



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

1410 North Hillton • Boise, Idaho 83706-1255 • (208) 373-0502

Dirk Kempthorne, Governor
C. Stephen Allred, Director

February 5, 2004

Randall F. Smith
Director, Office of Water
USEPA Region 10
1200 Sixth Avenue
Seattle, WA 98101

RE: Response to your letter of January 23, 2004 requesting clarifications on implementation of the natural background provisions in Idaho's water quality rules.

Dear Mr. Smith:

By this letter the Idaho Department of Environmental Quality (DEQ) would like to clarify implementation of the natural background provisions in Idaho's water quality rules. We want to formally relay our present interpretation of our natural background provisions, particularly with regard to questions of clarification asked for in your letter of January 23, 2004. Please be aware that whatever the particulars we intend to: a) protect designated and existing beneficial uses; b) do the best we can to truthfully represent natural background conditions; and c) make use of sound science in identifying or estimating what that condition is.

With regard to point 1 in your letter, the DEQ "Concepts" document will be transmitted to our regional water quality managers as a guide to staff on applying the natural background provisions. This document will also be made available as a guide to any that seek further information on how DEQ plans to determine natural background conditions.

Responding to your itemized concerns about the provisions specific to allowing *de minimus* temperature increases above natural conditions in 58.01.02.401.03.v, we would like to clarify the following:

- 1) As stated in our rules, the 0.3°C limit on human caused increase in temperature only applies when the estimated natural background temperature is above the applicable numeric criteria.
- 2) It is our intent that the 0.3°C increase limit for temperature be applied cumulatively, i.e., this is the maximum allowable increase from all sources combined when natural background temperatures exceed applicable numeric criteria.

The Idaho mixing zone policy (WQS §060) has a direct bearing on these cumulative concerns. When implementing this mixing zone policy, Idaho DEQ will ensure that a single point source will be limited to no more than a 0.3°C increase above natural condition or numeric criteria for no more than 25% of river flow. We note that the allowable heat load that would result in a 0.3°C increase at the edge of a mixing zone using ¼ of the river volume results in a 0.3°C / 4 increase (0.075°C) for the entire volume. It would take four sources, each at the maximum allowable load, to reach a

0.3°C increase. Because temperature is a non-conservative property of water, the four sources would have to be in relatively close proximity to cause a problem. This is a rare, if not unheard of, situation in Idaho.

- 3) Your concern for potential adverse effects in the immediate vicinity of a discharge plume is a general concern we share, but is not specific to natural background or temperature. Our mixing zone policy, at 58.01.02.060.01.b, speaks to avoiding interference with existing beneficial uses. In addition, our rules include general prohibition on acutely toxic conditions in the zone of initial dilution, preserving the integrity of the water body as a whole, and prohibition of adverse effects. This gives us the flexibility to address "near field" discharge plume effects, including temperature. Our analysis of thermal plumes will include consideration of the limitations expressed in EPA's Regional Temperature Guidance of April 2003.

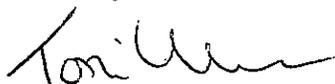
Regarding point 3 in your letter, we agree that proper public involvement is a must. Use of natural background provisions will always occur in the context of some other action such as a TMDL, §401 certification, or listing decision, just like application of any other water quality standard. When we notice those actions for public comment and make supporting documents available for public review, any information relating to natural background condition determinations will be included.

We also agree that a means of centrally tracking and reporting natural background determinations for each water body is important. We will explore options to make this information readily accessible to the public, possibly by incorporation into our assessment database/integrated report, along with tracking of TMDLs.

To the extent we become aware that natural conditions are unsafe to human health, we will work with public health agencies in Idaho with reporting responsibilities to publicize health risks. We will also strive to factor natural conditions in to appropriate use designation for aquatic life.

Finally, we agree to continue working with EPA on the technical tools and the science needed to develop 303(d) lists, NPDES permits and TMDLs based on natural condition determinations.

Sincerely,



Toni Hardesty
Water Quality Programs Administrator

TH:DE:bmm

c: Christine Psyk, EPA
Paula van Haagen, EPA
Leigh Woodruff, EPA IOO
Doug Conde, Idaho Attorney General, IDEQ
Michael McIntyre, IDEQ
Don Essig, IDEQ



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TRANSACTION REPORT

P. 01

FEB-04-2004 WED 03:36 PM

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TRANSMITTAL COVER SHEET
FAX NUMBER (208) 373-0576
SECOND FLOOR

DATE: February 4, 2004

TO: Christine Psyk
EPA, Region 10

FROM: Don Essig
Surface Water Programs

PHONE: 206-553-1906

PHONE: 208/373-0119

FAX: 206-553-0165

FAX: 208/373-0576



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