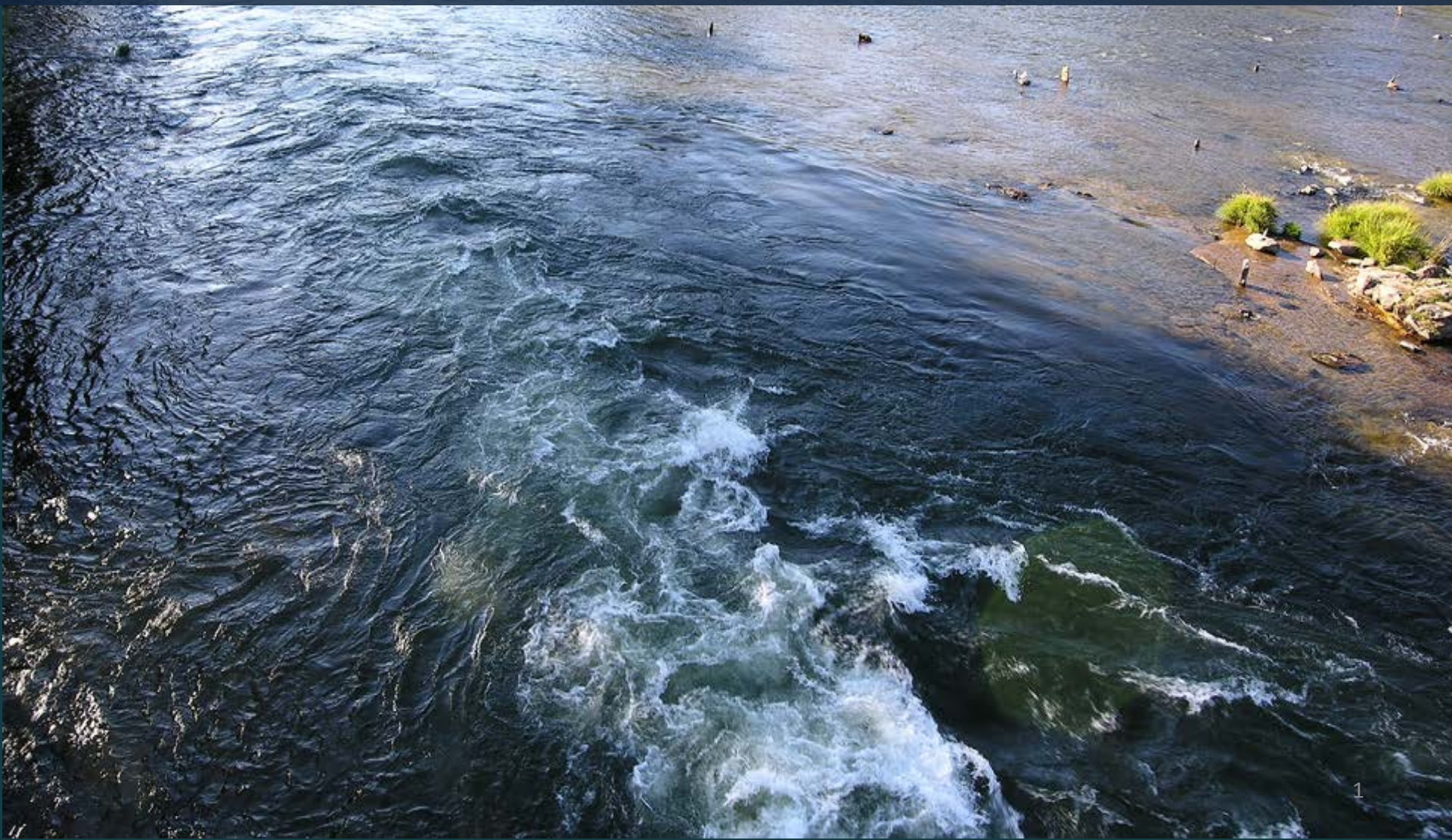
Willamette Basin Review Study

Water Resources Commission Meeting
December 7-8, 2017



Outline of Today's Agenda Item

- Background on the study's history
- Summary of work completed in 2016 – 2017
- Overview of the Draft Integrated Feasibility Report
- What to expect in 2018

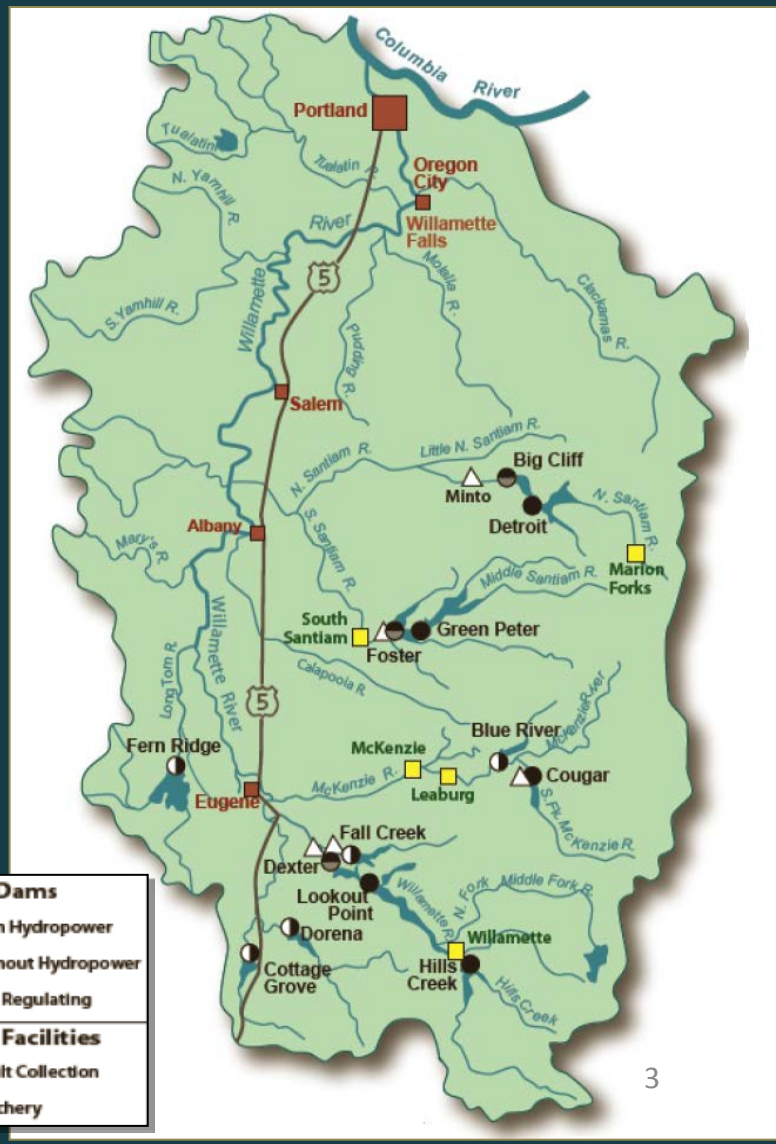
About the Willamette Basin

Willamette Valley Project

- 13 reservoirs
  (1.64 M acre-feet legally stored)
- Flood control a primary purpose
- 5 percent is contracted to irrigation
- Stored water released for fish & wildlife benefits

Willamette Basin

- Strong recreational demand
- Fastest growing area in the state
- Diverse agricultural setting
- Several ESA-listed species



The Drivers

- Groundwater limited or restricted areas
- Surface water (live flow) not allowed for most new uses during summer months
- Water quality & listed species
- A need for supplemental or back-up water supplies
- Today, access to federal storage is limited for irrigation, municipal and industrial, and instream uses
  - Irrigation is limited to 95,000 acre-feet, per 2008 BiOp
  - No contracting program exists for municipal or industrial uses
  - Storage water rights only allow irrigation
  - Stored water releases are not protected for instream uses today

Willamette Basin Review History

1991 Corps completes appraisal-level study

1994 Demands developed for municipal, industrial, and irrigation

1996 Study initiated, cost share agreement signed

1999 ESA listing of Upper Willamette Steelhead & Chinook

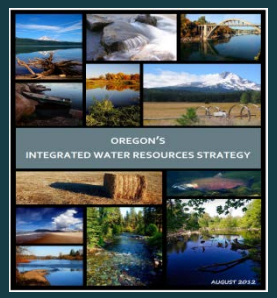
2000 

Agency partners place study on hold

2008

Biological Opinions Completed

2012



2014

Coast Fork Willamette Surplus Report

2015

New Cost Share Agreement

2018

Chief's Report

Study Participants

U.S. Army Corps of Engineers

Federal Study Lead

Water Resources Dept.

Non-Federal Sponsor

Core Agencies

+ basin stakeholders

Progress to Date

- January 2017: Demand estimates for irrigation, municipal, industrial uses completed
- March 2017: Stakeholder meeting to share results
- April 2017: Water supply analysis completed to quantify use of storage to meet the 2008 BiOp flow requirements
- July 5, 2017: Project Milestone completed
  (Meeting with senior leadership at Corps Headquarters)
- Late July: First version of full draft report completed
- August - September 2017: Additional technical analyses
- November 2017: Release of first full draft integrated report/EA for public comment

Draft Integrated Report – "Tentatively Selected Plan"

- Executive Summary & Main Report
- 11 appendices with technical information
- Includes a "No Action" Alternative
- Four reallocation alternatives were evaluated
- Report concludes with a DRAFT Finding of No Significant Impact under NEPA
- Public comment period is 45 days, comments due December 22
- Undergoing concurrent policy, Agency Technical Review and Independent External Peer Review

Planning Constraints and Considerations

Constraints

- Maintain existing flood risk management benefits in the system
- Water reallocation options will fit within existing project rule curves
- Reservoir storage reallocation limited to existing 1.6 M acre-feet
- Construction/modification of structural facilities not being considered

Considerations

- 100% reliable stored water for all water year types and for all water users is not viable because reservoirs annually emptied for flood control purposes
- Maintain operational ability to meet BiOp flow targets for ESA-listed fish
- Minimize negative impacts to existing reservoir and downstream recreation users
- Minimize impacts to hydropower generation at Willamette hydropower projects

Project Alternatives

No Action: Meet Fish and Wildlife (F&W) and partial Agricultural (Ag) needs through Willamette Project storage. Flows for F&W would not be protected instream.

Alternative 1: Meet Municipal and Industrial (M&I) water supply needs through non-Federal measures while meeting Fish and Wildlife and Agricultural needs through Willamette Project storage

Alternative 2: Meet Municipal and Industrial (M&I) water supply needs through non-Federal Measures and Willamette Project storage, while meeting Fish and Wildlife and Agricultural needs through Willamette Project storage

Alternative 3: Meet Municipal and Industrial, Fish and Wildlife and Agricultural water supply needs through Willamette Project storage

Estimating Demands for Stored Water

Peak Season Demands for 2070

Allocation Use Category	Peak Demands (acre-feet)	Portion of Total (percent)
Fish & Wildlife	1,590,000	76.5
Municipal & Industrial	159,750	7.7
Agricultural Irrigation	327,650	15.8
Total	2,077,400	100.0

Determining the Reallocation Alternatives

Alternative A: Proportionate reduction for all uses

Alternative B: Prioritize fish & wildlife storage at peak level

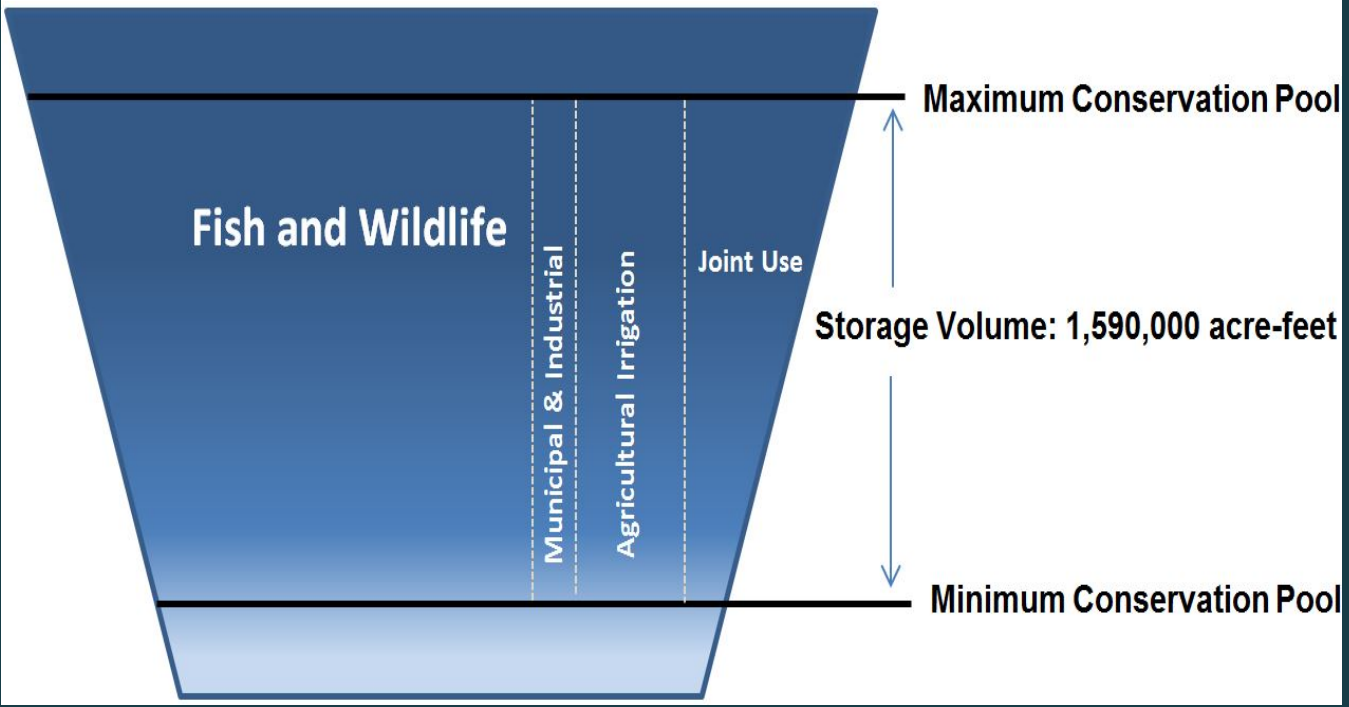
Alternative C: Prioritize M&I and irrigation storage at peak demands

Alternative D: Reduce peak season demand levels with joint use

Reallocation Alternative D

Reallocation Alternative D

Fish and Wildlife	962,800 acre-feet
Municipal and Industrial	73,300 acre-feet
Agricultural Irrigation	253,950 acre-feet
Joint Use	299,950 acre-feet



Adaptive Management Plan Scenarios

1. Proportionally reduce water use across all sectors in dry years

2. Prioritize storage supply for fish & wildlife first, providing any remaining storage supply to other uses in dry years

3. Prioritize the storage supply for consumptive uses first, providing any remaining storage supply to fish and wildlife purposes in dry years

Examples of Annual TSP Implementation

Example Scenario #1

Annual conditions:
- Reservoirs fill to 1.4 MAF
- M&I contracts total 20,000 AF
- AI contracts total 120,000 AF

Available water:
- F&W: 962,800 AF
- M&I: 20,000 AF
- AI: 120,000 AF
- Joint: 297,200 AF

Example Scenario #2

Annual conditions:
- Reservoirs fill to 1.4 MAF
- M&I contracts total 73,300 AF
- AI contracts total 253,950 AF

Available water:
- F&W: 962,800 AF
- M&I: 73,300 AF
- AI: 253,950 AF
- Joint: 109,950 AF

Examples of Annual TSP Implementation

Example Scenario #3

Annual conditions:
- Reservoirs fill to 900,000 AF
- M&I contracts total 20,000 AF
- AI contracts total 120,000 AF

Available water:
- F&W: 785,745 AF
- M&I: 16,322 AF
- AI: 97,933 AF
- Joint: 0 AF

Example Scenario #4

Annual conditions:
- Reservoirs fill to 900,000 AF
- M&I contracts total 73,300 AF
- AI contracts total 253,950 AF

Available water:
- F&W: 671,695 AF
- M&I: 51,138 AF
- AI: 177,168 AF
- Joint: 0 AF

Next Steps: 2018

- Once comment period closes (December 22), revise where needed
- Work through implementation details with stakeholders
- Agency decision milestone – March 2, 2018
- Formal ESA consultation will begin after the public review
  (135 days for a BiOp after BA is accepted)
- Senior Leaders Meeting (formally Civil Works Review Board) – May 30, 2018
- Chief's Report Milestone (ends Corps feasibility study) – August 18, 2018

What Happens After the Study?

- If approved by Congress,
  - State law requires a contract with reservoir owner for storage releases for instream protections
  - File a transfer application to change the character of use on storage certificates to include all three uses
  - Water users seek storage agreements with Army Corps and Bureau of Reclamation for consumptive use and subsequently file applications to use stored water

Questions?