

MEMO TO: California Water Resources Control Board
FROM: Michael Garabedian
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Office: 3437 Myrtle Ave., Suite 400, North Highlands CA 95660
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RE: Opening comments on September 2016 draft Report to the Legislature,
"Investigation on the Feasibility of Developing Uniform Water Recycling
Criteria for Direct Potable Reuse"
DATE: October 25, 2016



Friends of the North Fork, an American River group founded 2004-2005 ("Friends"), greatly appreciates this opportunity to respond to the State Water Resources Control Board ("Board") September 2016 draft Report to the Legislature, "Investigation on the Feasibility of Developing Uniform Water Recycling Criteria for Direct Potable Reuse" ("Draft").

We welcome and support the caution of the Board's draft report even as the Board has yet to take corrective action for the stunning failure of both the Expert Panel and the Advisory Group to inform and meaningfully involve the public in their work on this issue. Further, Friends urges a great deal of caution regarding the objectivity of the Expert ("Panel") Report

Friends supports the Draft's cautious approach to Direct Potable Reuse ("DPR")

Friends commends the Board for drafting a report to the legislature on potable water reuse that is pretty good. Friends' praise is noteworthy given how unaccustomed we are to complimenting California's water boards.

Friends supports overall the cautious approach taken by the Board.

The legislature's wrong metric for the report requires correction

Unfortunately, the fact that legislature's direction and the Board's draft are cautious is undermined by the legislature's direction to the Board to "incorporate a level of public health protection as good as or better than what is provided by current water supplies and by indirect potable reuse." This is the wrong and a far too low metric.

The necessary metric was identified in the National Research Council 1982 report, "Quality Criteria for Water Reuse:"

Accordingly, in assessing the adequacy of water being considered for potable reuse, comparison should be made with the highest quality water that can be obtained from that locality even though that source may not be in use."

Draft pages 4-5, 29.

The report should recommend that the Legislature adopt the metric of the 1982 report.

Current MCL's do not exist and are not under consideration or development for thousands of contaminants. See Charles Duhigg, "That Tap Water Is Legal but May Be Unhealthy" New York Times, December 16, 2009. http://www.nytimes.com/2009/12/17/us/17water.html?_r=0

The refrain from water suppliers that their water meets standards is a slight of hand. Ten years ago water suppliers were publicly stating their belief that it was necessary for them to test their water to know everything that is in it. ***The results of existing testing need to be released as part of this report to the Legislature, as well as testing and disclosing what is in drinking water needs to take place as part of developing DPR.***

The following memo and below in this one are part of Friends 10-year long largely unsuccessful efforts to get water recycling issues of concern into Board work, in this submission about POTW wastewater, pharmaceuticals, consumer products, food chemicals like caffeine, and controlled substances like cocaine.

http://www.swrcb.ca.gov/water_issues/programs/water_recycling_policy/docs/comments2007oct/michael_garabedian.pdf

Thorough, creative, effective and specific plans are needed in the report defining how the public (a public not limited to "public partners") will be involved

The step from IPR to DPR is of immeasurable size and magnitude, including in its public importance. The absence of embedded directly DPR-related programs and regulations in the federal Clean Water Act and federal Safe Drinking Water Act magnify this already sizeable responsibility. Unfortunately some involved in this issue do not seem to recognize how essential an informed and involved public is to this issue. This not surprising because the Board and Regional Boards have nothing resembling a culture of public involvement in, for example, NPDES.

Our initial thoughts about needed public involvement in DPR take this form:

A. For the state water board:

1. For comment on the draft report—the current comment period should be extended and managed with information programs that facilitate public knowledge and input.
2. If the comment period is not extended, for between now and the time the report is submitted to the legislature.
3. In the report itself.

- a. For further consideration of DPR and the development of DPR policies and regulations.
 - b. When DPR projects are proposed
 - c. For DPR projects in operation.
- B. By NGOs to accomplish this involvement if the Board does not act.

These efforts require webcasts followed by permanent online availability of the webcasts on the various Clean Water Act and state water quality and related programs, including on each chapter and other topics in these and related reports.

It is essential to take this discussion out of its current narrow confines which includes the confines of the Expert Panel and Advisory Group. Most Expert Panel meetings were either not open to the public, including the meetings on research, or we were not informed about them nor were they publicized even to people expressing an interest in being involved, or both. I attended the first and last Advisory Committee meetings, listened to another one, and followed it by e-mails.

As a result of a number of reasons its not being significantly or largely not accessed by the public, by other scientists, and so on, the Expert Panel report is deficient. This is no more true for this effort than the Boards' other efforts that generally have no or limited environmental organization participation.

The Expert Panels' alarmist reservoir-snowbank contrivance in its opening pages and other of its writings expose bias and carelessness about its work which may be especially problematic regarding a number of areas where it's members have little knowledge or experience.

On pages 13-14 in its Overview of Water Reuse in California, the Panel report purports to and cites authority, including the authority of the Board, to write, "Water supplies in the State tend to rely on runoff associated with melting snowpack. Over the next few decades, supplies are likely to diminish because climate change is predicted to cause more precipitation to fall as rain rather than snow with runoff occurring earlier in the season." Page 13.

While this is correct for the Sierra Nevada with which many people may be familiar, it is misleading because of the vast amount of the state water supply in key watersheds underlain by aquifers recharged precipitation that falls in any form including snow. Whether in snowbanks or immediate infiltration, this precipitation goes into the aquifer. Think, for example of the aquifer driven Burney falls. Think of the McCloud River. See the next page, "Promoting Water Security Naturally."

The Panel's findings and recommendations about antibiotic resistant bacteria and genes are similarly surprisingly deficient. Pages 185-186. It is documented elsewhere that film can form inside purple pipes that generates this kind of organism. POTWs have been found to discharge

these organisms into pristine waters such as in the Duluth and Boulder areas.

The Board’s cautious approach is as highly warranted on this issue as it is on any other.

POLICY

Promoting Water Security, Naturally

California’s population is projected to hit 50 million by 2050, increasing demand for an already scarce resource—cool, clean water. This increased demand in a warmer and drier state dramatically highlights the critical need to improve the reliability of our primary water supply. To help address this, Pacific Forest Trust is working closely with California Assemblymember Richard Bloom on his pioneering legislation, AB 2480, which recognizes source watersheds as infrastructure and a critical component of the state’s water system. AB 2480 also calls for a prioritized and comprehensive investment plan to restore and conserve key watersheds.

AB 2480 is the first step in putting together a comprehensive system to reduce these risks and promote water security and adaptation under climate change. Watershed conservation is one of the most cost-effective things we can do for greater water security, quantity, and quality—a complementary and least cost approach to other water treatment and development.

Without these source watersheds, our dams cannot provide the water we rely on. The northern California region in which they are found is projected to remain far cooler and wetter than the rest of the state under climate change. As a result, our dependence on these source watersheds is likely to increase. Just like dams, levees, and canals, natural watershed infrastructure needs repair and maintenance. Now is the time to make a focused investment to ensure its restoration and protection, building climate resilience and enhancing our water security.



These five watersheds—the Trinity, McCloud, Feather, Pit, and Upper Sacramento—provide 80 percent of the state’s reservoir capacity.

Just five source watersheds in northern California provide 80 percent of the state’s reservoir capacity, supplying drinking water for over 25 million people, irrigation water to 8 million acres, and over 80 percent of the freshwater for the San Francisco Bay. These watersheds collect, treat, store, and transport water that fills our reservoirs. California has policies and systems in place that maintain our built water infrastructure such as dams, levees, and canals. However, the state has no policies or systems for ensuring the function of our natural water infrastructure, the source watersheds which are essential for dams to function.



These primary source watersheds are in sub-optimal condition and increasingly threatened by climate change, fragmentation, and other stressors that reduce watershed function. Fortunately, this is a reversible trend. It is well documented that watershed restoration and conservation can increase water quality and quantity, as well as improve flow regulation—both reducing peak flooding and holding water later into summer seasons.

Pristine waters must be assured to remain pristine.

As we move to DPR the Board must guard against any water recycling that reduces in any manner the quality of pristine waters.

DPR criteria and implementation must not go forward until a statewide Environmental Report has been prepared for it.

The Board was told that CEQA required that Board to prepare an EIR on the recycled water policy it adopted in 2009, including by Friends. While the Board did not carry out CEQA responsibilities in a necessary manner then, it's readiness to do so was reported at the final meeting of the Advisory Group. Major scoping meetings around the state for an EIR are necessary. A certified CEQA regulatory program effort will not suffice.

DPR criteria and implementation must not go forward until a mandatory system is established to for measuring and documenting the amount of each category of reused water being reused including potable water.

The last reporting on water reuse we know of was apparently in 2009, was not well organized, and was not mandatory. In spite of this water recycling goals have nee set and continue to be advocated even though we have no idea what the current extent of reuse is.

Friends expects to submit more detailed comments. As we note above, public involvement in this issue must be provided for continuously on this issue.

MG

