Boise River Feasibility Study
Public Scoping Meetings

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Walla Walla District
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US Army Corps of Engineers
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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:

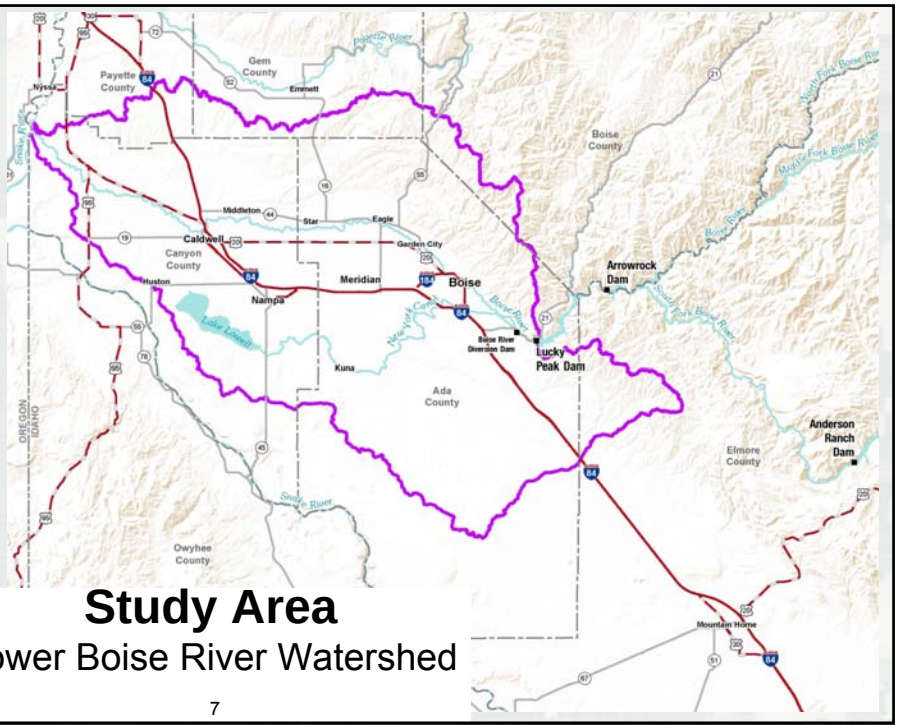
- Water Resources Development Act of 1999 (amended in 2007)
- Originally authorized to study flooding problems, later added water supply and ecosystem restoration

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

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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

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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

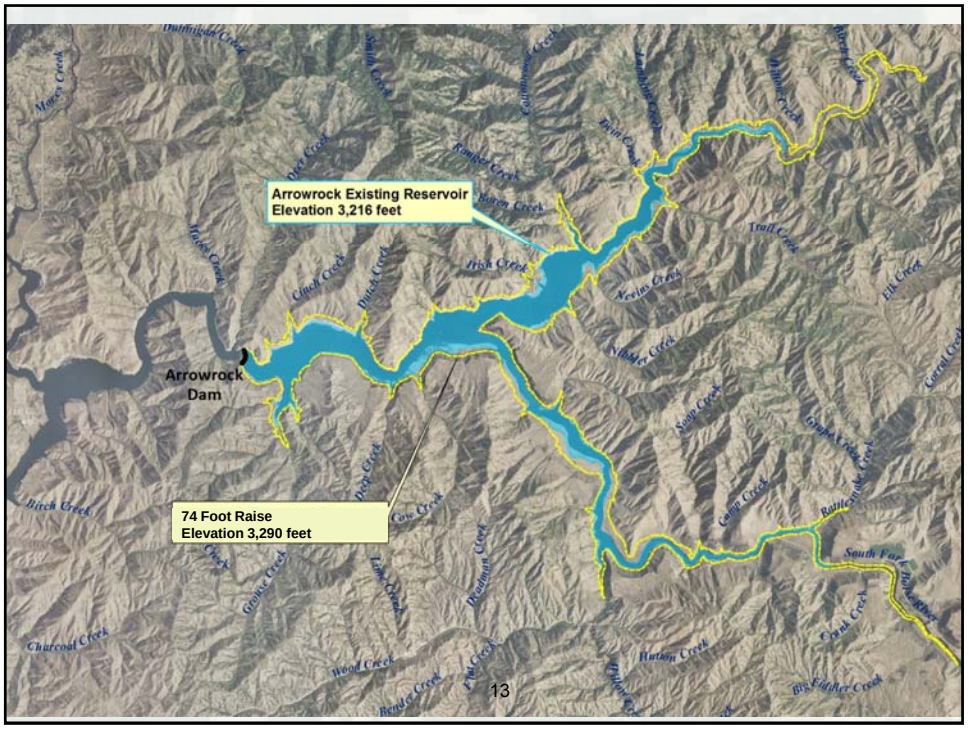
Addressing Flooding and Water Supply Problems

- 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

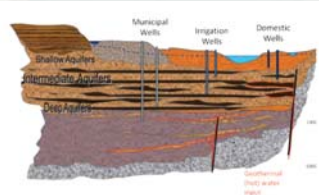


Figure 2. Conceptual Schematic of the Treasure Valley Hydrogeology

Graphic - Proposed TV CAMP report, available at https://www.idwr.idaho.gov/waterboard/WaterPlanning/CAMP/TV_CAMP/TVdefault.htm

Potential Measures

- Upgrade Irrigation Headgates
  - ►Repair or replace existing headgates

  - ►Reduce flood risk along canals from potential failure

Potential Measures

- 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				
	Alt. A	Alt. B	Alt. C	Alt. D	No Action
Arrowrock Dam Raise	X		X	X	
Managed Aquifer Recharge		X			
Upgrade Irrigation Headgates	X	X	X		
Replace Push-Up Dams	X	X			
Upgrade Bridges	X				
Controlled Flooding of Pits/Ponds	X				
Temporary Conveyance of Water In Floodplain	X	X	X		
Flow Split Structure	X				
Non-Structural Measures	X	X			

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

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!