



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 10

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OFFICE OF
WATER AND
WATERSHEDS

AUG 8 2013

Mr. Gregory Aldrich
Water Quality Programs Administrator
Oregon Department of Environmental Quality
DEQ Headquarters Office
811 SW 6th Avenue
Portland, Oregon 97204-1390

Re: Disapproval of Oregon's Water Quality Standards: Natural Conditions Criteria for Temperature OAR 340-041-0028(8); Statewide Narrative Natural Conditions Criteria OAR 340-041-0007(2)

Dear Mr. Aldrich:

The U.S. Environmental Protection Agency is, today, taking action on two of Oregon's water quality criteria, the "Natural Conditions Criteria for Temperature" (NCC), located at OAR 340-041-0028(8), and the Statewide Narrative "Natural Conditions" Criteria (SNC), located at OAR 340-041-0007(2) of Oregon's Water Quality Standards (WQS) regulations. This action is conducted pursuant to our authority under Section 303(c) of the Clean Water Act (CWA) and implementing regulations at 40 C.F.R. Part 131. In accordance with these authorities, the EPA disapproves Oregon's NCC and SNC.

Specifically, the EPA is disapproving the following provisions:

"OAR 340-041-0028(8): Natural Conditions Criteria. Where the department determines that the natural thermal potential of all or a portion of a water body exceeds the biologically-based criteria in section (4) of this rule, the natural thermal potential temperatures supersede the biologically-based criteria, and are deemed to be the applicable temperature criteria for that water body."

"OAR 340-041-0007(2): Where a less stringent natural condition of a water of the State exceeds the numeric criteria set out in this Division, the natural condition supersedes the numeric criteria and becomes the standard for that water body. However, there are special restrictions, described in OAR 340-041-0004(9)(a)(D)(iii), that may apply to discharges that affect dissolved oxygen."

In addition, today's disapproval action fulfills the EPA's obligation pursuant to an April 10, 2013 court order wherein the U.S. District Court for the District of Oregon (court) vacated the EPA's previous approvals of the NCC and SNC and remanded the matter to the EPA for action on the NCC and SNC under CWA Section 303(c) within 120 days of the order (*Northwest Environmental Advocates v. U.S. EPA, et al.*, Civil No. 3:05-cv-1876-AC). The remaining EPA-approved portions of Oregon's WQS, including the Biologically Based Numeric Criteria at OAR-340-041-0028(4)(a-f), are not subject to the EPA's action today and remain in effect for CWA purposes.

Background

The Oregon Department of Environmental Quality (ODEQ) submitted new and revised WQS, including the NCC and SNC, to the EPA for review and approval on December 10, 2003. The EPA subsequently approved the NCC and SNC, among other WQS, on March 2, 2004. In 2005, Northwest Environmental Advocates (NWEA) filed a lawsuit challenging, among other things, the EPA's approvals of the NCC and SNC. On February 28, 2012, the court issued an Opinion and Order on the 2005 lawsuit and held, among

other things, that the EPA's approvals of the NCC and SNC were arbitrary and capricious. On April 10, 2013, the court issued an order, stipulated to by NWEA and the EPA, to resolve this aspect of the litigation, vacating and remanding to the EPA its previous approvals of the NCC and SNC and requiring the EPA to take action pursuant to CWA Section 303(c) within 120 days. This disapproval letter fulfills the EPA's duty to take such action on the NCC and SNC.

Statutory and Regulatory Background

Section 303(c)(2)(A) of the CWA requires states and authorized tribes to submit new or revised WQS to the EPA for review. Under Section 303(c) of the CWA and its implementing regulations found at 40 C.F.R. Part 131, the EPA reviews those WQS and either approves them or disapproves them. With respect to water quality criteria, including the NCC and SNC, 40 C.F.R. Section 131.11(a)(1) provides, in part, that such criteria must be based on sound scientific rationale and contain sufficient parameters or constituents to protect the designated use(s). Any action to replace the NCC or SNC would constitute a change to Oregon's WQS and have to be reviewed and approved or disapproved by the EPA pursuant to CWA Section 303(c).

The EPA's Disapproval of Oregon's NCC

The court's February 28, 2012 Opinion and Order held that the EPA's approval of the NCC was arbitrary and capricious. The Opinion and Order stated, *inter alia*, that: (1) the NCC "supplants rather than supplements" the Biologically Based Numeric Criteria, Opinion and Order at 26; (2) the NCC was based on a flawed assumption that historically protective water temperatures would protect salmonids now, *id.* at 27; (3) the NCC attempts to restore historically higher water temperatures without restoring other conditions that previously allowed salmonids to thrive, *id.*; and (4) there are "difficulties of estimating the historical water temperatures upon which the NCC depends," which is a "process rife with uncertainty." *Id.* The Opinion and Order also discussed NWEA's contention that the NCC only protected historically warmer waters without also protecting waters that were naturally cooler than the numeric criteria. *Id.* at 24. The court ruled that the EPA had "been unable to articulate a rational[] basis for its approval of the NCC." *Id.* at 27. There was no objection to the stipulated agreement to the court's April 10, 2013 order, which set aside the EPA's approval of the NCC and ordered the EPA to take CWA Section 303(c) action on the NCC consistent with the court's decision and the requirements of the CWA and the EPA's regulations within 120 days. In light of the views expressed by the court in the Opinion and Order, the EPA is disapproving the NCC.

Remedy for the EPA's Disapproval of Oregon's NCC

Oregon has a number of available options to remedy the EPA's disapproval of the NCC. The EPA would be available to assist Oregon if it would like to pursue a remedy, which could include any of the following options.

One possible remedy is for Oregon to delete the NCC without any corresponding adoption of new or revised criteria. Oregon's Biologically Based Numeric Temperature Criteria (BBNC) are and would remain in effect for CWA purposes. The EPA believes that Oregon's BBNC and other temperature WQS, upheld by the court, protect salmonids and are consistent with the EPA's 2003 Guidance For Pacific Northwest State and Tribal Temperature Water Quality Standards¹ ("Temperature Guidance").

A second possible remedy option is for Oregon to develop additional numeric temperature criteria. In order for additional numeric temperature criteria to be developed, the best available relevant data would need to be considered and evaluated. The EPA encourages Oregon, as it does with all states, to consider

¹ EPA Region 10 Guidance For Pacific Northwest State and Tribal Temperature Water Quality Standards. EPA-910-B-03-002. April 2003. Available at: http://www.epa.gov/region10/pdf/water/final_temperature_guidance_2003.pdf

magnitude, frequency, and duration components in setting water quality criteria to protect against acute and chronic effects.² This may include establishing site-specific criteria accounting for specific characteristics, such as unique temperature regimes (see, e.g., Temperature Guidance), in different waterbodies. The EPA recognized in the Temperature Guidance that salmonids could be protected by site-specific criteria (i.e., refined BBNC) that account for the temperature regime of a particular location (e.g., diurnal, spatial variability; EPA, 2001³) or alternative criteria based on natural background temperatures. Site-specific criteria established in this manner would be subject to CWA Section 303(c) review.

A third possible remedy option is for Oregon to adopt into its WQS (directly or by reference) a binding methodology⁴ that provides a transparent, predictable, repeatable, and scientifically defensible procedure for the protection of designated uses. This approach, known as a “performance-based” approach, relies on the adoption of a systematic process (i.e., a criterion derivation methodology) rather than a specific outcome (i.e., concentration limit for a pollutant) consistent with 40 C.F.R. Sections 131.11 and 131.13. Consistent with CWA Section 303(c) and the EPA’s implementing regulations at 40 C.F.R. Part 131, the EPA would need to review any such binding methodology that Oregon develops as part of a performance-based approach. The EPA would expect Oregon to adopt comprehensive and detailed implementation procedures (methodologies, minimum data requirements, and decision thresholds) that establish a clear and predictable decision-making framework. The performance-based approach could be used to derive site-specific adjustments to numeric criteria or to translate a narrative criterion⁴ into quantifiable measures. When such a performance-based approach is sufficiently detailed and has suitable safeguards to ensure predictable, repeatable outcomes, the EPA approval of such an approach also serves as approval of the outcomes as well. The EPA acknowledges that the universe of streams to which a performance-based approach may be applied could be constrained by the ability of the methodology to account for, evaluate, and develop appropriate metrics for the unique temperature characteristics found in those streams.

The EPA’s Disapproval of Oregon’s SNC

As stated above, the EPA is disapproving the SNC given the court’s ruling on February 28, 2012. While the court did not expressly address the SNC in its February 28, 2012 Opinion and Order, it is likely that the court would have applied to the SNC one or more of the rationales that the court discussed in connection with holding that the EPA’s approval of the NCC was arbitrary and capricious. There was no objection to the stipulated agreement to the court’s April 10, 2013 order, which set aside the EPA’s approval of the SNC and ordered the EPA to take CWA Section 303(c) action on the SNC consistent with the court’s decision and the requirements of the CWA and the EPA’s regulations within 120 days. In light of the views expressed by the court in the Opinion and Order regarding the NCC, the EPA also is disapproving the SNC.

Remedy for the EPA’s Disapproval of SNC

Similar to the NCC remedy options, Oregon has a number of available options to address the EPA’s disapproval of the SNC [OAR 340-041-0007(2)]. The EPA would be available to assist Oregon if it would like to pursue a remedy, which could include any of the following options.

² EPA Water Quality Standards Handbook - Chapter 3: Water Quality Criteria. EPA-823-B-12-002; March 2012. Accessible at <http://water.epa.gov/scitech/swguidance/standards/handbook/chapter03.cfm#section12>

³ EPA Issue Paper III: Spatial and Temporal Patterns of Stream Temperature (Revised), 2001. EPA-910-D-01-003, 2001 pp 2-9. Available at: [http://yosemite.epa.gov/R10/WATER.NSF/6cb1a1df2c49e4968825688200712cb7/5eb9e547ee9e111f88256a03005bd665/\\$FILE/Issue%203%20Spatial%20Temp.pdf](http://yosemite.epa.gov/R10/WATER.NSF/6cb1a1df2c49e4968825688200712cb7/5eb9e547ee9e111f88256a03005bd665/$FILE/Issue%203%20Spatial%20Temp.pdf)

⁴ EPA 2000. *EPA Review and Approval of State and Tribal Water Quality Standards*. Federal Register: April 27, 2000 (Volume 65, Number 82); Rules and Regulations; Page 24641-24653. Procedures to identify opportunities by which their adoption of criteria, as well as EPA’s approval, can be streamlined.

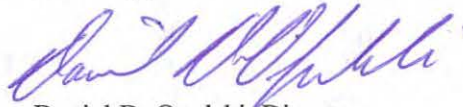
Possible remedies include but are not limited to: 1) Oregon could delete the SNC without any corresponding adoption of new or revised criteria, with possible adoption of site-specific criteria in the future, or 2) Oregon could adopt a performance-based approach that establishes criteria utilizing a binding methodology (as described above). Note, however, that one approach is likely not suited to derive all pollutant targets and metrics given the breadth of pollutants over which the SNC originally applied. Individual methodologies for each pollutant or subsets of pollutants with similar sources and cycling would likely be necessary in order to ascertain the scientific defensibility of the methodology and the level of protection afforded to designated uses as a result of using the methodology.

Conclusion

In summary, the EPA will continue to work with Oregon in its development of WQS that meet the requirements of the CWA and its implementing regulations, including those described in this letter.

Please feel free to contact me at (206) 553-1855 if you have questions concerning this letter, or your staff may contact Rochelle Labiosa, the EPA's Oregon Water Quality Standards Coordinator, at (206) 553-1172.

Sincerely,



Daniel D. Opalski, Director
Office of Water and Watersheds

cc: Mr. Dick Pedersen, Oregon Department of Environmental Quality
Ms. Jennifer Wigal, Oregon Department of Environmental Quality