

Executive Summary
League of Women Voters of Utah Water Study
September 2009

Introduction:

The water study is a quantitative analysis of Utah water sources and their allocation

- How much we have now
- How we use it now
- How much we might have in the future
- How we might use it in the future

Utah Water --- A Limited Resource

- How wet or dry Northern and Southern Utah might become
It is widely accepted that Utah water has been over-allocated.
- Southern and Northern Utah will be hotter in the future
- Climate history is determined from several kinds of historic records
- The snowfall dilemma --- most Utah usable water comes from snowpack
- Growth --- Utah has the fastest population growth in the western industrial nations. Population is predicted to double in the next forty years while water resources diminish

Two Systems of Water Law Apply in Utah

- Federal Reserved Water
- Utah Water Rights --- all Utah water other than federally reserved water is owned by the people of Utah
- Water rights are bought and sold by senior appropriators to whomever they wish for any beneficial use
- After 1903, approval was required to sell water rights and change places of diversion
- Existing appropriations and uses have been preserved

Where Water Law Is Made --- The State Legislature

- Utah's State Legislature makes and changes Utah water law
- Utah's State Constitution has one line that addresses the water issue
- Most of Utah's water law has been developed in court cases
- The Governor can curtail appropriations during a declared drought period

Where Water Decisions Are Made

- The State Engineer has broad responsibilities, makes decisions and can be taken to court if a decision is disputed
- Water Conservancy Districts and Irrigation Companies are creations of the state with the responsibility of beneficial use, conservation and development of unappropriated water resources

Who In Fact Owns the Water?

- The doctrine of prior appropriation gives water rights to individual owners instead of all the people

Protection of Streams, Lakes, and Wetlands

- Instream Flow --- a legal term that is used to keep water in streams
- Federal Protection --- the Corps of Engineers, Bureau of Reclamation and the Environmental Protection Agency (EPA) are charged with protecting the waters of the United States of America
- Public Trust Doctrine --- historically, a human-centered concept that waters and shorelines belong to everyone. Whether wildlife and habitat have standing under this doctrine is currently being tested, debated and developed in the United States

Water Sources

- Utah's Water Budget --- a line-by-line accounting of where Utah's water comes from and where it goes
- Utah's Groundwater --- Utah has 4 types of aquifers. They are not hydrologically connected into one statewide aquifer, reflecting the Great Basin's diverse topography
 - 1) Middle Rocky Mountain Physiographic Province --- [1] valley-fill unconsolidated aquifer
 - 2) Colorado Plateau Physiographic Province --- [2] fractured-rock aquifer
 - 3) Basin and Range Physiographic Province --- [3] carbonate aquifer and [4] basin-fill aquifer
- Principle Aquifers: [13(consult map)] Utah's population is growing rapidly and the aquifers are being "mined", i.e., groundwater is being withdrawn at a faster rate than they are being recharged. This can have detrimental consequences and the effectiveness of the methods addressing the situation is yet to be determined. --- The Beryl Enterprise Ground Water Management Plan (GWMP) is an example of how the issue has been addressed recently.

Utah River Basins

Normally, the water within a basin river system is all that is available for use

- The Central Utah Project and proposed Lake Powell Pipeline Project are examples of large inter-basin transfers; there are smaller transfers as well
- This study concentrates on the Bear River, Weber River, Jordan River, Utah Lake, West Desert, and Kanab Creek/Virgin River basins. They contain most of the population in the state or are of particular interest.

How Our Water is currently Used

- Amount Used by Type of User --- There are many water providers, which may supply water to more than one type of user and not break down data the same way. Nevertheless, in 2001 the Utah Department of Water Resources (UDWR) published estimates of the residential, commercial, institutional, and industrial water use for each basin in Utah. The statewide totals are shown in tables in the study.
- Water for Wildlife --- Since damming and diversion of water for human use can profoundly alter ecosystems and bring species near extinction, it may be desirable to reserve water to keep streams flowing and wetlands wet. This is being done in many locations in Utah, often when a regulatory agency negotiates an agreement before project permits are issued.
- How Does Utah Compare? --- Two commonly stated facts about Utah water are: 1) Utah is the second driest state in the nation (at 13 inches precipitation yearly, behind Nevada at 9 inches); and 2) Utah's per capita water use is the second highest (or highest) in the nation.
- Using Water Efficiently --- Increased efficiency by both consumers and suppliers, if combined with slower population growth, could make additional water development unnecessary, save money on water treatment, conserve energy, reduce non-point source pollution, and leave more water for the natural environment.