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Sent by email to: commentletters@waterboards.ca.gov

Jeanine Townsend
Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814

Subject: Comment Letter—Listing Policy Amendment

Dear Ms.Townsend, and staff of the State Water Resources Control Board:

Thank you for the opportunity to comment in response to the Notice of Opportunity to Comment, Proposed Amendment to the Water Quality Control Policy for Developing the Clean Water Act Section 303(d) List. I offer the following comments in hope that they support the State Board's and Regional Water Quality Control Board's efforts to efficiently and cost-effectively identify waters for which a total maximum daily load ("TMDL") is required.[1]

As the notice indicates, the proposed amendment includes significant process changes. Notice, p. 1. I interpret several of those proposed changes to revise the limits of the State Board's and Regional Boards' discretion when identifying waters for which a TMDL is required. In summary, I am writing to encourage the State Board and staff to: determine that the existing policy constrains the State Board's and Regional Boards' discretion in ways that impair the State's ability to identify waters for which a TMDL is needed; determine that the proposed amendment would continue to do so; and further amend the policy to address constraints on the State's discretion where they are unhelpful.

By my admittedly rough count, the policy, if amended as proposed, would still include over one hundred instances in which the term "must", "shall not", or "shall" is used in an attempt to either require the State Board, the Regional Boards, or their staffs, to undertake, or prohibit them from undertaking, some kind of analysis or other action. In a substantial number of those instances, the policy does not appear to describe an obligation, or prohibition, explicitly created by State or Federal law. Rather, many of the policy provisions in which the terms are found

[1] I am a retired, former employee of the U.S. Environmental Protection Agency. The comments submitted are solely mine, and not submitted on behalf of the agency, or any other person or entity.

seem designed to bind the State Board, the Regional Boards, or their staffs, with self-imposed prohibitions or obligations that would not exist but for the policy.

When evaluating the proposed amendment, Prof. Ward Farnsworth's observation seems apt: "One value in law, whether or not it's the leading one, is to find the cheapest ways to solve problems, and then to give people incentives to use them." Farnsworth W, The Legal Analyst: A Toolkit for Thinking About the Law, p. 18 (University of Chicago Press) (2007). The problem to be solved here, I think, is simply the one that the people have asked the State Board and Regional Boards to handle by operation of Clean Water Act, sections 303(d) and 501(a), and the Porter Cologne Act: to identify waters for which a TMDL is required, and to do so by applying the criteria set forth in 40 CFR 130.7.[2]

My view is that identifying the waters for which a TMDL is required could be done more accurately and cheaply using a process that is more consistent with the general principles of administrative law applicable to informal adjudications[3], than by the process called for by the proposed policy. But I may be wrong. Ultimately, the question whether the process required by the policy is better than an alternative is an empirical one. Therefore, I recommend that the State Board further amend the policy to allow it to better answer that question (i.e., "Is there a better alternative?") over time.

I recommend that the policy be amended in two respects. The first would encourage the Regional Boards and State Board staff to identify cases where it is believed that strict application of the policy will lead to the omission of a water meeting the criteria in 40 CFR 130.7,

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[2] I understand that there may be an alternative interpretation of the problem in which additional criteria, related to the feasibility or cost to cure an impairment, should be satisfied before a water can be found to need a TMDL. In other words, the problem to be solved is the preparation of a shorter list than that expected under 40 CFR 130.7, by omitting waters that fail some additional criteria related to cost or likelihood of success of addressing the impairment; and, consequently, the policy should be evaluated by its success in solving the problem of preparing that shorter list.

I think the merits of that alternative can be understood by way of analogy. If the Federal CDC of the State's Department of Health were asked to estimate various diseases' incidence rates or the numbers of persons afflicted by them, and either came up with an approach that sought to underestimate the rate or undercount the numbers because, after all, some diseases are currently incurable and, given health care limitations, others won't be treated anyway, most people would probably find that approach to fall somewhere between puzzling and infuriatingly paternalistic. Count me in that group, and, I am confident, count the State Board and Regional Board in it as well. If, however, the criteria for identifying an impaired water is interpreted to include criteria that requires an additional showing – to be made at the time of listing – concerning the cost or feasibility of the measures that the as-yet unestablished TMDL might call for, I ask that the State Board re-evaluate that interpretation.

[3] For example, the evidence gathering effort roughly guided by a "value-of-information" approach; evaluation of the evidence using common sense reasoning, supplemented, as needed, by professional expertise; without the use of complicated rules of evidence; prescriptive "rules of evidential weight" used very rarely; fact-finding using the "preponderance of the evidence" standard; and a duty to explain that is satisfied as long as a reasonable justification is given. I also add the general principal that courts are to defer to a decision made by an agency such as the State Board within its discretion, at least in those cases where the agency has not foreclosed the use of that discretion by some means.

from the State's list. The second would explicitly indicate that the State Board, or its delegate, is authorized to list the water as requiring a TMDL if it agrees.

I believe that the changes to the proposed policy that I am recommending are appropriate and that, even among those who support the proposed policy, many would also agree that it is not so nearly perfect that no further exceptions to it should be permitted.

The recommended changes are somewhat analogous to the various "good cause" exceptions in the rules governing Federal civil and criminal adjudications. See, e.g.: Federal Rules of Civil Procedure 4, 6, 26, 31, 33, 55, 65, and 77; and Federal Rules of Criminal Procedure 5.1, 12, 12.1, 16, 23, 32, 41, 45, 46, and 47. And, the recommended changes are, in my view, justified for similar reasons: primarily, the use of any detailed, rigid process to gather facts, evaluate evidence, and make findings with legal consequence itself poses a risk that is often better managed by allowing for exceptions.

Among the concerns that prompt me to comment is the risk that implementation of the policy can transform cases where a water body could be easily identified as impaired using inexpensively obtained information and common sense reasoning, into a less productive inquiries into whether each of the policy's applicable "musts" and "shalls" were completed, while none of its "shall nots" were.

Moreover, the importance of avoiding overly proscriptive procedural and evidential requirements should not be underestimated. Surely finding the right methods for evidence evaluation and other procedures requires balancing, but among the goals is the obligation owed to the people of the State to not overshoot by establishing requirements that are unnecessarily expensive to satisfy, or that would call for State staff to polish the proverbial chrome on those decisions that find that a TMDL is needed, while leaving other waters that should be on the Section 303 list unidentified because no further time or money remains to identify them. What I am trying to recommend are policy amendments that would further encourage the Regional Boards and State staff to look for alternatives that provide that better balance, and to use the better alternative where the State Board agrees that they have found one.

A cursory review of the law review and peer-reviewed literature gives ample reason for concern about overly stringent or overly detailed procedural and evidential requirements before decisions are made to protect public health or the environment. I offer the following cites not to suggest that State staff spend time to read all or any of them, but to make the narrower point that the drift towards setting procedural and evidential requirements too high or too rigidly in the public health and environmental fields is viewed as such a serious problem that the amount of analysis of the problem is substantial. See, e.g.: Karkkainen BC, Bottlenecks and baselines: tackling information deficits in environmental regulation, *Texas Law Review* 86:1409-1444 (2008) ("Less widely appreciated, however, is that the information burdens we place on regulatory and resource-management agencies can sometimes themselves represent a significant constraint on the agencies' capacity to act. Indeed, sometimes these information burdens can be crushing, debilitating, or broadly distorting of policy outcomes."; "The result is

that in many areas we get a suboptimal output of agency decisions -- problems go unaddressed, regulatory solutions come too late in the day to be optimally effective, or old decisions hold sway long after they have outlived their usefulness -- because, at least in part, the burden of information required to justify change and make it stick is simply too great."); Applegate JS, Fischman RL, Missing information: The scientific data gap in conservation and chemical regulation, *Indiana Law Journal* 83:399-406 (2008) ("By failing (mistakenly or manipulatively) to recognize the distinct purposes of scientific inquiry, opponents of protective regulation can encourage a regulatory system whose demands for scientific information are nearly infinite while the supply remains static."; "Information requirements are thus not only choices, but choices with substantial and predictable practical consequences. In sum, information policies and requirements have the capacity to further or to frustrate the protection of human health and the environment as implemented by environmental regulation."); Cranor C, The legal failure to prevent subclinical developmental toxicity*, Basic & Clinical Pharmacology & Toxicology* 102(2):267-273 (2008) ("More generally, in setting public policies we need to recognize that science cannot provide all the answers even in science-intensive areas for policy purposes. By recognizing this, we can avoid a kind of 'science trap', where opponents of providing greater health protections try to persuade the appropriate governmental authorities that exquisitely detailed science is needed to justify each step of protective regulations.")[4]; Neff RA, Goldman LR, Regulatory parallels to Daubert: Stakeholder influence, "sound science," and the delayed adoption of health-protective standards, *American Journal of Public Health* 95(1):S81-S91 (2005) ("There is broad agreement that regulatory decisions about the environment, safety, and health should be based on evidence. But pressures for ever-increasing documentation, review, and 'sound science' have been used to create unreasonable standards of evidence, interfering with the government's task of protecting the public. 'Sound science' pressures and the availability of analytic tools have created an environment in which interested parties can demand more and more data and repeated scientific review for the sole purpose of delaying the adoption of health-protective standards."; "There is no question that 'getting the science right' is a value shared by all parties, but, at the same time, it is important to identify where this process adds value and where it simply provides opportunities for more delay.")[5]; Kriebel D, How much evidence Is enough? Conventions of causal inference, *Law and Contemporary Problems* 72:121 (2009) ("There are far too many examples of environmental hazards that were permitted to be produced long after the evidence for harm was substantial.")[6]; Freudenburg WR, Rethinking the threats to scientific balance in contexts of litigation and regulation, *Environmental Health Perspectives* 116(1):142-147 (2008) ("For readers who are not already familiar with existing analyses of relationships between economic interests and science, a useful starting point is to recognize that the possibilities are generally considered worrisome, not reassuring.", "The net result is a reasonably consistent (and generally but not always helpful) scientific tendency to do work that will permit clearer yes/no answers — clear support or rejection of whatever hypotheses are currently being debated — rather than focusing on what may be a more important question in contexts of litigation and regulation, namely, how decisions could be made more rationally and even-handedly in the absence of just such definitive

[4] Available at http://onlinelibrary.wiley.com/doi/10.1111/j.1742-7843.2007.00170.x/full .
[5] Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=849557 .
[6] Available at http://scholarship.law.duke.edu/lcp/vol72/iss1/7/ .

answers.")[7]; Nichols JD, Williams BK, Monitoring for conservation, *Trends in Ecology & Evolution* 21(12):668-673 (2006) ("We are all familiar with situations in which declarations of need for 'more study' appear to be stalling tactics, with crucial decisions delayed for reasons that have little to do with information needs."); Schultz C, Responding to scientific uncertainty in US forest policy, *Environmental Science & Policy* 11(3):253-271 (2008) ("It is highly unlikely that Daubert standards will be applied to agency decision-making given that they are specific to scientific evidence before a jury. However, the pursuit of any similar standard that would distinguish between usable and non-usable scientific information in agency decisionmaking has dangerous implications, especially given the current political climate."); Kelly RP, Caldwell MR, "Not Supported By Current Science": The National Forest Management Act and the lessons of environmental monitoring for the future of public resources management, *Stanford Environmental Law Journal* 32:151-212 (2013) ("... regulation that requires a particular monitoring technique risks becoming quickly anachronistic. The case of MIS is analogous to requiring the Forest Service to conduct all land-use planning using an Apple II computer: arguably the best of several options at the time the regulations were written, but very quickly surpassed as technology improved over time.")[8]; Freudenburg WR, Gramling R, Davidson D, Scientific certainty argumentation methods (SCAMs): science and the politics of doubt, *Sociological Inquiry* 78(1):2-38 (2008) ("In the world of environmental and technological controversies, however, many observers continue to call precisely for 'proof,' often under the guise of 'scientific certainty.' Closer examination of real-world disputes suggests that such calls may reflect not just a fundamental misunderstanding of the nature of science, but a clever and surprisingly effective political-economic tactic ....")[9]; Wagner W, Fisher E, Pascual P, Misunderstanding models in environmental and public health regulation, *New York University Environmental Law Journal* 18:293 (2010) ("Given that uncertainty permeates the entire modeling process, a resourceful stakeholder can demand perfection while running the agency's preferred model so full of holes that it sets the regulatory effort adrift with scientific demands that can never be satisfied.")[10]; and Caudill DS, Curley DE, Strategic idealizations of science to oppose environmental regulation: a case study of five TMDL controversies, *University of Kansas Law Review* 57:251 (2009)[11].

At risk of belaboring an already over-long comment, I offer the proposed amendment because, I think, there is an additional benefit to encouraging the Regional Boards and State staff to identify alternative methods that may depart from the policy in some respect, but which are thought to be sufficient to support a determination that a TMDL is needed. Developing and revising a program for identifying the waters that need a TMDL is also a "model selection" exercise. I think we are trying to develop a model that can take as inputs the information that is logically relevant and will be realistically available when the model is run, and produce as output the binary decision: is a TMDL needed, or not. However, the best means to develop and improve any model is not simply to keep running it, but over time to pit it against at least one

[7] Avaialble at http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2199307/ .
[8] Pre-publication version available at https://journals.law.stanford.edu/sites/default/files/stanford-environmental-law-journal-selj/print/2013/03/ssrn-id2265478.pdf .
[9] Available at http://escholarship.org/uc/item/2747g17h .
[10] Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1711766 .
[11] Available at http://digitalcommons.law.villanova.edu/wps/art137/ .

potentially better alternative, see which model has the better "skill", deploy that one and retire the other. The proposed amendment is made, therefore, to accelerate that process by encouraging the experts in the State to identify promising alternative models by which the waters that require a TMDL can be accurately and cheaply identified.

Proposed Text

In light of the above, I offer the following text for consideration:

> Add a new paragraph to section 3.11, to state:
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> "When developing the list of waters for which a TMDL is required, the Regional Boards and the State Water Board staff are encouraged (with public participation, to the extent appropriate) to: identify cases where they believe that application of a provision of the policy would result in the omission from that list of a water for which a TMDL is required using the criteria in 40 CFR 130.7; and, in those cases, to describe the methodology that is believed to support a determination that a TMDL is required."

And,

> Add a new paragraph to section 6.3, to state:
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> "Notwithstanding other provisions of this policy, the State Board or its delegate may determine that a TMDL is required for a water if the State Board or delegate finds that: there is good cause to do so; and a description of the methodology used to make that determination that complies with 40 CFR 130.7(b)(6)(i) has been prepared."

Thanks again to you and the State Board staff for the opportunity to comment and for your consideration of the comments submitted.

Sincerely,

Gary Hess