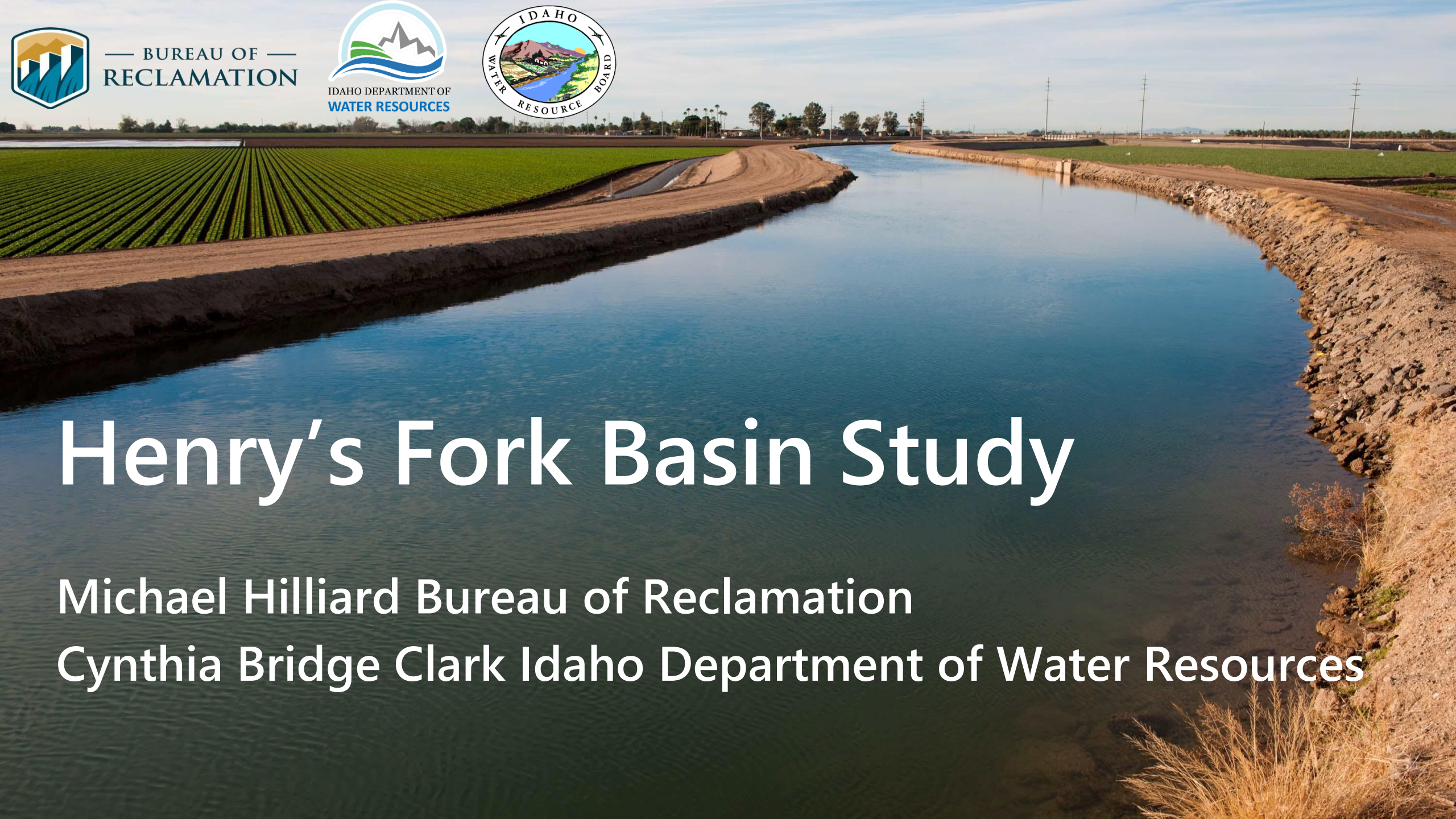


Henry's Fork Basin Study

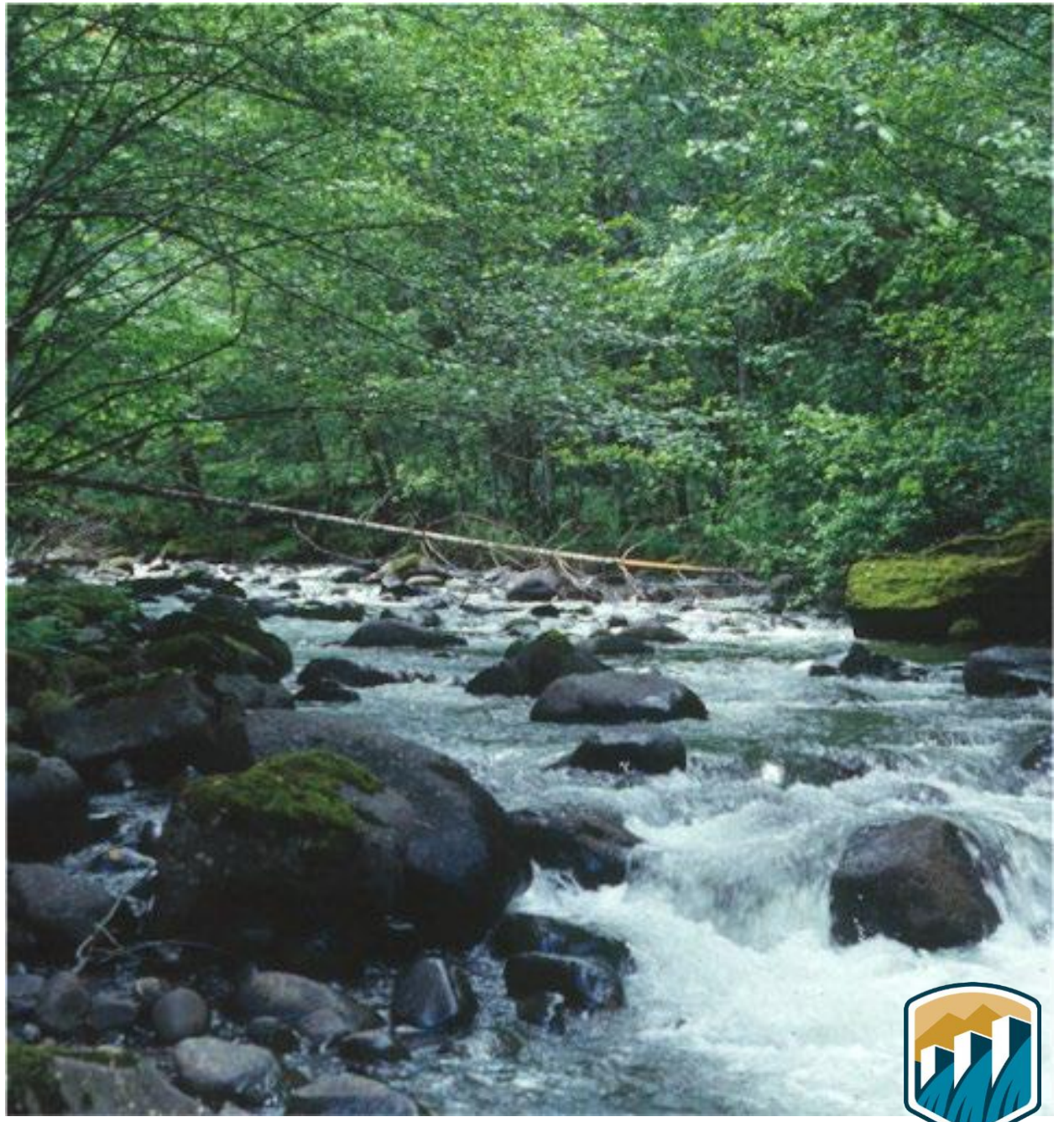
Michael Hilliard Bureau of Reclamation
Cynthia Bridge Clark Idaho Department of Water Resources

What is a Basin Study?

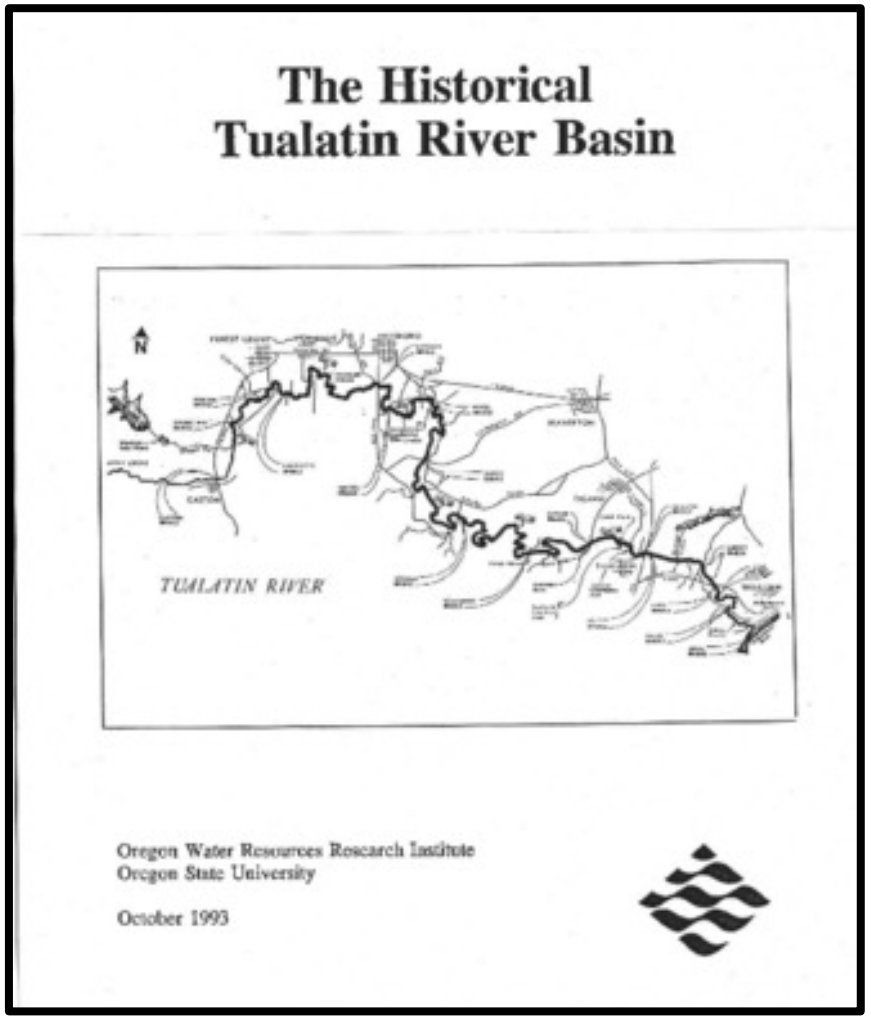
WTR 13-01 Basin Studies

A comprehensive, collaborative study, or update of an existing study, that identifies imbalances between water supply and demand.

Includes the development of mitigation and adaptation strategies in direct response to current or future water supply and demand imbalances.



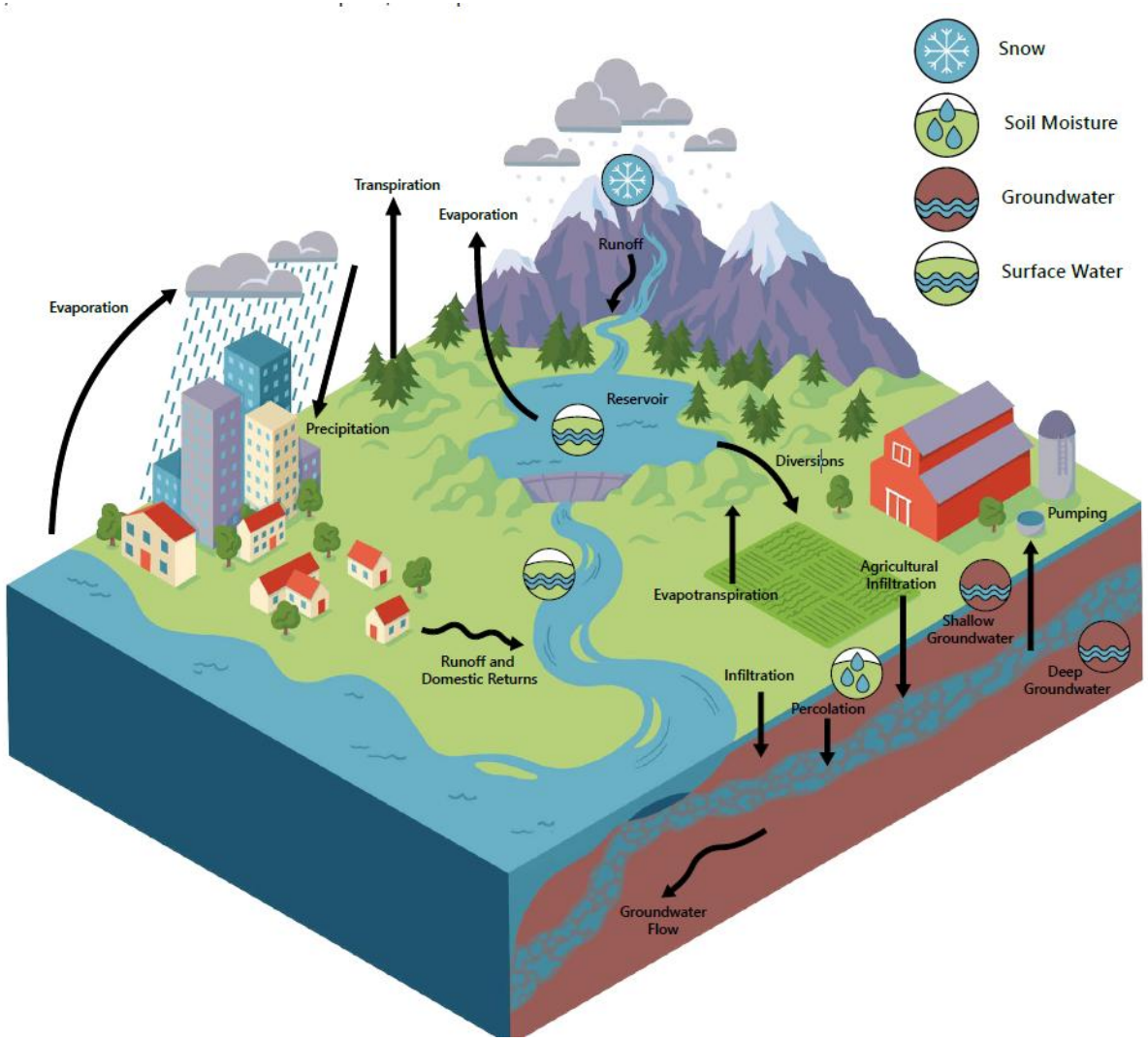
Basin Studies do not…



- provide recommendations or represent a statement of Policy or position of Reclamation, the Department of the Interior, or the funding partners
- propose or address the feasibility of any specific project, program, or plan
- represent a commitment for provision of Federal funds

Four Basic Components of Basin Study

1. Evaluate current and future water supply
2. Evaluate current and future water demand
3. Evaluate the imbalances between the supply and demand
4. Develop solutions and look for tradeoffs

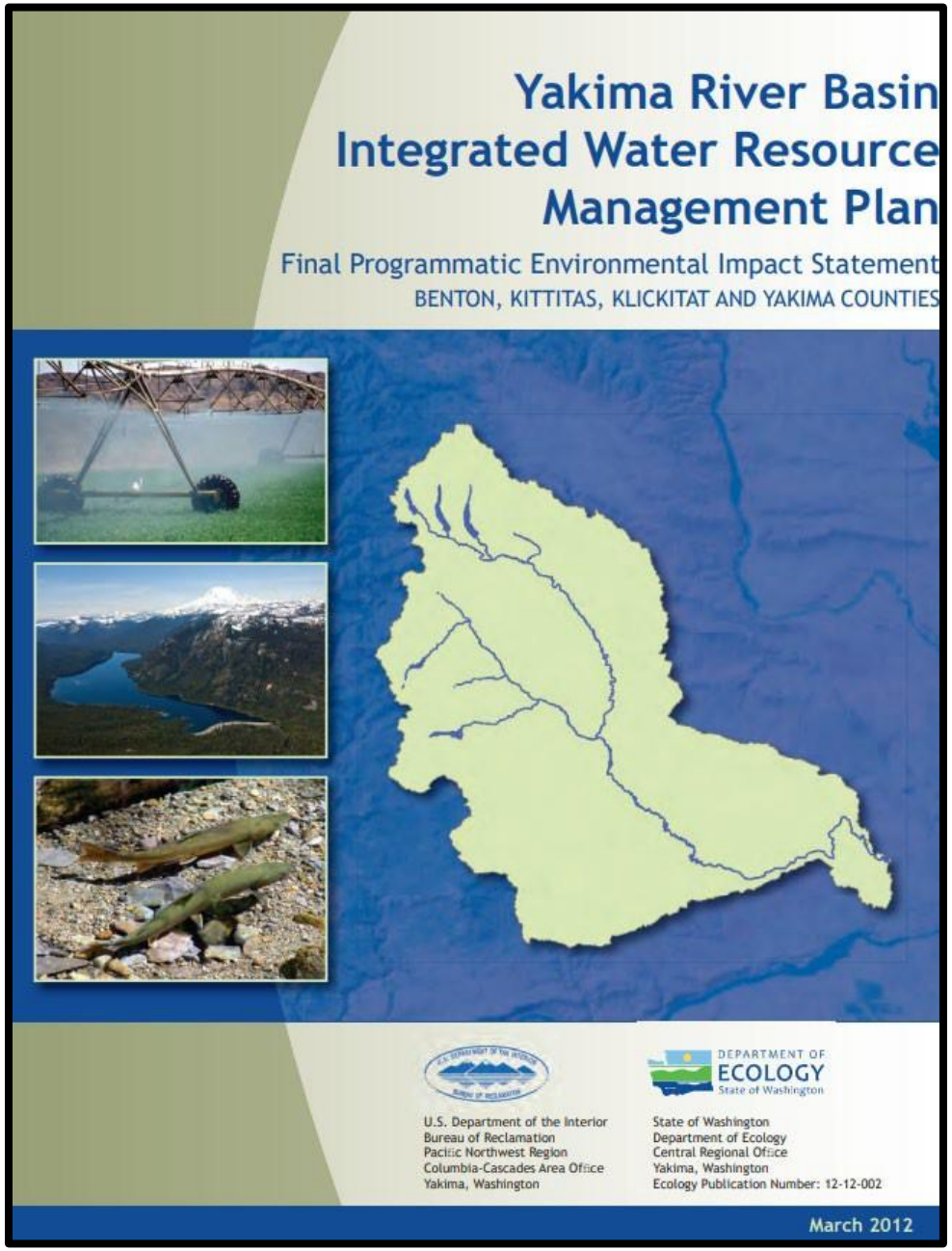


Requirements

Study Area	Boundaries defined in proposal
Period of Performance	Study must be completed 3 years after MOA is signed
Cost Share	Minimum of 50% by non-federal study lead and cost share partners

Example of What Comes Next

- Yakima Basin Integrated Plan
  - 450,000 acre-feet new storage
  - 30-year plan
  - $3-4 billion
  - 7 elements
  - 3 phases
  - Initial development phase



Successful Studies

- Clear scope and intent
- Use planning documentation
- Leverage existing data and research
- Create strong partnerships among basin stakeholders

UNCERTAINTY IN WATER MANAGEMENT

Uncertainty is the common thread throughout water management in the Western U.S. Decisions in support of fulfilling the Bureau of Reclamation's mission are made on a daily basis using imperfect information. It is critical for decision makers to identify and understand the uncertainty in the available information in order to make informed decisions. Examples of the sources of uncertainty related to water science topics are shown under the icons on this page.

Hydrology

- River basin conditions
- Measurement/gage error
- Calculation error

Water Supply and Streamflow Forecasting

- Model error
- Extreme weather events
- Future weather conditions

Water Demand

- Human decision making
- Cropping patterns
- Electricity demand

Fish and Wildlife

- Stream morphology
- Incubation timing
- Predatory mortality

Weather and Climate

- Atmospheric conditions
- Greenhouse gas emissions
- Storm tracks

Physical Infrastructure

- Reservoir sedimentation
- Downstream channel capacity
- Generating unit outages

Water Law

- Lawsuit outcomes
- Water right administration
- Contract disputes

High-Level Considerations

- Comprehensive water supply and demand study
- Incorporates flexibility to address basin-specific concerns
- Does not provide recommendations, address feasibility, or guarantee commitment of Federal funds
- Opportunity for collaboration

Henry's Fork Basin Study and the current basin study program

1. **Evaluate current and future water supply**
2. **Evaluate current and future water demand**
3. **Evaluate the imbalances between the supply and demand**
4. **Develop solutions and look for tradeoffs**

1. **With appropriate data, we can figure out #1.**
2. **With data, but mostly working with partners, we can understand future demands (flow aug, M&I, etc).**
3. **The model will answer #3.**
4. **Finally, partners to propose strategies to analyze (new storage, water marketing, conservation, etc).**

HFBS (early Basin study) essentially started with number 4 and lacked a full understanding of water supply and demand of the area

Did not account for all the water rights in the Snake River Basin

Still provided great information about the the Henry's Fork Basin and potential opportunities

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