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Fax Transmission

To: Karen Neya **From:** Jim Wattenburger

Fax: 916 341 5400 **Pages (Including Cover):** 8

Phone: **Date:** 4/21/08

Re: **CC:**

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

• **Comments:**

Karen,
Some discussion points first,
then questions on pages 6 & 7

Jim

2008 APR 21 AM 9:19

The Five Principles of this Policy

SWRCB:

"1. Season of Diversion

"Water diversion shall be seasonably limited to periods in which instream flows are naturally high to prevent adverse effects to fish and fish habitat.

". . . New diversions cannot be permitted during the late spring, summer, and early fall because instream flows during this period generally limit anadromous salmonid rearing habitat quantity and quality in the policy area. Although the DFG-NMFS Draft Guidelines recommended a season of diversion from December 15 through March 31, an earlier diversion season start date is still protective of fishery resources . . . .This policy limits new water diversions in the policy area to a diversion season beginning on October 1 and ending on March 31 of the succeeding year."

Water Right Applicant's Perspective:

- Most applicants can readily accept a set season of diversion beginning December 15 and I might add the vast majority of landowners are not opposed to helping anadromous fish; many landowners are great stewards of the land.
- We all know that there is so little rainfall and runoff between October 1 and December 1 so this extension of the diversion season has no real benefit or meaning. Almost no one will be able to divert in October or November anyway.
- No streamflow will meet the Minimum Bypass Flow (see Item 2 below) requirement unless the watershed is many hundreds of acres.

SWRCB:

"2. Minimum Bypass Flow

"Water shall be diverted only when stream flows are higher than the minimum instream flows needed for fish spawning and passage.

" Adequate minimum stream flows are needed to provide habitat for fish spawning and upstream passage. The minimum bypass flow is the minimum instantaneous flow rate of water that is adequate for fish spawning and passage, as measured at a particular point in the stream. . . . A minimum bypass flow requirement prevents water diversions during periods when stream flows are at or below the flows needed for spawning and passage."

Water Right Applicant's Perspective:

- This Minimum Bypass Flow (MBF) is an applicant's project killer because it is so restrictive, and allows little water to be diverted.
- The MBF is based on an equation that relates bypass flow to watershed area. As the watershed area gets smaller, there is a decreasing percentage of water available for storage. In a 30 square mile watershed, one can divert water for approximately 50 days, but for a ½ square mile watershed, there may be no allowable storage at all during the winter because the bypass flow requirement can't be met (see table at the end of this document which is from the SWRCB Power Point Presentation).
- For existing ponds which are not yet permitted (and maybe for those that are), the Policy will require the construction of a bypass structure and channel that physically

moves water away from the inlet of the pond, around the pond, and must empty below the outlet of the dam. This structure is prohibitively expensive, impractical and unnecessary in small watersheds. Ask staff to draw a picture of one and discuss the cost. It entails hundreds of feet of large culvert or concrete channels, and large concrete boxes and weirs to make sure water goes in the bypass channel until a certain flow volume is going downstream. (The construction of this structure, at least around an existing pond, will probably trigger CEQA involvement.) This Policy prefers that the bypass structure be a "passive" one so the operator may not interfere with flows. Engineering this is complex and it may never have actually been done before. If not a passive bypass structure, the facility must be equipped in such a way as to provide real-time computer controlled monitoring of inflow and outflow rates. This MBF requirement will apply to retrofitting existing dams if not yet permitted and all new dams, onstream or offstream. The excess water above the minimum bypass flow may be used to fill the pond, but see next section.

- For offstream ponds, there will still be the requirement to build a structure and pumping station to limit water going into the pond so that it complies with MBF requirement.

SWRCB:

"3. Maximum Cumulative Diversion

"The maximum rate at which water is diverted in a watershed shall not adversely affect the natural flow variability needed for maintaining adequate channel structure and habitat for fish.

"Adequate magnitude and variability in peak stream flows are needed to meet the habitat needs of anadromous salmonids, including maintaining stream channel geometry, vegetative structure and variability, gravel and wood movement, and other channel features. In this policy these peak stream flows are called channel maintenance flows."

Water Right Applicant's Perspective:

- The Maximum Cumulative Diversion (MCD) sets an upper limit to how fast a pond may fill. All water beyond a certain flow rate must be sent downstream. So the applicant is faced with first allowing most of the water to go downstream because of the MBF, taking a little of what is left, and then permitting all high flows to go downstream because of the MCD. This makes it very difficult to fill even an ordinary sized pond.
- The Policy requires that the landowner actually move gravel that comes into the pond area from above in winter time to another location downstream. He is supposed to shovel it up and transport it back into the creek downstream of the pond or bypass structure. The same is true with large woody debris. These procedures have to be done annually based on a written plan and under the supervision of a professional biologist paid for by the applicant.
- The Policy requires the landowner to remove all non-native vegetation around the stream and pond.
- The Policy requires a complete riparian habitat management plan in and around the stream, and the plan must be written by a professional biologist, once again paid for by the applicant.

SWRCB

"4. Onstream Dams

"Construction or permitting of new onstream dams shall be restricted. When allowed, onstream dams shall be constructed and permitted in a manner that does not adversely affect fish and their habitat.

"Onstream dams can directly impact salmonids if they prevent fish passage and block access to upstream spawning and rearing habitats, intercept and retain spring and summer flows without providing bypass flows, intercept and retain sediments/gravels that would otherwise replenish downstream spawning gravels, intercept and retain large wood that would otherwise provide downstream habitat structure, and/or create slow-moving, lake-like habitats that favor non-native species that may either prey on anadromous salmonids or compete for food and shelter."

Water Right Applicant's Perspective:

- There will never be another dam built on a stream unless the stream is Class 3. A Class 3 stream is by definition intermittent, has a defined channel with a defined bank and has no aquatic non-fish vertebrates, meaning no frogs, no salamanders, and no bottom dwelling invertebrates such as insects and crayfish. This kind of stream has hardly any riparian life in and around it anyway.
- The Policy's supporting documents discuss removal of onstream dams. Does this refer only to unpermitted ones?
- The Policy says the SWRCB can modify existing licenses. Will this lead to the removal of legal, licensed, onstream dams?
- The Policy ignores all benefits to other wildlife, such as migratory ducks and geese, deer, mountain lion, insects, etc. Please have the SWRCB comment on this.
- In many cases, the general topography is too steep to build a pit pond to replace an onstream pond.
- If an applicant does attempt to build an offstream pond, can he get a permit for it?

SWRCB

"5. Assessment of the Cumulative Effects of Water Diversions on Instream Flows

"The cumulative effects of water diversions on instream flows needed for the protection of fish and their habitat shall be considered and minimized.

" . . . This policy requires the evaluation of whether a proposed water diversion project, in combination with existing diversions in a watershed, may affect instream flows needed for fishery resources protection. . . . The State Water Board must find that unappropriated water is available to supply an applicant prior to issuing a water right permit. This policy requires a water right applicant to conduct a water availability analysis that includes (1) a Water Supply Report that quantifies the amount of water remaining instream after senior rights are accounted for, and (2) an Instream Flow analysis that evaluates the effects of the proposed project, in combination with existing diversions, on instream flows needed for fishery resources protection."

Water Right Applicant's Perspective:

- All these reports and data collection used to be done by the Water Board's engineering and environmental staff. Now the applicant is required to do all research and number crunching, or more accurately, the applicant is now required to PAY for consultants and engineers to do it. The SWRCB will develop a short list of approved and acceptable firms from which the applicant must choose.
- With this Policy, applicants must now hire a hydrologist/engineer and an environmental consultant to prepare documents. Costs, even for small projects, run $30,000 to $80,000 for consultant fees.
- Landowners will be forced to pump groundwater or use riparian rights (which dewaters streams in summer and harms salmonid habitat) or buy water from water districts. What effect will this have on other water sources and will ag get the water it needs?
- For those creeks which empty into the mainstem of the Russian River, the channels will never recover at their confluence with the mainstem unless releases from Lakes Mendocino and Sonoma are modified. These releases seriously interfere with the hydrologic process where a creek joins the mainstem.

Possible Questions to be put to the SWRCB representatives:

1. The Policy was supposed to relieve the backlog of applications.
   A) How is this Policy less complicated than prior procedures, in other words, will this Policy streamline the application process? Please compare the procedure people had to follow before with what they'll have to do with this Policy.
   B) How long will it take an application to go through the multi-step process put forth in this Policy? One year? Ten years? Will the SWRCB be held to any deadlines the way an applicant is? What can applicants count on the Division of Water Rights to do? The Division's track record is not very good at this point.

2. If a municipal or rural water district in this county wants to expand and get more water, will it be able to under this new Policy with its restrictions?

3. If a person has to remove an existing dam, what can he do in cases where the ground is too steep to replace an onstream pond with offstream storage, i.e., a pit pond? And if one were able to do this, what are the costs? Also, how difficult will it then be to get a license for a pit pond? Will those rules also be subject to change over and over again?

4. What consideration has been given to the costs to the applicant of implementing this Policy's requirements?

5. An applicant up to this point, that is over the last 12 or 14 years, may have easily spent $35,000 in an effort to comply with the everchanging requirements in pursuit of a legal water right. That $35,000 has gone just for consultants. Under this new Policy, this applicant may

have to spend another $30,000 to $50,000 in additional engineering work and construction to maintain the minimum bypass flow requirement. Most applicants can't afford to comply with this Policy's requirements. What good will the Policy achieve if people are forced off their ranches and farms?

6. The Policy is clearly written to benefit salmon. How will the Policy positively or negatively affect other wildlife? If a person has to remove a dam, where will the birds and mammals go? Does the SWRCB care about that?

7. What is the role of hatchery fish in the scheme of trying to restore runs? The question needs to be answered because hatcheries have been operating in the Russian River system for 100 years. Even with hatcheries producing tens of millions of fish over the years, salmonids have not flourished.

8. A "Limit of Anadromy" must be established as part of the applicant's data collection requirements. The way the Policy is written, it is up to the applicant to prove a stream is not an anadromous stream rather than for the state to prove it is. There is the assumption that if a stream might be suitable for anadromous fish, it must have been an anadromous stream at some point in time. The historical records are not there for many tributaries in the Upper Russian River. Stream surveys are far and few between. Just what does "historically present" mean with regard to this river system?

9. The Policy focuses exclusively on small stream diversions as a cause of salmonid decline. Have you explored other factors such as: the effects of Lake Mendocino and Lake Sonoma; overfishing in the ocean; changed ocean conditions due to changes in food supply or predators; the effects of urban pollution? It would not be unfair to say it is common knowledge there is a whole list of problems salmonids face. The Klamath system salmonid population crashed in 2004, and the Sacramento River run of chinook crashed this year. How can you blame the small water users in North Coast streams for the salmonid decline here, when the same thing is happening elsewhere and that is obviously not the cause in those other river systems? How does changing the water right procedure here and prohibiting virtually all new diversion in the North Coast relate to the causes of salmonid crashes elsewhere? Both the Klamath and Sacramento Rivers are highly regulated, just like the mainstem of the Russian River so why is all the attention focused on small tributaries and coastal streams? Thus, the real question is how does the SWRCB justify writing such a narrow focus and restrictive Policy when it will likely produce very limited or no results for the Policy's stated goal of protecting salmonid fisheries?

10. In the past, the Division would accept a protest against a project without the protest being specific to the project, and the protest could tie up the application for years. Will the Policy change the protest procedure to one that is fair and equitable to both the protestant and the applicant?

If there is a Power Point Presentation, there will be some numerical tables shown. The following table provided here, titled "Comparison of Bypass Flows", is an important one. It came from the Power Point Presentation that the Division of Water Rights staff gave at the Technical Workshop in February 2008 in Santa Rosa. It compares four mathematical methods that have been considered for calculating what the SWRCB thinks is an acceptable minimum bypass flow.

- The "Upper MBF" method was looked at and rejected.

- The "Lower MBF" method was selected as the method to be used in this Policy.

- The "February Median" flow method was the method used in the 2002 Draft Guidelines, the Guidelines that have now been rejected in favor of this new Policy.

- The "10% Exceedance" method was looked at and rejected.

As you see, in a smaller watershed, the calculated "February Median" bypass flow requirement is smaller than that for the "Lower MBF" method. In real terms, the table says in the sample Dry Creek tributary that has a 1.2 square mile watershed, under the "Lower MBF" calculation method, a user can divert water only when the flow exceeds 10 cubic feet per second (or 10 cfs). Using the "February Median" flow method, one can divert when the flow rate is more than 6.8 cfs.

Likewise in the 4.9 square mile watershed of Huichica Creek, the "February Median" flow method allows diversion after there is a flow present of 7.4 cfs, but the "Lower MBF" method would require a flow exceeding 15 cfs before any water can be diverted. So the "Lower MBF" requirement is twice as restrictive as the "February Median" flow method. The staff will probably say that the "Lower MBF" method allows for more diversion and that is why they chose it. But this is only true in large watersheds. It is ***not*** true in small watersheds, and small watersheds are where a lot of ponds in this county are located and where people may want to build in the future.

Also, the table doesn't tell us how many days in each diversion season the minimum bypass flow is exceeded for either method, and those are the only days on which an applicant can divert water. For the Dry Creek tributary of 1.2 square miles, it is probably no more than 7 to 10 days each year, and may be less. For the Huichica Creek watershed, the allowable diversion days will be probably be no more than 15 or so. It might be a good idea to ask staff about the number of permissible diversion days in these smaller watersheds under the "Lower MBF" method.

Comparison of Bypass Flows

Site	Upper MBF	Lower MBF	February Median	10% Exceedance
Dry Creek Trib (1.2 mi²)	18	10	6.8	5.6
Huichica Creek (4.9 mi²)	37	15	7.4	17
Pine Gulch Creek (7.8 mi²)	40	14	19	25
Franz Creek (15.7 mi²)	57	17	15	55

Flows in cfs