CENWP-OD 22 October 2020

MEMORANDUM FOR THE RECORD

**TITLE** - 20DET05 Downstream Fish Passage Operation

**PROJECT** - Detroit Dam

**RESPONSE DATE** - 05 November 2020

**Description of the problem**

The goal of this operation to provide downstream passage for juvenile salmon at Detroit Dam. For implementation during fall drawdown and winter months when downstream fish passage rates are high, operations will limit turbine operations to station service only (i.e. the turbines will not be operated except for station service) and the majority of flow will be passed through the Regulating Outlets (ROs) from November 1, 2020 through February 1, 2021, between the hours of 6:00 AM - 10:00 AM and 6:00 PM - 10:00 PM.

Once the reservoir elevation is less than 100 feet over the turbine intakes (elevation 1500 feet to 1450 feet), typically around November 1 through February 1, turbines will not be operated at Detroit Dam between 6:00 AM - 10:00 AM and 6:00 PM - 10:00 PM except for station service power. The Corps will manage discharge from Detroit Dam to minimize TDG levels downstream of Big Cliff dam.

Monitoring Description:

~~A rotary screwtrap will be installed and operated below Big Cliff Dam to provide information on the migration timing and size of naturally produced juvenile salmonids exiting downstream of Detroit and Big Cliff dams. Results will be compared to rotary screwtrap results previously collected under normal operating conditions.~~

Monitoring using a rotary screwtrap was not performed as getting a contract in place in time was not succesful.

Potential Impacts and Mitigation:

Feasibility: This operation can be accomplished consistent with operating protocols as described in water control manuals and water control diagrams (however, see limitations).

Limitations: If total dam discharge must be increased to achieve flood risk reduction mission objectives during the operational period of this measure, then regulating outlet (RO) and turbine operational objectives of this measure may not be achieved. Minimum gate openings will not be violated during the operation.

**Type of outage**

The majority of flow will be passed through the Regulating Outlets (ROs) from November 1, 2020 through February 1, 2021, between the hours of 6:00 AM - 10:00 AM and 6:00 PM - 10:00 PM.

**Impact on facility operation**

No generation will occur if only the RO is utilized to pass flow except for station service.

**Dates of impacts/repairs**

Early November until February 1, 2021.

**Length of time for impacts/repairs**

Approximately three months

**Expected impacts on fish**

The purpose is to provide safer passage for juvenile salmonids. Additional insight will be provided by monitoring (see Description of the problem).

**Comments from agencies**

Please email or call with questions or concerns.

Thank you,

Chris Walker

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