

A wide-angle photograph of a snowy mountain landscape. The foreground is a snow-covered slope. In the middle ground, there are several large evergreen trees heavily laden with snow. In the background, there are more snow-covered mountains and a ski lift cable car visible on the right side. The sky is a clear, bright blue.

# 01

## Chapter

### Introduction



Gloria Falls, Little Cottonwood Canyon

## Plan Focus

The Water Resources Plan focuses on the following three principles of water management:

- Reliable data is needed to make informed water management decisions.
- Securing a reliable water supply requires a comprehensive approach.
- Preserving the health of watersheds and the environment is an essential component of water management.

## An Action Plan

Utahns and policy leaders understand and appreciate that clean, reliable water sources are vital to Utah's future. The Utah Division of Water Resources' (Division) mission is to plan, conserve, develop, and protect Utah's water resources. Our goal is to ensure Utah's citizens, environment, economy, and agriculture have water to thrive now and into the future. While finding that balance can be challenging, the Division is committed to working with agencies, organizations, and individuals to do what's best for Utah by providing balanced solutions through water conservation, development, agriculture conversion, optimization, and efficiency to meet Utah's water needs.

In the past, Utah's statewide water plans have been more of a status update. While this information is important, this plan is different. The Division assembled a State Water Plan Advisory Committee, consisting of diverse experts and stakeholders. This committee underscored the importance of developing an actionable plan. As a result, the 2021 *Water Resources Plan* focuses on goals the Division will strive to accomplish by 2026.

In 2017, a [Recommended State Water Strategy](#) was published that had extensive public involvement and collaboration with various special interest groups to provide water management recommendations for the next 50 years. The strategy provides additional information and recommendations that are not outlined in this plan. It's complementary to the work the Division has done to prepare and develop this plan.

## Reliable Data

Reliable data about existing water supplies, current uses, future population, and future water demands is critical for policymakers and water managers to make informed decisions.

**Chapter 2** discusses current water uses and ongoing efforts to improve this data. This chapter also addresses population projections, which continue to drive future water demands and the difficult water management decisions that need to be made.

**Chapter 3** explains Utah's water supply and how it is measured and enhanced through cloud seeding projects. It also provides a broad overview of how these supplies are diverted and depleted for various uses according to estimates from the Division's Water Budget Model. This chapter also considers the impact of drought and climate change on the state's water supply.

**Chapter 4** estimates future water demands using the Division's Water Demand Model and explains how water demands in the Jordan River, Utah Lake, and Weber River basins will exceed available supplies over the next 50 years. The model also highlights how water demands in the Kanab Creek/Virgin River Basin, even using the most conservative projection scenario, will exceed existing supplies within the next 10 years, making it necessary to develop additional water resources.

## Supply Security

Securing a reliable water supply for the future requires a comprehensive approach that includes water conservation, water

development, conversion of agricultural water to municipal and industrial water uses as agricultural land transitions to urban uses, agricultural water use optimization, and a combination of other innovative water management strategies such as water reuse, aquifer storage and recovery, and water banking. State and federal water laws also play an essential role in water security as it provides order to one of the most complicated issues in the world – water.

**Chapter 5** highlights the state's extensive water conservation efforts, programs, and partnerships. It highlights the recent development of Regional Water Conservation Goals and how they build upon the success of previous water conservation efforts and focuses on the importance of water education.

**Chapter 6** details several water development projects that are planned for and/or legislatively directed to meet growing water demands, including the Lake Powell Pipeline and Bear River Development. It discusses agricultural land water conversions that occur as agricultural land transitions to urban uses and provides a range of potential conversion estimates that will help meet future water needs. Other innovative water management strategies such as water reuse and aquifer storage and recovery are also discussed.

**Chapter 7** discusses the importance of optimizing water use in the agricultural sector to help secure Utah's water future. It summarizes several strategies, programs, and best management practices that are available to help improve overall water management in the agricultural sector. It also highlights the potential for water banking to provide increased flexibility.

**Chapter 8** details the importance of the state's water rights system and other federal water laws. These laws form the foundation for how water is allocated and distributed and ensure the rights of water users, including tribal interests, are protected. This chapter also discusses issues related to two of the state's interstate streams (Bear River and Colorado River) as well as how water banking can provide enhanced opportunities to utilize available water.

## Healthy Environment

Preserving the health of watersheds and the environment must be an integral part of any water management project. Utah is fortunate to be located in a mountainous region that includes the pristine headwaters of numerous rivers and streams. However, as the state's population grows, preserving watershed health is becoming more and more challenging. As a result, finding balanced solutions that preserve and protect the environment is more critical than ever.

**Chapter 9** illustrates the importance of healthy watersheds and maintaining a balance as conditions change. It discusses the many water quality challenges facing Utah waters and the efforts underway to improve water quality and maintain beneficial uses. Preserving the Great Salt Lake is another example of the complex challenges that lay ahead. Water management decisions directly impact the health and viability of the lake and its ecosystem and need to be made carefully to avoid harming its integrity.



Utah Lake  
PC: Marcie McCartney



Deer in a field, Morgan County  
PC: Marcie McCartney



Dry Creek, Alpine  
PC: Rob Hall

# Goals

Improvements in each of the three focus areas (reliable data, supply security, and healthy environment) are necessary as our state’s population continues to grow at a rapid rate. The identified goals focus on the actions that are within the Division’s influence. The Division is confident that as we work to accomplish these goals, we will meet Utah’s water needs. We recognize that greater strides can be reached in conjunction with actions by regional water providers, organizations, municipalities, businesses, policy leaders, and individuals.

**Table 1-1 List of Division Goals**

Goals	Reliable Data	Supply Security	Healthy Environment
Increase water conservation efforts by engaging and educating the public, promoting tiered water rates, and working with water providers and suppliers to ensure water conservation plans meet regulatory requirements and include Regional Water Conservation Goals.			
Support efforts by water managers and retailers to double the number of installed secondary water meters using funds from the Board of Water Resources, the Utah Legislature, and local funds.			
Research and collaborate with stakeholders on ways to get more water to Great Salt Lake.			
Organize and host regular state water agency collaboration meetings.			
Identify areas that would benefit from weather modification (cloud seeding) enhancement.			
Collaborate with stakeholders to research and implement a pilot Demand Management program for water users that rely on the Colorado River.			
Analyze existing streamgauge networks within the state and identify where additional monitoring is needed.			
Work to enhance and refine the methodology used to determine the amount of water depleted in the Water Budget model.			
Complete a comprehensive model of the Bear River.			



Kokanee Salmon spawning, Indian Creek  
PC: Rob Hall

Goals	Reliable Data	Supply Security	Healthy Environment
Analyze existing weather station networks within the state and identify where additional stations are needed.			
Complete the National Environmental Policy Act process for the Lake Powell Pipeline.			
Work with water conservancy districts, water managers, and organizations to promote and increase water loss audits.			
Establish the Utah Watersheds Council and several local watershed councils.			
Publish and present to the legislature a Statewide Water Marketing Strategy that includes pilot projects in different areas around the state.			
Develop a program for integrating water use into land development planning.			
Acquire right-of-way property for the proposed Bear River Development project.			
Develop a policy to establish a process for consultation with federally recognized Indian Tribes to comply with Executive Order 2014/005.			
Update Utah's Drought Response Plan.			