Recommended State Water Strategy

Governor’s Request

- Year 1: Town Hall Meetings
  - Gang of 6
  - 8 town hall meetings
  - 800 online comments received
  - Summarized in white papers

Governor's Request

- Year 2: Water Strategy Advisory Committee
  - Objective: Develop 50-year water plan
  - Solicited and evaluated potential water management strategies
  - Provided frame for public feedback
  - Developed set of strategies and ideas from broad input
- Your Utah, Your Future Survey

Assumptions

- Utah's population will double by approximately 2060.
- Existing water infrastructure wearing out.
- Water is a finite and variable resource that is affected by climate.
- Utah values agriculture.
- Utah values a vibrant economy.
- Water quality is important.
- Utahns value water as part of the natural environment.
- Need will drive technology, which will drive change.
- Wise and efficient use of water will be necessary (conservation).
- The cost of water will continue to increase.

Key Policy Questions

- How will we supply water to 5 million Utahns?
- How will we ensure a reliable water delivery infrastructure?

Issues

- Municipal supply development and conveyance
- Related large infrastructure
- Repair and replacement of existing
- Construction of new

Methods

- Water efficiency (conservation programs)
- Conversion of agricultural supplies
- Construction of new water supply projects
- Large-scale funding mechanisms
- Preservation of existing funding sources
- Innovation
- Funding mechanisms
- Capital asset management plans
- Innovation
- Funding mechanisms
- Innovation


Strawman draft summarizing WSAT meetings
WSAT committees draft “final” version of Key Policy Questions
Public and WSAT comment on draft
Revision process with committees and team
Finalized draft to Governor

Recommended State Water Strategy

- Executive Summary
- Background
- 11 Key Policy Questions

What is the role of water conservation & efficiency in Utah?

Photo Credit: Weber Basin Water Conservancy District

Issues

- Conservation and efficiency goal-setting and implementation
- Standards for use and measurement
- Constraints and consequences
- Inadequate funding
- Integration of water planning
- How far water conservation can go

Photo Credit: Weber Basin Water Conservancy District

Photo Credit: Jordan Valley Water Conservancy District

Recommendations

- Prioritize water conservation
- Establish clear standards for measurement and reporting and benchmarks for use
- Identify constraints and intended and unintended consequences of conservation
- Provide leadership and commitment
- Provide adequate funding
- Promote and integrate water conservation planning at all levels
- Quantify the contribution of water conservation to future water supplies

How will diverted water supplies be developed to meet competing and ever increasing demands?

Photo Credit: Washington Country Water Conservancy District

Issues

- The variability of water supply yield
- Water quantity and quality and health of the watershed
- Balancing competing uses and demands
- Role of regional and interstate river water supplies
- Role of local water supply projects
- Potential for additional groundwater development

Photo Credit: The Nature Conservancy

Photo Credit: Weber Basin Water Conservancy District

Recommendations

- Optimize water supplies through conservation
- Manager and restore watersheds
- Develop interstate rivers
- Develop other regional water supplies
- Increase ASR and capacity of existing reservoirs
- Implement water reuse
- Consider costs & benefits of water development

What should we do to preserve natural systems in the face of increasing water demands?

Photo Credit: John P. George; Friends of Great Salt Lake

Issues

- Threats to natural systems
- Great Salt Lake
- Limited legal protections for in-stream flows
- Opportunities and risks from more efficient water delivery
- Role of water markets

Photo Credit: Gary Crandall; Friends of Great Salt Lake

Photo Credit: The Nature Conservancy

Recommendations

- Improve science and conservation planning and funding
- Expand tools to protect instream flows
- Facilitate creation of state water trust to acquire rights for instream flows
- Study opportunities and risk for more efficient water delivery
- Facilitate development of environmental water markets

How do we protect and sustain the quality of Utah's water?

Photo Credit: Weber Basin Water Conservancy District

Issues

- Need for holistic water quality management
- Multiple impacts to water quality
- Unique challenges posed by GSL
- Opportunities and risks from more efficient water delivery
- Role of water markets

Photo Credit: Weber Basin Water Conservancy District

Photo Credit: Washington County Water Conservancy District

Recommendations

- Implement nutrient controls & collaborate on salinity controls
- Maintain sufficient stream flows and lake levels
- Incentivize ag practices
- Recognize connectivity between surface and ground water
- Control invasive species
- Adequately fund infrastructure and upgrade wastewater treatment plants and sewer systems
- Regulate water quality to protect GSL
- Improve monitoring and mitigation of nonpoint sources
- Improve drinking water source protection plans
- Embrace holistic watershed planning

In what ways will weather and a changing climate impact future water supply and demand?

Photo Credit: Don Green, Weber Basin Water Conservancy District

Issues

- Potential climate impacts on water resources
- Changes in snowpack hydrology
- Need for coordination and planning
- Absence of risk management strategies
- Need for flexible water adaptation policies
- Complex climate change projections
- Water demand changes due to rising temperatures

Photo Credit: Thomas Horton; Friends of Great Salt Lake

Photo Credit: Gary Crandall; Friends of Great Salt Lake

Recommendations

- Increase coordination among various government levels and climate researchers
- Assess vulnerabilities and develop risk management strategies
- Identify and develop adaptation and mitigation strategies
- Build on scientific knowledge base of climate research through increased resources and funding

What is the role of policymakers, both elected and appointed, at all levels of government?

Photo credit: photos.utah.gov

Issues

- Complexities of Utah water law
- Public engagement
- Need for better information for decision-makers
- Working across government jurisdictions
- General adjudications
- Federal reserved water rights
- Lack of adequate resources to fully implement strategy

Photo Credit: Charles Uibel; Friends of Great Salt Lake

Photo Credit: Washington County Water Conservancy District

Recommendations

- Create ongoing learning opportunities for policymakers and residents
- Establish mechanisms to engage the public in decision-making processes
- Support and fund research, science, and technology to enhance understanding of and education about water issues
- Encourage cooperative interagency water decision making within and between Utah's Departments of Natural Resources, Environmental Quality, and Agriculture and Food, and with states that share watersheds with Utah
- Accelerate funding for adjudication of water rights
- Provide adequate ongoing funding and staff to quantify and settle Federal Reserved Water Rights claims
- Enhance legislative and public support for ongoing funding to meet Utah's water-related needs

What roles will science, technology, and innovation play in addressing Utah's future water needs?

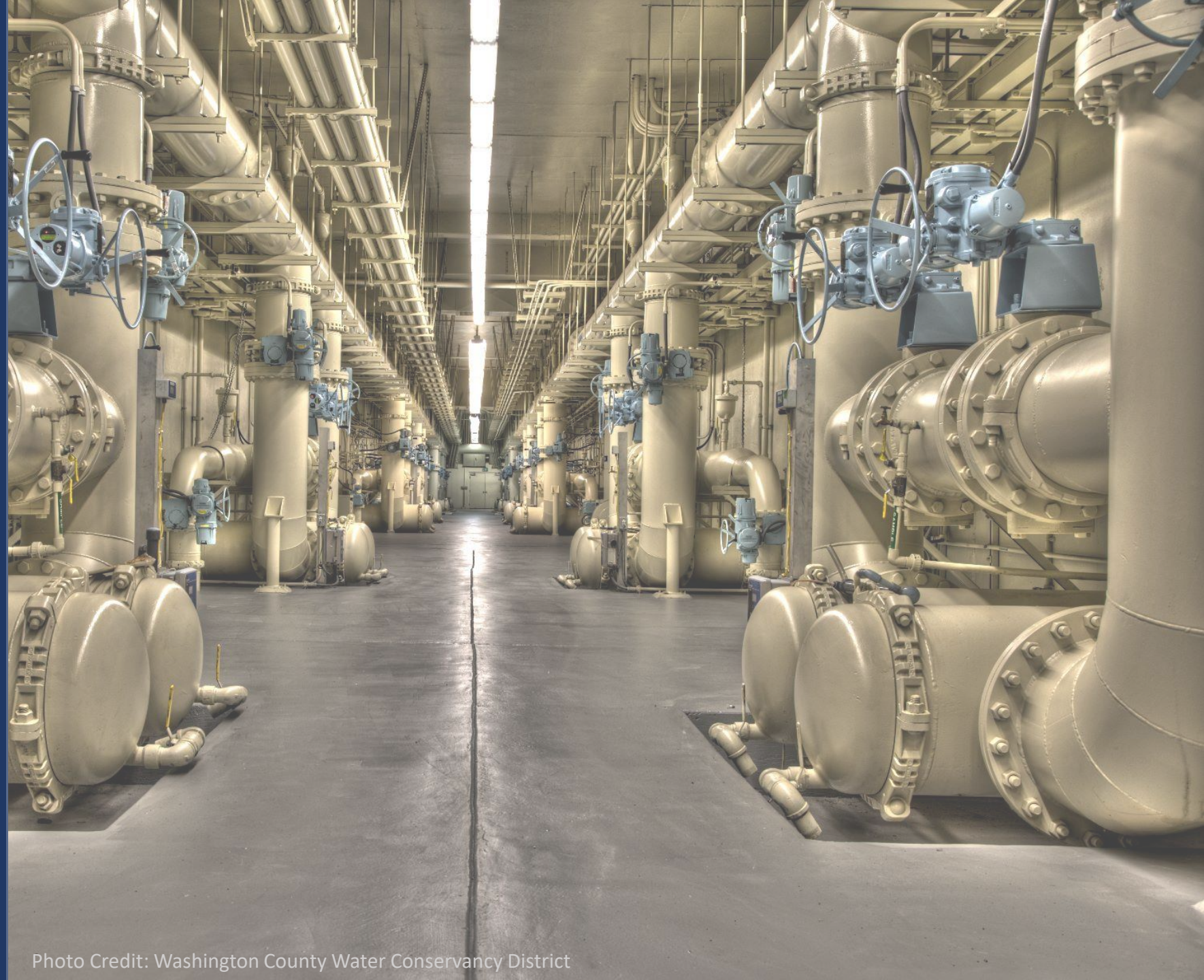


Photo Credit: Washington County Water Conservancy District

Issues

- Effectiveness of water conservation methodologies
- M&I, ag, and environmental water quality enhancements
- Additional water regulations
- Green infrastructure, greywater, water recycling, reuse, & brackish water
- Fragmentation of water resources science, administration, & management
- Water measurement improvements and communication
- Availability, transparency, and integration of water data
- Optimization of water operations
- Water distribution system losses
- Funding for development, implementation, and education in water science
- Quantifying water supply and sustainability

Photo Credit: Utah Farm Bureau Federation

Recommendations

- Conduct and assess new water conservation programs
- Pilot test and demonstrate water treatment and ag technologies and processes
- Improve working relationships between regulatory agencies and water providers
- Explore green infrastructure, greywater projects, wastewater, and reuse projects
- Increase integrated water management tors
- Improve the quality of water data collected and reported and make data available to public
- Optimize water operations with automation
- Minimize water distribution system losses
- Invest financial resources in science, technology, and education
- Improve understanding of the geology and quantity of water in Utah

What is the framework for Utah water law and policy, and how will stakeholders modernize it?

Photo credit: Wikimeida Commons

Issues

- The Prior Appropriation Doctrine
- Over-appropriation of water sources
- Challenges in meeting new demands
- Inadequate stakeholder involvement in the reallocation process
- Insufficient resources for administration, adjudication, data collection and analysis in the State Engineer's Office

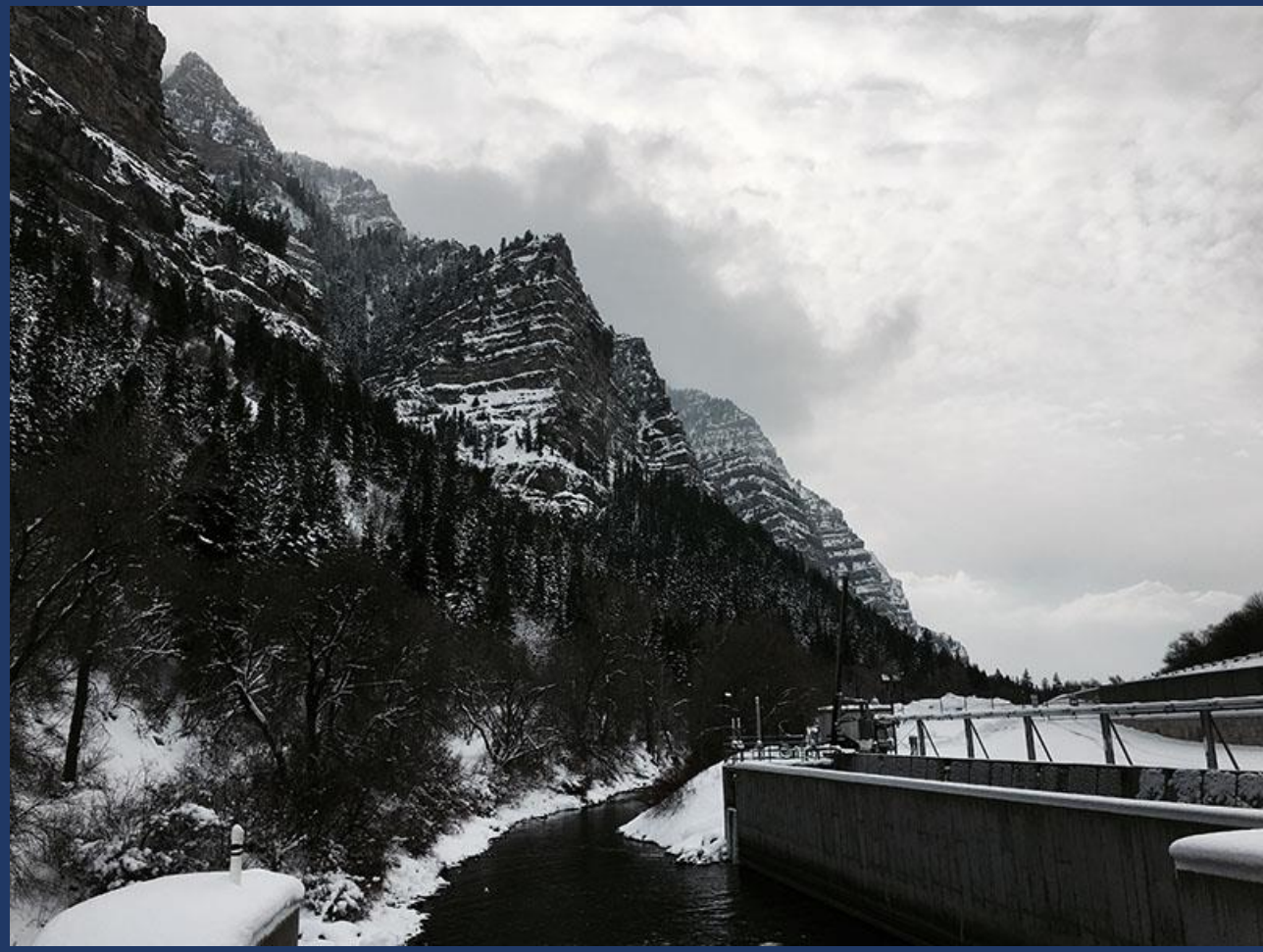


Photo credit: Central Utah Water Conservancy District

Photo Credit: Utah Farm Bureau Federation

Recommendations

- Give the State Engineer more direction on “public welfare”
- Expedite and fund water rights adjudications
- Strengthen the State Engineer’s authority in administering change applications
- Allow the State Engineer to define water duties
- Facilitate temporary transfers of water
- Allow water right holders to subordinate water rights
- Review constitutional requirements that preclude cities from selling surplus water
- Provide regular and robust forums for stakeholder involvement in modernizing Utah water law and policy
- Provide increased ongoing funding and resources for Division of Water Rights activities

How do we optimize our water resources to sustain the economy and quality of life for Utah residents?

Photo Credit: David Maisel; Friends of Great Salt Lake

Issues

- Assurance of a sustainable water supply is critical for existing and new businesses
- Strategies to pay for water
- Maintaining an attractive quality of life
- Enhancing outdoor recreation and tourism
- Economics of natural environment preservation
- Economics of agriculture

Photo Credit: Kathy Wood; Weber Basin Water Conservancy District

Photo Credit: R. Jefre Hicks; Friends of Great Salt Lake

Recommendations

- Increase coordination among various government levels and climate researchers
- Assess vulnerabilities and develop risk management strategies
- Identify and develop adaptation and mitigation strategies
- Build on scientific knowledge base of climate research through increased resources and funding

How will Utah plan for, adequately fund, and use innovative solutions to maintain, replace, and redesign existing water infrastructure and build new water infrastructure over the next 40-50 years?

Photo Credit: Jordan Valley Water Conservancy District

Issues

- Supporting Utah's increasing population, growing economy, and desired quality of life
- Water and financial efficiencies
- Fairness considerations
- Repair and replacement of existing infrastructure
- Strategic investments with multiple goals and adaptability
- Security of infrastructure
- Reduce federal participation
- Funding and financing of infrastructure
- Water-energy nexus

Photo Credit: Weber Basin Water Conservancy District

Photo Credit: Jordan Valley Water Conservancy District

Recommendations

- Advance planning of infrastructure
- Increase ROI of water infrastructure though design and funding optimization
- Ensure users with less financial capacity also receive infrastructure investments
- Finance timely R&R, expansion, and design
- Increase cyber and physical security
- Develop state water infrastructure financing plan
- Water providers should pursue creative funding opportunities
- Implement ongoing assessments of infrastructure investment portfolios
- Incorporate energy consumption and provision into planning and financing

How does Utah provide water for agricultural lands and food production in the face of competing water demands?

Photo Credit: Utah Farm Bureau Federation

Issues

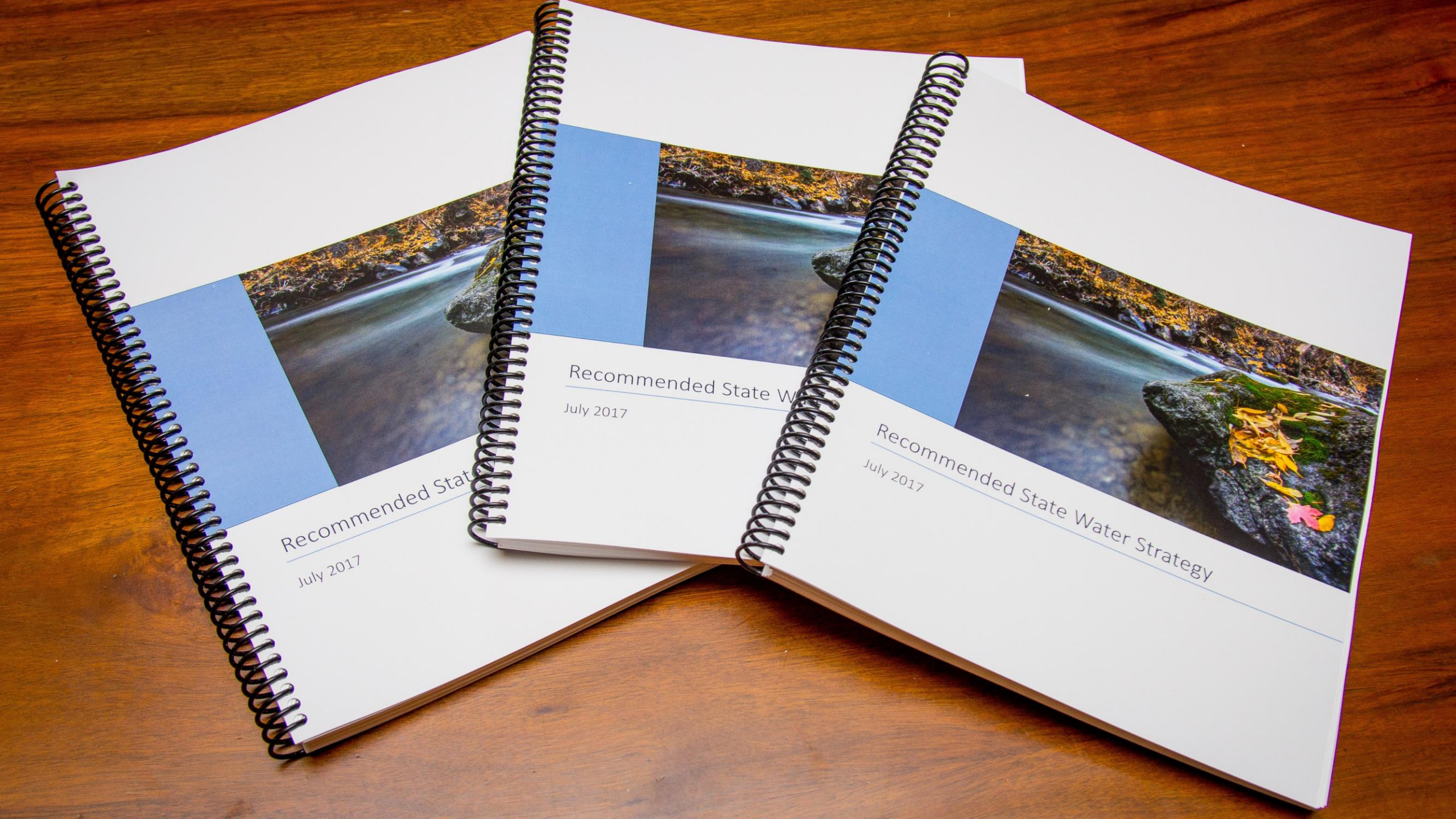
- Competing demands
- Lack of awareness of role of irrigation companies
- Permanent conversion of water from ag uses
- Water optimization benefits to ag
- Externalization of land development costs
- Capital for ag water infrastructure
- Lack of Utah-specific research
- Lack of real-time and historical data
- Ag involvement and leadership on water issues

Photo Credit: Utah Farm Bureau Federation

Photo Credit: Utah Farm Bureau Federation

Recommendations

- Mandate and fund broad stakeholder engagement process
- Have irrigation companies and state agencies work together
- Expand efforts to preserve Utah ag lands and water
- Establish basin-level councils to optimize regional water supplies
- Create mechanisms to help ag users contribute to water management
- Amend local land use to address cost of urban development irrigation
- Review/modify/expand USU Extension Water Initiative
- Support ag infrastructure and create clearinghouse for real-time data
- Establish education center


Recommended State Water Strategy
July 2017