

State Water Resources Control Board

DRAFT

Mr. Sam Harader
Program Manager II
Delta Stewardship Council – Delta Science Program
980 9th Street, Suite 1500
Sacramento, CA 95814

Dear Mr. Harader:

REQUEST FOR RECOMMENDATION OF METHOD TO DEVELOP FLOW CRITERIA FOR PRIORITY TRIBUTARIES TO THE SACRAMENTO-SAN JOAQUIN DELTA

The State Water Resources Control Board (State Water Board) seeks the assistance of the Delta Science Program in identifying one or more scientifically defensible methods to develop flow criteria for priority tributaries. The Delta Science Program's input will inform the development of flow criteria for a minimum of five priority tributaries in the Bay-Delta watershed by June 2018, and the remaining priority tributaries thereafter. The flow criteria will be applied to the majority of each priority tributaries' watershed to inform the development of flow objectives in Phase 4 of the State Water Board's Bay-Delta planning process.

The State Water Board is specifically requesting the Delta Science Program to provide a written recommendation that identifies a method or methods to determine in-stream flow criteria that are:

- scientifically defensible,
- cost-effective,
- representative of the majority of each tributary's watershed, and
- can be implemented in a timely fashion.

The attached document includes a description of two methods to develop regional flow criteria. In California, site-specific habitat based studies have historically been used to provide a comprehensive assessment of flow needs for specific stream reaches. The application of traditional site specific studies however is constrained by resource needs, both in the amount of time such studies take and the amount of funding available to conduct the studies. The State Water Board would like to develop flow criteria that apply to the majority of each priority tributary's watershed, and which address multiple species or life stages and fluvial processes. Traditional site-specific studies do not adequately meet this goal due to the stream reach and species and life stage specific nature of these studies.

To assist the State Water Board in identifying a flow methodology that is both timely and cost-effective, please conduct a review of methods which can be applied more broadly, such as on a watershed or regional scale. Two such methods are included in the attached document: the Instream Flow Incremental Methodology (IFIM) regional habitat based method; and the

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Ecological Limits of Hydrologic Alteration (ELOHA) method. If the IFIM regional habitat based method is recommended, please provide specific comments on the tools that should be used to address the biological resource and fluvial process needs (e.g., salmonids, amphibians, macro-invertebrates, bedload transport, floodplain processes, and wetland/riparian communities) that are likely to occur in tributaries throughout the Bay-Delta watershed. For example, to address Chinook salmon passage issues a recommendation could be made to use the Critical Riffle Assessment Methodology (CDFG 2013), where applicable.

State Water Board staff recognizes that there are other scientifically defensible methods not discussed in the attached document. If the Delta Science Program determines that a different method or combination of methods will achieve the goal more effectively, please provide those recommendations. State Water Board staff understands that there are limitations associated with any of the methods presented in the attached document. The State Water Board is also requesting input on how a recommended method could be augmented or refined in the future. For example:

- 1) If an IFIM regional habitat based method is recommended, how can the information generated be used, or augmented with other methods, to inform the development of flow criteria for portions of the watershed outside of the study plan area?
- 2) If ELOHA is used, it is possible that local stakeholders or agencies may desire to perform site-specific studies to refine the regional flow criteria. For example, fish passage and spawning habitat are often localized issues that may benefit from site-specific refinements or calibrations of regional criteria. For such cases, and others (i.e., temperature, flushing flows, fluvial processes, etc.), which methods or tools could be used consistently in these watersheds to calibrate or refine regional flow criteria?

To discuss the timing of this request as well as to answer any questions, please contact me at (916) 323-9392 or at Daniel.Schultz@waterboards.ca.gov. Written correspondence should be addressed as follows:

State Water Resources Control Board
Division of Water Rights
Public Trust Unit
Attn: Daniel Schultz
P.O. Box 2000
Sacramento, CA 95812-2000

Sincerely,

Daniel Schultz
Public Trust Unit Chief
Division of Water Rights

Enclosure: Potential Methods to Develop Flow Criteria for Priority Tributaries to the Sacramento-San Joaquin Delta