Fish Passage Plan (FPP) Change Request Form

Change Form # & Title:	15MCN004 Warm Water Ops Temperature Review
Date Submitted:	December 9, 2014
Project:	MCN
Requester Name, Agency:	McNary Fisheries
Final Action:	APPROVED – January 22, 2015

FPP Section: MCN Section 3. Project Maintenance. MCN Section 4.1.1. Turbine Unit Operations – Warm Water Operations.

Justification for Change: Current language states "reach 70°F or greater" (pg MCN-19), "exceed 68°F" (pg MCN-24), and ">68°F" (pg MCN-25).

The proposed changes clarify that 68°F is the established temperature, establishes the "sample tank" as the location of temperature measurement, and establishes consistently that the temperature must "exceed 68°F" in order for the triggers to occur. These changes establish consistency and eliminate confusion.

Proposed Change:

3. PROJECT MAINTENANCE

Project biologists should be present to provide technical guidance at all project activities that may involve fish handling. All dewaterings shall be accomplished in accordance with approved project dewatering and fish handling plans. When river temperatures ~~reach 70°F or greater,~~ exceed 68°F at the Juvenile Fish Facility (JFF) sample tank, all adult fish handling will be coordinated through CENWW-OD-T. Dewatering and fish handling plans were reviewed and revised in 2011 to ensure that they comply with the *Guidelines for Dewatering and Fish Handling Plans* (**Appendix F**).

4.1.1. Warm Water Operations. At the request of McNary Fisheries, the project will implement the following protocols during "*Warm Water Operations*" when water temperatures at the McNary Juvenile Fish Facility (JFF) sample tank exceed 68°F in order to minimize thermal stress on salmonid species. The project and CENWW will coordinate these protocols with fish agencies and tribes through FPOM and other entities as necessary. The purpose of these protocols is to provide precautionary measures to avoid or minimize any direct or delayed mortality resulting from additional thermal stress when handling juvenile salmonid fishes.

4.1.1.1. Operation in Secondary Bypass or Sample Mode. When any of the criteria listed below occur, the project will begin to shut down turbine units in a staggered priority, stopping every other unit starting with unit 2, and ascending as necessary to avoid temperature shocks within the juvenile channel (i.e., shutting down units 2, 4, 6, 8, 10, 12 and 14 as necessary). If possible, unit 1 shall be left in operation to provide attraction flow to the two entrances of the Oregon shore fish ladder. The Project Biologist will coordinate with

CENWW to modify this sequence if necessary to provide equal or better levels of protection to salmonid fishes. Starting and stopping of two or more units at a time should be avoided if possible during periods of warm water, especially during the hours of 1000–2400. Turbine operations during periods of warm water will begin when *any* of the following criteria occur:

i. Water temperatures in the McNary JFF sample tank >68°F; or

ii. Water temperatures elsewhere at the project (e.g., gatewells) that are likely to induce thermal stress in juvenile salmonids; or

iii. Temperature gradients >5°F; or

iv. Sample mortality >3%; or

v. System mortality >6%.

Comments:

1/16/15 NOAA memo: "No Objections to the shift from 70 to 68 degrees at the sample tank."

1/22/15 FPOM: Kiefer asked what the research impacts might be. Setter said there isn't much going on there so impacts should be minimal.

Record of Final Action: 1/22/15 FPOM: APPROVED