State Water Resources Control Board

Division of Water Rights
1001 I Street, 14th Floor ♦ Sacramento, California 95814 ♦ 916.341.5300
P.O. Box 2000 ♦ Sacramento, California 95812-2000
Fax: 916.341.5400 ♦ www.waterrights.ca.gov

Linda S. Adams
Secretary for
Environmental Protection

Arnold Schwarzenegger
Governor

MEMORANDUM

Date: March 14, 2008

To: State Clearinghouse, Reviewers, and Interested Persons

Re: Second Errata for Draft Policy for Maintaining Instream Flows in Northern California Coastal Streams and Supporting Technical and Environmental Documents [State Clearinghouse Number 2006072091]

SUMMARY

On December 28, 2007, the State Water Resources Control Board (State Water Board) posted on its website documentation for the proposed Policy for Maintaining Instream Flows in Northern California Coastal Streams. On that same date, the Draft Policy, Substitute Environmental Document (SED), and supporting documents were also sent to the State Clearinghouse for distribution to reviewing agencies. On January 4, 2008, the first errata was posted on the State Water Board website and sent to the State Clearinghouse for distribution to reviewing agencies.

This memorandum provides notification of a second update that affects several of the documents. These documents include the Draft Policy, the Draft SED (main text and Appendix D), and the North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids (main text and Appendices D, E, F, G, I, and J). With this memo, the State Water Board is providing 15 paper copies of the updated Draft Policy and 15 copies of a CD containing all of the documentation, including all updated documents.

The updated documents may be accessed at the State Water Board website (http://www.waterrights.ca.gov/HTML/instreamflow_nccs.html) after 4 pm on March 14, 2008. As stated in the Notice of Extension, dated January 30, 2008, the deadline for written comments is **noon on Thursday, May 1, 2008**. Questions regarding these documents may be directed to Karen Niiya or Eric Oppenheimer at (916) 341-5342 or by email at AB2121Policy@waterboards.ca.gov.

DISCUSSION

Most of the revisions reflect changes resulting from identification of errors in the technical analysis. During the review of the water cost analysis, it was found that: (1) the analysis used an incorrect intercept coefficient for the third minimum bypass flow alternative (MBF3), and (2) the watershed areas for two validation sites that were not close to a stream gauge had not been corrected for differences between the gauge locations and transect locations. Correction of the second error has resulted in revision of the regression equations for the third and fourth minimum bypass flow alternatives. This change is reflected in slightly modified minimum bypass flow equations in the Draft Policy and a modified water cost analysis (correcting both the first and second errors) in the Draft SED. Analyses in other documents were also updated

with the revised equations. In addition to these revisions, the draft SED was updated to include a discussion of the potential indirect impacts on global climate change that might result from increased use of pumps.

The following are the changes to the draft policy's minimum bypass flow equations:

"1. The minimum bypass flow for watershed drainage areas less than ~~or equal to 290~~ 295 square miles is:

$$Q_{MBF} = \text{~~}8.7\ Q_m\ (DA)^{-0.47}\text{~~}\ 9.4\ Q_m\ (DA)^{-0.48}$$

where:

Q_{MBF} = minimum bypass flow in cubic feet per second;
Q_m = mean annual unimpaired flow in cubic feet per second; and
DA = the watershed drainage area in square miles. When using this equation at the point of diversion, if the upper limit of anadromy is downstream of the point of diversion, the drainage area at the upper limit of anadromy may be used.

2. The minimum bypass flow for watershed drainage areas greater than ~~290~~ or equal to 295 square miles is:

$$Q_{MBF} = 0.6\ Q_m$$

where:

Q_{MBF} = minimum bypass flow in cubic feet per second; and
Q_m = mean annual unimpaired flow in cubic feet per second."

LIST OF DOCUMENT UPDATES

The text updates in the documents are in red font. Revisions to graphs consist of slight adjustment of data or lines, and may be best viewed in comparison with the December 28, 2007 version of the document.

Draft Policy for Maintaining Instream Flows in Northern California Coastal Streams

1. Section 2.3.2: The proposed minimum bypass flow equations and associated watershed drainage areas were modified.

2. Section A.5.2.2: The proposed minimum bypass flow equations and associated watershed drainage areas were modified.

Substitute Environmental Document

1. Summary Section: Text was modified to address revisions made to the Water Cost Analysis.

2. Sections 5.3 and 5.4: Minimum bypass flow equations for MBF3 and MBF4 were revised.

3. Sections 6.8.1 and 6.8.2: Text, tables, and figures for the Water Cost Analysis were revised using the corrected minimum bypass flow alternatives.

4. Section 6.0: Text was added to the air quality environmental issue area in tables 6-3, 6-5, 6-7, 6-9, 6-10, 6-11, and text was modified in section 6.9 to include the discussion of the potential indirect impacts on global climate change that might result from increased use of pumps.

Substitute Environmental Document – Appendix D: Potential Indirect Impacts on Municipal, Industrial, and Agricultural Water Use and Related Indirect Impacts on Other Environmental Resources

1. Table 1 was updated with the revised minimum bypass flow equations.

North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids – Main Text

Revisions were made to equations, numbers, graphs, tables, and text on the following pages:

Section	**Page Numbers**
Introduction	xx, xxiv
Chapter 3	3-2, 3-4, 3-5, and 3-6
Chapter 4	4-4, 4-10, 4-11, 4-17, 4-18, 4-19, 4-20, 4-22, 4-23, 4-24, 4-25, 4-28
Chapter 5	5-6
Chapter 6	6-4, 6-5, 6-7

North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids – Appendix D: Defining Protectiveness Levels of Flow Related Habitat Requirements of Anadromous Salmonids at a Regional Scale

1. Page D-40: Two words were revised in the last paragraph on the page.

North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids – Appendix E: Development of Policy Element Alternatives Defining a Range of Protective Levels of Minimum Bypass Flow for Application at the Regional Scale: Upper MBF and Lower MBF Alternatives

1. Text modifications were made on pages E-3, E-6, E-14, E-16, E-18, E-21, E-22, E-24, and E-27.

2. Graphs on the following pages were modified: E-4, E-5, E-15, E-19, E-23, E-25, and E-26.

North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids – Appendix F: Hydrologic Analysis of Validation Sites

1. Text modifications were made on pages F-1, F-4, F-21, F-30, F-32, F-36, and F-45.

2. Tables on the following pages were modified: F-2, F-20, F-22, F-31, F-32, F-33 (two tables), F-35 (one table), F-36, F-37, F-40, F-41 (two tables), F-42, F-43, and F-44 (two tables).

3. Graphs on the following pages were modified: F-46, F-47, F-48, and F-49.

North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids – Appendix G: Approach for Assessing Effects of Policy Element Alternatives on Upstream Passage and Spawning Habitat Availability

1. Page G-8: Some numbers in Table G-1 were modified.

North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids – Appendix I: Results of Validation Site Protectiveness Analysis: Number of Days Per Water Year with Upstream Passage and Spawning Opportunities During the 10/1 – 3/31 Period

1. Graphs on the following pages were modified: I-3, I-4, I-5, I-6, I-7, I-8, I-10, I-11, I-12, I-13, and I-14.

North Coast Instream Flow Policy: Scientific Basis and Development of Alternatives Protecting Anadromous Salmonids – Appendix J: Properties and Behavior of the Cumulative Flow Impairment Index (CFII)

1. Page J-6: Text was added to Table J-1.