

Peer Review Plan

Date: 10/20/2020

Source Center: U.S. Geological Survey (USGS)
California Water Science Center
6000 J Street, Placer Hall
Sacramento, CA 95819

Title: Sediment mobility and river corridor assessment for a 140-km segment of the mainstem Klamath River below Iron Gate Dam, CA.

Subject and Purpose: A 2013 Biological Opinion (2013 BiOp) described the effects of flow management on water availability and critical habitat for federally-listed salmonid species in the Klamath River basin. The 2013 BiOp also identified *Manayunkia speciosa* (a freshwater polychaete) as an obligate invertebrate host for *Ceratonova shasta* (*syn Ceratomyxa shasta*), which is a myxosporean parasite known to cause significant mortality in juvenile and adult salmonids. Recent studies indicate the spatial distribution and abundance of the polychaete host decreases when their preferred habitat is disturbed during flow events that scour or mobilize the channel substrate. These study indications suggest surface-flushing, deep-flushing and armor-disturbing flow events, collectively referred to as channel maintenance flows, may be useful for managing polychaete prevalence, fish infection rates, and disease-induced mortality of juvenile and adult salmonids caused by *C. shasta*.

The U.S. Fish and Wildlife Service (FWS) Arcata Field Office requested a sediment mobility and river corridor assessment for a 140-km reach of the mainstem Klamath River below Iron Gate Dam, CA, which represents the primary salmonid spawning reach. This report describes field and remote sensing datasets that provide key information for interpreting river corridor conditions conducive to infectious diseases such as *C.shasta*. Specific objectives of the study were to relate flow history to bed mobility and to spatially assess the geomorphology and riparian vegetation of the mainstem river corridor. The information product will be released as a USGS Open File Report.

Impact of Dissemination: This information product is considered by the USGS to be Influential Scientific Information.

Timing of Review (including Deferrals): August 2020 – September 2020. Deferrals are not anticipated.

Manner of Review, Selection of Reviewers and Nomination Process: This review will be conducted via individual letters. USGS will select the peer reviewers in accordance with the requirements in [Survey Manual chapter 502.3—Fundamental Science Practices: Peer Review](#).

Expected Number of Reviewers: Three reviewers are anticipated.

Requisite Expertise: Sediment transport, hydrology, ecological flows, salmonid fisheries and geomorphology.

Opportunity for Public Review: No opportunity for public comment is formally incorporated for this product.

Agency Contact: peer_review_agenda@usgs.gov.