ESPA Comprehensive Aquifer Management Plan

ESPA CAMP
Advisory Committee
September 25, 2008
Outline

• Background and Overview of CAMP Process
  – Framework – Goal and Objectives
  – Initial CAMP Recommendations

• Management Options and Packages
  – CAMP Focus – 600 kaf change
  – Phase I Proposal – 1-5 year actions

• Additional Draft CAMP Recommendations

• CAMP Development Schedule and Review
Framework Goal for Aquifer Management

Sustain the economic viability and social and environmental health of the Eastern Snake Plain by adaptively managing a balance between water use and supplies.
Framework Objectives for Aquifer Management

- Increase predictability for water users by managing for reliable supply
- Create alternatives to administrative curtailment
- Manage overall demand for water within the Eastern Snake Plain
- Increase recharge to the aquifer
- Reduce withdrawals from the aquifer
Initial recommendations to the legislature in 2008, included:

- **Study of Minidoka Dam Enlargement**
  - On-going

- **Voluntary Demand Reductions**
  - A key component of Draft CAMP Recommendations

- **Recharge**
  - Key Component of Draft CAMP Recommendations
Management Options

- **Management Options Examined**
  - Managed and incidental recharge
  - Groundwater to surface water conversions (hard and soft)
  - Demand Reduction Strategies
    - Conservation Reserve Enhancement Program
    - Dry-year leasing
    - Crop mix (incentives to plant low-water use crops)
    - Buy-outs and subordination agreements
    - Water conservation measures
  - Additional surface water storage
  - Weather modification
  - Below Milner Dam salmon flow augmentation exchanges
Management Options Key Components

- Option Description
- Estimated Average Supply
- Estimated Cost
- Hydrologic Impacts
- Implementation Timeframe
Management Option Packages

Packages Developed include:

- Small (300 KAF); least expensive and quickest to implement
- Medium (600 KAF); more expensive and takes more time to fully implement
- Large (900 KAF); most expensive and will take decades to fully implement.
- Demand Reduction and Recharge Emphasis
Committee Direction – 600 kaf Water Budget Change

– Medium Package of Improvements
  • Incrementally work toward implementation
  • Robust mix of conversions, aquifer recharge and demand reduction strategies
  • Adaptively managed

– Implementation Timeline – 20 years

– Cost – $600 million not including O&M
  • Estimated annual revenue required - $30 M
Committee Focus – 600 kaf change

– Implementation will likely result in:
  • Improved aquifer levels (stabilization and potential enhancement)
  • Increased river reach gains
  • Increased certainty and water supply for all users
  • Ability for municipal and industrial growth
  • Decreased demand for administrative remedies
  • Potential Fish and Wildlife opportunities and impacts in CAMP implementation
Committee Direction
Phase I Actions

– **Focus on first 5 years of CAMP**
  - Implement agreed upon actions, within larger Plan framework,
  - Build institutional confidence with long-term plan implementation

– Hydrologic Goal of 200 – 300 kaf change
Sub-Committee Proposal
Phase I Actions

- Soft Conversions – Average Annual 100 kaf
- Managed Recharge – Average Annual 80 kaf
- Buyouts, Buy-downs in the Thousand Springs Reach
- Weather Modification Program
- Rotating fallowing, dry-year lease agreements and CREP enhancements
- Surface Water Conservation
- Crop Modification in the Aberdeen/Bingham Groundwater District
Proposed Phase 1 Actions
Soft Conversions

– Opportunistically pursue soft conversions equally above and below American Falls; locations identified.
– Examine capacity above American Falls for soft conversions
– Opportunistically acquire below-Milner Dam water to be exchanged for upper snake flow augmentation
– Execute soft conversion on the spring and fall shoulders as well as during irrigation season as capacity allows.
Proposed Phase I Actions
Managed Recharge

- 20 kaf of recharge above Blackfoot on the Egin Bench including both fall and spring recharge efforts.

- 30 kaf recharge above American Falls on Jensen Grove, Aberdeen Springfield Canal, and New Sweden systems and others.

- 30 kaf recharge that impact the Thousand Springs Reach on the North Side Canal Company, Milner Gooding Canal and explore recharge options on North side of Lake Walcott.

- Maximize use of the Board’s recharge right and/or flood control release on the Wood River system.
Proposed Phase I Actions

Buy-downs

– Opportunistically pursue buyouts, buy-downs and/or subordination agreements in the Thousand Springs reach.

– Set aside resources to enable transactions when the right deal becomes available.
Proposed Phase I Actions
Weather Modification

– Implement a five-year weather modification pilot project in the Upper Snake and potentially in the Wood River system,

– Idaho Power, State, local and other agency support for the Program.
Proposed Phase I Actions
Fallowing, Dry-year lease, CREP

– Implement fallowing and dry-year lease options equally above and below American Falls.
– Dry-year Lease options (surface water) are intended to provide water supply and incentives for soft conversions.
– Pursue opportunities to leverage federal resources by providing additional incentives to increase CREP participation.
Proposed Phase I Actions
Surface Water Conservation

- Implement check structures and automated gates and investigate reducing transmission loss

- Examine use of pump-backs and pursue potential re-regulating reservoirs
Proposed Phase I Actions

Crop Mix

- Implement a pilot project, administered through Aberdeen/Bingham Groundwater District
- Targets a reduction of groundwater use through alternate cropping patterns
- Incremental growth of program to 5 kaf annually
  - Aberdeen/Bingham Groundwater District will determine most effective methods to accomplish target goals.
Phase 1 Implementation Costs

- Estimated $100 million dollars
- Approximately $7 to 10 million annually
- Repaid over a twenty year period
Phase 1 Funding Categories

- Irrigated Agriculture
  - Groundwater
  - Surface water
- Idaho Power
- Thousand Springs Users
- Recreation/Fish and Wildlife
- Commercial, Municipal, Industrial (DCMI)
- Self-Supplied Domestics or State
Potential CAMP Recommendations

• **CAMP Implementation Committee.** Refocus and restructure the CAMP Advisory Committee to focus on implementation, fundraising, and monitoring.

• **Incidental Recharge.** Explore providing support for existing incidental recharge to assist in aquifer stabilization.
Potential CAMP Recommendations

- **Environmental Considerations.** Continue to integrate environmental considerations into decision-making; include environmental interest representation on CAMP Implementation Committee.

- **Outreach and Education.** Develop and fund a broad water education and outreach effort.

- **ESPA Clearinghouse.** Working within the existing system, evaluate options to implement a flexible mechanism that connects willing participants in working toward ESPA water managements projects and goals.
CAMP Process and Schedule

• Phase I Proposal and funding plan – September, 2008
• Committee review of recommendations – September, 2008
• Draft CAMP — end of October, 2008
• Board Review and Approval — Teleconference meetings, special meeting, finalize at November Board Meeting
• Public Meetings — Early December; Pocatello?
• Submit to Legislature — January, 2009
Funding Approach – Potential Water User Contribution

Water user contribution concepts discussed include:

- **Idaho Water Resource Board Contract**
  Issue revenue bonds, where principal and interest are payable entirely from the revenue received. Approach would be potentially taxable.

- **Water Management Improvement District**
  Assesses a fee to defray part or all of the costs of a specific improvement or service. New Board statutory authority required.

- **Pay-As-You-Go**
  An approach to describe a financial policy which finances all of its capital outlays from current revenues rather than borrowing.
Funding Approach – Potential State Contribution

State Water Management Project

- General Fund Appropriations from kilowatt per hour (kwh) franchise fee, a state sales or property tax, special product or service tax, etc. to pay for the state portion of the management plan.

- Develop a state-wide water fund, funded through a state water management project, to authorize and fund such projects.