Reach Gain Changes from Phased-in Application of Water Budget Adjustments

Presentation to Comprehensive Aquifer Management Plan Committee

Idaho Falls, February 2008
Outline

• Phased-in Plan
• What do the results mean?
• Summary of Results
  – Hard Conversions
  – Soft Conversions
  – Recharge
  – CREP/other reductions
Phased-in Plan

• Some activities are in partially in place now
  – CREP

• Some can be started gradually over time
  – Recharge
  – Soft conversions
  – Other demand reduction

• A&B Hard conversions will take time to implement but once complete can be immediately operated at full capacity
What do results mean?

• Model input is change in water budget
• Model output is an estimate of change
  – river gains
  – spring discharges
  – aquifer water levels

• THESE ARE NOT PREDICTIONS!
1. Where Activities Occur
Managed Recharge
Demand Reduction
Targeted Counties

Legend
CREP acres Oct 1, 2007
County
1. Level of Effort Applied

Applied Water (or benefit) for Aquifer Water Level Changes

- HardConv
- SoftConv
- Rech
- Demand
- Total

Years:
- 0
- 20
- 40
- 60
- 80
- 100
- 120
- 140
- 160

Acre Ft/yr:
- 0
- 2,000,000
- 1,500,000
- 1,000,000
- 500,000
- 0

Legend:
- HardConv
- SoftConv
- Rech
- Demand
- Total
Results

- Model input is *change* in water budget
- Model output is an estimate of *change*
  - river gains
  - spring discharges
Hard Conversions

• A&B Irrigation District
  – Convert ground water portion of the district to surface water
  – Water supplied by
    • Purchase of high lift water rights
    • Additional storage in Milner
  – 10 yrs to develop
  – First priority for available water
Soft Conversions

• Converting lands with both surface water and ground water rights to higher dependency on surface water
  – Water supplied by
    • Purchase of high lift water rights
    • Excess natural flow in high water years

• 10 yrs to develop

• Last priority for available water
Recharge

• Recharge conducted using sites near existing canals
  – Water supplied by
    • Natural flow when Water Board’s recharge right is in priority
  – 20 yrs to develop
CREP/Other Demand Reductions

• Start with current CREP
  – Add buyout
    • 10,000 ac in Bingham Co
    • 20,000 ac in Power Co
    • 10,000 ac in upper valley
      – Divided between Bonneville, Jefferson, and Clark
  – Add additional demand reduction to make 100,000 acres
  – 10 yrs to develop
  – INDEPENDENT of water supply
Discussion