ERDC Spill Pattern Updates

Bonneville, The Dalles and Lower Monumental

Week of September 17th, 2017

OBJECTIVES: Court Order to spill to Gas Cap. Need to define what that looks like for each project and identify constraints – if any.

ASSUMPTIONS: Voluntary spill patterns over the past few years have provided acceptable fish passage conditions. Each model will be observed at voluntary spill pattern levels closest to the desired change. Differences from the “acceptable” will be noted.

Bonneville:

Fish Passage Concerns/Issues

* Will the existing spill pattern provide good juvenile egress at all tailwaters? (Note gas cap will involve higher spill volumes at lower tailwaters.)
* Are shore line velocities too high for good adult passage?
* Is flow off the 14 foot or 7 foot deflectors a hydraulic/egress issue for the specific TW?

Integrity of the Structures (spillway, channel slopes, fish ladder, etc)

* Are velocities too high on the shoreline and will cause erosion (potentially affecting the Bradford/Cascades Is fish ladders)?
* Will rocks move into the stilling basin at lower Qs and lower tailwaters, creating a scouring/structure integrity concern?

The Dalles:

Fish Passage Concerns/Issues

* Starting at 64 Kcfs spill (4 foot gate opening in bays 1 through 8) are conditions on the spillway shelf acceptable for fish passage (adults and juveniles)?
* Egress conditions of spill into the main river?
* Evaluate high flow conditions that correspond to less than 40% spill?

Structural integrity of the 8/9 Spillwall

* Will modified spill patterns cause increased erosion of the shelf adjacent to the d/s portion of the 8/9 spillwall.

Changes that would affect traffic entering or exiting the Navigation Lock

Lower Monumental:

Fish Passage Concerns/Issues

* Determine if uniform gas cap spill has capability to egress

Integrity of the Structures

* Determine if uniform gas cap spill has structural impacts

Changes to entering or existing the Navigation Lock

* Determine if uniform gas cap spill will cause navigation concerns

Sunday September 17th – Travel Day

Friday September 22nd – Travel Day

See attached Spreadsheet for Agenda.

Attendees:

NWP:

Laurie Ebner

Amy Lynn

Sean Askelson

Steve Schlenker

Aaron Litzenberg

Sean Tackley

Jon Rerecich

Ida Royer

NWW:

Ryan Laughery

Steve Juhnke

Chuck Barnes

Sean Milligan

Mark Morris

NWD:

Covered under a separate list

Agencies:

NPT - Jay Hesse

ODFW - Erick Van Dyke

WDFW - Charles Morrill

IDFG - Russ Kiefer

CRITFC - Tom Lorz

USFWS - Dave Swank

NOAA - Trevor Conder, Gary Fredricks, Blane Bellerud, and Ed Meyer

BPA – Scott Bettin

PNWA/tow boaters- XXX