



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Washington State Habitat Office
510 Desmond Drive SE, Suite 103
Lacey, WA 98503

July 15, 2009

Mr. Mike Gearheard
Director, Office of Water and Watersheds
U.S. Environmental Protection Agency, Region 10
(OWW130)
1200 Sixth Avenue
Seattle, Washington 98101

Dear Mr. Gearheard:

The State of Washington Department of Ecology (Ecology) has recently issued a Public Notice Draft National Pollution Discharge Elimination System (NPDES) Industrial Stormwater General Permit for public review and comment. The National Marine Fisheries Service (NMFS) offers the following brief comments on the proposed permit reissuance pursuant to our role as providers of biological and technical assistance under the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*), as amended (ESA) and the Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq.*). We are sending these comments to you because of EPA's acknowledged oversight role in the issuance of this permit under Section 402(d) of the Clean Water Act (CWA), and acknowledged responsibility to comply with Section 7(a)(2) of the Endangered Species Act (ESA). In addition, these comments are provided per the processes outlined in the Memorandum of Agreement between the EPA and the NMFS regarding enhanced coordination under the CWA and ESA (hereafter "MOA") (May 22, 2001, 66FR 11202-11217).

With the CWA authority delegated from the EPA, Ecology proposes to reissue the Industrial Stormwater General Permit to over 1,200 industrial facilities in Washington State, replacing the current permit. The permit uses the concept of benchmarks and action levels (levels of industrial contaminants that will require the permittee to take further actions) rather than requiring compliance with State water quality standards. In addition, the permit relies heavily a water quality risk evaluation (Herrera Environmental Consultants 2009) to justify their proposed benchmark and action levels.

The geographic area covered by the permit overlaps the range of 15 federally-listed threatened or endangered salmon, as well as designated critical habitat for 13 of these populations. The permit area overlaps areas addressed by the Puget Sound Shared Strategy Recovery Plans, Lower Columbia River Fish Recovery Board, the Upper and



Mid-Columbia Fish Recovery Boards, the Governor's Salmon Plan, and the Puget Sound Partnership. Most of these plans have identified stormwater runoff as a significant factor in reaching salmon recovery. In addition, the Puget Sound Partnership has developed recommendations for addressing stormwater effects with the goal of achieving a healthy Puget Sound by the year 2020. Also, a recent report supported by your agency, identified stormwater runoff as the greatest contributor of the worst pollutants in Puget Sound (Hart Crowser, Inc. et al. 2007).

We support Ecology's objectives in permitting this large number of industrial facilities, with the hope that the discharge of contaminated stormwater from industrial activities into receiving waters will be reduced, and fish and wildlife resources including threatened and endangered salmon will receive additional protection. However in our review of the draft permit we are not assured that protection for listed salmon will be improved. We have identified three main issues that contribute to this concern:

- 1) the copper and zinc benchmark levels,
- 2) using zinc as a surrogate for copper and limiting copper monitoring, and
- 3) the reliance on risk assessment calculations to protect listed species.

We have identified in the past through meetings, e-mails, and correspondence (between NMFS, EPA and Ecology) our concerns about copper and zinc levels allowed by this permit. Adverse effects of dissolved copper and zinc on listed salmon occur at very low levels (values ranging from 0.18 to 2.1 µg/L in freshwater for copper (Hecht et. al, 2007) and at 5.6 µg/L in freshwater for zinc (Sprague 1968)). Adverse effects of copper include interference with fish sensory systems and important behaviors that underlie predator avoidance, juvenile growth and migratory success. These effects occur at pollutant levels that are 6 to 77 times lower than the proposed benchmark level for total copper (14 µg/L). Similarly, adverse effects of zinc include altered behavior, blood and serum chemistry, impaired reproduction, and reduced growth. These effects occur at pollutant levels that are 35 and 45 times lower than the proposed total zinc benchmark levels (200 µg/L for Western Washington and 255 µg/L for Eastern Washington). In addition, the proposed benchmark level for zinc in this permit (200 and 255µg/L total Zn) is higher than the level proposed for the 2007 Industrial permit (115 µg/L total Zn). We do not believe these proposed benchmark levels avoid more than minor detrimental effects to listed salmon and steelhead.

Given that copper has adverse effects on listed fish at very low levels, we are surprised that Ecology has proposed in this permit to eliminate the requirement for facilities to conduct monitoring for copper when zinc benchmarks are exceeded in stormwater discharges. Instead Ecology is proposing to use total zinc as the representative metal for core sampling and apply copper sampling requirements to only 5 sectors of industrial facilities. With the proposed benchmark level for zinc set at a level that does not provide protection necessary for salmon growth and survival, and with copper being identified as a widespread pollutant in industrial facilities, we do not believe using zinc as a surrogate of copper and limiting copper monitoring to 5 sectors will adequately protect listed salmon.

The proposed permit targets for the Industrial permit are based on a water quality risk evaluation that examines the risk of exceeding acute water quality standards (Herrera Environmental Consultants 2009). For this analysis, Ecology determined that the proposed benchmarks and action levels should be considered based on a dilution factor of 5 and a 10 percent risk for exceeding the applicable water quality standard for each metal. While this may be a viable approach for setting benchmark levels across a broad range of facility types and receiving waters, it is not an approach that provides adequate protection for listed salmon. We cannot accurately assume that a dilution factor of 5 will always be provided where listed salmon are present. Nor can we accurately assume that a 10 percent risk of exceeding applicable water quality standards will not have adverse effects on listed fish, particularly when we know that current water quality standards for some pollutants (particularly copper and zinc) already exceed levels that result in adverse effects for listed salmon and steelhead. Therefore, we do not believe more than minor detrimental effects to listed salmon and steelhead will be avoided.

We thank you for the opportunity to provide these comments under the process identified in the MOA. We look forward to continued coordination with EPA and Ecology on NPDES permits, as well as completing our ESA consultations on Water Quality Standards as they are revised in Washington State, in part to meet the needs of listed salmon. Please call me at (360) 753-6054 if you would like to discuss this issue further.

Sincerely,

A handwritten signature in black ink, appearing to read "Steven W. Landino". The signature is fluid and cursive, with a large initial "S" and "L".

Steven W. Landino
Washington State Director
for Habitat Conservation

cc: Kelly Susewind, P.E., P.G. Ecology
Ken Berg, USFWS

References:

Hart Crowser, Inc. 2007. Control of Toxic Chemicals in Puget Sound. Phase 1: Initial Estimate of Loadings. Prepared for Washington State Department of Ecology, U.S. Environmental Protection Agency, and Puget Sound Partnership. Publication No. 07-10-079.

Hecht, S.A., D.H. Baldwin, C.A. Mebane, T. Hawkes, S.J. Gross, and N.L. Scholz. 2007. An Overview of sensory effects on juvenile salmonids exposed to dissolved copper: Applying a benchmark concentration approach to evaluate sublethal neuro behavioral toxicity. U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC-83, 39p.

Herrera Environmental Consultants. 2009. Water Quality Risk Evaluation for Proposed Benchmarks/Action Levels in the Industrial Stormwater General Permit. Analysis Report prepared for Washington State Department of Ecology. 40 pgs.

Sprague, J. B. 1968. Avoidance reactions of rainbow trout to zinc sulphate solutions. Water Research Pergamon Press. Vol 2, pp. 367-372.

Bc: WSHO – Chron File
WSHO – File Copy
WSHO – Landino

Cc addresses:

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