

# Washington Water Resources



Putting a Positive Spin on  
a Washing Machine Stuck  
in the Low Water Cycle

A scenic view of a large body of water, likely a lake or reservoir, with mountains in the background under a clear sky. The water is a deep blue, and the mountains are a lighter blue-grey. The sky is a pale, clear blue.

Jon K. Culp

Washington State Conservation  
Commission

# Why Conserve Water?



# What is Irrigation Efficiency ?



The quantity applied versus the amount used by the plant. . .

# System Efficiency Potential Ratings

- Flood Irrigation 30-50%
- Rill or Furrow Irrigation 50-65%
- Hand line and Wheel line 65%
- Center pivot and Lateral Move 70-85%
- Pivot with L.E.P.A. 98%



# Where does the Water go?



Consumptive use  
Versus  
Conveyance loss

# Consumptive Use Water

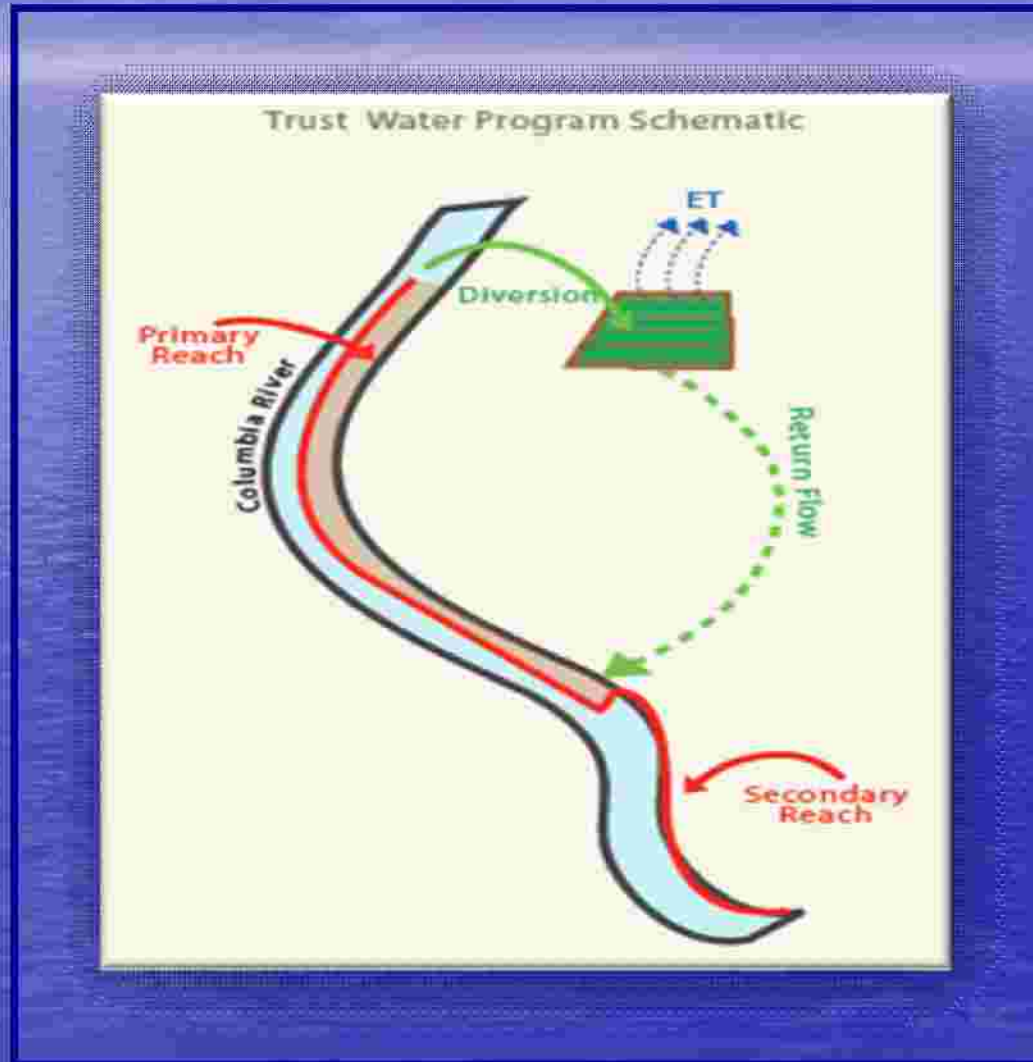
- No longer available to other users
  - Evaporation
  - Transpiration

# Conveyance or Non-Consumptive

- Diverted water that does become available to other users in the basin
  - Conveyance losses—ditch loss, wind drift, etc.
  - Lateral flow from field—surface runoff
  - Deep percolation— water pushed beyond the root zone
  - Operational tail water



# Why it matters. . .



# Practical Application

Why not upgrade everything to the latest technology available?

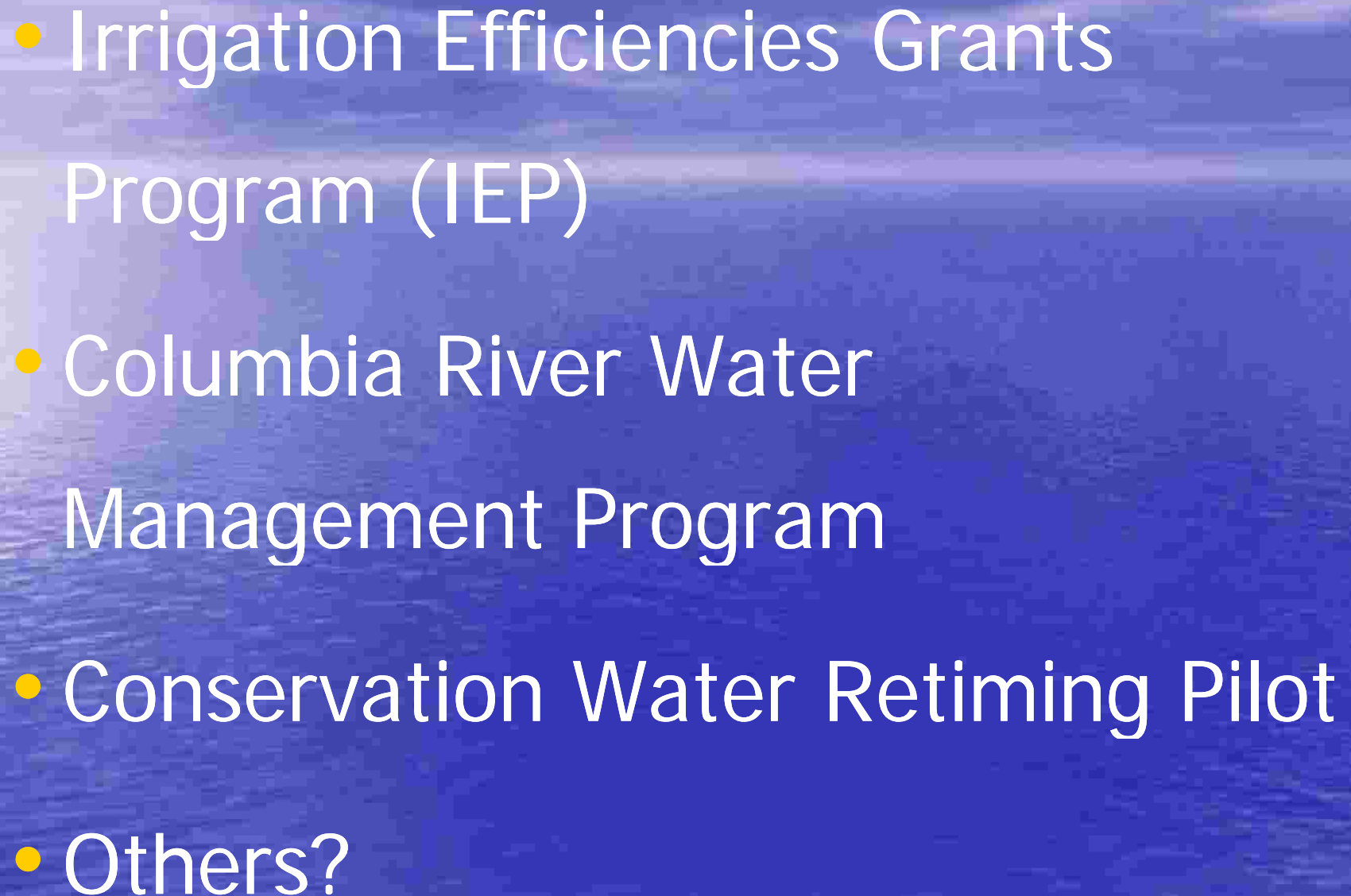
- Site specific factors
- Farmability
- Water availability/delivery system
- Power availability and requirements AND. . .

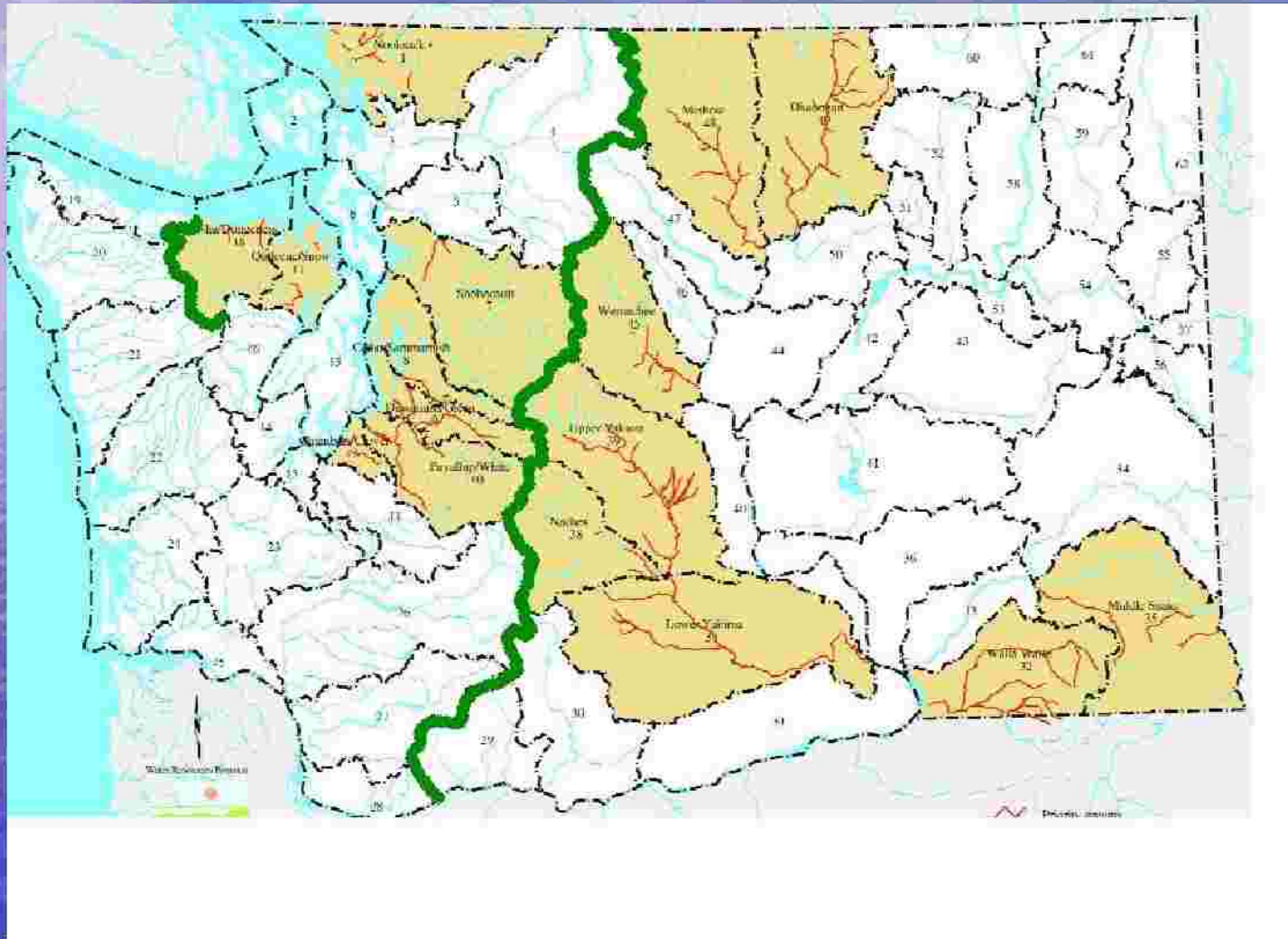
A blue-tinted landscape photograph showing a body of water in the foreground and mountains in the background. A small yellow boat is visible in the middle of the water. The text "\$ COST \$" is overlaid in white in the center of the image.

\$ COST \$



# Our Programs

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- Irrigation Efficiencies Grants Program (IEP)
  - Columbia River Water Management Program
  - Conservation Water Retiming Pilot
  - Others?



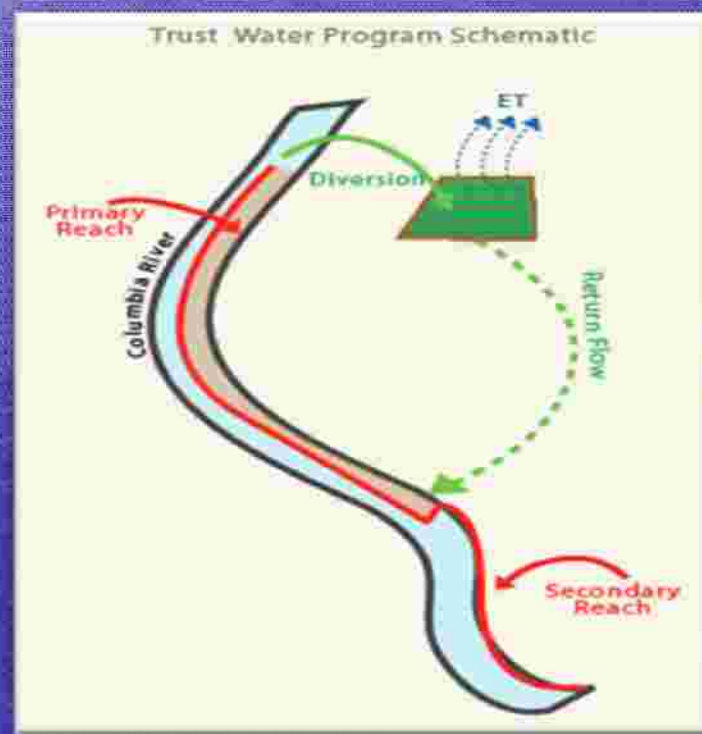


# Retiming

How do you retime conserved water without storage?



*I know, I know. . . We've seen  
this picture already. . .*



Bear with me. . . .

# New Uses



# Questions?

*Serving the conservation districts of Washington State  
with pride*

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