Umatilla Basin Project:
Cooperative Exchange of Columbia River Water for Instream Flows

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Prior to arrival of European settlers, salmon and other native species harvested by mid-Columbia tribes for subsistence and trade

1855 Treaty: Umatilla tribe and others ceded 6.4 million acres to U.S. Government, including Umatilla basin (1.5 million acres)

Shortly after, much of basin converted to agriculture and waterways began to be altered for irrigation
“Original” Umatilla Basin Project

• Combination of private and Federal development constructed between 1905 and 1927
  – Reservoirs: Cold Springs and McKay
  – Diversion Dams: Furnish, Umatilla Feed Cn, Westland, Maxwell, and Three Mile Falls
  – Complex network of irrigation canals
Umatilla Basin Irrigation Districts

West Extension ID

Hermiston ID

Westland ID

Stanfield ID

Dams
Decline and Confrontation

- By early 1900’s, low streamflow combined with insufficient passage and screen facilities led to extirpation of salmon and dramatic decline in steelhead.

- Led to confrontation, primarily between CTUIR and irrigation districts.
“I was lucky to get out of the hearing room alive.”

- Sen. Mark O. Hatfield, on his experience at a meeting on the water disputes in the Umatilla Basin
Restoration Efforts Begin

• In early 1980’s, fisheries restoration programs began
  – Habitat improvements
  – Passage enhancements
  – Water-use plan
  – Analysis of benefits of flow enhancement
Umatilla Basin Plan

- In 1988, Congress authorized Umatilla Basin Plan
  - Cooperative effort by CTUIR, IDs, OWRD, BPA, NWPPC, BOR, and Federal and state fisheries agencies
  - Part of comprehensive plan to improve salmon and steelhead runs
  - Instream flow enhancement during critical migration periods
Phase 1 Exchange

• Water diverted from Columbia River in exchange for Umatilla River “live flow” to be left in the Umatilla River at Three-Mile Dam

• BOR canal and pumping station completed in 1993
Umatilla Basin Project Facilities
Phase 1 Pumping Plant
Phase 2 Exchange  
(Part 1)

• Columbia River water pumped to Cold Springs Reservoir in exchange for Umatilla River “live flow” left in the river from Hermiston ID’s diversion near Echo and protected with HID’s 1905 priority to the mouth of the Umatilla River.

• BOR pumping station and canal became operational in 1994
Phase 2 Exchange (Part 2)

- Columbia River water pumped to Stanfield Irrigation District in exchange for Umatilla River “live flow” and SID’s McKay Reservoir storage. Water protected with 1905 and/or 1965 priority from SID diversion to the mouth.

- Partial exchange began in 1999
BOR Columbia River Pumping Plant – Phase 2
Columbia Exchange Canal - Phase 2
Some of the Gages

Cold Springs Reservoir and Dam

- 14032400
- 14031600
- 14031050
- 14029900
- 14026000
- 14025000
- 14021000
- 14020000
- 14025000
- 14022500

Gage

Dam

Hermiston

McKay Res.

Pendleton
Annual Salmon Returns to 3MD

Data courtesy of Brian Zimmerman, CTUIR
Umatilla Basin Project
Oversight Committee - 2012

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