# **Goals Handout**

**Purpose for Establishing Goals:** Identify what the Work Group would like to <u>achieve</u> with the Integrated Package and associated Implementation Plan.

## Guidance:

- Cover the bases but try to keep it simple to avoid getting bogged down at this point
  - Out of stream supply: Ag, M&I
  - Flow enhancement: mainstems and tributaries
  - Water efficiency: Ag, M&I
  - Up and downstream passage: mainstems and tributaries
  - Habitat enhancement: mainstems and tributaries
  - o Other??
- Enough specificity <u>where needed</u> to compare among various project alternatives (E.g., either/or situations)
- Provide some flexibility to allow for creative problem solving
- Additional detail will be provided in the implementation plan.

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## **Existing Goal Information**

### (from Integrated Water Management Alternative Final EIS, June 2009)

### **Fish Passage**

- Provide fish passage [up and downstream] at existing storage reservoirs and other structures that currently restrict or block passage, in order of priority:
  - o Cle Elum Dam
  - o Bumping Lake Dam
  - o Tieton Dam
  - o Keechelus Dam
  - o Kachess Dam
- Reestablish populations of anadromous salmonids.

### Modifying Existing Structures and Operations

- Improve flows to reduce downstream travel times and increase smolt survival. Target reaches are downstream of Roza, Wapato, Parker and Prosser dams.
- Enhance juvenile bypass outfall facilities to improve survival at Roza (project construction planned). Evaluate at Parker, Wapato and Wanawish.
- Enhance tributary flows on Taneum, Manastash, Big and Little Creeks



 Augment stream flows in Lower Naches by completing Wapatox project (ties with conservation projects)

## New Surface Storage

- Improve supply for proratable irrigators during low flow years
- Provide for municipal growth and improve spring and summer flows for resident and anadromous fish.
- Example benefits for increased Naches basin storage:
  - Increase winter and spring flow in the Bumping, Naches and Yakima Rivers during droughts
  - Reduce September flows in the Tieton River
  - Increase summer flows in the Yakima River below Parker gage
  - Provide for additional pulse flows when needed in winter or spring
- Example benefits for Wymer storage
  - Used in conjunction with upper basin fish projects to prevent any potential loss of TWSA
  - Store runoff in winters where prolonged thawing conditions create high flow conditions mid-winter
  - Improve the flexibility of water management in the event that climate change increases the frequency of mid winter runoff events.

## **Groundwater Storage**

• Supply out of stream uses, increase streamflows through increased groundwater discharge and/or replenish depleted groundwater storage

## Fish Habitat Enhancement

- Keechelus Dam to Roza Diversion Enhance spawning and rearing habitat by restoring floodplain connectivity and reestablishing side channel connections, and protecting existing habitat
- Roza Diversion to Prosser Dam Enhance migration timing for adult salmonids and juvenile outmigration by improving flows. Enhance rearing habitat by restoring floodplain connectivity and reestablishing side channel connections, and protecting existing habitat.
- Prosser Dam to Columbia River Confluence Protect and restore mainstem and offchannel habitats, particularly in floodplain reaches and documented cool water refuge areas. Improve flows.
- Bumping Dam to Tieton River Confluence Protect functional habitat in the mainstem Naches and its floodplain. Restore off-channel habitat and flood plain function in the upper Naches.
- Tieton River Confluence to Yakima River Confluence Protect and restore complex floodplain habitats and improve floodplain function and sediment transport at diversion structures

• Tributary Habitat Improvements – Protect, restore and enhance channel and floodplain connectivity, riparian habitat, fish passage, instream flows and instream channel complexity. See Table 2-2 in EIS for list of tributaries and identified improvements.

## **Enhanced Water Conservation**

• Enhance instream flows and conserve existing water supply by improving water use efficiency in irrigation district conveyance, on-farm water application, and municipal, commercial and industrial systems.

## Market Based Reallocation

- Increase the overall value of the goods and services derived from the basin's water resources by reallocating water from low-value to high-value uses
- Reduce the delay and transaction costs for reallocating water resources
- Ensure appropriate consideration for potential third party impacts.

## Attachments with Additional Background Information

- 3 Maps Identifying Flow Issues (Spring, Summer and Winter)
- Water Demand Estimates Handout (also provided at 7/15 Work Group Meeting)
- Monthly Flow Targets for Dry, Average and Wet Years (developed by USBR Technical Work Group for 2008 Storage Feasibility Study)