

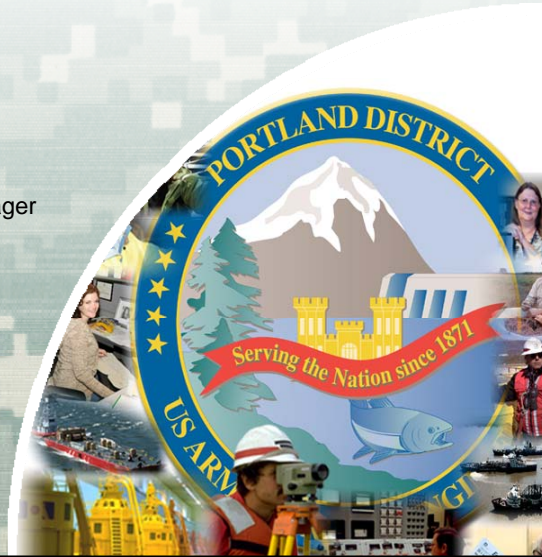
Bonneville Spillway Issues Fish Facility Design Review Work Group

2 June 2011

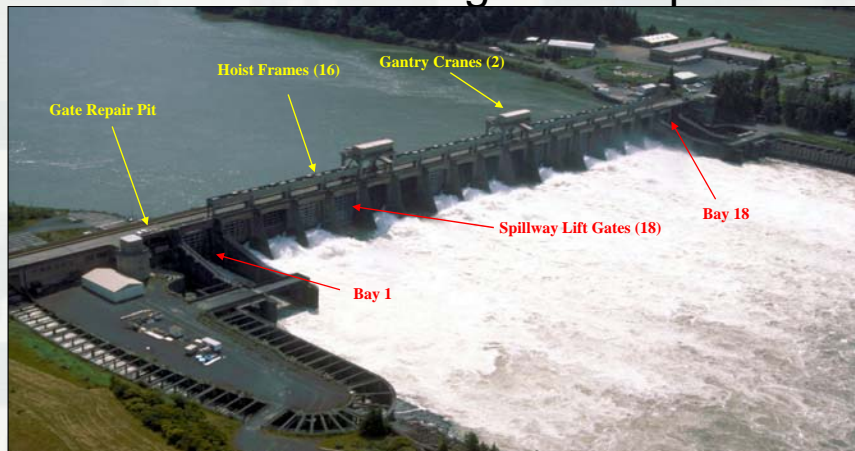
Matthew Cutts, P.E., CFM
Critical Infrastructure Program Manager
Portland District



US Army Corps of Engineers
BUILDING STRONG®



Bonneville Stilling Basin/Apron



- Background: built in 1930's - aging features; added BiOp requirements - fish spill
- Condition: failing/deteriorated features. Erosion holes at bays 9, 12, 14 and apron undercutting
- Consequences: continued erosion, dam safety, can't maintain safe ops; will prevent spill in accordance with BiOp

PORTLAND DISTRICT

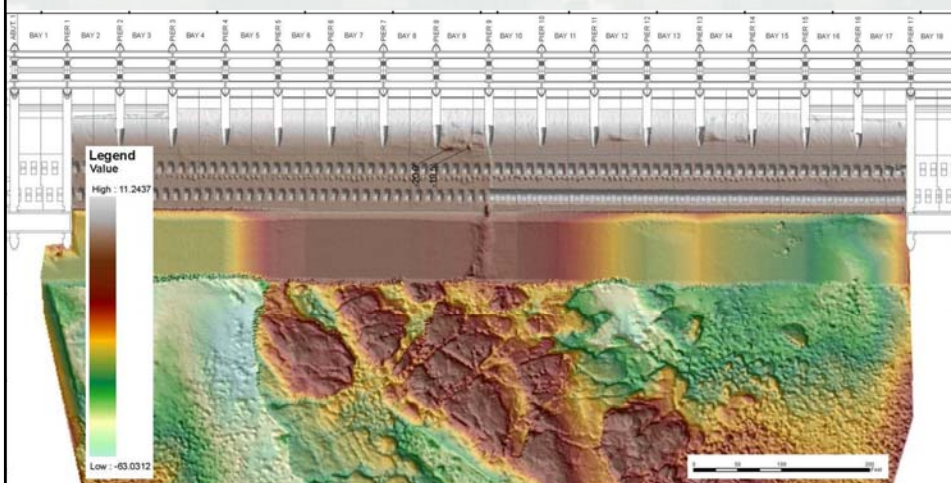
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BUILDING STRONG®

Spillway Issues

Major Rehab	Not Major Rehab
Hoists: capability/height to avoid gate split	Wire Ropes
Cranes: capacity/height	Wire Ropes
Gates/bulkheads capacity/new	
New Spillway	Concrete Issues: Bay 9 & Stilling basin slab.
Fish locks/Decommissioning	
Pier B/Settlement Stability	Spillway erosion plan/Operation plan when it punches through
Settlement areas downstream	Water Control Manual & legal obligations – O&M for RCC

Spillway/Apron Bathymetry June 2007



Action

- Hydrosurvey to determine present spillway/apron bathymetry & condition.
- Flow modeling to accurately ascertain determine how spillway/apron failure will affect mortality and to minimize mortality .
- Contingency plan for actions to be taken when failure occurs.



Budget Actions

- FY11/12 CRFM Funding:
Flow Modeling & Contingency Planning
- FY13 Budget Request:
Major Rehab Report
Spillway/Apron Repairs – P&S and construction



Next Steps

- Collect/generate Flow Modeling info
- Draft Contingency Plan
- Refine brief
- Present to Corporate Board 6/10
- Present to Northwestern Division
- Present to the Fish Passage Operations and Maintenance Coordination Team
- Present to Bonneville Power Administration

