Purpose of the Study

- Evaluate Solutions for Flood Risk and Water Supply in the Lower Boise River (below Lucky Peak)
- Alternatives need to meet both objectives
Purpose of Scoping

- Receive feedback on:
  - The Preliminary Alternatives
  - The Scope of Issues to be addressed in the Environmental Impact Statement

Authorization

Study was authorized by Congress:


- Originally authorized to study flooding problems, later added water supply and ecosystem restoration
Study Sponsor

- Idaho Water Resource Board (IWRB) signed a cost sharing agreement in May 2009
- Idaho Department of Water Resources represents IWRB on the study team
- Sponsor funds are appropriated for studies on Water Supply and Flood Risk Management

Study Scope

- Study Area: Lower Boise River watershed, will formulate alternatives for this area
- Multi-Objective: Flood risk management and water supply
  - Objective is to reduce both the probability and the consequences of flooding
  - Flood risk focused on mainstem Boise River
  - Seeking to meet current and projected future water demand
Study Area
Lower Boise River Watershed

Study Activities Previously Completed

• Existing conditions inventory initiated
• Public meetings and agency coordination
• Flood risk analysis
  − Completed hydraulic model update
  − Begun economic data collection and inventory
• Surface water storage measures
  − Screened possible storage options
  − Preliminary engineering analysis of Arrowrock Dam site
Flood Risk Problems

- A major flood will happen
- Highest risk during spring (snow melt + rain)
- All water in the system is joint storage (balancing act)
- Continued development in the floodplain
- Constrained channel conveyance
- Potential for irrigation diversion and canal failures
- Potential for river to capture mining pits and ponds in floodplain

Water Supply Problems

- Projected need for additional water supply next 50 years
  - Population Growth
  - Land Use Changes
- Storage system constraints
  - Limited storage capacity & variability in streamflow
- Interconnected surface and groundwater system
- Uncertainties in availability as a result of current moratoriums, new development and new administrative requirements
Addressing Flooding and Water Supply Problems

- A set of potential measures have been developed that address the flood risk and water supply problems
  - 60+ initially identified
- Alternatives include a suite of measures and will be analyzed for costs, economic benefits, and environmental effects
- Will seek the best solutions to the problems

Potential Measures

- Arrowrock Dam Raise
  - Multi-purpose measure that would provide storage for flood risk management and water supply
    - Maximum raise: 74 feet, would provide an additional ~320,000 acre feet (double existing storage of Arrowrock)
Potential Measures

- Managed Aquifer Recharge

  - Preliminary estimates identified potential for additional storage
  - Viable recharge locations and delivery system needed
  - Uncertain contribution to flood risk reduction

Potential Measures

- Upgrade Irrigation Headgates
  - Repair or replace existing headgates
  - Reduce flood risk along canals from potential failure

- Upgrade Undersized Bridges
  - Potential flood risk from water backing up in the vicinity of bridges
  - Increase local conveyance to reduce flood impacts

Highway 95 Bridge near Parma, ID at approx. 8,000 cfs
Potential Measures

- Replace Push Up Dams with Inflatable Weirs
  - Existing push up dams have the potential to increase local flooding during high water events
  - Inflatable weirs can be lowered on demand to increase conveyance

Potential Measures

- Controlled flooding of mining pits and ponds
  - Reduce the potential for high flows to “capture” these pits
Potential Measures

- Temporary conveyance of water in floodplain
  - Re-grade existing parks to convey water
  - Build perched side channels
  - Potential to reduce localized flooding

Potential Measures

- Flow Split Structure at Eagle Island
  - Maintain assumed split of water between north and south channel
Potential Measures

- May be opportunities for “Non-structural” measures in limited areas

Examples:
- Flood-proofing
- Raising Structures
- Ring Levees

Potential Measures Common to all Alternatives

- These potential measures will be considered along with all alternatives
  - Water conservation measures
    - Reduce overall water supply demand
  - Floodplain management plans
    - Reduce future development in high risk areas
  - Changes to system operations
### Potential Alternatives

| POTENTIAL MEASURES                  | POTENTIAL ALTERNATIVES
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<td>Non-Structural Measures</td>
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### Environmental Considerations

- An Environmental Impact Statement will be prepared that describes potential effects from the alternatives
- Examples:
  - Bull Trout and other Sensitive Species
  - Recreation
  - Fish and Wildlife Habitat
  - Cultural and Historic Resources
  - Hydropower Generation Facilities
Feasibility Study Process

1. **Scoping**
   - Alternatives
   - Public input on Alternatives and Issues to be Addressed

   - **Agency Decision**
   - Agency decides on a Selected Alternative following review

2. **Alternative Formulation & Analysis**
   - Draft Report
   - Public Comment on Draft EIS

   - **Public Comment**
   - Public Comment on Final EIS

3. **Feasibility-Level Analysis**
   - Final Report

4. **Chief’s Report**
   - Report to Congress
   - Seek Authorization for Construction (if appropriate)

**Study Timeline**

- **April 24, 2014**
  - Public scoping starts

- **Fall 2015**
  - Draft feasibility report / EIS available for Public Review

- **Summer 2017**
  - Final feasibility report / EIS available for Public Review

- **Fall 2017**
  - Record of Decision

* Contingent on appropriations
Public Feedback

Comments can be submitted to:
► In person (comment forms)
► BoiseGI@usace.army.mil
► US Army Corps of Engineers
  ATTN: Tim Fleeger
  201 North 3rd Avenue
  Walla Walla WA, 99362

Please submit scoping comments by May 24, 2014

OPEN HOUSE

► Please feel free to visit the various stations in the back of the room and ask questions
► Thank you for attending!