



**California Regional Water Quality Control Board  
North Coast Region  
Bob Anderson, Chairman**



Linda S. Adams  
Secretary for  
Environmental Protection

[www.waterboards.ca.gov/northcoast](http://www.waterboards.ca.gov/northcoast)  
5550 Skylane Boulevard, Suite A, Santa Rosa, California 95403  
Phone: (877) 721-9203 (toll free) • Office: (707) 576-2220 • FAX: (707) 523-0135

Arnold  
Schwarzenegger  
Governor

April 30, 2008

Ms. Karen Niiya  
State Water Resources Control Board  
P.O. Box 2000  
1001 I Street, 14<sup>th</sup> Floor  
Sacramento, CA 95812-2000

STATE WATER RESOURCES  
CONTROL BOARD  
2008 MAY - 1 PM 3:46  
DIV OF WATER RIGHTS  
SACRAMENTO

Dear Ms. Niiya:

**Subject: Comments on the Policy for Maintaining Instream Flows in Northern California Coastal Streams**

Thank you for the opportunity to comment on the March 14, 2008 draft of the "Policy for Maintaining Instream Flows in Northern California Coastal Streams" (Draft Policy), the Supplemental Environmental Document (SED), and the "North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids" report (Task 3 Report). Per Assembly Bill 2121, an instream flow policy was to be adopted by the State Water Resources Control Board (State Board) by January 1, 2008 for the purpose of permitting water rights in such a way as to maintain the instream flows necessary to protect threatened and endangered salmonid species in the coastal streams north of San Francisco up to the Mattole River watershed and including streams discharging to San Pablo Bay.

The North Coast Regional Water Quality Control Board (Regional Board) has an interest in the development and implementation of an instream flow policy, because it is charged with protecting water quality in much of the policy area, including the compliance with water quality objectives (e.g. temperature, dissolved oxygen, and sediment) and protection of beneficial uses (e.g., cold freshwater habitat; estuarine habitat; rare, threatened or endangered species; migration of aquatic organisms; and spawning, reproduction, and/or early development) as described in the Water Quality Control Plan for the North Coast Region (Basin Plan). The Regional Board engages in numerous activities related to this end that may be affected by an instream flow policy including but not limited to the:

- Development and enforcement of water quality objectives;
- Identification of impaired waterbodies requiring listing under 303(d) of the Clean Water Act;

**California Environmental Protection Agency**

Recycled Paper

- Development and enforcement of Total Maximum Daily Loads (TMDL) for those waterbodies not meeting water quality objectives (e.g., water temperature or sediment impaired waterbodies);
- Permitting of facilities directly impacting water quality, including instream dams and/or their decommissioning.

It is on this basis and in the spirit of improving the Policy in meeting its mandated goals that Regional Board staff offer these comments.

#### **General Comments on Instream Flow Policy Elements**

Regional Board staff is wholly in support of the concept of a instream flow policy for the purpose of guiding the Division of Water Rights staff in the administration of the water rights program in the north coast region. We strongly support the idea of establishing instream flow thresholds, individual water availability analyses, and instream flow analyses to determine whether a specific project will contribute to a cumulative reduction in instream flow that will be unsupportive of water quality or salmonid health.

We strongly support the concept of a watershed approach in which multiple diverters can conduct joint analysis, thereby establishing a more comprehensive depiction of flow conditions in a given waterbody. And, we support the concept of establishing a framework in which diverters can conduct a site specific study to calculate the flow requirements necessary for protection of salmonids and water quality in their individual stream. There are details that need to be explored, such as, but not limited to, watershed size, financial assurances of a watershed group, interagency coordination, and an adaptive management framework to address changes in conditions. As you know, a local landowner group, Sonoma County Salmonid Coalition, is working on a collaborative approach to address water quality and quantity issues for listed anadromous species in three Russian River valleys. They are proposing a watershed approach to water rights permitting, which includes selecting a target watershed, assessing instream flow needs, and developing a water management plan. Regional Board staff (and numerous other local, state, and federal agencies) have been working with this group, and we support their efforts. We believe the efforts of this group could serve as a model for other situations in the north coast region, and we will continue to serve in advisory and liaison roles as they work through the process.

While Regional Board staff are generally supportive of the Policy, this letter identifies concerns with both the content of the analysis and the proposed policy alternative. Further, the analysis conducted under the California Environmental Quality Act (CEQA) does not fully assess cumulative impacts and inappropriately defers the development of mitigation measures for potentially significant impacts. Additionally, neither the technical analysis, CEQA analysis, nor the proposed Policy adequately addresses water quality or the requirements of the Basin Plan. For example:

- The Policy and supporting analyses do not explicitly analyze and consider the degree to which the policy alternatives protect water quality. This is our mutual

goal and responsibility, and an instream flow policy should include thorough analysis of water quality impacts.

- The Policy does not distinguish between streams listed as impaired pursuant to section 303(d) of the Clean Water Act and those without impairments. It does not acknowledge the unique considerations that water bodies listed for sediment, temperature, and/or hydromodification require for the re-attainment of water quality standards. It also should include a mechanism of coordinating with Regional Board on TMDL implementation.
- The Policy does not consider the need to provide special protection of refugial streams. This is critical not only to the protection of salmonids in the policy area, but in many cases to the protection of other water quality parameters as well.
- The Policy does not reference the role of the Regional Boards in basin planning, monitoring, and permitting, nor the need for the Policy and any subsequent water right actions to consider the requirements of the Basin Plan.

We look forward to working more closely with State Board staff in the coming months to discuss revisions to the Policy so that it better serves our mutual goals.

#### **Specific Comments on Instream Flow Policy Elements**

***Comment 1: The analysis did not substantively consider the effect of the proposed policy on the attainment of water quality objectives as described in the Basin Plan, the thresholds of concern developed in individual TMDLs, or the listing of streams in the policy area on the 303(d) list as water quality impaired.***

The Regional Board has approved and implements the Basin Plan, which contains among other things, the beneficial uses in each waterbody, and water quality objectives designed to protect those beneficial uses. The streams not meeting water quality objectives are identified under section 303(d) of the Clean Water Act as water quality impaired and a TMDL developed to attain the water quality objectives of concern.

The Regional Board, State Board, and USEPA have approved many TMDLs for watersheds within the north coast region and a 303(d) list with many additional watersheds identified as impaired. Many of the water quality impairments in the north coast region are directly related to the health and continuance of endangered aquatic species, most notably Chinook, coho and steelhead. Hydromodification is specifically listed as a potential cause of the impairment in some watersheds. In other watersheds, flow acts as a companion to other more immediate concerns, such as sedimentation or elevated temperature. A TMDL establishes the thresholds of concern necessary to regulate activities in the watershed for the purpose of attaining water quality objectives and protecting the beneficial uses. These thresholds of concern could have been a critical element of the State Board staff's CEQA analysis. However, the proposed Policy was developed without substantive consideration of the Basin Plan, its water quality objectives, the 303(d) listed streams in the policy area, or the numerous TMDLs in the policy area. The State Board staff should reassess the bases for the proposed

policy, better incorporate consideration of water quality protection, and revise the policy accordingly.

The development of a TMDL requires a thorough assessment of environmental data in each impaired watershed, as well as an assessment of the factors limiting the beneficial uses of concern—generally in the north coast, salmonid habitat. To this end, Regional Board staff typically collect, compile, and analyze fishery, hydrology, water quality, and other environmental data; develop maps and other analytical tools; conduct extensive public outreach; etc. This wealth of information is available through the Regional Board website and/or Regional Board staff and could have provided the State Board staff with a far more comprehensive database from which to conduct its analysis. Regional Board staff is available to help in this regard.

***Comment 2: The proposed season of diversion will not fully protect salmonids in the policy area, nor will it fully protect water quality.***

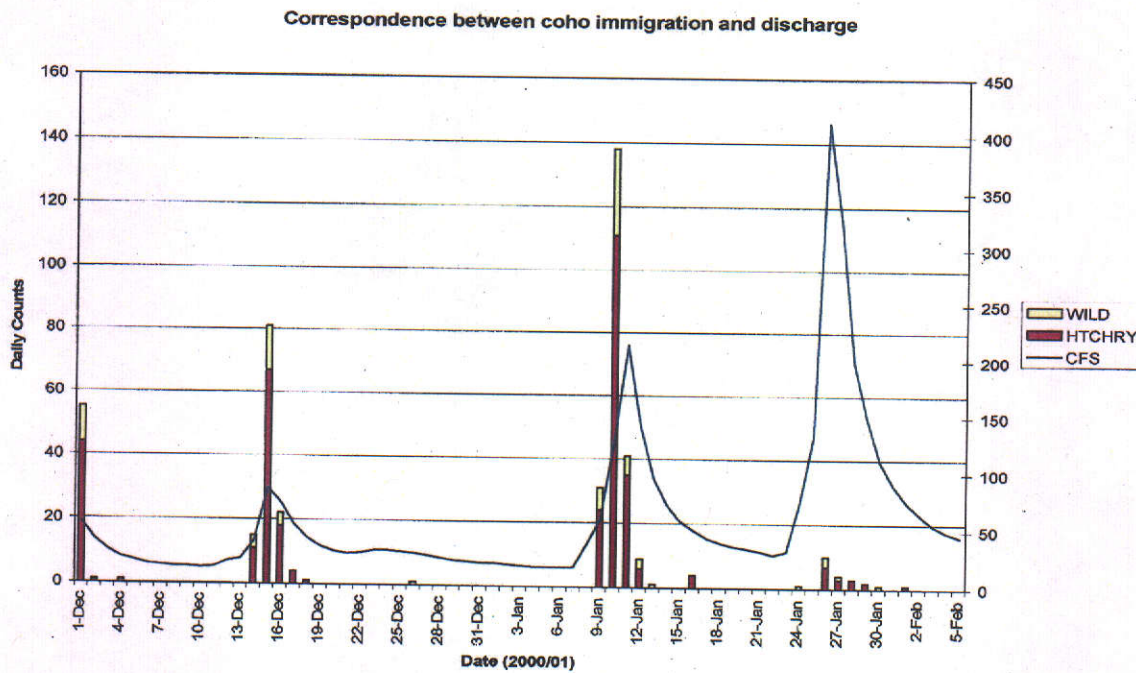
Regional Board staff is particularly concerned about the proposed diversion season. As described in detail below, the technical analysis does not support the proposed diversion season beginning on October 1<sup>st</sup>, and an October 1<sup>st</sup> diversion season will not fully protect either salmonids or water quality. Further, the SED should include mitigation measures to prevent potentially significant impacts to salmonids and water quality posed by an October 1<sup>st</sup> diversion season start date, or provide a statement of over-riding consideration.

#### **Attraction Flows**

One significant issue with a diversion season that begins October 1<sup>st</sup> stems from the fact that on the north coast, the upstream migration of salmonids is related to rises in the stream hydrograph. Salmonids typically move upstream during pulses of flow that result from precipitation events. Figure 1 below charts the timing of upstream migration of adult coho in the South Fork Noyo River, and clearly shows the relationship between flow peaks and fish migration (SF Noyo River; data provided by S. Harris, CDFG).

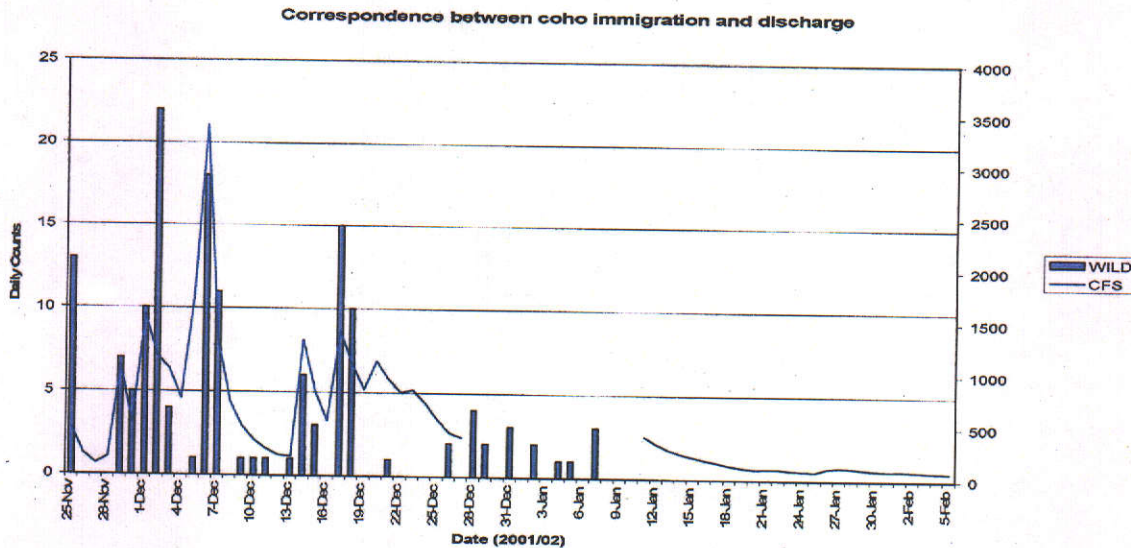
The analysis presented in the *Task 3 Report* assumes that salmonids simply require proper depths and velocities for upstream migration, and that the minimum base flow element provides adequate protection of these flow-related factors. However, a minimum base flow, by itself, is not protective of the upstream passage needs of adult salmonids. Regional Board staff expect that diverters will begin filling their storage facilities as soon as they are allowed. Thus, an earlier diversion season may result in a significant reduction of flows from fall freshets, thereby reducing the triggering response of attraction flows and subsequent opportunities for adult salmonids to access spawning grounds.

Figure 1. Timing of Adult Coho Migration in South Fork Noyo River (2000/01).



Given the importance of fall flow pulses that serve as "attraction flows" for migrating adults, Regional Board staff recommends a diversion season that is fully protective of upstream passage. The minimum base flow protective element is not sufficient to protect upstream migration because of the stated behavioral traits of salmonids.

Figure 2. Timing of Adult Coho Migration in South Fork Noyo River (2001/02)



**Stream Temperatures**

Another issue related to an October 1<sup>st</sup> start date involves stream temperature. The analysis states that diversions occurring as early as October 1<sup>st</sup> would not lead to temperatures that impact upstream salmonid migration, citing a temperature criterion for migration of 21 C. In fact, the temperature requirements for salmonid spawning, incubation, and emergence are much lower.

The USEPA (2003) has determined that the maximum value of the 7-day running average of daily maximum temperature should not exceed 13 C (55.4 F) during the spawning, incubation and fry emergence. Further, when ripe adult Chinook females experience temperatures above 13-15.5C (55.4-59.9 F), pre-spawning adult mortality becomes pronounced (ODEQ 1995). Additionally, there is decreased survival of eggs to the eyed stage, and alevin development is inhibited due to the exposure of the ripe female to warm temperatures, even if the stream temperatures during the egg and alevin development are appropriate (ODEQ 1995). Given the fact that the policy area often experiences warm weather in October and November when Chinook are migrating and spawning, diversions during this time period could increase stream temperatures in a way that would violate the water quality objective for temperature contained in the Basin Plan and adversely affect the cold water beneficial use.

The proposed end of diversion season may also lead to temperature violations. Section 4.3.4 of the *Task 3 Report* states that water temperatures at 15 C and above can cause premature smolting and/or desmoltification. The report also demonstrates that these temperatures are reached in the policy area between March and May. Because reduced flows often result in temperature increases, it is possible that a diversion season that overlaps the period of stressful temperatures for salmonids could increase stream temperatures in a way that would adversely affect the cold water beneficial use.

While it is sometimes difficult to show temperature violations of individual diversions, the State Board has an opportunity through the Policy to address temperature issues in a cumulative and meaningful way. To utilize this unique opportunity, Regional Board staff recommend that the State Board require a shorter diversion season to ensure that high temperature impairments are not further exacerbated by the Policy.

**Habitat Connectivity**

The third issue related to an October 1<sup>st</sup> start date relates to habitat connectivity. Many streams in the policy area become dry during the summer months. The lower order headwaters of these streams begin to flow when transpiration decreases as trees go dormant, or in response to precipitation. However, the alluvial reaches of these streams do not have surface flow until the volume of runoff has been enough to saturate the stream channel alluvium and the water table rises above the stream bed. A diversion season that begins October 1<sup>st</sup> may significantly delay the onset of surface flow in these alluvial reaches, thereby adversely affecting habitat connectivity, spawning opportunities, and beneficial uses.

**Spawning Impacts**

The fourth issue related to an October 1<sup>st</sup> start date relates to protection of spawning habitat. Section 5.1.2 suggests that "allowing a diversion start date of October 1<sup>st</sup> could benefit redds constructed near channel margins as well as deeper areas, provided appropriate MBF and MCD rate elements are met during this time (p.5-2)." This statement is rather unconvincing. A more likely effect of the proposed season of diversion and MBF will be to promote spawning in the thalweg thereby increasing the likelihood of redd scour over the winter.

Another spawning impact specifically relates to the flow needs of Chinook salmon. Page 5-3 of the *Task 3 Report* states:

"Chinook salmon is a special case and warrants a separate discussion. Because Chinook salmon migrate and spawn earlier than the other anadromous salmonid species, they would be most vulnerable to effects of diversion prior to December 15<sup>th</sup> due in part to their larger size and higher flow requirements. However, Chinook in the policy area tend to spawn in larger channels, which require proportionally less water than smaller channels relative to mean annual flow. Therefore, maintaining base flows in upstream channels that are protective of steelhead spawning habitat needs after October 1<sup>st</sup> should also be moderately to fully protective of Chinook spawning needs downstream depending on the stream."

The assumption that the Chinook population would be "moderately to fully" protected by a policy that constrains spawning to "larger channels" fails to recognize the importance of genetic diversity. The reduction of genetic diversity that the proposed Policy could result in would reduce the resiliency of the Chinook species

For these reasons, Regional Board staff recommends the DS1 diversion season alternative.

**Diversion Season Mitigations**

Section 2.4.1 of the SED states that the proposed diversion season "is intended to protect fishery resources, including fish habitat, by preventing water diversions when stream flows are low and water temperatures are high." The proposed diversion season may protect some, but not all, north coast streams. As such, we have recommended in comments above that the proposed diversion season be altered. In the event that the State Board opts to accept the proposed diversion season, Regional Board staff recommend that State Board require mitigation measures to protect individual streams from fall diversion prior to the achievement of appropriate migration temperatures. Further, State Board should require mitigation measures to protect individual streams from spring diversion after the warming of stream temperatures to a point of concern for outmigrants. Regional Board staff recommends the following specific mitigation measures:

- The diversion season shall not begin until temperature conditions that are fully supportive of salmonids are achieved at key spawning and rearing areas (as

defined by CDFG). Regional Board staff recommend the temperature criteria presented in *EPA Region 10 Guidance for Pacific Northwest State and Tribal Water Quality Standards* (2003, Available at: <<http://www.epa.gov/r10earth/temperature.htm>>).

- The diversion season shall end once temperature conditions rise above the fully protective temperature criteria at key spawning and rearing areas (as defined by CDFG). Again, Regional Board staff recommends the criteria presented in the EPA guidance described above.
- The diversion season shall not begin until there is full habitat connectivity between the ocean and the point of diversion.

***Comment 3: The proposed policy does not acknowledge or consider the multi-dimensional nature of the hydrologic regime and the connectivity of hillslope and groundwater processes to channel form and function, including habitat and other water quality phenomena.***

Stream flow can be viewed as having four dimensions, including the longitudinal, lateral, vertical and temporal dimensions (Freeman and others 2007). The longitudinal dimension describes the movement of water through the stream channel from the headwaters to the estuary. The lateral dimension describes the movement of water from the hill slope to the stream channel. The vertical dimension describes the movement of water from the surface, through the hyporheic zone, to groundwater and back. The temporal dimension describes the seasonal and annual variation in stream flow. The proposed Policy does not fully consider and address the integrated nature of these dimensions. Instead, it focuses narrowly on the effect on instream flows from permitted diversions and impoundments, without sufficient regard to the many other issues affecting instream flows within a given watershed.

This narrow view may have unintended consequences that run contrary to the goals of the proposed policy. As one example, in the absence of any other regulatory tools, implementation of the proposed policy is likely to result in a worsening of summer flow and temperature conditions in some streams. This is because, as acknowledged in the Substitute Environmental Document (SED), implementation of the proposed policy will cause many diverters to turn to riparian diversion and/or groundwater extraction to fulfill their water supply needs rather than comply with the policy. A reduction in groundwater flow will likely result in a reduction in the base flows upon which summer flows in many north coast streams depend. This outcome is presented in the SED as a potentially significant indirect impact for which no mitigations are suggested. The technical analysis should have taken a broader view of the landscape effects on instream flow. In particular, the technical analysis should have assessed summer flows as a limiting factor to salmonid success and considered the effect of the policy alternatives on summer flows and water quality, including the importance of groundwater flow to summer flow. Further, the potentially significant impacts predicted in the CEQA analysis should have triggered a reassessment of the approach; or at least, the development of upfront mitigations to better ensure the Policy's success.



***Comment 4: Regional Board staff does not support permitting dams on Class I and Class II streams as they will not fully protect salmonids and water quality.***

Regional Board staff prefers the DP1.1, DP2.1, and DP3.2 on-stream dam permitting restrictions alternatives. Regional Board staff does not support the existence of small dams on class I and II streams due to the biological significance of these stream types, and the high likelihood of Basin Plan violations resulting from their existence. Class I and II streams are ecologically important environments, which deserve the highest levels of protection. Given the nature of water chemistry and thermodynamics of impounded waters, the permitting of these structures may present conflicts with our Basin Plan. Specifically, in our experience on-stream reservoirs often violate the temperature and dissolved oxygen water quality objectives set forth in the Basin Plan. On-stream dams also can affect the channel forming dynamics of a stream with consequent impacts to fish habitat, sediment transport dynamics, and stream flow patterns. Further, the existence of on-stream reservoirs may also present a risk to downstream environments, as the failure of on-stream dams in large storm events can lead to deleterious sediment discharges and damage to stream channels.

Regional Board staff recommend that a sixth item be included in the list of potential effects of onstream dams identified in Section 8.1 of the *Task 3 Report* which reads "alter water quality (e.g., increase temperature, decrease dissolved oxygen, increase nutrients, increase nuisance, increase algae) either upstream or downstream of the impoundment." Further, Regional Board staff recommends that the analysis of protectiveness of on-stream dams/reservoirs be revised to look specifically at water quality impacts.

The Policy proposes that mitigation plans include a Gravel and Wood Augmentation Plan and a Riparian Habitat Replacement Plan. Regional Board staff recommends that the State Board provide some reference material supporting the general effectiveness of gravel and wood augmentation and riparian habitat replacement as successful restoration approaches.

If alternatives DP1.2 and DP2.2 are pursued, Regional Board staff request that additional language be added requiring Regional Board approval of permits for existing, unauthorized on-stream dams. Regional Board staff suggests that an on-stream dam permit applicant should be required to receive a 401 permit, waste discharge requirements, or a waiver from the Regional Board before receiving a permit from Division of Water Rights. If allowed, this condition would give Regional Board staff the opportunity to approve the mitigation plans required in the approval criteria. Staff also recommends a re-opener provision in the permit that allows for specific provisions that may be developed through the Regional Board's TMDLs.

***Comment 5: The proposed Maximum Cumulative Diversion will not be fully protective of salmonids, nor will it be fully protective of water quality.***

On this subject, we concur in general with the comments provided by Professor Margaret Lang in her letter to Karen Niya dated February 1, 2008. In addition, we also think that a margin of safety needs to be factored into the proposed maximum cumulative diversion rate to account for:

- There is uncertainty in the analysis of potential impacts.
- There is uncertainty in the ability to accurately estimate the unimpaired 1.5-year instantaneous peak flow in many stream reaches.
- The potential for one or more large diversions to be unknown to an applicant or to the State Water Board, and hence to not be accounted for in calculation of the existing cumulative rate of diversion; and/or
- The possibility of unintentional or deliberate non-compliance resulting in higher actual cumulative diversion rates.

For example, if the actual reduction is 10 percent in the 1.5-year peak, then potential changes in channel sediment transport capacity, fine sediment deposition, and habitat area may be significant. Based upon these considerations, the Regional Board prefers alternative MCD1.

***Comment 6: Flows narrowly designed to protect spawning habitat will not sufficiently protect juvenile salmonids.***

Section 2.3 of the *Task 3 Report* assumes that "flows that meet spawning habitat criteria will also provide sufficient water to protect juvenile rearing habitats (p. 2.5)." This assumption ignores the needs of over wintering juveniles for off-channel habitat with lower velocities, food availability, and hiding cover. Regional Board staff concur with the concerns expressed by Dr. Margaret Lang in her peer review comments regarding the flow needs of salmonids. An adequate assessment of winter flow requirements for salmonids should include an analysis of the amount of water necessary to provide such off-channel habitat. Where the analytical methods are insufficient to assess the effects of flow on winter rearing habitat, the Policy should include mitigations sufficient to protect against potentially significant impacts related to the uncertainty.

***Comment 7: The Task 3 Report does not sufficiently demonstrate the protectiveness of the chosen alternative.***

The outcome of four Flow Alternative Scenarios at the 13 validation sites are compared in Table 4-3 of the *Task 3 Report*. Flow Alternative Scenario 1 is proposed by both the California Department of Fish and Game and the National Marine Fisheries Service. Scenario 2 is proposed by Trout Unlimited. Scenario 3 is the combination of the most restrictive policy elements. And, Scenario 4 is the combination of the least restrictive policy elements.

The evidence provided in Table 4-3 indicates that Scenario 3 provides the most protection to the resources of concern. While the Policy proposes to use the Minimum Bypass Flow element of Scenario 3, it also proposes to use the Diversion Season and Maximum Diversion Rate elements of Alternative 4, the worst performing alternative. For reasons described below, it is not convincingly shown that the 2 of 3 elements from Scenario 4 proposed for this Policy will provide adequate protection to the threatened and endangered aquatic resources.

Figures 4-6, 4-7 and 4-8 in the *Task 3 Report* depict the average number of days/year of upstream passage for steelhead, coho, and Chinook, respectively, in the validation sites, as well as the change in passage days as compared to those provided by the "unimpaired" condition. Regional Board staff view Alternatives 4 and 5 as inadequate to protect the migration passage needs of the species of concern.

Figures 4-10, 4-11, and 4-12 in the *Task 3 Report* depict the average number of days/year providing adequate spawning opportunities for steelhead, coho, and Chinook, respectively in the validation sites, as well as the change in spawning opportunities as compared to those provided by the "unimpaired" condition. Regional Board staff view Alternative 4 as inadequate to protect the spawning needs of the species of concern.

It is suggested in Section 4.3.5 of the *Task 3 Report* that Scenario 4 offers the best regionally protective criteria, the smaller diversion rates having the potential to be overly protective in some streams. No analysis estimating the relative under and over-protectiveness of the scenarios is provided. Thus, it is difficult for Regional Board staff to assess this statement. Further, it is acknowledged that there is some uncertainty in determining a protectiveness threshold for channel and riparian maintenance flow needs. We suggest that effectiveness monitoring be used to determine if protectiveness is being accomplished, particularly to determine if additional diversion is possible. Regional Board staff agrees that monitoring is an excellent tool to measure the effectiveness of the Policy and the degree to which site-specific or regional changes can be made. However, in the face of scientific uncertainty Regional Board staff prefer to err on the side of resource-protectiveness and suggest modifying the Policy to allow additional diversion only after monitoring data are developed that support such changes.

***Comment 8: Areas of uncertainty in the analysis and Policy for which a margin of safety or mitigation measures should be developed.***

The technical analysis includes numerous areas of uncertainty for which under-protective assumptions were made. For example, streams with "few-to-no" permits listed in WRIMS were assumed to be unimpaired. This assumption ignores the possibility of unpermitted diversions of which there are many in the policy area. It further ignores the role of riparian diversions and groundwater extraction in the alteration of instream flows. We recognize the limitations of a regional analysis of this scale; however, where assumptions of this nature are required, they should err on the

side of resource protection. In this case, the validation sites identified and the hydrologic data used are not likely to represent unimpaired conditions upon which to establish a baseline.

***Comment 9: Important issues not addressed in the technical analysis. Either the technical analysis should be corrected to incorporate consideration of these issues; or, the Policy revised to include mitigations necessary to prevent potentially significant impacts.***

The technical analysis and Policy does not substantively consider the following:

- The water quality objectives and the requirements of the Basin Plan(s).
- The 303(d) listings, developed TMDLs, and adopted TMDLs.
- The presence of and need for protection of refugial streams.

These omissions are significant and require a revision of the technical analysis, proposed Policy, and/or the development of mitigations to prevent potentially significant impacts.

In addition, implementation of the proposed Policy may result in potentially significant direct impacts not considered in the SED. For example, Regional Board staff is concerned that the proposed Policy will result in under-protection in some streams in the policy area. Permits issued in those streams will not likely result in the kind of habitat and water quality conditions necessary to protect beneficial uses, including salmonids. Yet, the monitoring plan, adaptive management plan, and permit reopener clause insufficiently provide for swift correction to protect against the loss of whole year classes of salmonids. This problem should be corrected or mitigated.

As another matter, reservoirs often result in water quality violations, in addition to acting as barriers to salmonid passage. The proposed Policy allows for the permitting of existing dams on Class I streams that meet certain provisions. But, attainment of water quality standards is not one of the criteria required for permitting. This has the potential to result in the State Board permitting dams on Class I streams that violate the Basin Plan, increase impairment in downstream reaches already listed on the 303(d) list, and/or work in conflict with a TMDL approved for the basin.

Finally, for emphasis, we note that streams currently providing salmonids with refugia from elevated temperatures or impaired habitat conditions require special protection against degradation. The SED does not analyze the effect on salmonid populations from the loss of refugia due to reduced stream flows and/or impaired water quality conditions resulting from diversions or dams in those streams. The appropriate mitigation is to prevent any further diversions or dams on streams identified by the Department of Fish and Game or the National Marine Fisheries Service as providing important refuge.

***Comment 10: Many existing facilities are contributing to an overall cumulative impact on the pattern and range of flows necessary to support beneficial uses in the Policy area, including salmonids.***

Given the extent and magnitude of existing diversions, the temperature and sediment impairments of many policy area streams, and the precarious position of salmonid populations in the Policy area, Regional Board staff suggests revisiting existing water right permits to ensure that they are not contributing to violations of the Basin Plan or the Policy. At a minimum, Regional Board staff recommends that the Division include in the Policy a monitoring element designed to track compliance with existing water rights, and efficacy of the protections provided in the Policy.

***Comment 11: The State Water Board should take this opportunity to demonstrate its leadership on the issues of global climate change, groundwater recharge, water recycling, and water conservation.***

The issue of global climate change has captured the attention of Californians, including citizens, policy makers, and decision makers alike. The Policy offers an excellent opportunity for the State Board to demonstrate its leadership on this topic with an acknowledgement of the issue and consideration of policy elements, coordination with other state programs, and development of incentives to:

- Reduce water use through water management strategies and conservation measures.
- Reuse water for multiple purposes through water management strategies and recycling systems.
- Increase stormwater capture and groundwater recharge through low impact development techniques, off-stream ponds, and other management practices.

Regional Board staff strongly encourages the State Water Board to consider its leadership role on these issues and redraft the Policy to better encourage a reduction in water use and increase in groundwater recharge as key elements of the flow protection strategy.

### **Summary**

Regional Board staff support the establishment of a policy that addresses the unique habitat needs of salmonids. Regional Board staff welcomes a new policy that addresses the minimum flows, on-stream dams, and channel maintenance flows, while constraining the use of water during critical low flow months. However, we see in the proposed Policy a preference for allowing as much diversion as possible, while minimally supporting the habitat requirements of salmonids. The Policy should be re-crafted to fully support salmonids, with provisions that allow for relaxation of the protection measures if appropriate, based on site specific monitoring and/or additional analysis.

Regional Board staff has pointed out inadequacies in the proposed Policy in that it does not incorporate water quality protections, nor does it analyze the impacts of the proposed protection measures relative to Basin Plan water quality objectives. Also, the Policy does not reference the role of the Regional Boards in basin planning, monitoring, and permitting.

Regional Board staff also is concerned that the proposed Policy does not adequately evaluate and/or address the impacts that changes in surface flows may have on 303(d) listed waterbodies; nor does it consider the TMDLs thresholds in its CEQA analysis. Similarly, the proposed Policy does not consider the need to provide special protection to refugial streams, a class of waterbody deserving unique consideration and protections.

Regional Board staff urges State Board staff to reconsider the DS3 diversion season alternative, as well as the MCD2 cumulative diversion alternative. It is our assessment that the implementation of a policy that includes the current alternatives may lead to Basin Plan violations. Furthermore, these alternatives are less than fully protective of the beneficial uses, and we encourage State Board staff to choose the DS1 and MCD1 alternatives instead.

As Regional Board staff we recognize the line between the authorities of the SWRCB and the Regional Boards. The comments offered above are in no way intended to step over those boundaries, but rather are offered as technical advice from the water quality specialists and fisheries biologists on staff.

Thank you for considering our comments. Please contact Bryan McFadin (707) 576-2751 or [bmcfadin@waterboards.ca.gov](mailto:bmcfadin@waterboards.ca.gov) of my staff if you have any questions or need further information.

Sincerely,



Catherine Kuhlman  
Executive Officer  
North Coast Water Quality Control Board

050108\_OEK\_RB1AB2121\_comments