CENWW-ODH **March 29, 2021**

MEMORANDUM FOR THE RECORD - 21 IHR 05

SUBJECT: Unit Trash Rake Problems

The contract upgrade for the intake crane controls call for a structural engineering inspection of below-the-hook lifting devices which are used with the crane. One such lifting device is the trash rake that is used to clean debris off the unit trash racks. The trash rake recently failed the engineering evaluation for ASME BTH-1. Structural engineers in the Walla Walla District Office have determined the trash rake cannot be safely used in its current condition. The risk of using the trash rake is that certain components of the rake may fail, resulting in branches and logs falling out of the rake and striking personnel and equipment below.

The trash rakes are specialty devices that are designed for each individual project, so trash rakes are not interchangeable between projects. The Ice Harbor rake will need to be repaired or replaced with a new one, and a timeline for that is still to be determined.

The standard procedure is to rake the unit trash racks in March, just prior to removing debris from gatewell slots (if present) and installing STSs before April 1. In leu of lifting debris off the trash racks with the rake, the rake was used to push debris to the bottom of the trash racks on March 28 and 29. This measure should partially clear debris from the trash racks to reduce possible injury to fish. STSs will be deployed on March 30 and 31.

Per the Fish Passage Plan, Fish Facility personnel will be performing gatewell drawdown measurements during the fish passage season to monitor for additional debris buildup on the trash racks. Fish Facility personnel and powerhouse operators are backflushing orifices to keep orifices clear of debris. At the discretion of the Project Biologist, the frequency of backflushing may be increased as needed to keep orifices clear. Fish passage flumes and pipes are monitored daily for signs of debris obstructions. Fish condition monitoring of fish traveling through the juvenile fish bypass will be occurring twice per week, on Mondays and Thursdays, starting April 1. Fish will be examined for descaling and different types of injuries. An elevated incidence of descaling and injuries will result in further examination of fish passageways, and additional actions will be taken if possible. Unresolved fish condition problems will be promptly reported to Walla Walla District Office Fish Operations Biologists.

Ken Fone
Ice Harbor Project
Fishery Biologist
509-544-3137