis, and 180 degrees different from the presumption underlying Regulation 862, that there will be no impact.

After our substantive analysis is completed, it is likely we will submit further comments, but we hope that these comments will receive careful consideration and a substantive response that avoids the necessity of further costly and time consuming litigation.

Sincerely,


Jared G. Carter

Carter, Momsen & Knight, LLP, Jared Carter, March 15, 2013

- CMK-1 The substantive revisions in the revised SED do not change the water right actions that will be covered by the Policy. The 2010 Policy applied to applications, registrations, and water right petitions. In this context, the term “registrations” refers to registrations pursuant to part 2, chapter 1, article 2.7 (commencing with section 1228) of the Water Code. This comment confuses registrations with **statements of water diversion and use**, which are governed by Water Code sections 5100-5107 and apply to diverters who are not subject to the State Water Board’s water right permitting authority.
- CMK-2 The project analyzed in the revised SED is the adoption of the Policy. The revised SED analyzes potential impacts of actions that affected persons might take to avoid or implement the Policy. The Policy will not operate to approve or deny any particular surface water diversion project. The proposed Policy will impose additional restrictions on surface water diversion projects. In other words, adoption of the Policy will not cause water diversions to occur or not occur. The additional restrictions of the Policy could lead some surface water diverters to obtain water supplies from other sources including groundwater. Potential impacts associated with this “switch” are analyzed in the revised SED.

The analysis of potential impacts associated with affected persons switching to groundwater pumping is not predicated on an assumption that there is no connection between groundwater in the Policy area and surface water flows, and it is not based on the assumption that groundwater pumping will not affect surface water flows. State Water Board staff recognizes that groundwater pumping, like surface water diversions, can affect surface water flows as indicated in the analyses supporting section 862 of title 23 of the California Code of Regulations. The revised SED analysis considers the causal effect of Policy adoption influencing affected persons to switch to groundwater pumping. The analysis demonstrates that the switch to groundwater pumping is unlikely to cause a significant reduction in surface flows. If anything, a switch is likely to result in reduced impacts on surface water flows because, while groundwater pumping could deplete the volume of surface water flow by less than the amount pumped, the surface water diversion for which the groundwater diversion is substituted would have depleted surface flows on a one-to-one basis. Again, this is an analysis of impacts associated with the switch to groundwater pumping, not an analysis of groundwater pumping in general.

A switch to groundwater pumping could cause a delay in surface flow depletion. This delay could cause an environmental impact. In general, the more closely the groundwater well is connected to surface flows, the less likely there is to be an impact associated with a delay. In addition, wells that could cause a significant delay in surface water flow depletion may be recharged from other sources thereby eliminating or reducing the associated surface water flow depletion.

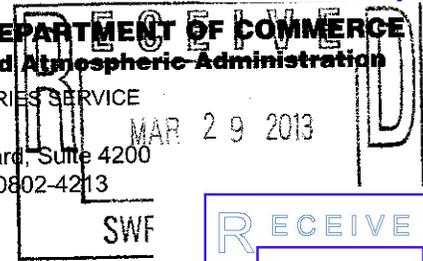
These concepts as well as information about the Policy area geology and hydrology and information about water use and behavior of diverters in the Policy area were assessed in evaluating the likelihood of potential impacts associated with affected persons switching to groundwater pumping.

- CMK-3 Comment Noted. As set forth in section 7.2.1 of the revised SED, the State Water Board's water right permitting authority does not extend to percolating groundwater, but the State Water Board does have regulatory authority over groundwater pursuant to article X, section 2 of the California Constitution and Water Code sections 100 and 275.
- CMK-4 Commenter has misinterpreted the Superior Court's holding. The Superior Court did not find inadequacies with the State Water Board's previous CEQA impact analysis. State Water Board staff elected to incorporate edits to the impact analysis to clarify that the potential switch from surface water diversions to groundwater pumping due to the Policy is unlikely to cause a significant reduction in surface water flows. Whether a hypothetical surface water diverter switches to "groundwater" or "underflow" does not have any bearing on the potential impact of the switch on surface flows and therefore is not relevant with respect to the impact analysis contained in the revised SED. As described in **Response to Comment CMK-2**, the impact analysis was not predicated on the assumption that there is no connection between groundwater in the Policy area and surface water flows, and it was not based on the assumption that groundwater pumping will not affect surface water flows.



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213



March 26, 2013

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
P.O. Box 100
Sacramento, California 95814-0100

Dear Ms. Townsend:

NOAA's National Marine Fisheries Service (NMFS) appreciates the opportunity to comment on the State Water Resources Control Board's (State Water Board) revisions to the Draft Policy for Maintaining Instream Flows in Northern California Coastal Streams (Policy). The Policy will establish principles and guidelines for maintaining instream flows for the protection of fishery resources. As such, the Policy may have implications for endangered Southern California and threatened South Central California Coast steelhead (*Oncorhynchus mykiss*) and designated critical habitat for this species.

The Policy contains guidelines for evaluating whether a proposed water diversion, in combination with existing diversions in a watershed, may affect instream flows needed for the protection of fishery resources. It also prescribes protective measures regarding the season of diversion, minimum bypass flows, and the maximum cumulative diversion. Currently, the Policy applies to coastal streams in Northern California from the Mattole River to San Francisco and coastal streams entering San Pablo Bay.

NMFS-1

NMFS has two principal comments regarding the draft Policy. First, while the Policy is currently limited to Northern California as described in California Water Code section 1259.4(a)(1), Water Code section 1259.4(a)(2) allows that "The board may adopt principles and guidelines for maintaining instream flows not described in paragraph (1), as part of state policy for water quality control adopted pursuant to Article 3 (commencing with Section 13140) of Chapter 3 of Division 7, for the purposes of water right administration." NMFS believes the Policy should not be limited in geographic scope and should apply to all California streams in order to adequately protect sensitive fishery resources statewide. Because the Policy was developed for Northern California, it would likely need some modification to address differences in hydrology between regions. Nonetheless, the State Water Board would ensure consistency and simplicity in application of the Policy by expanding its reach to all California streams. As competing demands for surface water increase in California in the future, and particularly in Southern California, a Policy that applies statewide would help maintain instream flows at levels that allow recovery of threatened and endangered steelhead.



NMFS-2

In addition, the Policy should ensure that instream flows approximate the natural flow regime in terms of magnitude, pattern, and timing. NMFS recognizes the need to strike a balance between water demands for human activities and instream flows to sustain aquatic life. This balance can be achieved by requiring water diversions and dams to be operated such that instream flows reflect the natural hydrograph. Because California's native fish species evolved under natural flow regimes, a Policy that provides natural flow patterns and magnitudes will give threatened and endangered fish species, including steelhead, the best chance at recovery.

NMFS looks forward to adoption of a final Policy that will maintain instream flows for the protection of fishery resources, including threatened and endangered steelhead. Please contact Kristin Mull at (562) 980-3265 or via email at Kristin.Mull@noaa.gov if you have any questions concerning this letter, or if you would like additional information.

Sincerely,



Penny Ruvelas
Southern California Area Office Supervisor
for Protective Resources Division

cc: Mary Larson, California Department of Fish and Wildlife
David Hines, National Marine Fisheries Service, Santa Rosa Field Office
Administrative File: 151416SWR2013PR00068

National Marine Fisheries Services, National Oceanic and Atmospheric Administration, Penny Ruvelas, March 26, 2013

- NMFS-1 Comment noted. Comment discusses the geographic scope of the Policy. The geographic scope of the Policy is not addressed in the substantive revisions to the SED.
- NMFS-2 Comment noted. The provisions of the Policy were designed to ensure maintenance of instream flows necessary to protect fishery resources, taking into account the natural hydrograph. See **Policy Section 2.1**. The substantive revisions to the SED do not concern these provisions of the Policy or the nature of the flows needed to protect fisheries resources.



Brian J. Johnson
California Director



April 8, 2013

Felicia Marcus, Chair
and Members of the Board
State Water Resources Control Board
1001 I Street
Sacramento, CA 95814
Via email to commentletters@waterboards.ca.gov

Re: Revised SED for North Coast Instream Flow Policy

Dear Ms. Marcus and Members of the Board:

On behalf of Trout Unlimited (TU) I submit the following comments for the Revised Sections of the 2008 Substitute Environmental Document (SED) for the Policy for Maintaining Instream Flows in Northern California Coastal Streams (Policy).

Trout Unlimited (TU) is North America's leading coldwater fisheries conservation organization, dedicated to the conservation, protection and restoration of trout and salmon fisheries and their watersheds. The organization has more than 140,000 members in 400 chapters across the United States, including 10,000 members in California. TU's vision is that, by the next generation, trout and salmon will be restored throughout their native range so that our children can enjoy healthy fisheries in their home waters. To accomplish this vision, TU works to protect, reconnect, and restore fish populations and their habitat, and to sustain this work by building a diverse movement of businesses, people, and communities dedicated to our mission.

As you know, TU was the sponsor of A.B. 2121, which mandated development of the Policy. We were involved in the Policy's development at every step of the way. Many portions of the final Policy stem directly from Joint Recommendations made by TU and representatives of the wine industry. The final policy including the joint recommendations was supported by groups ranging from TU, Russian RiverKeeper, and the California Sportfishing Protection Alliance to the Wine Institute, California Farm Bureau Federation, and United Winegrowers of Sonoma County.

TU Supports Readopting the Policy

I believed then that the SED adequately addressed the CEQA impacts of the Policy, and the Revised SED does not change that opinion. As an initial comment, I hope that the State Water Board can readopt the Policy without undue delay. While the Division of Water Rights has managed to continue processing applications with the Policy suspended, the gap in regulatory certainty has created some potential risks for natural resources, first by allowing a number of onstream ponds that would not have qualified to be "grandfathered" under the original policy to be grandfathered again; second, by allowing Division staff to consider waiving some

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TU-1

Policy prescriptions (including measures for monitoring and reporting); and third, by causing uncertainty and delay.

TU Requests Reconsideration of Subterranean Stream Map Adoption

Although we support readopting the Policy, we are troubled by the tone of the revised SED and certain statements with respect to subterranean streams and groundwater. The revisions contain a number of comments that taken together could give the impression that the State Water Board is not committed to regulating subterranean streams equally with other water under its permitting jurisdiction. Although I am confident that this was not the Division’s intent, the overall approach of the revised analysis and responses to comment creates the impression that administration of water rights for subterranean streams is difficult, and that as a result the Division will not make it a priority.

Enforcement actions undertaken by the Division often convey the same impression. In particular, the Division regularly identifies ponds for which it does not have a recorded water right, and then sends the owners a letter asking them to document their water right or file an application or registration. This has resulted in a large number of people coming into the water right system—which is good. However, the Division has not yet found a good way to make a similar effort for direct diversions or diversions from subterranean streams, because those diversions are more difficult to locate from aerial surveys. In many cases, these diversions are much more threatening to fish and wildlife or senior water right holders than the irrigation and stock ponds located by the sweeps.

TU-2 The Division’s approach is understandable given the relative difficulty of locating and permitting direct diversions (including those from subterranean streams) versus ponds, but it has unintended side effects. First, it results in the Division and the Department of Fish and Wildlife focusing time and resources on the diversions that are easiest to locate (including a number of very small stock ponds) rather than the diversions that have the most impact. Second, it creates perverse incentives for water users. The State Water Board, the Department, TU, and many farm groups are united in our belief that we need to encourage water users to rely on diversions to storage rather than direct diversions. That will not happen if the Board fails to regulate direct diversions—including subterranean stream wells—as much as it regulates diversions to storage.

Recall the original mandate behind A.B. 2121, which called for “principles and guidelines for maintaining instream flows” for “water right administration.” (Water Code § 1259.5.) A Policy that leads to aggressive enforcement for ponds and detailed permitting constraints for diversions to storage, but ignores direct diversions and diversions from subterranean streams will fail in its basic purpose.

TU-3 As a final comment, we do not believe it is fair to landowners to maintain jurisdiction over subterranean streams but provide no guidance to individual farmers or homeowners to indicate when the Division believes a permit is required for a well. There are a large number of people who have streamside wells that could be subject to the State’s permitting jurisdiction, and they have received hardly any guidance from the Division on when to submit an application. Needless to say, it is vanishingly rare for landowners to submit applications for water rights for

TU-3

wells, even where they are probably drawing from subterranean streams. Given the lack of guidance from the State, I can hardly blame them. Similarly, it is not ideal for the Division to rely purely on potential enforcement actions without having first provided guidance.

With that in mind, I make the following recommendations:

see
TU-2

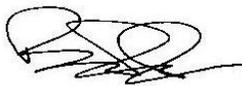
1. Clarify that the State Water Board is not disclaiming jurisdiction over subterranean streams, and that it intends to regulate them as aggressively as it regulates diversions to storage.
2. Work with the Department to refine the methods used by the Division for permitting sweeps to focus on the greatest threats to aquatic resources and senior water rights, rather than the diversions that are easiest to identify.
3. Work with the Department and other stakeholders to re-consider whether and how to adopt subterranean stream delineations; and if not, determine how to adopt alternative guidance for landowners with diversions that may be from subterranean streams.

see
TU-3

I recognize that this third recommendation in particular will not be easy, inexpensive, or uncontroversial. But as CDFW notes in its comments, a case-by-case approach may not be cheaper or fairer in the long run. Assuming the third recommendation would take some time, it may be possible to re-adopt the Policy in the meantime but include a defined process and timeline for amending the Policy to include guidance for landowners on subterranean streams.

Thank you for considering my comments. I look forward to discussing them with you and Division staff.

Sincerely,



Brian J. Johnson

Trout Unlimited, Brian Johnson, April 8, 2013

- TU-1 Comment noted. Division staff agrees with the comment.
- TU-2 The substantive revisions to the SED were not intended in any way to imply that the State Water Board is disclaiming jurisdiction over pumping from subterranean streams. The State Water Board has permitting authority over subterranean streams flowing through known and definite channels. (See Wat. Code, §§ 1200, 1201, 1225 and revised SED **Section 7.2.1 State Water Board Regulatory Authority**.) Conversely, groundwater classified as percolating groundwater is not subject to the State Water Board's permitting authority or the Policy's restrictions. The State Water Board intends to continue using the delineation maps and any other available information in evaluating, on a case-by-case basis, which water users are subject to the Division's permitting authority because they are pumping from a subterranean stream, and the State Water Board also intends to continue consulting with CDFW regarding enforcement priorities.
- TU-3 The revised SED analysis considers the causal effect of Policy adoption influencing affected persons to switch to groundwater pumping and finds that adoption of the subterranean stream delineation maps is not a feasible mitigation measure for potential impacts associated with this switch. The feasibility determination takes into account the speculative nature of the potential impacts, the fact that any shift to groundwater pumping is unlikely to cause a significant reduction in surface water flows, and the effectiveness of adopting the maps as a means to mitigate for the potential impacts. Whether adoption of the maps is a feasible CEQA mitigation measure is a different question than whether or not the delineation maps would be a useful tool to provide guidance to "individual farmers or homeowners" or in dealing with groundwater pumping that is unrelated to the Policy. With respect to providing guidance, the Division's website has a general guide to help the public determine if a well is diverting water from a subterranean stream versus percolating groundwater (see http://www.waterboards.ca.gov/waterrights/board_info/docs/criteria_substream.pdf). Furthermore, and notwithstanding the findings in the revised SED, the delineation maps are available on the Division's website at http://www.waterboards.ca.gov/waterrights/water_issues/programs/instream_flows/subterranean_streams.shtml and may be accessed by individuals to supplement the foregoing general guide.

With respect to dealing with groundwater pumping issues in general, and notwithstanding the findings in the revised SED, the State Water Board is open to discussion with CDFW and other stakeholders regarding the delineation maps. The Division believes map adoption would be effective and efficient only in areas where evidence exists that groundwater pumping has a measurable effect on surface flows. If in the future technical information is developed that indicates that unregulated groundwater pumping (which may be unrelated to the adoption of the Policy) within discrete subterranean stream segments depicted on the maps is adversely affecting stream flows, then the State Water Board may consider adopting the subterranean stream delineations for those stream segments. At the present time, Policy-wide adoption of the delineation maps in the absence of evidence of such impacts is not warranted and, as shown in revised SED **Section 7.2**, infeasible as an effective CEQA mitigation measure. Discussions and evaluations regarding delineation map adoption for discrete stream segments may be considered as part of the Policy's periodic

effectiveness review. In the interim, the delineation maps are available on the State Water Board's website and may be useful for stakeholders and potential water users to view during the project-planning process. See also **Response to Comment TU-2**.

April 7, 2013

Felicia Marcus, Chair
Thomas Howard, E.D.



Re: State Water Resources Control Board Revised Sections 6.2, 6.9, and 7 of the North Coast
Instream Flow Policy Substitute Environmental Document

Dear Ms. Marcus and Mr. Howard:

Please make these comments a part of the official administrative record in the consideration of changes to the policy to maintain instream flows in northern California streams -AB2121 (hereafter, the revised policy). Thank you for your consideration of these comments and for your work on this important issue. The public is anxious that the state address the over appropriated conditions of the north coast streams through a comprehensive and integrated approach that properly anticipates and avoids potential new impacts on stream flows.

Protection of Listed Species

The State has the affirmative duty to regulate water development activities such as licensing and permitting of diversions from surface waters and regulation of unreasonable use of ground water. Water use that harms listed species, whether it be authorized direct diversions or authorized groundwater pumping would be unreasonable. Arguably permitted uses have already caused harm and the problem must not inadvertently be made worse through aspects of this new policy.

National Marine Fisheries Service-NOAA

The State must, in the context of low budgets and continuing harm to listed species, require that applicants provide credible and verifiable evidence that the State's water will not be further degraded or impaired by planned water use. The State must conduct the independent peer review of the applicants' information, as opposed to carrying out the investigations themselves, in order that the State fulfills its duty to rigorously consider the public trust and avoid contributing to take of listed species by its permit program.



Impacts of Groundwater and Surface Water Connection is Not Speculative

KB-1 The revised policy states that, "[a] switch to groundwater pumping could cause a delay in surface flow depletion, which could in turn cause a significant, adverse, environmental impact, particularly if the delayed reduction in flows occurs during the summer months. For the reasons set forth in the Supplement to Appendix D, however, this potential impact is *speculative and unlikely to occur* in the Policy area. (State Water Resources Control Board Revised Sections 6.2, 6.9, and 7 of the North Coast Instream Flow Policy Substitute Environmental Document; emphasis added). Unfortunately, the State relies on a study in 2010 by O'Connor (Supplement to Appendix D, page 6) and does not provide the public with an opportunity to read this study or comment upon it.

KB-2 The independent science on groundwater pumping shows the State's above assertion to be incorrect in material ways and unreliable. For example, at least as far back as 1987 the State's own consultant and other experts came to the opposite conclusion. "Kondolf et al. (1987) and Zariello and Reis (2000) both describe groundwater pumping as causing long- term reductions to streamflow during base flow periods by lowering groundwater tables."("Hydrologic impacts of small-scale instream diversions for frost and heat protection in the California wine country Matthew J. Deitch, G. Mathias Kondolf, and Adina M. Merenlender). The temporary

lowering of water tables in streams, that have historically supported all life stages of anadromous salmonids, is a big problem and the primary reason for adopting this policy in the first place. The independent study by Kondolf et al. contained many data points and occurred in small stream systems and came up with results contrary to the results of O'Connor.

In addition, the Biological Opinion for the Russian River states with respect to ground water pumping in the North Coastal Diversity Stratum for Central Coast Steelhead, "[s]tream desiccation is related to intensive groundwater pumping and other water uses associated with agricultural, rangeland, and residential developments. (September 2008). In 2009, the Division of Water Rights found Gallo's change from a direct diversion to an offset well (100-200 feet from the Russian River) to be illegal and subject to state Water Board permitting authority. At that time, Division staff correctly stated that the well was subflow to the river. "Gallo's extent of harm is twofold. Its continued unauthorized diversion reduces the amount of water available for legitimate downstream water right holders. Secondly, while the adverse impacts on the steelhead trout fishery have not been quantified, Gallo's unauthorized diversions may contribute to reducing habitat for steelhead trout in the Russian River and its tributaries."(Administrative Civil Liability - Gallo 8900 and 9015 Westside Road, Healdsburg, CA).

The current state of the science is that groundwater pumping is connected to stream flow; and therefore, in the policy area where streams are small, highly responsive to demand, and critical to the migration, reproduction, feeding, and sheltering of listed salmonids year round, those impacts are much more than speculative and must be evaluated on a case-by-case basis. In response to the continuing demands and over allocation of stream systems, scientists have called for winter time storage. They are not calling for unlimited additional new wells in undefined basins or presumed percolating groundwater to solve the problems of fisheries in collapse. Many coastal rivers and streams are small and or have low flows during some parts of the year. As the studies referenced above confirm, these attributes make them highly susceptible and vulnerable to changes in groundwater tables.

In summary, the conclusion of the State quoted above, that impacts are speculative and unlikely to occur, is not based upon substantial evidence.

Estimate of the Shift of Future Demand to Groundwater Extraction

The estimates provided in the revised policy, on number of acre-feet that might be shifted to ground water supplies as a result of the policy, has the potential to be useful. The numbers, however are not evaluated in the context of any stream. Small streams, streams already under extreme pressure from water demands, and streams with marginal flows could easily be affected by ground water diversions in even small amounts. This is especially significant in light of the statements of Stetson Engineers. The State must not presume otherwise. "Groundwater diversions can have similar effects on the depletion of surface flow as diversions from surface streams. Thus, increased groundwater pumping could have a negative effect on the instream flows and anadromous fish habitat in the policy area if a hydraulic connection exists." (Stetson Engineers-February 2008). In short, providing a gross number estimate of demand without context and in a relative vacuum is not substantial evidence of the conclusion that surface flows in critical streams are not likely to be impacted in the future by potential well water withdrawals.

KB-3

The State explains in the revised policy that it does have the duty to regulate groundwater in subterranean streams and to prevent unreasonable use. Unreasonable use includes adverse modification of critical habitat. It is first necessary, not discretionary, to determine what wells are hydraulically connected to critical habitat streams. This is properly the task the State must require the developer to carry out.

The developer, especially in areas that may not yet be defined as a "groundwater basin", must demonstrate that it will not be tapping into subterranean streams, connected ground water, or subflows. Wells in proximity to creeks must not affect flows and if they do, they must demonstrate that they are not affecting flows in a manner that adversely modifies critical habitat.

KB-4

The revised policy estimates that there are over 16,000 small water agency and self-supplied individuals that could potentially pump from wells as a result of the policy just in the Russian River watershed alone. Some of these, perhaps most of these, are not in defined basins or even within the Stetson delineations of subterranean streams, but are potentially, and do, tap into important subsurface flows on which small streams and their aquatic species depend. The revised policy acknowledges this crack in the regulation but asserts that nothing significant will come of it in any watershed or subwatershed. This assertion is contrary to the independent science currently available. These types of water development activities do need analysis. Again, depending upon where these wells are, the impacts of the well, or a bunch of small wells, on a small stream at the wrong time of the year are more than likely to be significant. The State must require, not carry out itself with its limited budget, independent analysis of the ground water impacts on individual streams. The State must conduct a peer review of the analysis prior to permitting potentially harmful activities.



(Stream flows depleted by frost protection water use.)

Costs Estimates to Protect Stream Flows

The revised policy goes into great depth about the costs of protecting ground water and stream flows via ground water delineations. It quotes the disclaimer of Stetson Engineers which states that, "[s]ite specific investigations will be needed to verify the existence of subterranean streams or potential stream depletion areas. Stetson does not dictate who must carry out or fund the investigations." The revised policy, however unilaterally places the burden of carrying out investigations squarely on the SWRCB or the taxpayer. This burden is

misplaced. Externalizing the costs of doing business is a practice that is out of date. For example, in 2000, staff of the Division of Water Rights recommended that applicants, not the state, bear the costs of studies when proposing water development activities.

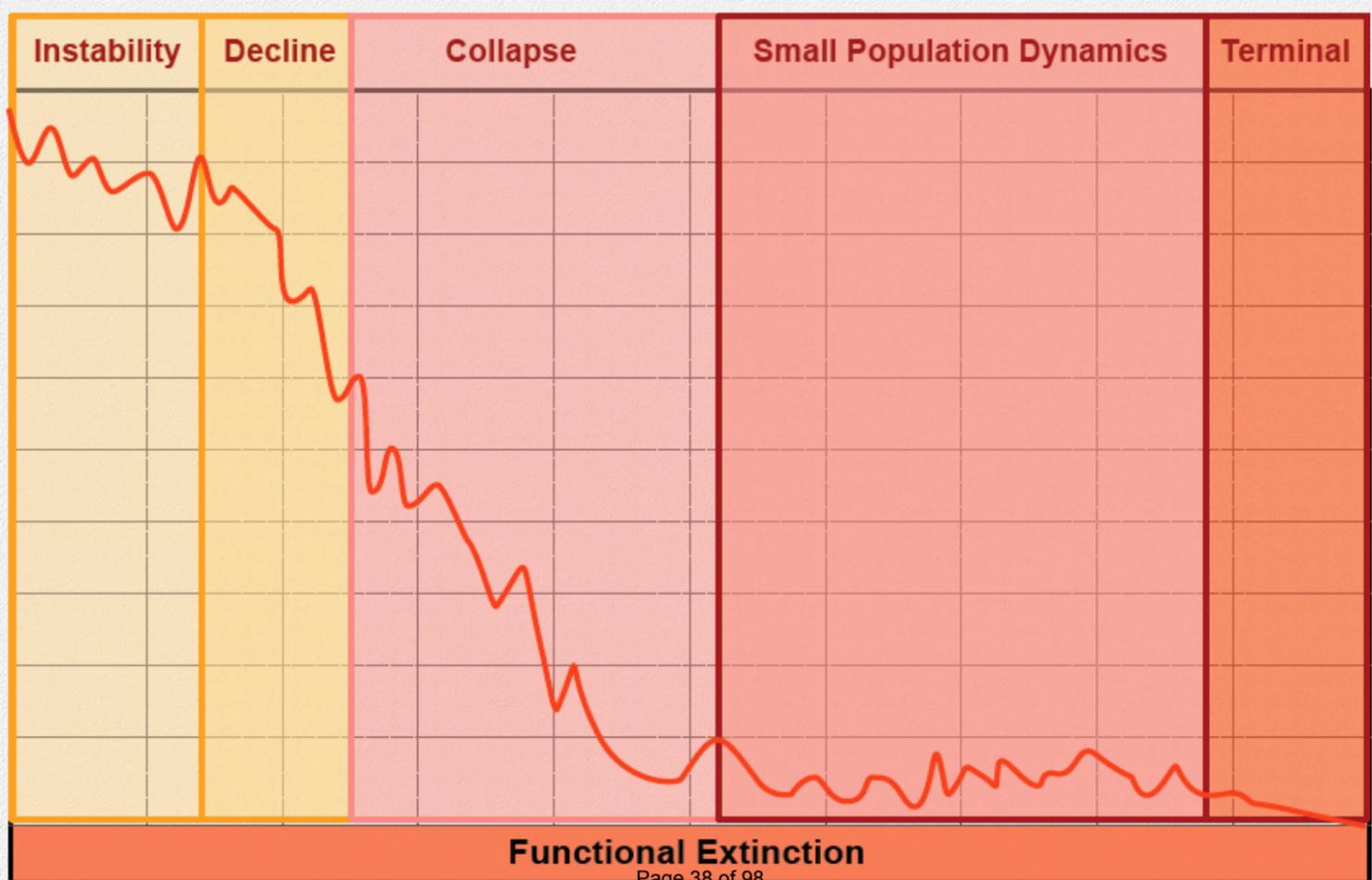
"Applicants that desire to operate their projects other than under these conditions will need to submit fishery studies and other supporting documentation to demonstrate that fishery resources will not be adversely affected or they will need to prepare an Environmental Impact Report." (Staff Report for August 3, 2000 Meeting; Item 9).

In addition, "[s]taff recommend that new diversions not be allowed after March 31, unless the applicant submits specific studies which demonstrate that further diversions in the spring will have no significant effect on coho and steelhead." (August 15, 1997 Staff report SWRCB Russian River). Given the precedent already established, that applicants demonstrate no significant effect, the estimates provided in the revised policy are clearly too high, and delineations are much more feasible than staff concludes.

The State has a duty to avoid take of listed species and if the State cannot carry out necessary investigations, it must require applicants to demonstrate that their proposed and current activities are not modifying habitat or harming listed aquatic species prior to the State permitting that activity. Such a showing if required of the applicant will not increase the costs to the State, removes the economic burden from the equation, removes the time delay in protecting critical habitat, and is an economical alternative to the time consuming expenditures described in the revised policy wherein the tax payers would heavily subsidize the environmental review of private proposals to draw upon the public's limited water resources.

Thank you again for your work on this important policy.

Kimberly Burr
Green Valley Creek Restoration Volunteer
Forestville, CA



Addendum to my comments for clarification of the graph incorporated:
Chinook and Steelhead are in the second to the last panel and the coho salmon are in the final panel to the right.
National Marine Fisheries Service-NOAA

Thank you. Kimberly Burr

C

Kimberly Burr, Green Valley Creek Restoration Volunteer, April 7, 2013

KB-1 Division staff would like to make clear that although the commenter refers to the “Revised Policy” throughout the comment letter, a revised version of the Policy was not circulated with the additional CEQA documents for review in 2013. For purposes of developing a response, it is assumed that the references to a “Revised Policy” are instead referencing the revised SED.

The revised SED considers the causal effect of Policy adoption influencing affected persons to switch from surface diversion to groundwater pumping. Groundwater pumping will not deplete hydrologically connected surface water flows by more than the amount of groundwater pumped, and in some cases the groundwater and surface water may lack hydraulic connection entirely, or the hydraulic connection may be indiscernible. Accordingly, a switch to groundwater pumping is unlikely to cause a significant reduction in surface flows. Such a switch to groundwater pumping could cause a delay in surface flow depletion. This type of delay could cause an environmental impact. In general, the more closely the groundwater well is connected to surface flows, the less likely there is to be an impact associated with a delay. In addition, wells that could cause a significant delay in surface water flow depletion may be recharged from other sources thereby eliminating or reducing the associated surface water flow depletion. These concepts as well as information about the Policy area geology and hydrology and information about water use and behavior of diverters in the Policy area were assessed in evaluating the likelihood of potential impacts associated with affected persons switching to groundwater pumping.

The 2010 O'Connor Environmental study was completed for the only prospective surface water diverter that the Division is aware of who switched to groundwater pumping either as a result of the 2010 Policy adoption or to avoid water right permitting requirements in general. Ultimately, this study found no evidence suggesting significant connectivity of the aquifer with surface water at the project site and concluded that pumping of the well is highly unlikely to reduce surface water flows. The O'Connor study supports the determination that the Policy is unlikely to cause a significant reduction in surface water flows as a result of individuals or entities pumping groundwater instead of surface water, but the study is not the only evidence that supports this determination. The study also supports the determination that adopting the subterranean stream delineation maps prepared by Stetson Engineers in 2008 would not be an effective mitigation measure for the potential impacts of pumping groundwater instead of surface water because the groundwater well that is the subject of the study is located outside of the area delineated as a subterranean stream on the delineation maps. The 2010 O'Connor Environmental Study is included in the project file for Application 31730 and is available for public review.

KB-2 As described in **Response to Comment CMK-2**, the project analyzed in the revised SED is the adoption of the Policy, not individual water diversion projects, and the Policy will not cause water diversions to occur or not occur. As described in the revised SED, the Policy could cause diverters to switch to groundwater pumping, but the switch to groundwater pumping as a result of the Policy is unlikely to cause a significant reduction in surface flows. If anything, a switch is likely to result in

reduced impacts on surface water flows because the groundwater pumping will not deplete the volume of surface water flow by more than the amount of groundwater pumped, and the groundwater pumping will be accompanied by an equivalent reduction in surface water diversion. The revised SED analysis of potential impacts associated with affected persons switching to groundwater pumping is not predicated on an assumption that there is no connection between groundwater in the Policy area and surface water flows, and it is not based on the assumption that groundwater pumping will not affect surface water flows. Staff recognizes that groundwater pumping, like surface water diversions, can affect surface water flows. The comment asserts that the impacts of groundwater pumping on surface flows are not speculative or unlikely to occur. Although this is true, it is speculative whether re-adopting the Policy will cause surface water diverters to use groundwater instead, and it is unlikely that any change in the source of water diverted will in turn cause a reduction in surface water flows.

KB-3 Future groundwater demands were estimated as a range. Estimates for the low end of the range were computed as the sum of large water agencies future groundwater demand derived from their Urban Water Management Plans plus the small water agencies and self-supplied individuals estimated increase in water usage from groundwater. The estimated increase in water usage from groundwater was calculated based on the assumption that the percent of the forecasted increase in water usage provided by groundwater is the same as the percentage of water supplied from groundwater as shown in Table B.5. Table 14 from Appendix D of the 2008 SED summarized the forecasted increase in water usage for each county in the Policy area. The primary data sources were USGS estimates of water usage for the year 2000 by county, Department of Water Resources demographic and geographic information, and estimates of future growth from the California Water Plan (see **Appendix B. Methods Used to Estimate Current and Forecasted Water Usage** from 2008 SED Appendix D). The upper end of demand was estimated for the most conservative case, where all future diversion demand (both pending and new) would be supplied from groundwater. The upper end is computed as the sum of the planned usage from groundwater (i.e. the low end of the range) plus all future diversion demand. The upper limit estimates are based on the conservative assumption that the Policy would, in effect, prohibit all future surface water appropriations (known as of December 2006), and that the full volume of estimated future demand would be supplied solely from groundwater.

The revisions to the SED incorporated the following clarification points to explain the conservative nature of assuming that all of the future demand is going to be met from groundwater pumping: 1) some of the future diversion demand could be supplied by surface water appropriation under certain circumstances and 2) water supplies may be insufficient to meet all future demands even in the absence of the Policy. It also bears emphasis that it is entirely speculative whether the Policy will in fact cause any future increase in groundwater pumping to occur, or if any increase will occur irrespective of whether the Policy is re-adopted. The future groundwater demand upper estimate information is useful in conservatively analyzing the adequacy of alternative supplies; however, it is misleading and incorrect to attribute impacts to surface flows resulting from these estimated demands to Policy adoption. Moreover, even if the Policy does cause a shift from surface water diversions to groundwater pumping, the shift is unlikely to cause a significant decrease in surface flows, as

explained in **Response to Comment KB-1**. For these reasons, evaluating the estimated demand numbers in the context of any stream would also be misleading.

KB-4 The comment that groundwater pumping may be adversely affecting individual streams in the Policy area has merit, but the comment has no bearing on the adequacy of the CEQA analysis of the potential environmental impacts of the Policy. The SED does not need to evaluate the impact of all groundwater wells on streams in order to assess the effectiveness of adopting the delineation maps as a mitigation measure for Policy adoption. As described in **Response to Comment CMK-2** the Policy will not cause water diversions to occur or not occur. The revised SED analysis considers the causal effect of Policy adoption including affected persons switching to groundwater pumping. The analysis demonstrates that the switch to groundwater pumping is unlikely to cause a significant reduction in surface flows. Even if the analysis were to hypothetically assume that every well was in direct connection with surface water, map adoption would still be ineffective as a mitigation measure for the potential impacts to surface flows attributable to the Policy.

The comment that the State must require developers in undefined groundwater basins to demonstrate that they are not pumping from subterranean streams is inconsistent with applicable law. Groundwater is presumed to be percolating groundwater, and not subject to the State Water Board's permitting authority, unless the Board or another interested party can prove that the groundwater is flowing in a subterranean stream. (State Water Board Decision 1645, p. 6.) Similarly, the Board may bear the burden of demonstrating that a developer is pumping connected groundwater, or subflows" unless the Board can establish that the groundwater is subject to the Board's permitting authority.

KB-5 The State Water Board's evaluation of potential time and cost of adopting the delineation maps describes the various steps involved in the adoption process including preparing for, noticing, and conducting workshops and organizing and evaluating workshop submittals. The lower range time and cost estimate assumes that the necessary field data and site specific analyses would be provided by participants during the workshops and no additional field investigations would be conducted by State Water Board staff. The comment suggests that the Board should require water right applicants to bear the costs for the administrative duties associated with adoption of the delineation maps. It is unclear which applicants the commenter believes should be required to pay the costs of adopting the maps, or what the basis would be for requiring them to pay those costs. Presumably, the commenter believes that pumpers within the areas delineated as subterranean streams on the maps should be required to pay. As stated in **Response to Comment KB-4**, however, the Board bears the burden of establishing that the delineations on the maps are correct, and the Board cannot effectively shift that burden to the diverters by requiring them to pay for the Board's evaluation of that issue. Moreover, requiring any diverters within the delineated areas who have elected to file applications to pay the costs of determining whether they are subject to the Board's permitting authority would be unnecessary and unjustified.

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Thomas N. Lippe
Brian Gaffney
Keith G. Wagner
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April 8, 2013

Via Email

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814
commentletters@waterboards.ca.gov



- Re: **Comment Letter - Revised Sections of the SED**
- Regarding Revised Proposed Policy for Maintaining Instream Flows in Northern California Coastal Streams
 - From Living Rivers Council

Dear Ms. Townsend:

This office represents Living Rivers Council (“LRC”) with respect to the State Water Resources Control Board’s Proposed Policy for Maintaining Instream Flows in Northern California Coastal Streams. Living Rivers Council objects to approval of the Policy on the grounds that the Policy’s Revised Substitute Environmental Document (“RSED”) fails to comply with the California Environmental Quality Act (“CEQA”) and the writ of mandate issued by the Superior Court in *Living Rivers Council v. State Water Resources Control Board*; Alameda Superior Court Case No. RG-10-543923. This letter incorporates by reference Exhibit 1 through 16 that were delivered to your office under separate cover today, in hard copy. This letter also incorporates by reference Exhibit 17, a letter dated April 7, 2013, from Dr. Robert Curry, attached hereto.

SUMMARY

The 2008 SED for this Policy found that it would cause significant adverse impacts on many environmental values. With respect to stream flow and salmonid habitat, the 2008 SED found that the Policy would have significant adverse impacts because it would cause some water users to pump more groundwater as an alternative to applying for permits to appropriate water from surface streams. Yet, the 2008 SED failed to identify or analyze any mitigation measures for this significant impact. As the Superior Court found, this violates CEQA. The Superior Court required that the Board disclose its identification and analysis of mitigation measures to reduce this impact, including the “facially feasible” mitigation measures proposed by Stetson Engineers based on its delineations of subterranean streams and Potential Stream Depletion Areas (“PSDA”).

The Board’s proposed response to the writ of mandate is two-fold. First, the Policy and SED revisions backtrack, to an uncertain degree, on the Board’s previous finding that the Policy will have significant groundwater related impacts on stream flow. In light of the multitude of logical, legal and factual errors that underpin this effort to backtrack, it is clearly a tactical, litigation-driven post-hoc rationalization. (*Laurel Heights Improvement Assn. v. Regents of the Univ. of Calif.* (1988) 47

Letter to Jeanine Townsend
Clerk to the Board
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Cal.3d 376, 394 (*Laurel Heights I*.) The Board's original finding of "significance" deserves much greater weight than the "litigating position" that staff has proposed in the new Supplement to Appendix D. (*Yamaha Corp. of America v. State Bd. of Equalization* (1998) 19 Cal.4th 1, 24 (*Yamaha*).)

Second, the Policy and SED revisions disclose an analysis of only one mitigation measure for this significant impact: adopting, as a regulation, Stetson Engineers' subterranean stream delineations as legally enforceable conclusions regarding the existence and location of hundreds of miles of subterranean streams over which the Board would then have Water Code § 1200 permitting authority. The revisions find this mitigation measure infeasible. This finding is also based on clear errors of law, and is also not supported by substantial evidence.

Moreover, the Policy and SED revisions fail to disclose or discuss any other mitigation measures that either use Stetson's delineations as the evidentiary basis for other methods of regulation or that are not based on Stetson's delineations. This renders the RSED informationally deficient.

Finally, the RSED's court-mandated discussion of County groundwater regulations fails to include critical information regarding Napa County's groundwater ordinance.

1. THE REVISED SED FAILS TO LAWFULLY IDENTIFY THE SIGNIFICANT ENVIRONMENTAL IMPACTS CAUSED BY POLICY INDUCED INCREASES IN GROUNDWATER USE.

CEQA's first core requirement is to identify and disclose to the public the significant environmental effects of government action. (*Laurel Heights I, supra*, 47 Cal.3d at p. 400; Public Resources Code §§ 21002.1; 21061; 21081.) The determination of "significance" then drives the remainder of the CEQA process. For example, if an initial study finds that impacts will not be significant, further environmental review under CEQA is not required. CEQA Guidelines, §15143 [effects dismissed in an Initial Study as clearly insignificant and unlikely to occur need not be discussed further in an EIR].) Conversely, where there is a "reasonable possibility" that a significant effect will occur, preparation of an EIR is required. (*Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 331 [an EIR must be prepared when there is substantial evidence in the record to support a fair argument that the project may have a significant effect on the environment].)

Similarly, where an EIR finds that an impact is not significant, the EIR need not identify or disclose mitigation measures to reduce that impact, and where an EIR finds that an impact is significant, the EIR must identify and disclose mitigation measures to reduce it as much as is feasible. (*Mountain Lion Foundation v. Fish & Game Commission* (1997) 16 Cal.4th 105, 127, citing CEQA, § 21080.5, subd. (d)(3)(A); § 21002 [To effectuate its environmental protection mandate, CEQA requires agencies to identify and analyze "alternatives to [a] proposed project and mitigation measures to minimize significant adverse environmental effects."]; see also, Public Resources Code § 21081.)

a. The 2008 SED clearly disclosed that Policy-induced increases in groundwater use will cause significant impacts.

The 2008 SED clearly disclosed that the Policy's impacts on streamflow and other resources would be significant due to the Policy's effect of increasing the use of groundwater. (See AR 1882-1887.) The 2008 SED found:

(1) Adoption of the Policy threatens over 100 distinct, potentially significant adverse impacts resulting from six types of actions that people are likely to take in response to the Policy. (AR 1917-1978.)¹

(2) These actions are (1) increased groundwater pumping, (2) increased diversions under riparian rights, (3) increased reliance on alternative water sources, (4) modification of existing onstream dams, (5) removal of existing onstream dams, and (6) construction of offstream storage facilities. (AR 3.)

(3) Each of these actions result in numerous distinct significant environmental impacts. (AR 1885-1904.)

(4) Implementation of the Policy may give rise to increased groundwater extraction and use because the proposed Policy's requirements for appropriations of surface water could lead some affected persons to obtain water supplies under other bases of right, including from sources other than surface water bodies. Additionally, diverters may choose to obtain water supply from other sources if the application of the Policy requirements to a particular water right application reveals that there is insufficient surface water to supply the applicant. (AR 1882, 11760.)

(5) Increased groundwater extraction and use in response to the Policy threatens numerous distinct significant environmental impacts in thirteen different resource areas: aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, recreation, transportation and traffic, and utilities and service systems. (AR 1885-1887.)

(6) Of particular importance, increased groundwater extraction can reduce surface water flows when groundwater is hydrologically connected to surface water. Increased pumping of interconnected groundwater could reduce stream flows in the spring and summer, which are critical periods for fish habitat. (AR 2609.)

(7) Reduced surface water flows, particularly summer flows, significantly impact (1) biological resources, by harming riparian vegetation or degrading habitat for sensitive

LRC-1

¹ The administrative record for the Policy lodged in *Living Rivers Council v. State Water Resources Control Board*; Alameda Superior Court Case No. RG-10-543923 is cited as "AR [bates page]."

species; (2) water quality, by adversely altering water temperature and increasing pollutant concentrations due to reduced dilution; and (3) recreational opportunities. (AR 1886-1887.)

(8) Increased groundwater use can lower the groundwater table. (AR 1885.)

(9) In addition to harming anadromous salmonids and their habitat, lowering the water table adversely impacts (1) agricultural resources, by reducing water available to non-irrigated crops that rely on groundwater for soil moisture and resulting in reduced crop yield (*ibid.*); and (2) hydrology, by reducing the production rates of nearby wells (AR 1886).

(10) Reliance on groundwater may significantly impact utilities and service systems through expansion of existing water and energy delivery systems. (*Ibid.*)

b. The RSED Presents Confusing “Conflicting Signals” Regarding Whether Policy-induced Increases in Groundwater Use Will Cause Significant Impacts.

In response to the writ of mandate, the Revised Policy and Revised SED appear to partially retract some of the clear disclosures made in the 2008 SED. As a result, the SED no longer contains a clear disclosure of the significance of environmental impacts attributable to Policy-induced increases in groundwater use. Therefore, the new documents is not informationally sufficient under CEQA.

For example, both the 2008 SED and the Revised SED state that increased groundwater use by water diverters in response to the Policy will result in significant environmental impacts with respect to Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards/Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Noise, Recreation, Transportation/Traffic, and Utilities/Service Systems. (RSED at pp. 56-58, 86-87.) However, in the Revised SED, the description of impacts to Biological Resources, Hydrology/Water Quality, and Recreation is changed to include the word “unlikely” and the phrase “switching to groundwater pumping” (new language is underscored):

(1) Biological Resources: “Although unlikely, under certain circumstances switching to groundwater pumping ~~Extraction of groundwater~~ could result in reduced surface water flows, ~~particularly summer flows~~, which could harm riparian vegetation or degrade habitat for sensitive species, particularly if the reduction in surface water flows occurs during the summer.” (Revised SED at p. 56.)

(2) Hydrology/Water Quality: “Construction activities could result in short-term increases in sedimentation and degradation of water quality. Although unlikely, under certain circumstances switching to groundwater pumping ~~Extraction of groundwater~~ could result in reduced surface water flows, ~~particularly summer flows~~, which could adversely affect water temperature and increase constituent concentrations due to reduced dilution, particularly if the reduction in surface water flows occurs during the summer. The production rates of nearby wells could drop.” (Revised SED at p. 57.)

LRC-2

(3) Recreation: “Although unlikely, under certain circumstances switching to groundwater pumping Extraction of groundwater could result in reduced surface water flows, particularly summer flows, which could adversely affect recreational opportunities, particularly if the reduction in surface water flows occurs during the summer. The production rates of nearby wells could drop.” (RSED at pp. 57-58.)

LRC-2 The revised language regarding the likelihood that these impacts will occur is confusing, particularly in light of the fact that the Revised SED still concludes the impacts are significant. (RSED at pp. 56-58, 86-87.) Additionally, as discussed in detail below, the RSED’s assertion that these impacts could occur only “under certain circumstances [where a diverter] switch[es]” to groundwater pumping further confuses matters because it suggests that increased groundwater use would occur when a surface water user voluntarily replaces existing surface water use with groundwater. Yet, at the same time the RSED retains the 2008 SED’s disclosure that the Policy’s impact of increasing groundwater use results when water users either forego applying for a surface water permit or have such an application denied due to the Policy’s restrictions and then use groundwater to meet their water supply demand.

In effect, the RSED describes the Policy as both increasing groundwater use (because the conclusion that the impacts thereof are significant requires some increase in groundwater use attributable to the Policy) and not increasing groundwater use (due to statements that the impacts thereof are “unlikely” and would only occur in “certain circumstances” that are not clearly articulated in the RSED). This sends a “conflicting signal” to the public and the decisionmakers regarding the nature of the Policy’s impacts. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 439 [“The FEIR does not explain the divergence between its estimates and those in the Water Forum Proposal, or even the FEIR’s own use of divergent new surface water supply figures in different portions of its discussion”]; *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 655–656 [“By giving such conflicting signals to decisionmakers and the public about the nature and scope of the activity being proposed, the Project description was fundamentally inadequate and misleading.”].)

LRC-3 Moreover, ambiguously downplaying the likelihood of occurrence of the significant impacts of Policy induced increases in groundwater use does not alter or reduce the Board’s obligation to mitigate these impacts.² “[A]n agency is forbidden to approve a project unless it finds there are no significant impacts; or imposes mitigation measures for all significant impacts; or finds mitigation measures infeasible or within the jurisdiction of another agency.” (*Woodward Park Homeowners Ass’n, Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683, citing § 21081, subd. (a); Guidelines, § 15091, subd. (a).) “If the EIR finds that there are significant impacts for which no mitigation measures are feasible, it must adopt a statement of overriding considerations before approving the project.” (*Id.*, citing § 21081, subd. (b); Guidelines, § 15093.) In short, “[t]here are two things an agency cannot do: It cannot acknowledge a significant impact, refuse to do or find anything else

² Such impacts include Biological Resources, Hydrology/Water Quality, Recreation, Air Quality, Cultural Resources, Geology/Soils, Hazards/Hazardous Materials, Land Use/Planning, Noise, Transportation/Traffic, and Utilities/Service Systems). (See RSED at pp. 56-58.)

about it, and approve the project anyway. And it cannot acknowledge a significant impact and approve the project after imposing a mitigation measure not shown to be adequate by substantial evidence.”³ (*Id.*) In this case, the RSED acknowledges that groundwater-related impacts to these three resource areas are potentially significant, just as disclosed in the 2008 SED.

c. The RSED’s Reasons for Equivocating on Whether Policy-Induced Increases in Groundwater Use Will Cause Significant Impacts Are Legally Erroneous.

The reasons given in the Revised Policy and the Supplement to Appendix D of the SED for equivocating on whether Policy-induced increases in groundwater use will cause significant impacts are erroneous as a matter of law.

(1) The RSED employs an improper baseline for assessing the impacts of Policy-induced groundwater diversion.

In assessing the Policy’s impacts, the Board must consider “the reasonably foreseeable indirect physical changes in the environment that might be caused by implementing the [Policy].” (*Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, 90-91, citing § 21065 [definition of “project” references a “physical change in the environment”]; *Wal-Mart Stores, Inc. v. City of Turlock* (2006) 138 Cal.App.4th 273, 288.)

“In evaluating these potential physical changes, [it is crucial to] properly identify[] the relevant change, which ‘is identified by comparing existing physical conditions with the physical conditions that are predicted to exist at a later point in time, after the proposed activity has been implemented. [Citation.] The difference between these two sets of physical conditions is the relevant physical change.” (*Id.*, citing *Wal-Mart Stores*, at p. 289.) In *Wal-Mart Stores*, for example, the agency compared (1) a prediction of development that would occur if an ordinance banning discount superstores remained in effect with (2) a prediction of development that would occur without such an ordinance. (*Id.*, citing *Wal-Mart Stores*, at p. 290.) The court rejected this analysis as legally erroneous: because it compared predicted conditions with predicted conditions, rather than comparing existing conditions to predicted conditions, the agency failed to use existing conditions to determine the change resulting from the Project. (*Id.* See also *Sunnyvale West Neighborhood Assn. v. City of Sunnyvale City Council* (2010) 190 Cal.App.4th 1351, 1381, quoting CEQA Guidelines, § 15126.2, subd. (a)[In “assessing the impact of a proposed project on the environment, the lead agency should normally limit its examination to changes in the existing physical conditions in the affected area....”].)

LRC-4

³ The Board’s regulations echo these requirements. (23 Cal. Code Reg. § 3777, subd. (b)(3) [“The Draft SED shall include, at a minimum, ... An analysis of reasonable alternatives to the project and mitigation measures to avoid or reduce any significant or potentially significant adverse environmental impacts”]; § 3779.5, subd. (b) [“if the project as adopted will result in the occurrence of significant effects that are not avoided or substantially lessened, the board shall adopt a statement described in [] Guidelines section 15093 ...”]; 23 Cal. Code Reg. § 3777, subd. (d) [“[a]s to each impact ..., the SED shall contain ... a statement described in section 15093.”].)

For purposes of assessing reductions in stream flow reductions due to Policy-induced increases in groundwater use, the RSED uses a baseline that is purely hypothetical in some cases and demonstrably false in other cases. Specifically, the RSED discusses the impact assessment solely in terms of the possibility that the Policy will induce water users to “switch” from surface water to groundwater. In fact, the new documents use the word “switch” a total of 60 new times.⁴ For example, the Revised SED states:

As indicated in the 2008 SED, a switch from surface water diversions to groundwater pumping also could result in reduced surface flows. The 2008 SED did not explain, however, that the potential reduction in surface flows is unlikely. In fact, a switch to groundwater pumping is likely to result in less depletion of surface water flows because groundwater pumping will not ordinarily deplete hydraulically connected surface water flows on a one-to-one basis, and in some cases the groundwater and surface water may lack hydraulic connection entirely, or the hydraulic connection may be indiscernible.

LRC-4

(Supplement to Appendix D, p. 2.)

The implications of the Board’s use of the term “switch” (i.e., that Policy-induced increases in the use of groundwater will replace existing surface water diversions that would then be abandoned) are not factually true with respect to the unknown number of water users and quantity of water demand that will be met by new groundwater use due to either (1) users avoiding applying for a surface water permit subject to the Policy; or (2) users withdrawing applications for surface water or having them denied as a result of the Policy. In both cases, there is no “switch” from the actual use of surface water to the use of groundwater, because the new groundwater use does not “replace” a use of surface water. Obviously, a water users’ frustrated desire to use surface water cannot establish a valid baseline condition that assumes the would-be or actual applicant is actually using surface water. The Board’s contrary assumption is a error of law.⁵

⁴ The term “switch” was used only once – by a commentor – in the 2008 SED. (Response to Comments Vol. 2 at p. 6, Comment 23.4.39[.])

⁵ There are many more examples of the Board’s reliance on the flawed concept of “switching” in a way that obscures its assumption of a legally erroneous baseline. Several examples follow:

- “Surface water diversions have one-to-one impacts on surface water flows. Switching from surface water diversions to groundwater pumping in response to Policy adoption will result in an equal or lesser volume and rate of depletion in streams hydraulically connected to the pumped groundwater aquifer. The foregoing assumes an impact ratio less than or equal to 1:1. In streams affected by groundwater pumping, the volume and rate of surface water flow depletion resulting from groundwater pumping depends on the location of the well and may be further offset by associated determining factors....” (Supplement to Appendix D, p. 4.)
- “Depending on the circumstances, such a delay could cause a significant reduction in surface water flows, which could in turn have a significant adverse impact on biological resources, water quality, or recreation. As discussed below, however, the possible effects of a user switching from

LRC-5

There are, however, a certain number of limited situations where the Policy might induce an actual “switch” from the existing use of surface water to the use of groundwater. This would be the unknown number of pending surface water applications for projects that are currently illegally using surface water. These are discussed in more detail in section 1.c.(2) below. For now, it is enough to note that even here, the Board cannot use these project’s current illegal use of surface water as the environmental baseline, because if the application is withdrawn or denied, the Board will presumably shut down the existing illegal use of water. (See Evidence Code § 664.) Moreover, it would be against public policy to allow the Board to create a “higher” baseline by condoning illegal diversions of surface water.

LRC-6

Also, the 2008 SED’s analysis of impacts to stream flow caused by Policy induce increases in groundwater use was premised on actual knowledge, as documented by Stetson Engineer’s in its subterranean stream delineation work, that groundwater is often hydraulically connected to surface streams across the five county area. Since, groundwater use cannot impact stream flow at all in the absence of such a connection, it is misleading to discount the 2008 SED’s conclusions by suggesting that it rested on an erroneous assumption that all increased groundwater pumping may affect stream flow.

(2) The Board’s factual assertions are illogical and irrelevant.

LRC-7

In its attempt to paper over the these baseline problems, the Board makes several illogical and irrelevant assertions. For example, the RSED states:

It merits note that the majority of pending and future water right filings that would be affected by the Policy already exist. Currently, project facilities associated with roughly 90 percent* of pending applications in the Policy area are either completely or partially constructed, and water diversions associated with these facilities are likely already occurring. A similar ratio may exist for future applications as well. Approval of existing projects in accordance with the principles and guidelines established by the Policy would serve to lessen any ongoing impacts of those

a surface water diversion to a ground water diversion are dependent on a wide range of variables, and therefore it is highly uncertain whether any particular user who may switch to groundwater will cause a delay in surface water flow depletion, whether any such delay will cause a significant reduction in surface water flows, or whether any delayed reduction in flows will have a significant adverse impact on the environment.” (Supplement to Appendix D, p. 5.)

- “The foregoing discussion and example demonstrate that the level of significance for a potential impact to surface water flows attributable to a delay in surface water flow depletion as a result of diverters switching to groundwater pumping is dependent on site specific circumstances. In light of the fact that the switch to groundwater as an alternative source of supply is likely to be limited to lower capacity wells in the Policy area and the current lack of known diverters switching to groundwater as a result of the 2010 Policy adoption, a significant impact to surface water flows, while possible, is highly unlikely.” (Supplement to Appendix D, p. 6.)

projects on instream flows and fishery resources and will result in an overall benefit to the environment.

*The estimate of existing diversions associated with pending applications in the Policy area (i.e., unauthorized diversions) is based on billing data from the Division of Water Rights' electronic Water Rights Information Management System for the year 2012. The Division charges annual application fees pursuant to California Code of Regulations, title 23, section 1063 under specific circumstances, including cases where the diversion of water has been initiated before a permit is issued. Out of 255 pending applications in the Policy area, 230 were billed an annual fee in 2012 because the diversion of water, the construction of diversion works, or the clearing of land where the diverted water will be used or stored was initiated before permit issuance.

(Supplement to Appendix D, p. 2.)

This "note" is deeply misleading for many reasons. As a general matter, the fact that some portion of pending (or future) applications for surface water rights ask (or will ask) the Board to "legalize" an existing unauthorized diversion is irrelevant. All applications must be reviewed under the Policy's standards and guidelines. If any appropriation, existing or not, would adversely impact stream flow necessary to protect salmonids and their habitat it may not be authorized. (See 2008 SED Section 6.5.2 ["Dam owners may have to modify existing unauthorized dams to comply with the elements of the Policy pertaining to permitting requirements for onstream dams. Existing unauthorized dams may have to be removed. For these reasons, implementation of the proposed Policy could result in some affected persons modifying or removing onstream storage and regulatory dams and their appurtenant reservoirs."] (emphasis added).)

The first sentence quoted above ("It merits note that the majority of pending and future water right filings that would be affected by the Policy already exist") is unsupported speculation and most likely false, as well as legally irrelevant. The Policy has no sunset provision, so the Board has no idea how many applications will be submitted in the future. Nor can the Board ascertain how many and to what extent future applications will include existing diversions. Further, water users who abandon existing illegal surface water to use groundwater instead account for only a portion of Policy-induced increases in groundwater use. Policy-induced increases in groundwater use also occurs when water users never submit an application for surface water and opt to use groundwater instead, and where a permit application is withdrawn or denied under the Policy's standards and guidelines and the water user uses groundwater instead. Thus, the remainder of the passage quoted above is irrelevant.

The remainder of the paragraph is also misleading. The second sentence states that "[c]urrently, project facilities associated with roughly 90 percent* of pending applications in the Policy area are either completely or partially constructed, and water diversions associated with these facilities are likely already occurring." As the footnote thereto explains, however, the identification of these 90 percent of applications is based on billing records indicating one of three conditions, i.e., the diversion of water, the construction of diversion works, or the clearing of land where the diverted

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water will be used or stored was initiated before permit issuance. The Board concluded that 230 out of 255 applications exhibit one of these three conditions. Yet, the percentage of these 230 applications that actually include an ongoing illegal diversion of surface water is unknown and unknowable from the billing records.⁶

This sentence also incorrectly suggests that 90% of the water for which applications are pending is currently being diverted and/or stored. First, although some applicants possess an existing illegal diversion and have applied for a permit to “legalize” that diversion and/or storage, the same applications also seek significant expansions of the amount of water to be diverted. Several examples of these include:

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- Exhibit 2, Application A31549. The applicant has an existing unauthorized (i.e., illegal) 30 acre-foot offstream reservoir currently filled with water collected in a drain tile system, and the application seeks to allow diversion from a stream into the existing reservoir and the construction of a proposed 70 acre-foot off-stream reservoir. This applicant paid a section 1063 fee. (Exhibit 2, footnote 5].)
- Exhibit 3, Application A31745. The applicant has four unauthorized existing reservoirs with a total capacity of 173 acre-feet. This application seeks a permit to divert water from a stream into two of the existing reservoirs, as well as the construction and diversion of water into a new 120 acre-foot reservoir. The applicant paid a section 1063 fee. (Exhibit 3, footnote 5].)
- Exhibit 4, Application A31813. This applicant seeks to enlarge an existing onstream reservoir from 2 acre-feet to 12 acre-feet and to divert water from a nearby stream to the enlarged reservoir. The reservoir was constructed in 1971 and the applicant does not currently divert water from the nearby stream. This applicant paid a section 1063 fee.⁷

⁶ In response to a Living Rivers’ PRA request, the Board produced a billing record spreadsheet containing the information used to determine whether an application (or some portion thereof) sought to “legalize” an existing illegal diversion. (Exhibit 1.) Column E of the spreadsheet indicates (with a simple “Y” or “N”) whether certain actions had been “Initiated bef[ore] permit issued.” (*Id.*) As explained in the Board’s letter, these actions include: (1) the clearing of land for a diversion or use of water, (2) the construction or partial construction of a dam or other diversion structure, or (3) the direct diversion of water. (*Id.* at p. 2.) For each application, the spreadsheet indicates with a “Y” that one of these actions had been initiated (without specifying which) and with an “N” that none of these actions has been initiated. The spreadsheet does not indicate whether any diversion of water is actually occurring.

⁷ It is also worth noting that in a 2004 declaration submitted in protest to a water right application, Stan Griffin of Trout Unlimited explained that of 112 application notices that he protested from 1990-2004, 64 applications sought a permit for an already constructed dam or reservoir (several in fact involve multiple existing on-stream dams on the same waterway). (Exhibit 5, Exhibit 2 thereto, ¶ 32.) “In other words, 57% of these applications request retroactive permission.” (*Id.* (emphasis

(Exhibit 4, footnote 5.)

LRC-10

Second, some applicants have been charged a fee where there is no existing diversion from a stream, but the other conditions of section 1063 are met (i.e., partial construction of the proposed storage/diversion or clearing of land for use of water). For instance, Application No. A31617 seeks a permit to divert 35 acre-feet of water from a stream to an existing off-stream reservoir. (Exhibit 6.) The off-stream reservoir was built in 2002 and currently stores water from groundwater wells. (*Id.*) This applicant also paid a section 1063 fee. (Exhibit 6, footnote 5.)

The third sentence of the above-quoted passage states: “A similar ratio may exist for future applications as well.” This is pure speculation. Speculation is not “substantial evidence.”

LRC-11

Moreover, it makes little sense to use pending applications as a gauge for assessing how diverters will respond to the Policy because most applications were filed years, even decades, before the Policy was approved. Indeed, fewer water right application notices have been filed within the Policy area since the Policy’s adoption than in any single year over the past decade. Only four application notices (seeking a permit within the Policy counties) were filed in 2012, and only three in 2011. In contrast, 16 were filed in 2010 (all prior to the Policy’s adoption on September 28, 2010), 13 in 2009, 11 in 2008, 18 in 2007, 23 in 2006, 8 in 2005, 9 in 2004, 15 in 2003, 23 in 2002, 26 in 2001, and 84 in 2000. The dramatic drop in the number of application notices provides strong evidentiary support for the 2008 SED’s prediction that the Policy would cause water users to forgo applying for a surface water permit and opt to use groundwater instead.

LRC-12

In the fourth sentence of the above-quoted passage, the Board suggests that the Policy will not result in any adverse impacts because approving existing projects pursuant to the Policy will lessen the impacts of existing projects. It states: “[a]pproval of existing projects in accordance with the principles and guidelines established by the Policy would serve to lessen any ongoing impacts of those projects on instream flows and fishery resources and will result in an overall benefit to the environment.” (Supplement to Appendix D, p. 2 (emphasis added).)

This assertion is based on several illogical assumptions. First, it presumes, prior to evaluation of the pending applications under the Policy, that the Board will approve the applicant’s existing illegal diversions. It should go without saying that until the Board makes a decision on these applications, it has no information on whether it will issue a permit or not. Second, this presumption ignores the basis for the 2008 SED’s identification of the Policy’s significant impact on streamflow as a result of Policy induced increases in groundwater use, namely, that some water users will use groundwater rather than apply for surface water or because their surface water application is denied or withdrawn. Therefore, even if some application are approved, these applications are not and were never considered by the 2008 SED to be contributing to this impact.

added).) Mr. Griffin made the “reasonable assumption that for applications for which [he had] not protested a similar pattern or percentage exists.” (*Id.*) Mr. Griffin made this declaration in support of a petition urging the Board to comply with A.B. 2121 and complaining to the Board for condoning illegal diversions.

LRC-12 | As the 2008 SED and RSED explain, “diverters may choose to obtain water supply from other sources if the application of the Policy requirements to a particular water right application reveals that there is insufficient surface water to supply the applicant.” (Supplement to Appendix D at p. 1; AR 1882 (emphasis added).) So the Board’s observation is irrelevant.

LRC-13 | Further, when the Board denies a surface water application on the ground that there is an insufficient amount of water to both protect salmonids and supply the diversion based on the Policy’s standards and guidelines, the Board, in essence, appropriates the remaining surface water to the salmonids that the Policy was enacted to protect. If the applicant “switches” to a diversion of interconnected groundwater, the diversion will reduce the amount of water in the stream, notwithstanding the Policy’s imposition of “restrictions” on surface water projects. The impacts flowing from the groundwater diversion are not “exchanged” or somehow offset by the reservation of stream flow for salmonids. Rather, the new groundwater diversion reduces stream flow, contrary to the Policy’s purpose, even after it has been determined that all remaining water is necessary to prevent harm to imperiled salmonid species.⁸

(3) Increased groundwater use in response to the Policy is likely to adversely impact surface flows.

The Policy restricts surface water diversions to the extent necessary to protect salmonids and their habitat (i.e., when no further diversions can be authorized without causing harm to salmonids). As the RSED states, the “proposed Policy will impose [] restrictions on surface water diversion

⁸ The only instance in which a “switch” from surface water to interconnected groundwater is not likely to result in reduced stream flow occurs where a water user chooses to use groundwater in lieu of exercising a permitted appropriative right. Under Water Code section 1011.5, subdivision (b), the appropriative right is not thereby lost due to abandonment:

When any holder of an appropriative right fails to use all or any part of the water as a result of conjunctive use of surface water and groundwater involving the substitution of an alternate supply for the unused portion of the surface water, any cessation of, or reduction in, the use of the appropriated water shall be deemed equivalent to a reasonable and beneficial use of water to the extent of the cessation of, or reduction in, use, and to the same extent as the appropriated water was put to reasonable and beneficial use by that person. No forfeiture of the appropriative right to the water for which an alternate supply is substituted shall occur upon the lapse of the forfeiture period applicable to water appropriated pursuant to the Water Commission Act or this code or the forfeiture period applicable to water appropriated prior to December 19, 1914.

(Water Code, § 1011.5, subd. (b).) Because the right is not forfeited, the surface water will not become available to another water user for appropriation or claim under another basis of right and, thus, there is some indication that the surface water forgone in the “switch” may remain in the stream to offset impacts of the new groundwater diversion. Of course, however, the Policy is not concerned with existing surface water appropriative rights. Thus, an legal appropriator’s conjunctive use of groundwater is irrelevant to the Policy’s impacts.

projects.” (RSED at pp. 54 (emphasis added).) In these circumstances, increased groundwater use is likely: “diverters may choose to obtain water supply from other sources [including groundwater] if the application of the Policy requirements to a particular water right application reveals that there is insufficient surface water to supply the applicant.” (Supp. to Appendix D at p. 1; AR 1882 (emphasis added).)

LRC-14

Almost a third of the 60 most recently noticed applications identify groundwater as an alternate source of water.⁹ Policy-induced increases in groundwater use adversely impact stream flow because applications will be denied due to the unavailability of surface water under the Policy, groundwater is a probable alternative source of water; and pumping interconnected groundwater depletes stream flow.

LRC-15

Similarly, groundwater diversions initiated in effort to avoid the Policy’s permitting requirements (including circumstances in which the user simply decides not to seek a permit, voluntarily ceases an illegal existing surface water diversion, and/or abandons a pending surface water right application) are likely to reduce stream flow. As the Board staff explained:

If pumping continues uncontrolled, then surface water levels would become depleted, therefore making it extremely difficult to maintain instream flows. [...] For instance, if the policy gets adopted, the people with water right applications may decide they don’t want a water right for surface water, that they instead will pump groundwater. But if they pump groundwater that is connected to surface water, surface water would become depleted anyway. So the importance of regulating these areas is to fundamentally comply with the directives of the AB 2121 legislation. To provide for maintenance of instream flows.

If we chose not to put this into the policy, then we run into the likelihood that stream flows would become depleted because we have only approached the solution part way. We have half a solution, because we choose not to address the possibility of diverters choosing to pump groundwater instead of complying with the policy. In order to get rid of that loophole, [] staff recommends that the policy contain [] subterranean stream delineations, and [] delineations of [] groundwater administrative pumping zones.

(AR 7834-7835 [Staff Notes and Memo re Effect of Groundwater Pumping on Instream Flows and Subterranean Stream Issue Summary].)

⁹ The application numbers and amount of water sought (in acre-feet) are: A031840 (8 AF); A031838 (14 AF); A031836 (8.55 AF); A031813 (12 AF); A031804 (17.3 AF); A031791 (1694 AF); A031655 (72 AF); A031629 (12.95 AF); A031632 (40 AF); A031612 (156 AF); A031620 (35 AF); A031618 (15 AF); A031617 (35 AF); A031567 (10 AF); A031549 (100 AF); A031521 (60 AF); A031501 (10 AF); A031465 (60 AF); A031464 (146 AF). Almost another third of the applicants either did not answer the question regarding alternative water sources or answered “N/A.”

LRC-16

The Board now asserts that stream flow depletion caused by water users “switching” to groundwater pumping is unlikely because “[c]urrently, the Division is aware of only one prospective surface water diverter switching to groundwater pumping either as a result of the 2010 Policy adoption or to avoid water right permitting requirements in general.” (Supplement to Appendix D, at p. 6.) However, in light of the Board’s decision not to require groundwater diverters within the Policy area to supply information about new or increased groundwater diversions, there is no reason that the Board would “be aware” of a prospective surface water diverter switching to groundwater pumping unless either (1) the diverter affirmatively withdrew its application or (2) it was so probable that the groundwater diversion could be from a subterranean stream that the diverter sought the Board’s counsel.¹⁰ Yet, given the absence of any significant consequences for allowing an application to sit before the Board, there is absolutely no incentive for an applicant to take either action. Thus, the Board’s awareness of only one “switching” diverter indicates nothing about the actual number of existing or potential surface water applicants who are now or will be looking to groundwater as a water supply in response to the Policy.

(4) The RSED improperly concludes that groundwater impacts are unlikely on the ground that it is not an adequate alternative source for large water agencies.

The RSED contends that Policy-induced groundwater impacts are unlikely because groundwater would not likely supply all future water needs of large water agencies:

As described in Appendix D, however, groundwater is not likely to be an adequate alternative supply source for future large agency demands in the Policy area. Only small water agencies and self-supplied individuals are likely to rely on groundwater as an alternative future source of supply. Therefore, delayed surface water flow depletion caused by larger diverters switching to groundwater pumping is unlikely in the Policy area.

LRC-17

(Supplement to Appendix D, at p. 6.)

This logic is flawed in two ways. First, the implied conclusion that “large agency” diverters are not “likely to rely on groundwater as an alternative future source of supply” is based on the proposition that “groundwater is not likely to be an adequate alternative supply source for future large agency demands.” The key is the word “adequate.” By “adequate,” the document means that such agencies cannot meet all of their water demand from groundwater. Assuming this is true, it does not follow that they will not use groundwater to meet as much of their demand as they can, i.e., they are likely to use as much groundwater as it is feasible to obtain.

Second, the final sentence sounds like a conclusion for the entire issue of whether Policy-induced groundwater diversions are likely to impact stream flow. It is not. The “conclusion” says

¹⁰ In this case, it appears to be the latter, as the groundwater well was located approximately 20 feet from the surface water source. (Supplement to Appendix D, at p. 6.)

LRC-17

nothing about whether the “small water agencies and self-supplied individuals” who “are likely to rely on groundwater as an alternative future source of supply” are likely to cause “delayed surface water flow depletion.” (Supplement to Appendix D, at p. 6.) It also says nothing about whether the large or small water users are likely to cause “immediate” rather than “delayed” surface water flow depletion. (See *id.*)

LRC-RC

(5) The hydrological and geological bases for the RSED’s reasons for equivocating are not supported.

On this point, see Dr. Curry’s report at Exhibit 17.

2. THE RSED FAILS TO LAWFULLY IDENTIFY AND DISCUSS POTENTIALLY FEASIBLE MITIGATION MEASURES TO REDUCE SIGNIFICANT ENVIRONMENTAL IMPACTS CAUSED BY POLICY-INDUCED INCREASES IN GROUNDWATER USE.

CEQA’s second core requirement is to identify and discuss potentially feasible mitigation measures to reduce the significant environmental impacts caused by government action. (*Laurel Heights I, supra*, 47 Cal.3d 376, 400; Public Resources Code §§ 21002.1; 21061; 21081.)

As noted above, the Policy and SED revisions analyze only one mitigation measure for this significant impact, namely, adopting, as new a regulation, Stetson Engineers’ subterranean stream delineations as definitive, legally enforceable conclusions regarding the existence and location of hundreds of miles of subterranean streams over which the Board would then have permitting authority under Water Code section 1200 in the five counties covered by the Policy. The revisions find this mitigation measure to be infeasible.

As discussed below, this finding of infeasibility is based on clear errors of law and is not supported by substantial evidence. In sections 2.b(1)-(4), this letter describes several additional mitigation measures that the Board could and should analyze, or adopt, in order to comply with its legal obligations under CEQA.

a. The Board’s conclusion that “adopting subterranean stream delineations” as a mitigation measure is not feasible is erroneous as matter of law.

LRC-18

The revisions to the Policy purport to analyze the feasibility of “adopting subterranean stream delineations” as a mitigation measure. (See RSED at pp. 93-101.) As a threshold matter, the Board does not define what such a mitigation measure would consist of. Absent a clear description of the proposed regulation that would “adopt[] the delineation amps”(Policy Revisions, p.93), it is impossible to evaluate its feasibility or understand the Board’s reasons for determining that such adoption is not feasible.

Nevertheless, the Board advances six reasons in support of its determination that “adopting subterranean stream delineations” (RSED at p.93) is infeasible as a mitigation measure. All are deeply flawed.

(1) The first reason stated is:

Preliminarily, the likelihood of affected persons switching to groundwater pumping is uncertain. Groundwater occurrence in the Policy area is limited by hydrogeologic factors, including seawater intrusion, thin alluvial deposits, aquifer materials of low permeability, and degraded water quality. Overdraft, resulting from excessive pumping associated with development, could possibly occur in the future, reducing available supplies in late summer and dry years. In some site-specific cases, groundwater may be an adequate alternative supply source for low capacity wells, such as those typically associated with small water agencies or self-supplied individuals for domestic, industrial, or agricultural use. Groundwater is not a likely adequate alternative supply source for large agencies because of the above-described limiting hydrogeologic factors.

(RSED, p. 94, ¶ 1.)

This discussion has nothing to do with whether “adopting subterranean stream delineations” is a feasible mitigation measure. Instead, it represents another attempt by the Board to downplay the significance of the impact.

But the 2008 SED (at AR 2020) summarizes the instances in which available groundwater is not likely to meet the (highest possible) increased demand for groundwater water created by the Policy’s restrictions. The RSED wrests this discussion out of context to present it as evidence of “uncertainty” regarding the circumstances under which existing or prospective appropriators are likely to pump groundwater.

This is unavailing in light of the fact that both the 2008 SED and the RSED conclude that the impacts of increased groundwater use are potentially significant, notwithstanding these limited barriers to groundwater use in some locations, for some water users. Indeed, where groundwater is available, both documents indicate that demand will outstrip supply: in Napa, Sonoma, Mendocino, and Marin, groundwater is “not likely adequate to meet lower demand due to limiting hydrogeologic factors. [It] may be adequate for small agencies and self-supplied individuals provided suitable site-specific hydrogeologic conditions.” (AR 2019–20; RSED [does not revise these pages].) This demonstrates that groundwater diversions are likely to increase to the greatest extent possible – not that increased groundwater use is unlikely.¹¹

Further, any evidence that Policy-induced increases in groundwater use is “unlikely” is irrelevant, as a matter of law, to the Board’s obligation to mitigate potentially significant impacts resulting from Policy-induced groundwater use. The likelihood that an impact would occur is a factor considered in (1) the threshold determination of whether an indirect impact is “reasonably foreseeable” and thus must be analyzed in an EIR/SED (see CEQA Guidelines, § 15064, subd. (d))

¹¹ Further, as noted above, almost a third of the 60 most recently-noticed applications in the Policy area identify groundwater as an alternate source of water.

and (2) the discussion of cumulative impacts (see CEQA Guidelines, § 15030, subd. (b) [cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence].) However, once an agency determines that a reasonably foreseeable impact is potentially significant, it cannot discharge its obligations to mitigate the impact by drawing attention to instances in which the impact is not likely to occur.

LRC-20

In short, the mitigation obligation attaches when an agency acknowledges a potentially significant impact. Although the RSED includes a confusing discussion of the circumstances in which an existing and/or prospective appropriators would be less likely to voluntarily choose to use groundwater in lieu of seeking a permit under the Policy, the RSED does not alter the 2008 SED's ultimate conclusion that the impacts of increased groundwater pumping in response to the Policy are "potentially significant." (See RSED at pp. 55-58, 86-87.) As a result, the Board has an obligation to analyze and disclose potentially feasible ways to mitigate the impacts. This is not accomplished by the Board's attempt to undermine confidence in its own significance findings.

(2) The second reason stated is:

The potential shift from surface water diversions to groundwater pumping that could be caused by the proposed Policy is unlikely to cause a significant reduction in surface water flows. To the contrary, the potential switch from surface water diversions to groundwater pumping is likely to reduce the impacts of surface water diversions on surface water flows because in many cases groundwater pumping will not deplete surface water flows on a one-to-one basis, and in some cases the groundwater and surface water may not be hydraulically connected at all.

(RSED, p. 94, ¶ 2.)

LRC-21

This discussion also has nothing to do with whether "adopting subterranean stream delineations" is a feasible mitigation measure. It also represents an attempt by the Board to downplay the significance of the impact, by using, as discussed above in section 1.c(1) above, a false baseline semantically disguised by the word "switch."

(3) The third reason stated is:

Adopting the subterranean stream delineations would not assist the State Water Board in regulating any increase in groundwater pumping outside the areas identified as subterranean streams in the delineation maps, which represent just a small portion of the watersheds in the Policy area. Significant portions of Policy area watersheds are not within the identified subterranean stream areas, yet in many cases these areas contain known existing or planned points of diversion. In addition, prospective groundwater pumpers could be expected to divert outside any delineated subterranean streams whenever possible in order to avoid the State Water Board's permitting authority, further undermining the effectiveness of the subterranean stream delineations as an enforcement tool. The delineation map prepared for the Hopland USGS 7.5 minute quadrangle is a good example of the limited utility of

adopting the subterranean stream delineations. On this map, the subterranean stream delineated area covers approximately 10% of the watershed area, approximately 14% is designated as a potential stream depletion area, and the remaining 76% is not designated. The majority of the known existing and planned points of diversion are outside the subterranean stream delineated area. The approximate distribution of the known diversion points are provided in table 7-2 below.

(RSED, p. 94, ¶ 3.)

LRC-22 [This discussion also has nothing to do with whether “adopting subterranean stream delineations” is a feasible mitigation measure. Instead, it relates to the “effectiveness” of using the mitigation measure; i.e., whether it substantially reduce the impact.

LRC-23 [This reason includes many false statements of fact and flawed inferences. First, it is a tautology that the delineation of subterranean streams will not be useful where subterranean streams do not exist. The important question is whether they will facilitate water rights administration and implementation of the Policy where subterranean streams *do* exist. They will. At a minimum, if they are properly proposed and adopted, then the delineations and maps would be quasi-legislative in nature and therefore subject to some deference as the Board enforced the Policy through permits and enforcement actions. (See Exhibit 13 [*Living Rivers Council v. State Water Board*, Final Statement of Decision at p. 6, citing AR 7834-7835 and *North Gualala Water Co. v. State Water Resources Control Bd.* (2006) 139 Cal.App.4th 1577, 1607.] The Board’s sleight of hand: focusing attention on impacts that the delineations could not mitigate and ignoring those impacts that it could mitigate is misleading to the public and decision makers regarding the value and potential applications of the delineations.

LRC-24 [This observation also applies to the Board’s statement that the effectiveness of the delineations of an enforcement tool would be undermined by groundwater users who would pump groundwater water outside of delineated subterranean stream areas. As an initial matter, to the extent that the mere existence of the delineations compels users to pump groundwater from areas less likely to adversely impact stream flow, the delineations would be a resounding success because they would achieve their purpose without any further action by the Board at all. Further, the fact that groundwater users would tend to select points of extraction outside the areas delineated as subterranean streams does not mean that the delineations would not be an effective enforcement tool where a well is within a delineated subterranean stream or other area that could adversely impact stream flows.

Stated differently, the value of the delineations is not coextensive with the amount of land delineated as a subterranean stream or potential stream depletion area in any particular map. It is just as valuable for purposes of siting new wells (in that it provides guidance as to where a new well would have the fewest impacts) as it is to stopping poorly-sited groundwater wells (i.e., those that would adversely impact surface flows due to their location within a subterranean stream or PSDA). In this regard, the Hopland USGS 7.5 minute quadrangle is an excellent example of the broad utility of adopting the subterranean stream delineations. Indeed, it depicts the 24% of the watershed in which impacts are likely to be greatest and regulation is more likely. (See AR 11842.)

(4) The fourth reason stated is:

Stetson Engineers Inc. prepared the delineation maps based on available geologic information at the time of delineation. Field inspections were not conducted as part of development of the delineation maps and Stetson Engineers Inc. stated that further refinement of the delineation maps could be made in the future. Accordingly, each of the delineation maps includes the following disclosure statement:

Because the delineated areas on this map were based on information readily available at the time of its development, this map does not claim to represent all of the subterranean streams or potential stream depletion areas that exist in the area. Site specific investigations will be needed to verify the existence of subterranean streams or potential stream depletion areas.

In light of this disclosure statement and due to the large scale of the delineation maps (1:24,000 is not small enough to show all roads that may be present in the undeveloped portions of the watersheds), it would be necessary for the State Water Board to undertake additional review in order to determine the likelihood and potential extent of future diversion of subterranean flow in these remote areas. The refined delineation maps would be used to distinguish between water in subterranean streams subject to the State Water Board's permitting authority and percolating groundwater subject only to the State Water Board's discretionary enforcement authority under the public trust doctrine and the doctrine of waste. The additional review and associated adoption process for the subterranean stream delineations would entail a lengthy and contentious proceeding. The estimated time and cost associated with the adoption process is described in the following section.

If the subterranean stream delineations were adopted as part of the Policy, they would have regulatory effect. (See Gov. Code, § 11353, subds. (a), (b)(2)(A).) As a result, existing users within the delineated areas who do not have a valid water right, and who might have assumed that they were pumping percolating groundwater for which a permit is not required, would have to either cease pumping or obtain a water right permit from the State Water Board in accordance with the Policy. Similarly, prospective users within the subterranean stream delineations would have to obtain water right permits from the State Water Board. Many of these existing and prospective water users would likely oppose adoption of the delineations, and would seek to present site-specific technical information concerning the validity of the delineations.

(Supplement to Appendix D, p. 95, ¶ 4.)

LRC-25
↓

The Board cites Stetson's acknowledgment that the Delineations they are based on available information and that site-specific studies may be necessary to include additional areas not currently mapped as subterranean stream. The Board wrong implies that this disclaimer undermines Stetson's results. As Dr. Curry explains, and as is apparent from Stetson's own words, Stetson's disclaimer

reflects its conservative methodology, in which it interpreted ambiguous or sparse data sources so that its mapping of subterranean streams errs toward under inclusion. An example of this approach is:

Delineating the mapped active stream deposits from this source was especially difficult because all of the non Tertiary alluvium could technically be included in this designation, and the inclusion would resolve many discrepancies with the small scale sources at the edges, but using the same criteria on the other 1:24k maps from this set would have lead to more ambiguous decisions on other quads. Considering the large scale of this source and the need for consistency, the decision was made to include only the geologic unit mapped as active stream (ac) from these sources in the delineation of Mapped Active Stream Deposits”, rather than try to define “associated alluvial deposits” for these sources.

(AR 11651.)

To avoid having this conservative approach exclude areas from the Board’s jurisdiction if the Board does adopt the delineation maps, Stetson included the disclaimer to allow the Board to later add areas to the mapped subterranean streams based on more site-specific investigations, stating:

“The subterranean stream and PSDA delineations prepared in conjunction with this project will be based on the available geologic information at the time of delineation. Further refinement of the delineations could be made in the future if new information becomes available. Field inspection will not be conducted as part of the delineations. Therefore, the following statement will be included on all maps resulting from this project to insure that no alluvial deposits associated with a “natural channel” are excluded from the jurisdiction of the State Water Board.

Because the delineated areas on this map were based on information readily available at the time of its development, this map does not claim to represent all of the subterranean streams or potential stream depletion areas that exist in the area. Site specific investigations will be needed to verify the existence of subterranean streams or potential stream depletion areas.”

(AR 11763.)

Instead of accepting this disclaimer as further evidence of the reliability of Stetson’s delineation maps, the Board turns the disclaimer on its head and construes it as evidence of the unreliability of Stetson’s results. In fact, however, Stetson’s methods were reliable and its results are scientifically valid. (See Exhibit 17.)

With respect to site-specific projects, if the Delineations motivate groundwater users to present the Board with evidence indicating whether a particular well draws diversion from a subterranean stream, a PSDA, or from “unconnected” groundwater, the Delineations will (1) tremendously reduce the Board’s regulatory burden of discovering and investigating diversions on

LRC-25

LRC-25 | its own and (2) thereby greatly increase the likelihood that a subterranean stream diverter will seek a permit under the Policy and that the Board will engage in an enforcement action to stop diversions from PSDAs that harm salmonids. This demonstrates the effectiveness of the Delineations, not the infeasibility of their use.

LRC-26 | The Board apparently concedes that this process can be undertaken, because it provides estimates of the amount of time the process might take and its financial costs (i.e., 3.6 to 12.8 years and \$1.3 million to \$5 million.) But the Board presents no evidence that these estimates render the process infeasible. The Board apparently expects the time and cost numbers presented to speak for themselves in this regard. They do not.

LRC-27 | Presumably, the Board believes these numbers make it infeasible to adopt the delineations as a final, conclusive statement of the location of subterranean streams as a mitigation measure to be included as part of the Policy *immediately*. That is an unrealistic test for feasibility.

Moreover, the Board never considers adopting as a mitigation measure a commitment to engage in the process it describes with the goal of adopting subterranean stream delineations over time as resources permit. When viewed in this more programmatic light, the Board presents no evidence that the time or costs of adopting the delineations, as refined by more site-specific investigation where warranted, render this approach infeasible.

After all, regulating water supply and water quality to protect fish is this Board's legal mandate. The Board is essentially arguing that it is infeasible to do its job!

Indeed, the new documents present no evidence regarding the time or cost of adopting the delineations as compared to the time invested and cost of enforcement of the Board's other regulatory efforts, including the development of this Policy for the last nine years since the Legislature adopted AB 2121. Without this information, there is no context for determining whether the estimated time and cost of adopting the Delineations is too high to be feasible.

LRC-28 | [Economic feasibility] must be evaluated within the context of the proposed project. "The fact that an alternative [or mitigation measure] may be more expensive or less profitable is not sufficient to show that the alternative is financially infeasible. What is required is evidence that the *additional* costs or lost profitability are sufficiently severe as to render it impractical to proceed with the project." (*Citizens of Goleta Valley v. Board of Supervisors, supra*, 197 Cal.App.3d at p. 1181, italics added.) While an EIR need not analyze "every imaginable alternative or mitigation measure," "it should evince good faith and a reasoned analysis." (*Los Angeles Unified School Dist. v. City of Los Angeles, supra*, 58 Cal.App.4th at p. 1029; *San Francisco Ecology Center v. City and County of San Francisco* (1975) 48 Cal.App.3d 584, 596; CEQA Guidelines, § 15088, subd. (c).)

(*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 599.)

Furthermore, if full mitigation is too costly within the Board's current budget, the Board

LRC-28 | must request funding from the Legislature. (See *City of Marina v. Board of Trustees of California State University* (2006) 39 Cal.4th 341, 367 [“for the Trustees to disclaim responsibility for making such payments before they have complied with their statutory obligation to ask the Legislature for the necessary funds is premature, at the very least.”].)

(5) The fifth and sixth reasons stated are:

The State Water Board can consider the delineation maps and supporting information on a case-by-case basis to assist in determining whether a particular groundwater well is subject to the State Water Board’s permitting authority even if the delineation maps are not adopted.

(Supplement to Appendix D, p. 96, ¶ 5.)

As discussed above, the State Water Board has the legal authority to regulate any unacceptable impacts associated with the potential increase in groundwater pumping pursuant to the State Water Board’s authority to prohibit the unreasonable use of water.

(Supplement to Appendix D, p. 96, ¶ 6.)

These reasons also have nothing to do with whether “adopting subterranean stream delineations” is a feasible mitigation measure. Instead, they relate to different mitigation measures that the Board could adopt, but has not.

The Board’s ad hoc enforcement authority, whether based on the ad hoc use of the delineations or otherwise, does not meet the CEQA requirements that an agency must “commit” to mitigation, that mitigation measures must be legally enforceable, and where a plan or policy is the subject of environmental review, incorporated into the plan or policy at issue.

LRC-29 | At any rate, the fact that the Board can use the delineations on a case-by-case basis does not provide any indication that it would be infeasible to adopt the delineations into the Policy as legally enforceable provisions (to the extent that it is reasonable to make them enforceable, based on the level of existing detail and confidence in their accuracy).

Similarly, the fact that the Board possesses the authority to regulate groundwater diversions with adverse impacts on streams does not indicate that the delineations are not feasible mitigation measures. Far to the contrary, the fact that the Board possesses the legal authority necessary to adopt and implement the delineations indicates that the delineations are legally feasible mitigation measures.

Indeed, the delineations could be a highly effective tool that the Board could employ in efforts to prevent unreasonable uses of water. For instance, if the delineations are properly adopted and accorded legal effect, the Board could use the delineations to shift the burden of proving the source of groundwater to the user (i.e. to prove that the diversion is *not* from a subterranean stream

or stream depletion zone), rather than bearing the burden, in each enforcement action, of proving that a diversion *is* within a subterranean stream or stream depletion zone.

b. The Board’s RSED Fails to Identify and Discuss Other Mitigation Measures to Reduce this Significant Impact.

The mitigation measure the Board evaluated and that is discussed in section 2.a above is somewhat of a straw man because it represents the most costly, most time-consuming and most difficult to defend way of using Stetson’s subterranean stream and PSDA delineations. There are other less time-consuming or costly ways to use these delineations as evidence supporting other methods of regulation to reduce the Policy’s significant environmental impacts.

The following are a few examples of other mitigation measures that a good faith disclosure effort would include in the RSED. In discussing these measures for their feasibility, the Board should bear in mind the deference that California courts give to agency decision-making in the adoption of quasi-legislative rules.

In the case of quasi-legislative regulations, the court has essentially two tasks. The first duty is “to determine whether the [agency] exercised [its] quasi-legislative authority within the bounds of the statutory mandate.” [citation] ...“While the construction of a statute by officials charged with its administration, including their interpretation of the authority invested in them to implement and carry out its provisions, is entitled to *great weight*, nevertheless 'Whatever the force of administrative construction ... *final responsibility for the interpretation of the law rests with the courts.*' * * *

The court's second task arises once it has completed the first. “If we conclude that the [agency] was empowered to adopt the regulations, we must also determine whether the regulations are 'reasonably necessary to effectuate the purpose of the statute.' [(§ 11342.2).] In making such a determination, the court will not 'superimpose its own policy judgment upon the agency in the absence of an arbitrary and capricious decision.' [Citations.]”

Yamaha Corp. of America v. State Bd. of Equalization (1998) 19 Cal.4th 1, 16-17]

(1) Pumping from Subterranean streams: Adopting the Subterranean streams delineations for the limited purpose of triggering site-specific review of groundwater use within the delineated areas.

The Board could propose a rule establishing a rebuttable presumption that groundwater extraction in areas mapped and delineated as subterranean stream is, in fact, from a subterranean stream and therefore requires an appropriation permit under Water Code § 1200.

(2) Pumping from percolating groundwater: Adopting the PSDA delineations for the limited purpose of triggering site-specific review of groundwater use within the delineated areas.

The Board's takes an unduly narrow view of its authority to regulate groundwater use. The Board says it can exercise permitting authority under Water Code § 1200 solely over water in subterranean streams, and that it can regulate the use of percolating groundwater only under its authority to prevent waste and unreasonable use of water under California Constitution, article X, section 2 and Water Code § 100. The prohibition on waste and unreasonable use of water in California Constitution, article X, section 2 and Water Code § 100 applies to all water users, regardless of basis of water right, and all water rights and methods of diversion. (*Peabody v. Vallejo* (1935) 2 Cal.2d 351, 367, 372.) Water Code section 275 directs the Board to take all appropriate proceedings or actions to prevent waste or violations of the reasonable use standard. Section 275 grants the Board authority to regulate water uses in addition to, or beyond, its permitting authority under Water Code section 1200. (*Imperial Irrigation Dist. v. State Water Resources Control Bd.* (1990) 225 Cal.App.3d 548, 559-60 [regulatory jurisdiction extends to pre-1914 rights, which are not subject to § 1200]; Second RJN, Exh 1 [Sax, SWQCB Final Report No. 0-076-300-0] pp. 84-85.)

The Board's authority over percolating groundwater is not limited to filing discretionary enforcement lawsuits based on the doctrine of waste. The Board may regulate percolating groundwater as part of a state water quality control policy. Under AB 2121 and Water Code section 1259.4, the Policy is not just a water rights policy; it is also a water quality control policy pursuant to chapter 3, article 3 (commencing with section 13140) of the Porter-Cologne Water Quality Control Act (Wat. Code, 13000 *et seq.*). The Porter-Cologne Act provides the Board with authority to regulate any activity that may affect water quality. (See AR 13853.) Water Code section 13142(a) provides that state water quality policy may include "principles and guidelines for long-range resource planning, including ground water and surface water management programs" (*Id.*, quoting Wat. Code, 13142, subd. (a).) The Act "defines 'water quality control' broadly as 'the regulation of any activity or factor which may affect the quality of the waters of the state'" (See AR 13853, quoting Wat. Code, 13050(I); see also *U.S. v. State Water Resources Control Bd.* (1986) 182 Cal.App.3d 82, 227 [nothing in the federal Clean Water Act or California's Porter-Cologne Act "allows the Board to limit the scope of its basin planning function to such water quality standards as are enforceable under the Board's water rights authority"].) This statute grants "wide authority to the Board in its planning role to identify activities of the projects and other water users requiring correction." (*U.S. v. State Water Bd.*, *supra*, 182 Cal.App.3d at p.124 (emphasis added).) "[W]ater quantity is a component of water quality because the quantity of water in a stream is a property or characteristic of the water that affects its use." (See *id.*) Under Water Code § 13142(a), the Policy may include "principles and guidelines" for managing percolating groundwater extractions to maintain instream flows necessary to protect salmonids.

The Board also has an affirmative duty to take the public trust into account in the planning of water resources. Therefore, the Board's jurisdiction to protect trust resources is not limited to individual enforcement actions. The public trust doctrine protects navigation, fishing, recreation, environmental values, and fish and wildlife habitat. (*National Audubon Soc'y v. Superior Court* (1983) 33 Cal.3d 419, 434-435].)

Finally, “[w]here another law grants an agency discretionary powers, CEQA supplements those discretionary powers by authorizing the agency to use the discretionary powers to mitigate or avoid significant effects on the environment when it is feasible to do so with respect to projects subject to the powers of the agency.” (Guidelines, § 15140, subd. (c).) Thus, the Board may and must use its authority to prevent waste and unreasonable uses of water, and to protect the public trust, to mitigate the impacts of its projects.

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Under these authorities, the Policy could include the use of Stetson’s PSDA delineations to establish a reporting requirement for all groundwater users in the PSDA to provide information to the Board that it could use to investigate whether groundwater pumping in the area is depleting stream flows, including (1) identify any well(s) on the parcel to be served by the diversion; (2) specify any intended season and rate of pumping from the well(s); (3) provide well test data sufficient to calculate whether the stream under review is within the likely “radius of influence” of the well(s) and whether the intended groundwater extraction has the potential to harm salmonids by reducing flows in the stream.¹²

(3) Pumping by applicants for appropriation permits from subterranean stream and percolating groundwater: Adopting the subterranean stream and PSDA delineations for the purpose of triggering site-specific review of groundwater use on parcels where newly appropriated water will be used.

The Board could revise the Policy to include the following provisions:

● Require that any appropriation permit applicant (1) identify any well(s) on the parcel to be served by the diversion; (2) specify any intended season and rate of pumping from the well(s); (3) provide well test data sufficient to calculate whether the stream under review is within the likely “radius of influence” of the well(s) and whether the intended groundwater extraction has the potential to harm salmonids by reducing flows in the stream.

● For any well that has the potential to harm salmonids by reducing flows in the stream, the Board must prepare an “initial study” under CEQA to be followed by either a negative declaration, a mitigated negative declaration or an EIR. If the Board finds that use of the well will cause or contribute to significant adverse impacts on salmonids by reducing flows in the stream, the Board must impose a condition of approval that prohibits any extraction of groundwater that will cause or

¹² The Board’s regulation of groundwater in the Russian River (at 23 Cal. Code Regs. § 862) is an example of this type of regulation. The recent decision by the Mendocino County Superior Court invalidating these rules (attached as Exhibit 14), while not necessarily correct and while clearly not binding on this Policy, provides useful guidance to the Board in crafting quasi-legislative rules like those suggested here that do not run afoul of the requirement of Code of Civil Procedure § 1094.5 that adjudication of specific existing water rights must be supported by proper findings and substantial evidence supporting the findings or the requirement of Government Code 11350 to demonstrate the necessity for the regulation.

contribute to significant adverse impacts on salmonids by reducing flows in the stream, consistent with all legal requirements for the imposition of mitigation measures, including the “nexus,” “rough proportionality” and other requirements of CEQA Guideline 15126.4.

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This measure would impose this reporting requirement on permit applicants only for the limited purpose and only to the limited extent necessary to determine whether the applicant’s use of groundwater will affect the water that is “available” for appropriation by the applicant by reference to the effect of such groundwater use on stream flow. A basic principle of virtually all environmental law is that environmental resources like clean water, water supply and fish and wildlife are part of the public “commons” and that anyone who uses or degrades the resource for private gain must apply for permit to do so. The permit process allows public servants employed by government agencies to require that permit applicants provide sufficient information to demonstrate that their activity will either not harm the environment or that any harm is “acceptable” in light of the project’s public benefits. This measure allows for the reasonable exercise of discretion by the Board and Board staff as to what measures are necessary and appropriate to make the assessment.

(4) Ask legislature for the authority needed to protect salmonids.

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To the extent the Board believes that its existing authority to regulate groundwater use is insufficient to do anything to reduce this significant impact, it can ask the Legislature to grant it the authority to do so. “The lack of legal powers of an agency to use in imposing an alternative or mitigation measure may be as great a limitation as any economic, environmental, social, or technological factor.” (*Id.* [discussion foll.].) Although an agency need not analyze *infeasible* mitigation measures, it must nonetheless explain the reasons underlying a determination that a particular measure is not feasible. (Guidelines, § 15126.4, subd. (a)(5).) Thus, in *City of Marina, supra*, the Supreme Court held that an agency’s incorrect determination under CEQA that it was legally infeasible to mitigate a significant impact because it did not have the legal authority to do so was an abuse of discretion. (39 Cal.4th 341, 355-56, 360-361.). The Supreme Court also held in that case that the agency abused its discretion in determining that mitigation was infeasible due to lack of funds where it could have but did not ask the Legislature for funds to mitigate the project’s impacts.

Indeed, California is virtually the only western states that does not regulate groundwater use. See Sax, Joseph L., Review of the Laws Establishing the SWRCB’s Permitting Authority over Appropriations of Groundwater Classified as Subterranean Streams and the SWRCB’s Implementation of Those Laws. SWRCB No. 0-076-300-0, Final Report (attached hereto as Exhibit 15). There are a number of regulatory approaches that the Board could ask the legislature to adopt. Oregon’s approach, perhaps as modified in ways discussed by Professor Sax, is particularly suitable for Northern California and for use of Steson’s delineations. (See Exhibit 15, pp. 77-78.)

3. Napa County’s “fair use” thresholds are not appropriate criteria of significance for groundwater impacts.

The RSED’s discussion of the Napa County groundwater ordinance leaves out a crucial part of the analysis.

Napa County's "fair use" thresholds are set forth in the County Planning Department's *Water Availability Analysis: Policy Report* dated August 2003 (Exhibit 7 to IS/MND Comment Letter). This document describes the procedure for obtaining a groundwater permit and establishes "thresholds" for use of groundwater in each basin. If a new water use is below this threshold, the County assumes that the use will not have a significant adverse effect on the aquifer.

For example in the area west of the City of Napa, the "threshold" is deemed to be 1 acre-foot per acre per year for each acre of land overlying the aquifer and 0.5 acre-feet per acre per year for each acre of land overlying the gradient up-slope of the aquifer (i.e., hillside area). In the County's view, as long as these groundwater sue does not exceed these "fair share" thresholds, the project will not have a significant adverse impact on groundwater resources.

These thresholds are not appropriate criteria for determining whether the project's impacts on groundwater are significant for several reasons.

First, the thresholds are not based on any actual data relating to the availability or use of groundwater in the area. The County's 2003 Policy report explains that the "threshold" number for the Valley Floor Area was "determined in 1991 in the form of a staff report to the Board of Supervisors" and "was established as the expected demand an average vineyard would have." (Exhibit 7.)

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The 1991 staff report to the Board of Supervisors notes that no "extensive groundwater studies" have been conducted in many areas of the County. (Exhibit 11, p. 2.) The 1991 staff report summarizes the findings in the January 1991 Water Resources Study for the Napa County Region (Napa County Flood Control and Water Conservation District) (Exhibit 12).

Second, the County's threshold does not take into account the fact that many previous owners may be using more than their "threshold" amount of water. As a result, later owners may not be able to use their "threshold" amount, or as in this case, any amount of groundwater, without causing or exacerbating existing significant effects. The IS/MND presents no information on the use of groundwater by other property owners in the area.

Third, existing groundwater supplies in the Napa Valley area are already being depleted, yet the County's thresholds assume, without any empirical foundation, that groundwater extraction and recharge are in balance. The April 7, 1999, Memorandum from Napa County Planning Department to the Planning Commission regarding a General Plan Amendment relating to groundwater use and the proposed Napa County groundwater ordinance states:

The 1991 study also develops short and long-term projections of water needs among users and regions in Napa County using these figures to balance water needs and supplies for the period 1990 through 2020. The results of this balance reveal substantial long-term inadequacies in supply throughout the county's subareas, although admittedly at present some areas have a short-term surplus. From this study it is reasonable to conclude that as the county's water needs increase in the future, increases in agricultural and rural uses are likely to eliminate any existing

groundwater surplus. This change from surplus to deficit is likely to be far more pronounced and occur sooner rather than later if increased municipal and industrial demands are also satisfied by using groundwater.... The 1993 Report confirmed the 1991 Study's results and projected a growing deficiency in the overall county water supply. The Report identified shortfalls of 10,900 acre feet by the year 2000 which would increase to 18,600 acre feet by 2020 and 23,000 acre feet by 2030.

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(Exhibit 9, p. 2.) Similarly, the January 19, 1993, Memorandum from the Napa County Water Advisory Committee to the Napa County Board of Supervisors re: Report of the Water Advisory Committee, referenced in the 1999 staff report above and attached to the IS/MND Comment Letter as Exhibit 10, notes that "Increased utilization of groundwater as a source of supply can have severe detrimental effects on the rural residential community."

In sum, the "thresholds" are not based on any empirical analysis of actual groundwater supply or availability, and cannot be substituted for the reasoned, fact-based analysis required by CEQA. While the County claims that the "fair share" test of groundwater use protects the environment, the County has never subjected it to a CEQA analysis.

Thank you for your attention to this matter.

Very Truly Yours,



Thomas N. Lippe

List of Exhibits

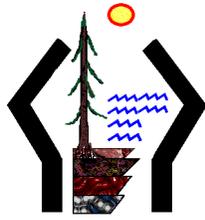
1. March 28, 2013 letter from State Water Resources Control Board, Division of Water Rights in response to Living Rivers Council's March 22, 2013 Public Records Act and attachment thereto.
2. Application to Appropriate Water No. 31549.
3. Application to Appropriate Water No. 31745.
4. Application to Appropriate Water No. 31813.
5. Trout Unlimited and the Peregrine Chapter of the National Audubon Society's Petition to the State Water Resources Control Board for Timely and Effective Regulation Of New Water Diversions in Central Coast Streams (October 27, 2004) and Exhibits 1-17 thereto.
6. Application to Appropriate Water No. 31617.
7. Water Availability Analysis: Policy Report: Napa County Department of Public Works,

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August 2003.

8. Department of Public Works, Water Availability Analysis.
9. April 7, 1999 Memorandum from Napa County Planning Department and other County agencies to Planning Commission regarding General Plan Amendment relating to groundwater use and proposed Napa County groundwater ordinance.
10. January 19, 1993 Memorandum from Napa County Water Advisory Committee to Napa County Board of Supervisors re Report of the Water Advisory Committee.
11. February 27, 1991 Memorandum to Planning Commission from Jeffrey Redding, Director, re Public Works Department Report on Water Availability Analysis
12. January 1991 Water Resources Study for the Napa County Region (Napa County Flood Control and Water Conservation District).
13. August 9, 2012 Final Statement of Decision in *Living Rivers Council v. State Water Resources Control Board*, Alameda Superior Court Case No. RG-10-543923.
14. September 26, 2012 Order in *Light, et al. v. State Water Resources Control Board*, Mendocino Superior Court Case No. SCUk CVG-11-59127.
15. Sax, Joseph. Review of the Laws Establishing the State Water Resources Control Board's Permitting Authority Over Appropriations of Groundwater Classified as Subterranean Streams and the State Water Resources Control Board's Implementation of Those Laws, SWRCB No. 0-076-300-0 (January 19, 2002).
16. Russian River Frost Protection Regulation, 23 Cal. Code Regs. § 862.
17. Letter dated April 7, 2013 From Dr. Robert Curry (with CV).

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Watershed Systems

Hydrology - Geology - Soil Science

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April 7, 2013

Thomas Lippe
Lippe Gaffney Wagner LLP
329 Bryant Street, Suite 3D
San Francisco, CA 94107

RE: Northern California Instream Flows

Dear Mr. Lippe,

You have asked me to review the technical reports prepared by Stetson Engineers on *Methodology and sources of information: Delineation of subterranean streams and potential streamflow depletion areas* dated May 16, 2008 and their prior discussion report of February 28, 2008 titled: *Approach to delineate subterranean streams and determine potential streamflow depletion areas*. These were prepared for the California State Water Resources Control Board's adoption of their *Policy for Maintaining Instream Flows in Northern California Coastal Streams*.

You have also requested that I review the issues of trade-offs between water diversions resulting from groundwater pumping in streamside aquifers as a substitute for flow reductions that could result from direct pumping of surface water.

These are interrelated issues that I have focused on throughout my professional geologic and hydrologic career. Beginning in 1980 with my University of California graduate students, I have had long-duration involvement in research on the Carmel River that has led to the Water Board decision classing parts of that alluvial valley as a known and definite underground channel. After retiring from the University of California Santa Cruz, I founded and mentored the Watershed Institute at California State University Monterey Bay where my students and I directly monitored and helped to define conditions to permit the Water Board to evaluate and define subterranean stream flow in the alluvial channel at Garrapata Creek. I have worked throughout western United States as a fluvial geomorphologist, including an appointment with the U.S. Geological Survey Water Resources Division in the 1960's as a Research Hydrologist. I have conducted field work in a large proportion of the northwestern California stream channels that are the subjects of the current instream flow studies and proposed regulation. This has included field investigations in the Gualala watershed.

Exhibit 17 to Living Rivers Council Comments

The Stetson subterranean stream mapping effort

RC-1

In my professional opinion the effort and reports provided by Stetson Engineers to the California Water Board on the delineation of subterranean streams and potential streamflow depletion areas are scientifically sound and carefully executed and documented. A single exception is a common mistake in the first full paragraph on page 11765 of the Administrative Record that confuses “small scale” maps with greater detail. This semantic mistake it does not affect any conclusions, findings, or recommendations.

Stetson Engineers had a significant challenge to try to base delineation of subterranean streams on widely differing geologic maps. Geologic mapping is not a precise science. A map is an interpretation of field geologic conditions that cannot be directly observed on or under the ground surface. Geologists must use all available information to derive clues about the subsurface. Soils and plant cover characteristics may be more diagnostic than bedrock or other geologic substrates. Topography can be used to infer the origin of a surface feature seen on the ground, on a topographic map, or on an aerial photo. The extent of experience that the mapping geologist brings to his draft map and the purpose of the final map will influence the degree of care and detail that are represented on the map.

California’s geologic maps and map products have been created by persons with widely differing experiences and interests. Stetson had to try to interpret and utilize widely different source maps that were produced for very different purposes such as water supply studies or mineral investigations. Stetson had to derive surficial geomorphic and geologic information from maps produced to display general bedrock and for specialized purposes such as seismic hazards.

The way they chose to accomplish their task was to create a category that represents uncertain shallow subsurface fluvial geomorphic conditions where further work is necessary to determine shallow groundwater hydrology. This leads to a three-part mapping classification with reasonably certain known and definite subterranean stream courses, potential stream depletion areas if wells are placed in the water-bearing subsurface zones, and mapped active stream deposits within those potential stream depletion areas. Connectivity between a surface stream and its alluvial bed and banks had to be inferred based on sound groundwater conditions (hydrogeology).

Without pump tests for wells in various local substrates, permeability and connectivity of geologic substrates had to be inferred by Stetson from geologic, topographic, soil, and vegetation information. I follow a rule-of-thumb guide that compares permeability of adjacent substrates to determine if groundwater in the pores of relatively impermeable substrates such as shale or mudstone will be a source of groundwater from a pumped well or if the water will preferentially be derived from more porous and permeable substrates such as stream alluvial sand and gravel. Of course groundwater can be derived from most geologic substrates, and water will seep from any region of higher concentration and static head into a region of lower concentration. But for practical purposes, if a well in porous geologic substrates is pumping intermittently and recharges from a porous substrate, the geologically-adjacent material will not significantly contribute from adjacent less porous substrate if the porosities of the two adjacent geologic units differ by 2 orders of magnitude or more (100 times). This is just a rule-of-thumb that I use in helping locate water supply wells. Of course, an overdrawn well will slowly recharge from large bedrock substrates nearby, but that recharge is geologically older than that from the adjacent alluvium – several years or more, and recharges only

very slowly. My work¹ is based on California coastal streams and springs that were affected by the 1989 Loma Prieta Earthquake but corroborates the reasoning presented by the State Water Board in 2003².

Stetson's work is carefully qualified. Because the map database that they had to use was inadequate, incomplete, and contradictory on some adjacent map quadrangles, they had to document all judgments made. All geologic mapping is a matter of judgment. Stetson primarily explained their judgment in their May 16, 2008, Technical Memorandum where each source of map information was reviewed and all decisions based on that source were listed and qualified. Where information was inadequate or contradictory, Stetson classed areas that met minimum criteria for possible influence of subterranean streams as "Potential Stream Depletion Areas" or PSDA's. These areas are generally in close proximity to a surface stream, in a geologic substrate that was mapped or can be inferred from its location and geomorphic form as a stream deposit, and are close enough to that watercourse to be readily recharged or drained by it. These are a limited special class of what we call hyporheic exchange zones (<http://www.hyporheic.net>). Such zones are characterized by saturated alluvial deposits adjacent to streams where water can pass both into and out of the streambank and streambed and where that water supports streamflow and aquatic organisms.

RC-1

Where geologic mapping was not adequate to delimit the legally-defined "subterranean streams" as perceived using that nineteenth century language, Stetson had to make inferences based upon best available contemporary information and understanding of fluvial geomorphology and stratigraphy. In my professional opinion, Stetson's work, caveats, and principles are fully defensible in light of modern geologic knowledge.

Stetson acknowledges that in particular locations, more site-specific work may be appropriate or required to fully characterize whether a given geologic substrate is hydraulically connected to a nearby stream. I agree with this observation.

Are the potential reductions of surface flows from increased groundwater pumping "unlikely"?

The California Water Board makes a case that a policy-induced switch from surface water diversions to groundwater pumping *could* result in reduced surface flows but that such reductions are *unlikely*. The discussion and documentation are included in the:

Revised sections 6.2, 6.9, and 7 and Supplement to Appendix D of the Substitute Environmental Document prepared for the Policy for maintaining instream flows in Northern California coastal streams dated February, 2013.

¹ Curry, R.R., Brett A. Emery and Tom G. Kidwell, 1994, Sources and Magnitudes of Increased Streamflow in the Santa Cruz Mountains for the 1990 water year after the Earthquake. U.S. Geological Survey Professional Paper 1551-E, The Loma-Prieta, California, Earthquake of October 17, 1989 - Hydrologic Disturbances, p. 31-50, Wash. D.C.

² See North Gualala Court Order, p. 16, Order WRO 2003 – 0004: *Order determining legal classification of groundwater.*

RC-2

The hydrological and geological bases for the Board’s opinions are not supported. The discussion in Appendix D is “tortured” and contradictory. The tradeoffs between direct stream diversion and groundwater withdrawal in lieu of surface water diversion are complex and vary by the particular local annual precipitation deficit or excess. For given water year, less withdrawal of already-limited stream flow volumes and compensatory increases in groundwater withdrawals may be potentially less damaging to instream fishery resources. But under multi-year streamflow deficits, decreasing the volumes of interstitial water in the hyporheos or streamside exchange zone simply increases the losses of streamflow to the alluvial stream channel environment. You cannot have it both ways. Instream flow volumes are not separate from saturated water in the streambanks and streambeds. Lower water tables in the stream alluvium are instantly reflected in the instream flow conditions. You cannot take water out of the deep end of a swimming pool to increase the area available for non-swimming children.

RC-3

Section 7.2 of Appendix D acknowledges that impacts are possible but unlikely. We are told that “*The State Water Board’s assessment of future groundwater demand (section 6.2), which conservatively included all diversion points for pending water right applications, found that increased groundwater pumping could drop production rates of nearby wells and could cause a significant reduction in surface water flow, although this impact is speculative and unlikely to occur.*” The Board’s conclusions seem to be based on the assumption that groundwater is less reliable for domestic uses than is stream diversion flow or that groundwater is not directly connected to the stream: “.. *the potential switch from surface water diversions to groundwater pumping is likely to reduce the impacts of surface water diversions on surface water flows because in many cases groundwater pumping will not deplete surface water flows on a one-to-one basis, and in some cases the groundwater and surface water may not be hydraulically connected at all* (p. 94 – revised SED Section 7).

RC-4

From a hydrological and biological perspective, the water in the stream alluvium is part of the stream system. If it is possible to withdraw that water without any obvious decrease in the instream flow for a given water year, the deficit in the adjacent groundwater volume will still exist. The fundamental issue that the Water Board must address is the residence time of this hyporheic exchange water. This issue has been addressed in part by my academic colleague Professor Andrew Fisher. Fisher and his students and colleagues have been investigating residence times and flow patterns in alluvial valley systems in the Pajaro River, a coastal stream in Central California³. Their work uses heat as a tracer for stream water flowing in the bed and banks. Their study site differs from many in the Northern California area of California Water Board focus in that the Pajaro River flows in a wide channel with well vegetated gradual banks. They established downward seepage rates as great as 1.4 meters per day with greater seepage infiltration occurring in the lower-gradient stream reaches and in the low-flow summer and fall periods.

The Water Board proposes that even with active pumping, wells adjacent to streams may not respond to withdrawals rapidly, so that the Potential Stream Depletion Areas may not immediately affect instream flow. Clearly, the time lag between well pumping

³ C. Ruehl, A.T. Fisher, C. Hatch, M. Los Huertos, G. Stemler, C. Shennan, 2006, Differential gauging and tracer tests resolve seepage fluxes in a strongly-losing stream, Journal of Hydrology, Volume 330, Pages 235-248,

Christine E. Hatch, Andrew T. Fisher, Chris R. Ruehl, Greg Stemler, 2010, Spatial and temporal variations in streambed hydraulic conductivity quantified with time-series thermal methods, Journal of Hydrology, Volume 389, Pages 276-288

RC-4

and stream response will be greater for wells farther from the stream, but for those areas outlined on the Stetson maps as PSDA's based on geologic substrate (alluvial origin related to the adjacent stream course) the streamflow response will vary from hours to days, not months to years. The proximity of the well to the surface water course has always been a factor in approval of well locations, but the locations mapped on the Stetson maps are all close enough to their source streams to have lag times of less than a month.

The static elevation of water in unpumped wells that draw water from stream alluvium may be higher or lower than that in the associated watercourse. Many well-drillers will justify wells in stream-side flood plains or stream terrace deposits as "not connected to the stream" by noting a clay or silt bed in the well log at a higher elevation than the well seal and/or pumping interval. Often these less-permeable stratigraphic barriers are not laterally extensive, even where the silt bed is of marine origin in a drowned coastal valley. The default condition should be as treated in the Stetson reports: – *assumed hydraulically connected unless proven otherwise.*

Stetson's methods include a conservative approach in which ambiguous or sparse data sources were interpreted so that any mapping of subterranean streams or PSDA erred on the side of "under-inclusion." An example of this approach can be found at AR 11651:

RC-5

"Delineating the mapped active stream deposits from this source was especially difficult because all of the non-Tertiary alluvium could technically be included in this designation, and the inclusion would resolve many discrepancies with the small scale sources at the edges, but using the same criteria on the other 1:24k maps from this set would have led to more ambiguous decisions on other quads. Considering the large scale of this source and the need for consistency, the decision was made to include only the geologic unit mapped as active stream (ac) from these sources in the delineation of Mapped Active Stream Deposits", rather than try to define "associated alluvial deposits" for these sources." (Stetson, AR 11651)

To avoid having this conservative approach exclude areas from the Board's jurisdiction were the Board to adopt the delineation maps, Stetson also included a disclaimer that would allow the Board to later add areas to the mapped subterranean streams based on more site-specific investigations:

"The subterranean stream and PSDA delineations prepared in conjunction with this project will be based on the available geologic information at the time of delineation. Further refinement of the delineations could be made in the future if new information becomes available. Field inspection will not be conducted as part of the delineations. Therefore, the following statement will be included on all maps resulting from this project to insure that no alluvial deposits associated with a "natural channel" are excluded from the jurisdiction of the State Water Board.

Because the delineated areas on this map were based on information readily available at the time of its development, this map does not claim to represent all of the subterranean streams or potential stream depletion areas that exist in the area. Site specific investigations will be needed to verify the existence of subterranean streams or potential stream depletion areas." (Stetson, AR 11763.)

In summary, the qualifications added to the text in Section 7.2 of Appendix D as modified in February, 2013 that suggest that groundwater can be withdrawn from stream-side alluvial deposits without concomitant reductions in stream-flow are plausible in some

locations but in most locations are not probable from a geologic and hydrologic standpoint. Further, Stetson's delineations underestimate the extent of subterranean streams and potential stream depletion areas.

A handwritten signature in blue ink that reads "Robert R. Curry". The signature is fluid and cursive, with a long horizontal flourish extending from the end of the name.

Robert R. Curry
Registered Geologist
and Hydrologist

California 3295

**Living Rivers Council, Lippe, Gaffney, Wagner, LLP, Thomas N. Lippe,
April 8, 2013**

- LRC-1 The 2013 revisions to the 2008 SED clarify these disclosures, but do not change the impact finding. Specifically, the 2013 revisions clarify the analysis of potential impacts to surface water flows that could occur if affected persons switch to groundwater pumping as a result of Policy adoption. The 2008 SED analysis was misleading because it did not explain that the potential shift from surface water diversions to groundwater pumping due to adoption of the proposed Policy is unlikely and furthermore that the circumstances under which such a shift could cause a significant reduction in surface water flows are unlikely to occur in the Policy area.
- LRC-2 The analysis in the 2008 SED was misleading because it oversimplified and, by extension, overstated the potential impact to surface water flow that could be caused by the Policy if affected persons pump groundwater instead of surface water. This impact could occur if existing, unauthorized surface water diverters switch to groundwater in order to avoid the Policy's requirements, or if prospective surface water diverters switch to groundwater for the same reason. The 2008 SED analysis gave the impression that Policy adoption could cause a significant increase in groundwater pumping, when in fact such an outcome is uncertain and speculative. Furthermore, the 2008 SED analysis suggested that pumping groundwater instead of surface water as a result of Policy adoption was likely to adversely impact streamflow in each case. This suggestion is unlikely for the reasons explained in the Supplement to Appendix D. The Supplement to Appendix D and the revised SED more realistically appraise the nature and extent of the impacts and describe the circumstances under which an impact could occur. To clarify language that the commenter found confusing, the following edits will be incorporated into SED, section 6.2.2, Table 6-3, under Biological Resources:
- “Construction activities could result in disturbance of aquatic features (e.g., wetlands) regulated by the Army Corps of Engineers, Regional Water Quality Control Boards, California Department of Fish and Wildlife and California Coastal Commission; disturbance of special-status species and their habitats; disturbance of sensitive natural communities. Although unlikely, under certain circumstances switching to groundwater pumping could result in reduced surface water flows, which could harm riparian vegetation or degrade habitat for sensitive species, particularly if the reduction in surface water flows occurs during the summer. These circumstances, however, are unlikely to occur in the Policy area.”
- LRC-3 Comment noted. The State Water Board will make appropriate CEQA findings when it approves the Policy. Clarification that potential adverse effects on surface flows are less likely to occur than might have appeared in the 2008 SED does not obviate the need to adopt feasible mitigation measures if the potential impact is still significant. The likelihood and potential severity of an adverse impact may affect the determination whether the cost of a proposed mitigation measure is justified, however, and thus may affect the determination whether a mitigation measure is feasible.
- LRC-4 The analysis contained in the revised SED uses the term “switch” to more accurately describe the nature of the physical change to the environment that could be caused by the Policy.

As explained in the SED, the Policy will not operate to approve or otherwise cause individuals or entities to divert water. This is obviously true with respect to diversions, authorized or unauthorized, that pre-date adoption of the Policy. Similarly, no one, including the commenter, has argued that the Policy will cause future water diversions to occur. Instead, the Policy's restrictions could have the opposite effect, and deter individuals or entities from diverting water. In the alternative, the Policy could cause diverters to seek alternative water supplies, including groundwater, or rely on riparian water rights, instead of seeking to appropriate surface water in accordance with the Policy.

In light of these facts, it would be inaccurate and highly misleading to attribute the environmental impacts of groundwater pumping in general to the Policy. The impacts of groundwater pumping are attributable to the Policy only to the extent that the Policy could cause the pumping to occur by influencing an existing or prospective surface water diverter to switch to groundwater. Accordingly, it was appropriate to evaluate in the revised SED the potential environmental effects of changing or "switching" from surface water diversions to groundwater pumping because that is the nature of the change that could be caused by the Policy.

The commenter argues that the use of the term "switch" implies that Policy-induced increases in groundwater pumping would replace existing surface water diversions, which is not factually true with respect to prospective surface water diversions. The commenter argues further that the effects of the Policy must be compared to existing conditions, and a water user's frustrated desire to use surface water cannot establish a valid baseline. The commenter cites to two cases, *Wal-Mart Stores, Inc. v. City of Turlock* (2006) 138 Cal.App.4th 273 and *Madera Oversight Coalition, Inc. v. County of Madera* (2011) 199 Cal.App.4th 48, in support of the argument that existing conditions must be used as the baseline for purposes of evaluating the environmental impacts of a project.

Preliminarily, the use of the term "switch" was not intended to imply that any groundwater pumping attributable to the Policy necessarily will replace an existing surface water diversion, as opposed to a prospective surface water diversion, although the majority of the pending water right applications that could be affected by the Policy are in fact for existing, unauthorized surface water diversions. (Supplement to Appendix D, Substitute Environmental Document (Feb. 22, 2013) p. 2.) In addition, the two cases cited by the commenter have been overruled by the California Supreme Court to the extent that they held that CEQA requires the use of existing conditions as the baseline in every case. In *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, the Supreme Court held that an agency may evaluate a project's impacts using projected future conditions as a baseline if using existing conditions would be uninformative or misleading to decision makers and the public.

In this case, using existing conditions as a baseline for purposes of evaluating the potential impacts of causing prospective surface waters to switch to groundwater would be uninformative and misleading because such an analysis would not accurately measure the change that could be caused by the Policy. Irrespective of whether the Policy influences the behavior of an existing surface water diverter or a prospective surface water diverter, the change attributable to the Policy is a change in the source of the water diverted. With respect to prospective surface water diverters who might change

their plans and pump groundwater instead of surface water as a result of the Policy, simply comparing the potential impacts of the pumping to existing conditions, as suggested by the commenter, would in effect treat the pumping as a whole as though it were caused by the Policy, when in actuality the Policy only has the potential to affect the source of water diverted, and will not cause the underlying diversion to occur. Thus, comparing potential future groundwater pumping by prospective diverters to existing conditions would over-estimate the potential impacts of the Policy.

Assuming that the two cases cited by the commenter were correctly decided in light of *Neighbors for Smart Rail, supra*, 57 Cal.4th 439, the cases involved different facts and are distinguishable from this case. In the first case, *Wal-Mart Stores, Inc. v. City of Turlock, supra*, 138 Cal.App.4th 273, Wal-Mart Stores argued that an ordinance adopted by the City of Turlock prohibiting discount superstores would lead to the development of a multitenant shopping center, the environmental impacts of which should have been compared to the discount superstore that otherwise could have been developed. The Court of Appeal took issue with Wal-Mart's argument that the impacts of the development that could occur as a result of the ordinance should be compared to hypothetical future conditions, as opposed to existing conditions. (*Id.* at pp. 289-290.) (Ultimately, however, the Court of Appeal rejected Wal-Mart's argument on the grounds that development of a multitenant shopping center was not reasonably foreseeable, and the effects of the ordinance were adequately covered by the EIR certified for the city's general plan. (*Id.* at pp. 291-296.))

In the second case, *Madera Oversight Coalition, Inc. v. County of Madera, supra*, 199 Cal.App.4th 48, the Court of Appeal held that an analysis of the potential traffic impacts of a development project was inadequate because, according to the Court of Appeal, existing conditions must be used as the baseline for purposes of evaluating the impacts of a project, and it was unclear whether the traffic analysis used existing conditions or predicted future conditions as the baseline. (*Madera Oversight Coalition, supra*, 199 Cal.App.4th 48, 90-96.)

In both of these cases, the Courts of Appeal concluded that existing conditions should be used for purposes of evaluating the potential environmental impacts of a development project that could occur as a result of an agency's approval. In this case, by contrast, no development projects will occur as a result of the Board's approval of the Policy. If water development projects are constructed in the future, for reasons other than adoption of the Policy, then the Policy could affect the manner in which they are operated, or the source of the water diverted, but the Policy will not cause the projects themselves to occur. Under these circumstances, evaluating the potential impacts of future water development projects relative to existing conditions would not accurately measure the potential environmental impacts of the Policy. Instead, the revised SED impact analysis properly focused on the physical changes to the environment that could be caused by changes to future water development projects that could occur as a result of the Policy.

LRC-5 The commenter's argument that existing, unauthorized diversions should not be considered part of baseline conditions for purposes of evaluating the potential impacts of the Policy is inconsistent with the commenter's argument (**LRC-4**) that existing conditions must be used as the baseline. In addition, contrary to this comment, existing, illegal activities may be part of baseline conditions, and including illegal activities as part of baseline conditions for purposes of a CEQA analysis is not tantamount to condoning

those activities. (*Fat v. County of Sacramento* (2002) 97 Cal.App.4th 1270, 1280-1281.) An environmental baseline, as suggested by commenter, consisting of only authorized uses would be difficult to define and purely hypothetical. By presenting only authorized diversions as a baseline, the resulting CEQA analysis would not serve to adequately inform the public of actual conditions. By ignoring or excluding existing, unauthorized or potentially unauthorized diverters in describing baseline conditions, the State Water Board would not be able to accurately evaluate the potential impacts of the project.

More importantly, the pertinent issue here is the nature of the change that could be caused by the Policy. Excluding existing, unauthorized diversions from the environmental baseline would create the misleading impression that those unauthorized diversions would not occur in the absence of the Policy. As described above in **Response to Comment LRC-4**, it was appropriate to evaluate in the revised SED the potential environmental effects of changing or “switching” from surface water diversions, whether they are existing or prospective, to groundwater pumping because that is the nature of the change that could be caused by the Policy. With respect to existing, unauthorized surface water diverters who might switch to groundwater as a result of the Policy, comparing the potential impacts of the potential increase in groundwater pumping to a hypothetical future condition in which the surface water diversions have been “shut down,” as suggested by the commenter, would in effect treat the pumping as a whole as though it were caused by the Policy. Such a comparison would over-estimate the potential impacts of the Policy. See **Response to Comment LRC-4**.

LRC-6 The revisions to the analysis of potential impacts associated with affected persons switching to groundwater pumping are not predicated on an assumption that there is no connection between groundwater in the Policy area and surface flows, and are not based on the assumption that groundwater pumping will not affect surface water flows. The comment misinterprets the revisions to the 2008 SED. The revised SED does not discount the 2008 SED analysis: the revisions just add clarification by explaining that it is uncertain whether Policy adoption will cause affected persons to switch to groundwater pumping, and explaining why pumping groundwater instead of surface water is unlikely to cause a significant reduction in surface flows.

In addition, the revisions explain that the 2008 SED analysis (particularly Appendix D of the 2008 SED) included an estimate of the upper limit of potential future demand based on the most conservative assumption that all future diversion demands would be supplied solely from groundwater. The revised SED clarifies that this assumption was a *worst-case scenario*, and not likely to actually occur if the Policy is adopted. In addition, it is uncertain whether any future groundwater pumping will be caused by the Policy, or whether it will occur irrespective of the Policy. Furthermore, the revised SED explains that while Appendix D of the 2008 SED contains useful information with respect to considerations of future groundwater demands and the adequacy of alternative supplies, the analysis in Appendix D concerning the potential impact of groundwater pumping on surface flows is misleading because it does not explain why relying on groundwater as an alternative supply is unlikely to cause a significant reduction in surface flows.

LRC-7 Existing and unauthorized diversions of water constitute part of baseline conditions. See also **Response to Comment LRC-5**.

Information concerning the number of existing unauthorized diversions places the impact

analysis within the correct context. For the most part, the Policy will serve to improve upon existing conditions (including unauthorized diversions) by imposing additional restrictions on diversions in order to protect instream flows.

LRC-8 The statement in the revised SED concerning the estimate of future applications is based on: 1) the current number of pending applications that include existing facilities, and 2) consideration of current Division enforcement practices, staffing, and funding. Enforcement investigations frequently generate water right applications for existing facilities, and existing staffing and funding levels are not expected to change in the future. Therefore, staff has no reason to speculate that the percentage of applications for unauthorized diversions is likely to change significantly in the future. Information concerning the number of existing unauthorized diversions is relevant because it places the impact analysis within the correct context (see **Response to Comment LRC-7**).

LRC-9 The revised SED's estimate of the number of pending applications for existing unauthorized diversions was characterized as only a rough estimate. Information concerning the number of existing unauthorized diversions places the impact analysis within context. For the most part, the Policy will serve to improve upon existing conditions (including unauthorized diversions) by regulating diversions and ensuring that they have protective measures in place. It is highly unlikely that a significant number of pending applicants have built reservoirs and/or developed their place of use *without* diversion of water to accompany the land use. Even in these few cases, the unregulated land use may be environmentally problematic and impacts could be offset by Policy conditions.

The 2010 Response to Comments, Volume 2 also included an estimate of existing diversions in pending applications that is similar to the estimate State Water Board staff found in the 2013 Supplement to Appendix D. See **2010 Response to Comments Volume 2, Response to Comment 18.6.1**.

LRC-10 The comment misconstrues the staff analysis of existing projects. The Supplement to Appendix D was not intended to suggest that 90 percent of the *water* for pending applications is currently being diverted and/or stored. The staff analysis clearly disclosed that with respect to roughly 90 percent of pending applications, project facilities have either been partially or completely constructed. It is reasonable to assume that if someone has constructed diversion facilities or cleared land, they are also likely to be diverting water. Many of these applications were also filed as the result of enforcement sweeps, which suggests that diversion of water was likely occurring at the time the application was filed.

The commenter includes a footnote (#7 on page 10 and 11) which quotes a 2004 estimate that 57% of application notices included existing dams or reservoirs. This may have been true in 2004 (although Division staff has not verified this estimate, and this estimate only includes noticed applications), but since that time the Division's enforcement resources have increased as a result of Senate Bill 8, which was adopted by the Legislature in 2009 and authorized funding for 25 new enforcement positions in the Division. Enforcement investigations frequently generate water right applications for existing facilities. Accordingly, the increase in enforcement most likely accounts for the increase in the proportion of applications for existing facilities between 2004 and 2013.

LRC-11 In previous years Division staff made it a priority to notice a majority of accepted

applications soon after application acceptance, but the Division is now more likely to notice acceptable applications coinciding with environmental assessment of the project. Therefore, it would be inaccurate to rely solely on *notification* of accepted applications in recent years to determine how many applications have been filed with the Division. The comment also fails to take into account applications that were rejected. Table 1 shows the number of applications the Division received annually from 2008 to 2013 (up to April 1, 2013).

Table 1. Total Applications Received by the Division of Water Rights*

Calendar Year	Applications Received	Applications Noticed
2008	25	21
2009	29	27
2010	15	22*
2011	15	9
2012	21	7
2013	9	0

*Note that applications may not be noticed in the same month/year that they are received.

Furthermore, out of the 21 total applications received in 2012, 13 (62%) were located in the Policy area. As of April 1, 2013, nine applications were received by the Division for 2013, yet none of them were noticed as of April 1, 2013. Of those nine, seven are located in the Policy area. Table 1 also shows the yearly number of received applications has generally decreased since 2008. This is true whether or not the application is in the Policy area.

LRC-12 In addition to approving existing projects pursuant to the Policy, the State Water Board may also disapprove projects or take enforcement actions against diverters pursuant to the Policy. Either way, whether projects are approved or disapproved, it is reasonable to presume that processing existing projects pursuant to the Policy will result in an overall benefit to the environment. In order to clarify the foregoing, the language on Page 2 of the Supplement to Appendix D will be revised as follows: “Approval Processing of existing projects in accordance with the principles and guidelines established by the Policy would serve to lessen any ongoing impacts of those projects on instream flows and fishery resources and will result in an overall benefit to the environment.” With respect to the relevance of this observation, see **Response to Comment LRC-7**.

LRC-13 In the scenario described by the commenter, the Policy would be less effective; however, Policy adoption will not have made environmental conditions worse. Division staff disagrees with the assertion in footnote 8 of this comment letter that the only circumstances where a switch from surface water diversion to groundwater pumping will not adversely affect surface flows is where the surface water diversion is pursuant to a permitted appropriative right. The potential physical change in stream flows resulting from a switch from surface water to interconnected groundwater is the same, irrespective of whether the surface water diversion is authorized under a permitted appropriative right, and irrespective of whether an appropriative right would be protected from forfeiture pursuant to Water Code section 1011.5 in the event that the right holder switches to groundwater as an alternative supply. Irrespective of the legal basis, if any, for the surface water diversion, a switch to interconnected groundwater is unlikely to cause a significant reduction in stream flows. A significant decrease during a different time of

year is still possible if the switch causes a delay in stream flow depletion, even though the total volume of flows would not decrease.

LRC-14 The comment implies that applicants who identify groundwater as an alternate source of water are likely to switch to groundwater pumping as a result of the Policy based on the fact that almost a third of the 60 most recently noticed applications identify groundwater as an alternate source of water. This information is not demonstrative of a wholesale movement to groundwater that could occur as a result of the Policy. Of the commenter's 19 identified applications, only 6 were located within the Policy area (see Table 2 below). Furthermore, identification of an alternate source on a water right application does not necessarily mean that the source would only be utilized as a result of project denial or restrictions. In some cases, the alternate source is utilized regardless of the water right application status.

Table 2. Recently Noticed Applications that Identified Groundwater as an Alternate Source

Application ID	Water Sought (in acre-feet)	Policy Area?
31840	8	Yes
31838	14	Yes
31836	8.55	Yes
31813	12	Yes
31804	17.3	Yes
31791	1694	No
31655	72	No
31629	12.95	No
31632	40	No
31612	156	No
31620	35	No
31618	15	No
31617	35	No
31567	10	No
31549	100	Yes
31521	60	No
31501	10	No
31465	60	No
31464	146	No

LRC-15 The State Water Board staff explanation cited in this comment is an internal deliberation in which staff was discussing and recognizing that the Policy could be more effective if people were not able to switch to diverting groundwater to avoid complying with the Policy under an appropriative water right. These notes should not be misinterpreted as a statement that a switch to diverting hydrologically connected groundwater (rather than diverting surface water flows) is likely to have an effect on surface water flows. It is true that the Policy will be less effective in protecting instream flows to the extent that water users avoid compliance with the Policy by pumping percolating groundwater, but that does not necessarily mean that the Policy itself will cause instream flows to be worse.

LRC-16 The statement that the State Water Board is aware of only one diverter that has switched

to groundwater in lieu of a surface water appropriation was not intended to indicate that there may not be others that also may switch to groundwater sources. This statement was included to illustrate that there does not appear to be a wholesale movement of surface water appropriators switching to groundwater sources as a result of Policy adoption.

Commenter's assertion that there are no consequences for an application to sit idly before the State Water Board is unfounded and untrue. Most pending water right applications are subject to annual fees; it is unlikely that someone would willingly pay unnecessary yearly fees if they did not wish to pursue an appropriative water right and instead planned to pump groundwater. Additionally, applicants who switch to alternative sources to avoid permitting requirements generally inform the Division to avoid a threat of enforcement action. Lastly, for diverters who are outside of the water right process and seek to avoid Policy provisions (or State Water Board regulations in general) by pumping groundwater, they may be brought before the State Water Board's attention via the compliant process as outlined in **Policy section F.5.0**, or through an enforcement investigation as outlined in **Policy section 8**.

Also see **Response to Comment LRC-14**.

LRC-17 The Supplement to Appendix D includes information concerning the adequacy of groundwater to satisfy future demand for large agencies, which is cited directly from Appendix D of the 2008 SED, which was prepared by Stetson in 2008. This is not substantially new information, but just a restatement of analyses previously circulated for public comment. Furthermore, with respect to some agencies, this estimate is based on their own general plans. Division staff concedes that, for those agencies that Stetson identified, part of the future demand may be taken from groundwater regardless if it is an adequate source. Appendix D of the 2008 SED, (sections 5.3 et seq.) discusses imported water, desalinated water, and recycled water as likely alternative sources for these large agencies. To this end, only part of the demand would be from groundwater and groundwater is unlikely to be the sole source for large agencies.

As discussed in **Response to Comment KB-2**, a switch from surface water to groundwater is likely to result in reduced impacts on surface water flows because groundwater pumping is likely to deplete the volume of surface water flow by no more than the amount of groundwater pumped, and in some cases by substantially less, and the increase in groundwater pumping will be accompanied by a corresponding reduction in the surface water diversion that would otherwise occur. However, such a switch to groundwater pumping could cause a delay in surface flow depletion, and this type of delay could cause a significant reduction in surface water flows during a different time of year. Small water agencies and self-supplied individuals who switch to groundwater pumping are less likely to cause a delay in surface flow depletion that could cause a significant reduction in surface water flows, for the reasons explained at pages 5-6 of the Supplement to Appendix D. The same is true with respect to large or small water users who are likely to cause immediate rather than delayed surface flow depletion. The letter from Dr. Robert Curry (which the commenter submitted as Exhibit 17) suggests that the State Water Board's analysis regarding the likelihood of an impact to surface flows associated with a delay is conservative because a significant delay in surface flow depletion is only likely outside of the Potential Stream Depletion Areas. Exhibit 17 identifies that for wells within the Potential Stream Depletion Areas associated delays in

streamflow response “will vary from hours to days, not months to years” (**Exhibit 17, page 5**).

LRC- RC This comment refers to Exhibit 17 (April 7, 2013, letter from Robert Curry). For purposes of this response Exhibit 17 was numbered LRC-**RC-1** to LRC-**RC-5**. Specific responses follow.

LRC-**RC-1** Comment noted. Division staff agrees with this assessment.

LRC-**RC-2** The first part of this comment recognizes that a switch from a surface water diversion to groundwater pumping may result in a decrease in the volume and rate of surface flow depletion. The second part of this comment, however, seems to be making the case that pumping in general from groundwater that is closely connected to an adjacent stream (which the commenter refers to as a hyporheos or streamside exchange zone) will adversely affect flows in the stream. The State Water Board acknowledges that pumping from closely connected groundwater could cause a corresponding reduction in surface flows. As discussed in the **Response to LRC-4**, however, the Policy will not cause water diversions to occur, and the purpose of the Supplement to Appendix D was not to analyze the effect of groundwater pumping in general. A switch from surface water diversions to groundwater pumping, which could be caused by the Policy, could cause a delay in surface flow depletion, which could in turn cause a reduction in surface flows. But in general the more closely connected a groundwater well is to surface flows, the less likely it is that there will be an impact associated with a delay.

In addition, it appears that Dr. Curry incorrectly limited his review of the comparison of groundwater pumping and surface water diversions to only those areas that were marked as subterranean streams or Potential Stream Depletion Areas (PSDAs) on the delineation maps. This is evident in his frequent references to pumping from the “stream alluvium” or “streamside aquifers” throughout the letter (for example: RC-2 and RC-5). It bears emphasis that the revised SED did not limit its analysis of the potential impacts from diverters that switch to pumping groundwater only to areas marked as subterranean streams or PSDAs on the delineation maps. The revised SED analyzed the entire Policy area watershed, which includes the areas outside of these marked boundaries.

LRC-**RC-3** The finding that impacts associated with a switch to groundwater pumping as a result of the policy are unlikely is based on the assessment in the Supplement to Appendix D. Portions of this analysis are summarized in **Response to Comments KB-1 and LRC-17**. The suggestions that this finding is based on the assumption that groundwater is less reliable for domestic users or that groundwater is not directly connected to the stream are unfounded and inaccurate.

LRC -**RC-4** The revised SED analyzes the potential impacts to stream flows attributable to a delay in surface flow depletion that could be caused by a switch to groundwater pumping. The statement that “locations mapped on the Stetson maps are all close enough to their source streams to have lag times of less than a month” indicates that the analysis in the revised SED of the potential impacts associated with a delay may have been overly conservative.

LRC-**RC-5** Staff agrees with the conclusion that the delineation maps may require further refinement. In fact, the need for refinement was considered in the assessment of

these maps as a feasible mitigation measure (see section 7.2.1, item 4 of the revised SED).

LRC-18 The Alameda County Superior Court directed the State Water Board to evaluate the subterranean stream delineations as a potentially feasible mitigation measure for the anticipated increased use of groundwater. In its Statement of Decision, the Superior Court explained that adoption of the delineations, after conducting a quasi-legislative proceeding, could mitigate for any increase in groundwater pumping by defining the extent of the Board's permitting authority, thereby assisting the Board in its enforcement of the Policy and permitting requirements. (Statement of Decision, pp. 14-16.) Consistent with the Superior Court's direction, State Water Board staff has evaluated the feasibility of conducting a quasi-legislative proceeding to consider amending the Policy to include the subterranean stream delineations depicted on the Stetson maps. (Revised SED, pp. 93-101.) A more detailed description of this mitigation measure is not necessary in order to evaluate its feasibility.

LRC-19 Contrary to this comment, the discussion concerning the likelihood of affected persons switching to groundwater pumping is relevant to the feasibility of adopting the subterranean stream delineations. CEQA defines "feasible" to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." (Pub. Resources Code, § 21061.1.) In addition to those factors, an agency may take into account legal considerations, and any other relevant considerations. (Pub. Resources Code, § 21081, subd. (a)(3).) In this case, the cost of adopting the delineations is one relevant consideration. From a practical standpoint, however, it does not make sense to evaluate the cost of the mitigation measure in isolation. Instead, the cost should be evaluated along with other relevant considerations, including the likelihood that a significant impact will occur, the nature and extent of the impact, and the effectiveness of the mitigation measure in reducing the impact. If an impact is unlikely to occur or unlikely to be of great magnitude, or if the mitigation measure will be of only limited effectiveness, the cost of a particular mitigation measure may not be justified, and hence the measure may be determined to be infeasible, under circumstances where the mitigation measure might be justified if the risk of adverse impacts were greater or the mitigation measure were more effective.

The comment that groundwater diversions are likely to increase to the greatest extent possible as a result of the Policy is unfounded speculation. First of all, it is not fair to assume that any future increase in groundwater pumping in the Policy area will be attributable to the Policy. Groundwater pumping in some areas is likely to increase irrespective of the Policy. In addition, just because groundwater may be adequate to meet demands for some small agencies and individuals does not mean that they will pump groundwater if they also have access to other sources. A large number of factors may influence the decision whether to pump groundwater, such as drilling and pumping costs (which can prohibitively expensive), water quality, and hydrological conditions. (See USGS 1994-380-615: Groundwater and the Rural Homeowner by R. M. Waller.)

LRC-20 See **Response to Comment LRC-19**.

LRC-21 See **Response to Comment LRC-19**. Like the uncertainty concerning whether

diverters will switch to groundwater pumping as a result of the Policy, the likelihood that any switch will cause a significant decrease in surface water flows is relevant to the feasibility of adopting the subterranean stream delineations.

- LRC-22 See **Response to Comment LRC-19**. The effectiveness of adopting the subterranean stream delineations in mitigating the potential impacts attributable to any increase in groundwater pumping is relevant to the feasibility of adopting the delineations.
- LRC-23 The commenter claims that it was misleading to disclose the limited effectiveness of adopting the subterranean stream delineation maps; but it would be misleading to suggest that adopting the maps would be effective in mitigating the potential increase in groundwater pumping throughout the Policy area. As described in section 6.2.2. of the 2008 SED, numerous groundwater basins exist in the Policy area. As explained in section 7.2.1 of the revised SED, the delineations cover only a small portion of these groundwater basins. It was informative, not misleading, to explain that adoption of the delineations would not be effective to the extent that any increase in groundwater pumping occurs outside the delineated areas.
- LRC-24 This comment assumes incorrectly that pumping from a subterranean stream is more likely to adversely affect stream flow, and pumping outside a subterranean stream would be less likely to adversely affect stream flow. Whether groundwater is classified as a subterranean stream or percolating groundwater, however, does not necessarily have any bearing on the extent to which a hydraulic connection exists between the groundwater and a surface stream. Groundwater may meet the definition of a subterranean stream even if no hydraulic connection to a surface stream exists. For groundwater to be classified as a subterranean stream flowing through a known and definite channel, the following physical conditions must exist: 1) a subsurface channel must be present; 2) the channel must have relatively impermeable bed and banks; 3) the course of the channel must be known or capable of being determined by reasonable inference; and 4) groundwater must be flowing in the channel.¹ (See *North Gualala Water Company v. State Water Resources Control Board* (2004) 139 Cal.App.4th 1577, 1585, 1606 [approving four-part test for determining whether water is flowing in a subterranean stream, and rejecting suggestion that determination should be based on impact of groundwater pumping on surface flows].) Conversely, groundwater may be classified as percolating groundwater even if a high degree of hydraulic connectivity to a surface stream exists. Accordingly, the surface flow depletion attributable to groundwater pumping outside an area delineated as a subterranean stream may not be appreciably different than the surface flow depletion attributable to pumping inside the delineated area. The extent of any surface flow depletion would depend on the distance of the groundwater wells from the stream and the other variables discussed in the Supplement to Appendix D, not the legal classification of the groundwater.

The commenter also suggests that adopting the delineation maps would have value because diverters would be more likely to locate new wells outside the delineated

¹ State Water Resources Control Board Order WRO 2003-0004. In the Matter of Permit 14853 (Application 21883) of North Gualala Water Company, and Request for Determination of Legal Classification of Groundwater Appropriated Under this Water Right Permit. February 19, 2003.

areas. This suggestion amounts to a claim that the Policy would be more effective if the delineation maps were adopted, not that adoption of the maps would mitigate adverse impacts caused by the Policy. Moreover, to the extent that locating wells outside the delineated area results in wells being placed at greater distance from the stream, adopting the maps could increase the potential for adverse impacts from a delay in streamflow depletion, as compared to surface water diversions or diversions closer to the stream.

- LRC-25 Stetson Engineers included the disclaimer to acknowledge that the delineation maps were based on literature reviews and to highlight the need to give affected diverters the ability to introduce site specific information and/or to make people aware of the future necessity to conduct site specific investigations to further refine the Delineation maps (Stetson Engineers, Inc. *Technical Memorandum: Approach to Delineate Subterranean Streams and Determine Potential Streamflow Depletion Areas*. February 28, 2008.).

The determination that adoption of the delineation maps would be contentious and that it would be necessary to hold public workshops to gather information is Division staff's expert opinion. Considering the extensive controversy raised by recent State Water Board proceedings involving subterranean stream determinations, it would be imprudent to assume that adoption of the delineation maps would not be controversial or result in litigation from affected persons in the Policy area. Staff did not make this determination in a vacuum, and this opinion is supported by others:

In some cases, the SWRCB has attempted to address this problem by administratively defining the groundwater surrounding a number of rivers...as subterranean streams, which are within the purview of water right permitting. However, these conflicts between state law and scientific reality make regulating groundwater difficult and mean that litigation is often necessary to adjudicate groundwater rights issues.

...The lack of legal and regulatory acknowledgement of this [groundwater and surface water] interaction has led to time-consuming and expensive litigation involving both public and private entities.

Legislative Analyst's Office. *Liquid Assets: Improving Management of the State's Groundwater Resources*. LAO Publications. March 24, 2010.

The commenter's assumption that adopting the delineations will motivate groundwater pumpers outside the delineated areas to conduct site-specific investigations and present the results to the State Water Board is unsupported. Groundwater is presumed to be percolating groundwater unless the Board or another interested party can prove otherwise. See **Response to Comment KB-4**. For this reason, the Board would probably bear the burden of determining in the first instance whether the delineations on the Stetson maps are valid, and determining whether the Board's permitting authority extends to any groundwater pumping outside the delineated areas.

- LRC-26 The revised SED did not state that it was impossible to adopt the delineation maps as a mitigation measure, nor did it point to cost alone as a reason not to adopt the

delineation maps. Staff determined that adoption of the delineation maps was an infeasible mitigation measure. This determination was not made in a vacuum, as the commenter suggests, but was made in consideration of all relevant factors, including the uncertain and speculative nature of the impact, the ineffectiveness of the measure, and the relatively high cost associated with adoption. If viewed in isolation, the cost figures might warrant an explanation as to why they render adoption infeasible, but as the revised SED shows, staff did not consider cost alone as a test for feasibility.

Furthermore, limited available resources are better spent on addressing diversions that have known impacts. The State Water Board intends to focus what resources are available to take action on known impacts, as opposed to undertaking a process to adopt delineation maps that *may* address uncertain impacts at a high cost.

- LRC-27 Whether a mitigation measure can be implemented within a reasonable period of time is relevant to the issue of whether the measure is feasible. (Pub. Resources Code, § 21061.1) The feasibility analysis took into account a number of factors, including the considerable cost and length of time it would take to achieve an uncertain benefit. State Water Board staff did not determine that adoption of the delineation maps is not feasible because they could not be adopted immediately.

Notwithstanding the findings in the revised SED, the State Water Board is open to discussion with CDFW and other stakeholders regarding the delineation maps. The Division believes map adoption would be effective and efficient only in areas where evidence exists that groundwater pumping has a measurable effect on surface flows. If in the future technical information is developed that indicates that unregulated groundwater pumping (which may be unrelated to the adoption of the Policy) within discrete subterranean stream segments depicted on the maps is adversely affecting stream flows, then the State Water Board may consider adopting the subterranean stream delineations for those stream segments. At the present time, Policy-wide adoption of the delineation maps in absence of evidence of such impacts is not warranted and, as shown in revised SED Section 7.2, infeasible as an effective CEQA mitigation measure. See **Response to Comment TU-3**.

- LRC-28 See **Response to Comments TU-3 and LRC-26 and 27**. The State Water Board likely could consider adoption of the delineation maps using existing fiscal resources, but doing so would have a significant, adverse financial impact on other higher priority programs and projects. Given the uncertain benefit and high cost of adopting the maps, requesting a budget augmentation from the Legislature to cover the costs associated with a proceeding to consider their adoption would not be justified. To the extent the Legislature may be willing to provide additional funding for the water right program, notwithstanding the controversy and litigation over the fees that supports most of the program, there are many activities that merit a higher priority because they will be more effective in protecting public trust resources. Moreover, the State Water Board is not required to seek additional funding from the Legislature for mitigation measures that the Board determines to be infeasible for other reasons, including an evaluation of the costs and potential benefits of the mitigation measure.

- LRC-29 See **Response to Comment LRC-19**. Whether the State Water Board has other, less costly options for addressing any impacts attributable to groundwater pumping is

relevant to the feasibility of adopting the subterranean stream delineations. In Section 7 of the revised SED, the State Water Board acknowledged that the potential impacts attributable to an increase in groundwater pumping might not be fully mitigated by case-by-case enforcement actions. The commenter asserts that adoption of the delineations is legally feasible, but the Board has never argued to the contrary.

- LRC-30 The Alameda County Superior Court directed the State Water Board to evaluate the feasibility of adopting the subterranean stream delineations prepared by Stetson Engineers. The State Water Board complied with this directive in revised section 7.2.1 of the SED. See **Response to Comment LRC-18**. The Superior Court did not require the State Water Board to evaluate any other mitigation measures. The issue raised in this comment is outside the scope of the Superior Court's writ of mandate and does not pertain to the revisions to the SED that State Water Board staff made voluntarily. Accordingly, no response is required. (See *Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 480.)
- LRC-31 See **Response to Comment LRC-30**. Although a response to this comment is not required, in the interest of public disclosure it is worth pointing out that this proposal is unlikely to meaningfully reduce the level of controversy associated with adoption of delineation maps or result in any significant reduction in time or cost estimates (since the lower range estimate is based on process requirements – see **Response to Comment KB-5**). Furthermore, this proposal does nothing to improve the effectiveness of the delineation maps as a mitigation measure. If anything, establishing a rebuttable presumption would lessen the effectiveness of the delineation maps should they be adopted.
- LRC-32 See **Response to Comment LRC-30**. Although a response to this comment is not required, it merits note that the Superior Court already has rejected the argument that the State Water Board should have considered as a potential mitigation measure a similar proposal to impose a reporting requirement on persons using percolating groundwater outside the areas delineated as subterranean streams on the grounds that the proposal was legally infeasible. (Statement of Decision, pp. 13, 16-17.) The Russian River frost regulation was supported by evidence that unmanaged surface and groundwater diversions within the Russian River watershed for purposes of frost protection are unreasonable because those diversions may have significant cumulative impacts on threatened and endangered fish and those impacts can be avoided by coordinating or otherwise managing diversions. Similar evidence does not exist concerning the reasonableness of groundwater use within the areas delineated as potential stream depletion zones on the Stetson maps that would justify the imposition of the reporting requirement proposed by the commenter on all persons pumping groundwater within those areas.
- LRC-33 See **Response to Comment LRC-30**. A response to this comment is not required. In addition, the first provision proposed in the comment is not a legally feasible CEQA mitigation measure because there is no nexus with the potential impacts of the permit applicant's project. If a groundwater well on an applicant's property is unrelated to the surface water project that is the subject of the application, the State Water Board cannot require the submittal of information or impose limitations on the applicant's groundwater pumping through the permitting process.

LRC-34 See **Responses to Comments LRC-30 and LRC-33**. State Water Board staff assumes that this second proposal is an outgrowth of the first (**LRC-33**), whereby if wells on the parcel to be served by the diversion are identified as having the potential to harm salmonids by reducing flows in the stream, then the State Water Board must complete a CEQA review and impose conditions to prohibit harmful groundwater extractions. As explained below, this proposal is not legally feasible. Moreover, it would only be effective in mitigating the potential impacts of the Policy in the unlikely event that a surface water diverter switches to groundwater in order to avoid the restrictions of the Policy and simultaneously pursues a new water right permit pursuant to a pending application.

Like the first proposal (**LRC-33**), this proposal is not legally feasible because a nexus between a proposed surface water appropriation and any groundwater pumping on the parcel to be served by the surface water diversion may not exist. In addition, the proposed mitigation measure is internally inconsistent. The statement that the measure would be consistent with nexus and “rough proportionality” requirements is inconsistent with the proposal to impose reporting requirements and other limitations on all applicants. The statement that the proposed requirements would only apply to the extent necessary to determine the availability of water for appropriation is also inconsistent with the proposal to curtail any groundwater pumping that will cause or contribute to impacts to salmonids by reducing stream flows.

Finally, committing to prepare a CEQA document is problematic for the following reasons: 1) if a project already exists, it may be exempt from CEQA requirements as an “existing facility” and a CEQA document would not be required (Cal. Code Regs., tit. 14, § 15301) and/or 2) the State Water Board may not be the lead agency responsible for the preparation of a CEQA document if needed.

LRC-35 See **Response to Comment LRC-30**. A response to this comment is not required. Nonetheless, the following response is provided. Mitigation measures beyond the authority conferred by law on lead or responsible agencies are legally infeasible. (Pub. Resources Code, § 21004; Cal. Code Regs., tit. 14, § 15040.) As explained in section 7.2.1 of the revised SED, the State Water Board has limited regulatory authority over percolating groundwater. Contrary to the commenter’s suggestion, the Board is not obligated to ask the Legislature to expand the Board’s regulatory authority over groundwater in order to mitigate for the potential increase in groundwater pumping attributable to the Policy.

LRC-36 The Alameda County Superior Court directed the State Water Board to present sufficient information to enable the decision makers and the public to understand and to consider meaningfully the limited legal options facing the Board to mitigate the expected increase in the use of percolating groundwater. In its Statement of Decision, the Superior Court faulted the 2008 SED for not clearly disclosing that there would be little or no CEQA review of the anticipated increase in use of percolating groundwater in four of the five counties in the Policy area because the Board does not have permitting authority over percolating groundwater and groundwater use is regulated on the county level only within Napa County and the Town of Mendocino. (Statement of Decision, pp. 18-24.) The Board complied with the Superior Court’s directive by revising and recirculating section 7.2.2 and other provisions of the SED.

The Superior Court focuses on the extent to which local agency review may serve to mitigate any adverse effects of the Policy, and did not order the Board to evaluate the adequacy of Napa County's groundwater ordinance to address broader issues, including existing conditions of depletion. Accordingly, this comment is beyond the scope of the writ of mandate issued by the Superior Court, and a response is not required. See **Response to Comment LRC-30**.

For purposes of clarity, the disclosure there will likely be little to no project-level CEQA review of the potential increase in the use of groundwater outside of Napa County does not amount to a conclusion that Napa County necessarily will avoid or mitigate any adverse impacts of the Policy. Rather, the Revised SED simply recognizes that Napa County exercises permit authority. In the exercise of that permit authority, Napa County can and should avoid or mitigate any significant adverse environmental effects that result from a shift from surface diversion to groundwater pumping. In the CEQA context, the statement that another public agency can adopt a mitigation measure means that the other agency is able to adopt the mitigation measure and the State Water Board recommends that it do so, not that State Water Board can require the public agency to do so or predicts that it will.

On a separate note, the Napa County Groundwater Resources Advisory Committee (GRAC) was created in 2011 to assist County staff and technical consultants with recommendations regarding groundwater, including data collection, monitoring, well pump test protocols, management objectives, and community support. The commenter should submit any disputes or concerns with the groundwater permitting thresholds in Napa County to the GRAC, rather than the State Water Board, which does not have permitting authority over pumping of percolating groundwater.

LRC-37 The additional exhibits submitted with this comment letter are available for public viewing at the Division's website:
http://www.waterboards.ca.gov/waterrights/water_issues/programs/hearings/norcal_cs/comments040813.shtml

Responses to Oral Comments

This section includes a written outline of oral comments received at the April 23, 2013 Board Meeting. The transcript is available by request.

Mendocino County Farm Bureau, California Farm Bureau, Danny Merkley, April 23, 2013

- O-MFB-1
- i) Mr. Merkley's oral comments are intended to support the Mendocino Farm Bureau and their submitted written comments.
 - ii) The Mendocino Farm Bureau will likely submit more comments when the Policy is up for periodic review.
- O-MFB-2
- iii) Many water users are also confused about the difference between percolating groundwater and diverting from subterranean streams.
 - iv) Emphasized that delineating subterranean streams is a complex issue and will take time to work through.
- State Water Board Chair Felicia Marcus asked Mr. Merkley if he meant there was confusion in the revised SED, or did he mean the public was confused about the topic in general?*
- v) Mr. Merkley clarified that most people are not clear on whether they may be diverting from percolating groundwater versus subterranean streams and that the information is not visibly available.

**Mendocino County Farm Bureau, California Farm Bureau, Danny Merkley,
April 23, 2013**

O-MFB-1 Comment noted.

O-MFB-2 See **Response to Comments MCFB-3** and **TU-3**.

Trout Unlimited, Chandra Ferrari, April 23, 2013

Ms. Ferrari stated that she was acting for Brian Johnson, who had earlier submitted written comments from TU; her comments mainly reemphasize the written comments from Mr. Johnson's letter.

O-TU-1

1. TU supports re-adoption of the Policy, preferably as soon as possible.
2. TU is concerned with several statements in the revised SED in relation to groundwater and subterranean streams:

O-TU-2

- The wording regarding groundwater in the revised SED is confusing and unclear;
- The revised SED gives the impression that the Board is not as committed to regulating diversions from subterranean streams as compared to surface water; and
- Recent enforcement efforts also seem to concentrate on surface water diverters (which are easier to identify), rather than subterranean stream diverters. This is a problem because some subterranean stream diverters may have greater environmental impacts than small surface water diversions.

O-TU-3

3. TU recommends:
 - That the revised SED provide clarity in that the State Water Board will regulate subterranean stream diversions as well as surface water diversions.
 - The State Water Board should work with CDFW to refine enforcement sweeps to users that have big impacts on natural resources, rather than just enforce on those users who are easy to identify.
 - The State Water Board should work with Stakeholders to reconsider adopting subterranean stream delineations in the Policy. TU understands that this may be a large task, but suggests that the Policy could include a provision to include a timeline, including guidance for landowners that can be amended as future study warrants.

Trout Unlimited, Chandra Ferrari, April 23, 2013

O-TU-1 See **Response to Comment TU-1.**

O-TU-2 See **Response to Comment TU-2.**

O-TU-3 See **Response to Comment TU-3.**