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### Highlights

- Since the earliest settlement of Utah, water has been viewed as a resource that must be developed for the common good, with projects designed to bring the maximum benefit to the largest number of people.
- Water development in Utah has evolved through three main phases, including an early period of cooperative, community-based efforts, a wave of experiments in private, for-profit development, and the current model dominated by specialized government agencies working in cooperation with the federal Bureau of Reclamation to develop water supplies.
- There are a variety of water agencies at the local and state level that are responsible for developing and selling water in the wholesale and retail markets and regulating those activities.
- Taxation, especially the use of property tax, accounts for a significant portion of most water agencies' revenues.

### Creating an Oasis: Water Development and Funding in Utah

Water is a topic of much concern to policy makers and the general public in Utah. It has been since the earliest days of settlement in the Salt Lake valley and will continue to be as Utah's population grows and droughts make water resources scarce. In May 2001, the Utah State Department of Natural Resources, Division of Water Resources released a new state water plan titled "*Utah's Water Resources: Planning for the Future*". The document describes the current condition of Utah's water resources and evaluates the demands that will be placed on them in the future. In November 2001, KUER Radio presented a multi-part series entitled "*Soaking the Desert: The Story of Water in Utah*". These presentations and the media exposure given to conservation measures during the summer months have brought water issues to the forefront of public concern.

There also have been calls for reform regarding how water development is funded in Utah. Traditionally, a significant portion of water infrastructure and development costs have been funded by taxes, both property and sales taxes. The monthly water bill from local public utilities reflects only a part of what Utahns are paying for water. Many citizens do not know the true costs associated with providing this basic necessity. Proponents of eliminating the property and sales tax subsidy on water argue that by doing so, Utahns would have a better understanding of the need for conservation. Opponents of this argument state that water is a public resource and in order to provide service to all, the current funding system is necessary.

This report is part one of two that Utah Foundation will produce in order to give the public and policy makers a clearer understanding of water issues in Utah as they pertain to taxation, pricing and conservation. This report will focus on giving a brief historical accounting of water development in the state as well as outlining the agencies involved in managing and developing this resource at the local, state and federal level. Finally, this report will discuss taxation, and its role in financing future water development. Part two of this series will discuss water consumption, water prices, conservation, and the effects of shifting to a pay-for-use system of water pricing.

Within the text of these two reports, Utah Foundation has chosen certain communities to represent the overall water system in the state. This was done for two reasons. First, water development in Utah has always been a localized endeavor. The variety of public entities one community uses to meet its water needs may not necessarily work in another community. The communities in this study highlight the different approaches to water development that exist around the state. Second, the communities' chosen represent the variance in climatic conditions around the state.

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5242 College Drive, Suite 390  
Salt Lake City, Utah 84123  
(801) 288-1838  
[www.utahfoundation.org](http://www.utahfoundation.org)

## History of Water Development in Utah

While Utah receives an average of only 13 inches of precipitation annually, local amounts can vary widely. Most of this precipitation is trapped in the mountains in the form of winter snowfall. Throughout the spring and summer, runoff from the high mountains makes its way down to the valleys and finally out to the western desert basin. Early pioneers enhanced this natural process with a series of dams and ditches. Water policy since has built on this foundation. Therefore, it is necessary to look at the history of water development in Utah in order to understand the system citizens have today.

There are three distinct time periods of water development in Utah. During the years of 1847-1865, water was viewed as communal property and individual rights to water use were subordinate to community needs. The years of 1870-1900 saw water development become a private venture, with various attempts to sell water at a profit to users. Finally, between the years of 1900-1947, water development evolved into a joint venture between local, state and federal government agencies charged with supplying water to the public. Following is a brief history and a discussion of the legal and practical consequences of this evolution in water management.

### 1847-1865: A period of cooperative effort

Utah has a unique history in the annals of western water development. When Mormon<sup>1</sup> pioneers arrived in the Salt Lake valley in July of 1847, they had a different purpose to their settlement than other western migrants. Expelled from the United States, they came west seeking a place in which to create a society based on their religious tenets. With very few resources, other than their own abilities, survival in this new environment depended on the efforts and cooperation of every member of the community. Water, because of its scarcity, was to be developed and administered for the good of the entire community. From 1847 through 1852, water resources were under the direct administration of the LDS church.<sup>2</sup>

During this time, the basis for all future water administration and utilization was established. Two integral ideas came from the early pioneers' experience. First, individuals had the right to utilize water resources, but the same right of utilization was accorded to all members of the community. Second, water use had to be for the benefit of all, or at very least, do no harm to the community. In this way, communal rights to water use were recognized as superior to individual rights. In theory then, no individual should profit at the expense of the community. As time went on, county courts and the territorial Legislature would recognize water rights in the order of priority. Those communities that were senior in settlement had superior rights over younger communities.

In 1852, legislation was passed to move water administration from the hands of the LDS church to the newly established county courts. Irrigation experts and historians have regarded this legislation as some of the most prudent of water rights administration legislation in the early west.<sup>3</sup> The reason it is viewed as such is because the courts

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were to administer water rights and adjudicate disputes based on community interests, common sense and on-site inspection of projects as well as by legal precedent. Therefore, if a senior water rights holder was acting in a way that was jeopardizing the community water supply, that holder could be compelled by the courts to cease or change his water use practices.

The county court system also contributed other important legal precedents to our current water administration system. First, that some centralization of the allocation process at the county level was desirable. Second, development and administration of water resources by those closest to the resource made for practicality. Third, public interest could be served by direct action on the part of the government.

As an outgrowth of these precedents, county courts at times found themselves as developers or financers of water projects. These cases are rare; the largest was the Salt Lake County Court funding some projects in the south and west of the county in 1870. When entering into agreements as developers or financers, the courts insisted that public money expended be paid back. However, it often was not, thus establishing a precedent for government subsidy in the interest of water projects that had a large public value.<sup>4</sup>

Thus in many ways, the county court system helped develop water administration and even developed capacity in Utah. It is interesting to note, however, that outside the Wasatch front counties of Box Elder, Cache, Davis, Salt Lake, Utah and Weber, the court system played a very minor role in water development and allocation. In rural areas, many residents were able, through cooperative efforts, to manage their water without formal governance. Management by an institutional body was only necessary when needs for water outpaced the supply, as was rapidly becoming the case in the urbanizing Salt Lake City area.

Water development in Utah circa 1850-1865 was a hodge-podge of irrigation cooperatives that constructed canals and small dams for agricultural use; city administered water systems for residential use; and a few private development corporations such as the Provo Canal and Irrigation Company, incorporated in 1853 by charter of the Territorial Legislature to divert half the water in the Provo River for irrigation and power generation purposes. Each of these various systems had water masters to oversee construction, repair and to ensure water levels remained adequate for users' needs. However, often there was no communication between the various users. Thus, development by one entity often came at the expense of another. Migrants were still arriving in the valley and the burgeoning population put a strain on resources. Thus, something had to be done to rectify the situation.

### **1870-1900: Water for Profit**

This period was one of great transition for Utah, its water users, and the United States as a whole. With the advent of the transcontinental railroad, the isolated Salt Lake valley became open to migrants and visitors alike. Goods that were not or could not be

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produced in the Mormon settlements could now be imported from the East in large numbers. Another import from the East was the technical expertise of university and government scientists eager to study the West and put into practice theories of water development and management.

As these scientists arrived in territory, they were greeted with a two-fold problem. First, water resources to that point were allocated using crude measurements that did not accurately account for natural variance in river flows. During low flow years, those with more junior rights to the water resources were the first to suffer. Second, Utah had a territorial Legislature that was silent on the direction of water development. This silence was one of benign neglect, the Legislature was simply too involved in petitioning for statehood and resolving the “Mormon problem” that was impeding the process, to expend a lot of effort on water issues. Starting with the incorporation of Salt Lake City in 1851 and continuing with other cities and towns until 1875, the Legislature turned responsibility and authority for water administration within their political boundaries to the cities themselves. The cities of Salt Lake, Ogden, Provo, Logan and American Fork were active in working with the local cooperatives and the county courts.<sup>5</sup>

**Cities were also the first large scale public sponsors of water development projects.**

Empowered with this authority to administer and develop water for their own use and with the territorial Legislature otherwise occupied, city governments assessed their own needs and turned to the scientists for assistance in developing the institutions and physical systems necessary to supply their populations. Perhaps the most significant advance made by city water administrators was in the area of taxation. Often, all residents in a city were taxed to pay for water use, regardless if the city supplied them. This created a subsidy for irrigators and other large water users. Cities were also the first large scale public sponsors of water development projects. Ogden was especially active in this arena. The city built canal systems and exacted general taxes to finance them.<sup>6</sup>

As scientific measures became more exact and experts realized that water resources were even more finite than previously thought, many began to worry that there would not be enough to supply every one who had laid claim to it. In response to this concern and recognizing the need for territory wide standards for recording water claims, the territorial Legislature in 1880 passed “An Act Recording Vested Rights to the Use of Water and Regulating their Exercise”. This piece of legislation is important to Utah water rights history for one reason: it shifted the ownership of water from the realm of the public into private hands. Water was now separated from the land that utilized it. If an individual owned water shares and acreage, the land could be sold and the rights to the water retained. Further, the individual could sell the water rights by themselves to another individual. Finally, unappropriated water could be claimed and developed by individuals as they saw fit. No longer was the county court involved in determining if water projects were in the best interest of the community at large. Their role now became one of resolution and record keeping. The courts were to be a means for resolving

disputes between appropriators and to keep records of water claims.

While the law did shift control of water from public to private hands, it did allow water to be divided pro rata among all primary users in case of drought or shortage. This was still sharply different from many western states that adhered strictly to the ‘first in time, first in right’ system of water allocation that left latecomers to bear the brunt of a drought.

Now that individuals could own water, this gave rise to several private attempts at water delivery and administration. The main impetus behind these companies was not providing community benefit but earning a profit for their owners, who were often out-of-state speculators. Thus, service areas and prices were determined by economic considerations rather than public interest. Unfortunately, there existed few mechanisms to enforce payments or to exclude speculators. The projects that were constructed often ran far over budget and delivered very little of the promised water.

In 1894, the United States Congress passed the Utah Enabling Act. This was the necessary legislation for admitting Utah to statehood. Within this legislation, the federal government granted 500,000 acres of federal land to the state for the purpose of water resource development. The proceeds from the sale of this land were to be earmarked as funds for the construction of reservoirs for irrigation purposes.

Another important development of 1894 was the passage of the Carey Land Act. The act authorized special grants of federal lands in arid states and placed the responsibility of reclamation on the states. State governments were responsible for enacting plans for irrigation development and land distribution. There was a caveat to this act. In an attempt to avoid speculation, land grants were to go only to actual settlers and the tracts could be no larger than a quarter section.<sup>7</sup>

Both of these acts, as well as the development of water resource management programs in the surrounding states, compelled Utah policymakers to take a more active role in water development within the state. When the state constitutional convention began to meet in 1894, it spent considerable time discussing water rights and if those rights should be written in as part of the constitution. There were three points of view regarding this inclusion. The first was that water belonged to the state and state government should be responsible for administering it, as in the State of Wyoming. The second view was the federal government owned the water resources and no provision should be included in the constitution. Those expressing this view argued that statehood would not impact existing water rights and that to lay claim to future water rights might make the state’s constitution unacceptable to the federal government. Finally, the third view was that water was the personal property of the individual as stated in the 1880 legislation, and a clause to the constitution should assert those rights.<sup>8</sup>

Finally, the constitutional convention included a single sentence regarding water rights. Article XVII reads as follows:

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*All existing rights to the use of any of the waters in this State for any useful or beneficial purpose, are hereby recognized and confirmed.*

Beyond this statement, the constitutional convention remained silent regarding water rights issues. Consequently, Utah's water laws are based on state statutes and federal land and water acts. The Legislature moved quickly in the first years to create the Bureau of Land Commissioners, the State Engineer's Office and enacted a law defining the procedure by which new irrigation rights were to be obtained and recorded.

These efforts did little to ameliorate a situation growing worse, especially in areas where new claims were being filed against water that was already fully appropriated. It was not until the United States Congress passed the National Reclamation Act of 1902 that water resources in Utah were systematically developed.

### **1900 to the present: Water development as a public endeavor**

With the passage of the 1902 Reclamation Act, Congress reaffirmed that settlement of the western United States was a matter of public interest. Further, as a matter of public interest, western settlement could not be achieved without broad federal support. The Act provided funding for water resource reclamation work in 17 western states. The Utah Legislature quickly put together the Arid Land Reclamation Fund Commission to work with the federal Reclamation Service in identifying potential projects. As this commission had official state sanction, it was able to bring more federal money to Utah than private water developers could obtain for the states in which they operated. Thus, Utah became a focal point for federal water development.

The largest obstacle now facing water resource development was Utah's legal framework. The U.S. Reclamation Service had been instructed by Congress to follow state laws with respect to water rights and not to initiate projects until water rights were clearly defined and repayment organizations, such as irrigation districts, were established with sufficient collateral.<sup>9</sup>

The Utah Legislature responded by passing another fundamental water law in 1903. This law attempted to clarify and codify issues not addressed in previous legislation. The 1903 law continues in effect today, having never been repealed, merely modified to address needs as they arose.

Once this legal framework was in place, reclamation projects began in earnest. First with Strawberry Reservoir and continuing on throughout the century the Bureau of Reclamation has completed a number of projects in Utah. The state also made attempts to develop water resources under its own auspices. The Hatchtown Project and the Piute Project, both state endeavors, were considered failures. The projects were completed behind schedule and over budget. Beneficiaries of the projects defaulted on their loans and in the end,

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the state government had to write off the outstanding debt.

Because of these experiences, during the era of 1906 through 1935, the state concentrated its efforts in encouraging water development and land reclamation by seeking federal funds for the projects state officials determined would enhance the efficiency of water use throughout the state. The ideal position for state water developers was to work with the federal government on jointly planned projects. The results of their efforts were a large inventory of dams, canals and pipe structures throughout the state, a large number of jobs for Utah residents during the time of the Great Depression and a large public debt in the form of bond issues and direct debt to the federal government.

One of the features of Bureau of Reclamation involvement in water development was the right of the Bureau to determine the price of the water coming from the various reservoirs. The Bureau was also the entity that determined what percentage of water suppliers' revenues were to come from property taxes.

Another development in water resource allocation was one of interstate concerns regarding the Colorado River. California in the early part of the century was already experiencing large population growth. Burgeoning growth meant increased demand for water and the other states were afraid that California would establish priority rights to the water in the Colorado River. This concern was heightened when in 1922 the U.S. Supreme Court ruled that the law of prior appropriation applied regardless of state lines. In simple terms, a water right established to Colorado River water by a Californian must be filled if that right was established before any other. Potentially, Colorado River water flowing through Utah could be appropriated by California long before it ever left Utah's borders. Determined to avoid this situation and equally determined to avoid federal intervention into western affairs, the states began drawing up a revolutionary document, the Colorado River Compact.

Representatives of the states of Colorado, Wyoming, Utah, New Mexico, California and Nevada signed the Colorado River Compact in 1922. Although a participant in the Compact, Arizona would not ratify the agreement until 1944. The Compact was an agreement by the seven western states on the division of water in the Colorado River. The agreement divided the states into two basins, upper and lower and determined how many acre-feet each basin was to receive. In the end, the upper basin agreed to deliver 7.5 million acre-feet (maf) a year to the lower basin. In practice, during any ten-year time period the upper basin was required to deliver 75 maf. This was supposed to give the states leeway in years with low water flows. It was quickly discovered the hydrology measures that determined the acre-feet available were taken during some of the river's highest years and that flow rates in the future were going to be much lower. With that in mind, when the Upper Basin states signed their own agreement regarding the division of water amongst themselves, the basis of measurement was in percentage of the flow rather than acre-feet. Utah received a 23% share of the water allotted to the Upper Basin

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states.<sup>10</sup>

During this time, the last piece of the legal framework of water appropriation was added to the Utah Code. In response to the 1935 ruling by the Utah State Supreme Court in the case of *Wrathall v Johnson*, the state Legislature included ground water under the law governing the use of water resources throughout the state. Ground water was to be treated no differently than other water resources and the State Engineer's Office was given the task of administering groundwater.<sup>11</sup> This increase in jurisdiction meant that the state was the final determiner of all water rights in Utah.

The time period of 1935-1947 saw the Legislature work to facilitate water development in the state. With the passage of the Metropolitan Water District Act and the Water Conservancy Act, the state created independent water districts. These districts were recognized as independent political entities with the ability to levy property taxes and offer bond issues to fund water development projects as well as attract federal monies. Finally, the Legislature attempted to address concerns of erosion, flooding and water quality through the creation of the Utah State Soil Conservation Committee and its subsequent districts.

Since 1947, no major primary institutional changes have been made regarding water distribution. The system Utah operates under today is the direct result of afore mentioned legislation. The period since 1947 has seen changes at the federal level regarding water quality that affect all utility systems that deliver water to residences and businesses. Those changes include the inception of the Environmental Protection Agency in 1970 and the legislation that followed, such as the Safe Drinking Water Act (1974) and the Clean Water Act (1977) with a renewal in 2000. The enforcement of these laws is given directly to state governments.

The above history gives the context in which water development, conservation, pricing and taxation must be discussed. Concerns regarding conservation and pricing cannot be discussed without an understanding of how the Bureau of Reclamation works, for example. With an understanding of the history, attention may then be focused on the various water administrators and developers at the Federal, State and Local government level.

### **Government Institutions Involved in Water Management and Development**

As water development in Utah has always been a localized endeavor and water districts were created as independent entities, the ties between water management officials and various governmental agencies are unique to each district. Water districts with a few exceptions, are managed by a board of non-elected individuals. These citizens are responsible to set water rates and provide policy decisions regarding present administration and future development in their district. However, statutes and mandates at all levels of government limit the type of policy decisions that these boards can make. The cases illustrated below explore the interactions between water districts

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and federal, state, and local government agencies.

## **Federal Government**

There are four primary agencies that assist in the management of water resources and development within the federal government. They are the Bureau of Reclamation, the Bureau of Indian Affairs, the Army Corps of Engineers, and the National Park Service. Federal regulation of water in the West began with the passage of the 1902 Reclamation Act. Prior to this federal involvement in western water issues had been limited to assistance to individual states by the Army Corps of Engineers. The advent of the Reclamation Service and the federal funds available for infrastructure costs were the catalyst for large-scale development in Utah.

The Bureau of Reclamation and the Army Corps of Engineers have been vital to the funding and the construction of most of Utah's large water projects. An example of a Bureau project was the construction of the Deer Creek Reservoir in the 1930's. Deer Creek was approved by ballot measure without state and local government involvement. The citizens of Utah, with this vote, authorized the federal government to build the project and Utahns would reimburse the costs over a lengthy time period. Other projects followed in rapid succession during the Great Depression, each with a promise that federal funds expended would be returned by the citizens of the state. Bonds were issued by the various local entities involved to raise the necessary capital to retire federal obligations. Bond issuances for water projects continue today, with maturities of 20 years or longer. These issues rely either on property taxes or on the revenue of a water district as collateral. Since the majority of water districts rely on property taxes as part of their revenue stream, taxation has become the main funding mechanism for many water projects in Utah.

The construction of Deer Creek Reservoir also signified the ever-extending distances that developers would go seeking water resources. Prior to the completion of the project residents in the valleys below the mountain range relied on local water resources. Deer Creek Reservoir, while it straddles the Provo River, is filled almost entirely with water transferred from the Weber and Duchesne rivers. The Provo, having already been fully appropriated, contributes little to the reservoir.<sup>12</sup> This 'importation' of water for areas well beyond the Wasatch Front to supply the population has continued to the present, with the discussions regarding damming the Bear River for use in metropolitan areas.

As water needs continue to grow, developers must seek resources further from the point of delivery. This has brought the Bureau of Indian Affairs and the National Park Service into the development arena. Both agencies oversee water resources within their designated territories and must be included in any discussion of development of those resources. However, often the agencies and the tribes involved are at odds regarding how best to balance tribal interests and those of developers. For example, agreements have been entered into exchanging Native water rights for technological development of water on tribal lands. These agreements were meant to reimburse the

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tribes' rights to the water by providing needed infrastructure. However, for a variety of reasons, the infrastructure was never completed and the tribes were left with fewer claims to water resources located on reservation lands.

### **State and Local Government**

There are three primary managers of water in Utah state government: the Division of Water Resources, the Division of Water Rights, and the Department of Environmental Quality. Both divisions regulate and manage Utah's water and water rights, but they do so within different arenas and with different approaches. Water Resources is responsible for coordinating conservation efforts within the state, including the dissemination of information to citizens and encouraging the development of technologies to increase the efficiency of water delivery systems. Water Resources is also charged with the protection of Utah's interstate water rights, including the Colorado River Compact, when they are in conflict. The Division of Water Rights is the repository of all water appropriation claims in Utah. When a claim is bought, sold or developed, it must be filed with the Division. They also adjudicate in cases where a claim is in conflict.

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The Department of Environmental Quality has two water related divisions. The Division of Water Quality functions to “[p]rotect, maintain and enhance the quality of Utah’s surface and underground waters for appropriate beneficial uses; and to protect the public health through eliminating and preventing water related health hazards which can occur as a result of improper disposal of human, animal or industrial wastes while giving reasonable consideration to the economic impact.”<sup>13</sup> The Division of Drinking Water has a similar mission that is narrower in scope. It acts as the administrative arm of Utah’s Drinking Water Board, which adopts policies aimed at protecting the public against waterborne health risks. Both divisions offer low interest loans and grants to local water systems that otherwise could not afford to upgrade or expand infrastructure. Both are also important to the relationship between the Environmental Protection Agency and local water providers. The divisions ensure that water systems comply with all EPA regulations regarding water quality.

In short, the divisions of Water Resources and Water Rights are concerned with the quantity of water supplied in Utah, while the Department of Environmental Quality concentrates on ensuring the quality of water that comes out of Utahns’ taps.

Local government decisions and regulations add another layer of complexity to water policies. These regulations can represent conflicting viewpoints due to the different interests represented. Some cities have zoning restrictions and rules regarding economic development that are at odds with the conservation efforts that the city and water managers are simultaneously pursuing. This occurs because zoning ordinances are designed to ensure high quality and consistent development of land, and frequently require ground cover in the form of lawns, trees, and shrubs. These requirements limit the

effectiveness of conservation efforts that focus on conserving water through the use of plants that do not need large amounts of water. However, these policies vary significantly among local governments, and a few instances of potentially contradictory goals between conservationists and city planners are not representative of the whole.

These varied pressures act on water bureaucracies in different ways depending on the location and needs of the communities that they serve. For example, residents living near tribal lands are more likely to feel the effects of the Bureau of Indian Affairs on water development policy, although all residents have the potential to feel the affect of any agency due to the mobility of water in Utah. An understanding of these interactions and recognition that water policy and procedure are influenced on numerous levels is critical when discussing present policy decisions and future development issues.

### **Water Institutions Today**

To clarify the role of water entities, a brief discussion of their legal definitions and functions is necessary. There are six types of entities that may deal with water in any given jurisdiction of the state. A county or city may have only one, or there may be several that have overlapping jurisdiction and physical boundaries. Following is a brief description of each type of entity and the legal parameters in which they must operate.

The entity most familiar to people is the public utility department. A public utility is usually a municipal entity, called a municipal corporation, and the originator of a resident's water bill. Under the state constitution and in statute, a public utility may own water rights and administer retail water distribution. A public utility department, if it does not have adequate water supplies, may purchase its water from a variety of wholesale entities. One type of wholesaler is a metropolitan water district. First created to service Salt Lake City in 1935, its original purpose was to incur the necessary debt to fund the Provo River project and the construction of the Deer Creek Reservoir. The jurisdiction and obligations of a metropolitan water district differ from a public utility.

Water conservancy districts are a third type of water supplier. These districts differ from metropolitan water districts in two ways. First, they are not constrained by the political boundaries of member cities. Second, a city may be contained in more than one conservancy district, as is the case with Salt Lake City. Conservancy districts are independent of each other and have their own taxing rights. The Central Utah Water Conservancy District and the Weber Basin Water Conservancy District are two examples of conservancy districts that encompass more than one county.

The fourth type of entity that administers water is an improvement district. Under legislation passed in 1943, improvement districts were given the flexibility to offer a variety of services to their residents from construction of sidewalks to providing utilities to maintenance of cemeteries. A water improvement district distributes water directly to customers. Water improvement districts tend to arise in

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unincorporated areas of counties not serviced by public utilities. These districts function in the same manner as metropolitan water districts and water conservancy districts in that they have similar legal rights and responsibilities. The one unique aspect of a water improvement district that distinguishes it from conservancy or metropolitan water districts is in the way the board of trustees is created. In a water improvement district, the board members are chosen by the residents of that district instead of being appointed by legislative bodies or the governor.

The fifth and last type of public entity administering water in Utah is a county service area. These areas were established with the intent of expanding services into new unincorporated areas of a county. County service areas also have independent taxing authority.

Finally, there are private water companies. As private corporations, they have no taxing authority but gain their revenue through retail water sales. Figure 1 enumerates the differences and similarities between each of the water agencies listed above.

These distinctions are subtle but important. Each water entity may perform a variety of functions, but in the end it takes a retailer, a wholesaler and a water developer to bring water to the average Utahn's tap. In the most general terms, the municipal utility acts as the retail agency; a local water conservancy district acts as wholesaler and a multi-county conservancy district, such as Weber Basin or Central Utah Water Conservancy District acts as developer. Within this context, the taxes each agency levy against property within their jurisdiction can be discussed.

### **Water and Taxation**

**Figure 1**

**Characteristics of Utah Water Agencies**

	Municipal Utility	Metropolitan Water District	Water Conservancy District	Improvement District	County Service Area	Private Water Company
Independent taxing authority		X	X	X	X	
Can buy and sell water rights		X	X	X	X	X
Can exchange water rights	X					X
Sells water retail	X	X	X	X	X	X
Sells water wholesale		X	X	X	X	
Service area limited by political boundaries	X	X			X	
Can issue municipal bonds and incur indebtedness		X	X	X	X	
Board members elected in local elections				X		

## Property Tax

Retail water, especially that provided within the boundaries of a city or town, usually comes from a public utility. The utility reports its revenues and expenditures as an enterprise fund on the municipality's balance sheets. Municipal enterprises are similar to business endeavors, meaning they strive to earn a "profit." However, the city may still designate part of its property tax collection for the purpose of water development and maintenance of systems. The chart below highlights the relationship between local municipal water retailers and their reliance on rate structures and property taxes. These data come from the *1999 Survey of Community Drinking Water Systems*, performed by the Utah Department of Environmental Quality and the Division of Drinking Water.

**Retail water's dependence on property taxes varies from area to area.**

As the chart indicates, retail water's dependence on property taxes varies from area to area. A note of caution when looking at the Salt Lake City figures; the data are only for those residents of the city that receive their water directly from the Salt Lake Municipal Utility. Since there are a number of retail providers within the area of Metropolitan Salt Lake, that number is not representative of all utility subscribers.

**Figure 2**

**Drinking Water Pricing, Including Taxes and Fees**  
*Selected Utah Communities*

City	Residential Connections	Cost per 1,000 gallons			Percentage of Revenue From Taxes & Fees
		Billings Only	Taxes and Fees*	All Revenue Sources	
Alpine	1,617	\$1.60	\$1.52	\$3.12	48.70%
American Fork	5,480	\$0.65	\$0.22	\$0.87	25.30%
Bountiful	9,328	\$0.89	\$0.40	\$1.29	31.00%
Brigham City	N/A**	\$0.65	\$0.04	\$0.69	5.80%
Delta	878	\$1.19	\$0.02	\$1.21	1.70%
Lehi	4,387	\$1.18	\$1.40	\$2.58	54.30%
Manti	952	\$1.01	\$0.13	\$1.14	11.40%
Moab	1,253	\$0.75	\$0.07	\$0.82	8.50%
Monticello	644	\$1.58	\$0.17	\$1.75	9.70%
North Logan	1,425	\$1.54	\$0.35	\$1.89	18.50%
North Ogden City	4,153	\$2.17	\$0.60	\$2.77	21.70%
Orem	17,649	\$0.61	\$0.10	\$0.71	14.10%
Park City	3,761	\$2.00	\$0.52	\$2.52	20.60%
Price	3,577	\$1.80	\$0.02	\$1.82	1.10%
Provo	12,658	\$0.63	\$0.06	\$0.69	8.70%
Roy	8,714	\$1.20	\$0.33	\$1.53	21.60%
Salt Lake City	66,980	\$1.42	\$0.01	\$1.43	0.70%
Sandy	24,469	\$0.87	\$0.15	\$1.02	14.70%
South Jordan	6,240	\$1.15	\$0.29	\$1.44	20.10%
Washington	3,226	\$0.84	\$0.38	\$1.22	31.10%
<b>Average for all survey participants</b>	<b>2,319</b>	<b>\$1.07</b>	<b>\$0.45</b>	<b>\$1.52</b>	<b>29.60%</b>

\*Taxes and Fees include property taxes, sales tax revenue and fees such as impact and/or connection fees.  
\*\* Brigham City did not include the number of residential connections in their information.

Source: *1999 Survey of Community Drinking Water Systems*, published by the Utah Department of Environmental Quality and the Division of Drinking Water, Appendices 8 & 9. The survey was sent to all 455 community drinking water systems in the state, of which 216 responded with data adequate for analysis. These 216 systems account for approximately 88% of the total connections in the state.

While taxes and fees contribute a significant portion of many retailers' operating revenues, the ratio becomes even higher when one starts examining wholesalers' and developers' financial statements. Figure 3 below delineates the various revenue sources for a sample of wholesalers and developers around the state. The categories are collapsed from those listed in the entities' 2000 audited financial statements. For research purposes, property tax revenues and revenues from fees in lieu comprise the first category. The second category is made up of all revenues that are related to selling and renting water or water rights, including impact and connection fees. The category entitled "Revenue from Grants" is composed of revenue from all grant sources, federal, state or local. Finally, "Other Revenue" encompasses all other revenue sources including interest on investments, laboratory revenue or revenue from power sales.

As Figure 4 indicates, generally there is a greater dependence on property tax revenue among wholesalers and developers than among retail water sellers. However, there is a large amount of flexibility within the designations retail seller, wholesaler and developer and

**Figure 3**

**Revenues of Selected Utah Water Agencies**

<b>Wholesaler/Developer</b>	<b>Revenue From Taxes &amp; Fees in Lieu</b>	<b>Revenue From Water Sales &amp; Impact Fees</b>	<b>Revenue From Grants</b>	<b>Other Revenue</b>	<b>Total Revenue</b>
Bear River Water Conservancy District	\$357,739	\$164,684	\$119,637	\$38,760	\$680,820
Jordan Valley Water Conservancy District	\$6,561,837	\$23,214,112	\$0	\$2,832,983	\$32,608,932
Central Iron County Water Conservancy District	\$113,285	\$0	\$86,568	\$8,449	\$208,302
Central Utah Water Conservancy District	\$23,822,888	\$5,954,474	\$0	\$824,961	\$30,602,323
Duchesne County Water Conservancy District	\$227,830	\$0	\$78,282	\$6,678	\$312,790
Granger-Hunter Water Improvement District*	\$2,135,824	\$14,691,151	\$0	\$1,384,349	\$18,211,324
Hooper Water Improvement District	\$101,511	\$903,574	\$0	\$143,683	\$1,148,768
Magna Water Company, an Improvement District	\$1,018,923	\$3,076,432	\$0	\$381,254	\$4,476,609
North Utah County Water Conservancy District	\$93,476	\$0	\$0	\$4,968	\$98,444
Salt Lake County Metropolitan Water District	\$4,532,103	\$8,163,065		\$7,665,734	\$20,360,902
Taylorville-Bennion Improvement District	\$451,764	\$6,773,064	\$0	\$440,584	\$7,665,412
Uintah Water Conservancy District	\$524,152	\$365,699	\$972,720	\$102,137	\$1,964,708
Weber Basin Water Conservancy District	\$2,879,097	\$8,123,829	\$0	\$3,442,401	\$14,445,327
Washington County Water Conservancy District	\$5,658,612	\$1,121,840	\$0	\$12,255,486	\$19,035,938

\* Granger-Hunter Water Improvement District also provides sewage services. The revenue from providing that service has been omitted from this chart.

Source: Selected water agencies 2000 audited financial statements as posted on the State Auditor's website at <http://www.sao.state.ut.us/>

often a district will engage in all three activities. Jordan Valley Water District, for example, reports in its audit the amount of water sales revenue that wholesale activities bring in as well as the amount retail water sales are responsible for. However, these districts levy taxes separately from the political subdivision they service. This contrasts with municipal utilities that are part of city operations and bill and tax under the auspices of the city.

While reviewing this information it is important to highlight the Bureau of Reclamation's role in revenue collections by those entities that jointly develop projects with the Bureau. The Central Utah Water Conservancy District is the largest developer in the state and its 2000 audited financial statement elucidates the Bureau's role in taxation and water sales for those entities that pursue development projects with the federal government.

**Figure 4**

**Revenues of Selected Utah Water Agencies**

*As Percent of Total Revenues*

<b>Wholesaler/Developer</b>	<b>% of Revenue From Taxes &amp; Fees in Lieu</b>	<b>% of Revenue From Water Sales &amp; Impact Fees</b>	<b>% of Revenue From Grants</b>	<b>% of Revenue From Other Revenue</b>
Bear River Water Conservancy District	52.5%	24.2%	17.6%	5.7%
Jordan Valley Water Conservancy District	20.1%	71.2%	0.0%	8.7%
Central Iron County Water Conservancy District	54.4%	0.0%	41.6%	4.1%
Central Utah Water Conservancy District	77.8%	19.5%	0.0%	2.7%
Duchesne County Water Conservancy District	72.8%	0.0%	25.0%	2.1%
Granger-Hunter Water Improvement District*	11.7%	80.7%	0.0%	7.6%
Hooper Water Improvement District	8.8%	78.7%	0.0%	12.5%
Magna Water Company, an Improvement District	22.8%	68.7%	0.0%	8.5%
North Utah County Water Conservancy District	95.0%	0.0%	0.0%	5.0%
Salt Lake County Metropolitan Water District	22.3%	40.1%	0.0%	37.6%
Taylorville-Bennion Improvement District	5.9%	88.4%	0.0%	5.7%
Uintah Water Conservancy District	26.7%	18.6%	49.5%	5.2%
Weber Basin Water Conservancy District	19.9%	56.2%	0.0%	23.8%
Washington County Water Conservancy District	29.7%	5.9%	0.0%	64.4%

\* Granger-Hunter Water Improvement District also provides sewage services. The revenue from providing that service has been omitted from this chart.

Source: Selected water agencies 2000 audited financial statements as posted on the State Auditor's website at <http://www.sao.state.ut.us/>

*“Under the terms of the repayment contracts, 34 percent of the debt for municipal and industrial water is to be repaid from District assessed property tax revenues. The source of repayment for the remaining 66 percent of the debt is anticipated to be generated from water usage fees arising from municipal and industrial users. Such debt is to be repaid over a period not to exceed a 50 year term at an interest rate not to exceed 3.222 percent”.*<sup>14</sup>

This clause in the contract between the Central Utah Water Conservancy District and the Bureau of Reclamation has important ramifications for discussions about the elimination of property tax support of water development and shifting to a pay per use system. These ramifications will be discussed further in part two of this report when water pricing is more fully examined. However, today, water development, distribution and administration are heavily dependent on tax revenue to continue to fund their operations.

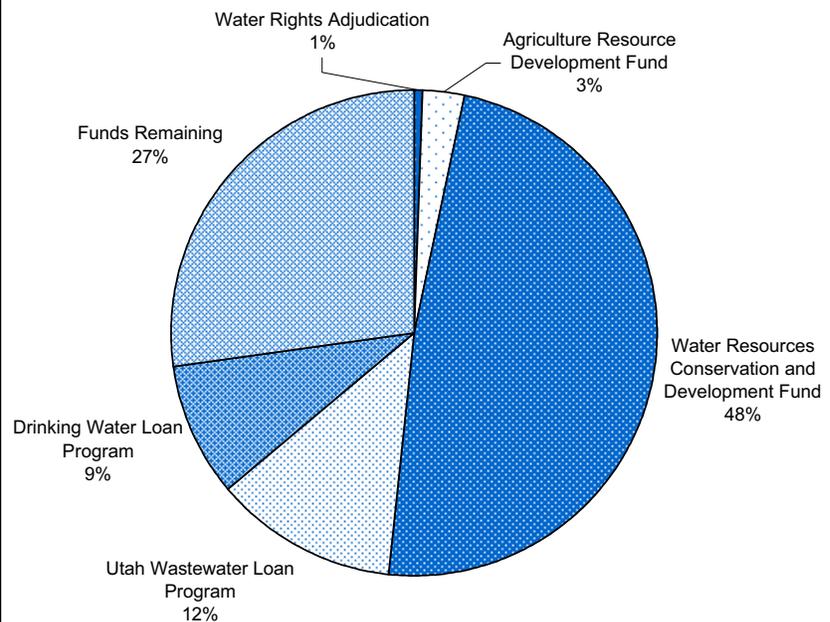
### Sales Tax

On July 1, 1997, the State of Utah began collection of a 1/8 of a cent in sales tax to support water and transportation projects throughout the state. 50 percent of all collections are for water and wastewater projects. The *Utah Code 59-12-103 (5)* outlines the uses for this revenue. After allocations for water rights adjudications and the Agriculture Resource Development Fund, the remainder of the funds are divided between the Water Resources Conservation and

**“Thirty-four percent of the debt for municipal and industrial water is to be repaid from District assessed property tax revenues.”**

**Figure 5**

**Distribution of 1/8 Cent Sales Tax For Water Projects**



Source: The Utah Code 59-12-103 (5) and Utah Tax Commission, Taxable Sales by County 1996-2000. Calculations by Utah Foundation.

Development Fund administered by the Division of Water Resources, the Utah Wastewater Loan Program administered by the Water Quality Board and the Drinking Water Loan Program administered by the Division of Drinking Water. The graph below details the percentage of sales tax revenue each fund received for fiscal year 1997-1998 based on the formula outlined in the above statute.

The use of these funds is also outlined in the above statute and in other water resource development statutes. The main thrust of all of these is to assist small communities improve their infrastructure. The loan funds are revolving, so those communities that take advantage of the resource are legally obligated to pay them back. In this way, the state government ensures that communities that do not have the revenue to seek development money in the private financial markets have access to public funds.

## **Conclusion**

Utah has a history of water development that is unique to the Western experience. Unlike many of its western neighbors, Utah did not develop its water resources under a strict “first in time, first in right system” of allocation. Nor did it decide, as in Wyoming, that all water resources are the property of the state government, to be administered by public officials. Instead, Utahns viewed water as a resource that must be developed for the common good and projects must bring the maximum benefit to the largest number of people. Following this philosophy fostered a close relationship with the federal government and the Bureau of Reclamation specifically to construct the large-scale projects necessary to bring that maximum good to all citizens of the state.

However, the system that has been created to meet the needs of the citizenry of the state has its limitations. For those that feel Western states should have control of the resources within their borders, the fact that water development in Utah is basically in the hands of the federal government tends to raise concerns. For those that feel property taxes should not be the main revenue source for water entities, the overlap in jurisdiction of many water districts means that many citizens are taxed two or three times for their water. The issue of taxation also brings up the one of representation, as the general public does not elect the members of most boards administering water districts. Finally, because of the overlap in jurisdiction, it is difficult to determine how much any given consumer is paying for the water that comes from their tap by simply looking at tax assessments and utility bills. This lack of transparency has encouraged wasteful water consumption habits and may not leave adequate resources for future generations. Part 2 of this report will discuss current water pricing schedules and also look at the issue of pay-per-use or conservation pricing.

Utah Foundation hopes that through these two reports to give citizens and policy makers a better understanding of where our water comes from, how it is paid for and what we as citizens can do to ensure future generations are able to have adequate water resources.

**The fact that water development in Utah is basically in the hands of the federal government tends to raise concerns.**

## Endnotes

<sup>1</sup> The term ‘Mormon’ refers to members of the Church of Jesus Christ of Latter-day Saints. In this article the church body or the leadership acting in an official capacity, will be referred to interchangeably as the ‘LDS Church’ or by its full name as written above.

<sup>2</sup> John Swenson Harvey, “A Historical Overview of the Evolutions of Institutions Dealing With Water Resource Use, and Water Resource Development In Utah – 1847 Through 1947” (Thesis, Utah State University, Logan 1989), p 3.

<sup>3</sup> Arthur Maass & Raymond Anderson “...and the Desert Shall Rejoice: Conflict, Growth and Justice in Arid Environments” (MIT Press, Cambridge 1978), p 350.

<sup>4</sup> George Thomas, “The Development of Institutions Under Irrigation: With Special Reference to Early Utah Conditions” (The Macmillan Company, New York 1920) pp 53, 67-69, 78-82.

<sup>5</sup> Ibid, Chapter VI.

<sup>6</sup> Ibid, pp 68-70.

<sup>7</sup> A section is defined as one square mile of land or 640 acres. A quarter section equals 160 acres.

<sup>8</sup> John Harvey, “A Historical Overview of the Evolutions of Institutions Dealing with Water Resource Use, and Water Resource Development in Utah 1847-1947” (Masters Thesis, Utah State University, Logan 1989).

<sup>9</sup> Ibid, p 52.

<sup>10</sup> Joe Gelt, “Sharing Colorado River Water: History, Public Policy and the Colorado River Compact”, Arroyo Volume 10, No. 1 August 1997, published by the Water Resources Research Center, University of Arizona.

<sup>11</sup> Utah Supreme Court Case, *Wrathall v Johnson*, 86 Utah 50, 40 PAC 2d 755 (1935) and State of Utah, *Laws of the State of Utah* (1935), Chapter 105 Section 1, 100-3-1, 100-5-12, pp 104-105, 200.

<sup>12</sup> Vedder, Kurt “Water Development in Salt Lake Valley” in *Waters of Zion*; ed. Dan McCool; University of Utah Press; 1995; pp 33-34.

<sup>13</sup> The Division of Water Quality’s mission statement from <http://www.deq.state.ut.us/eqwq/mission.htm>.

<sup>14</sup> Central Utah Water Conservancy District, 2000 Audited Financial Report. Notes to General Financial Statements, Note No. 5, p 15, June 30, 2000.

This Research Report was written by Janice Houston, Senior Research Analyst, with assistance from Sara Sanchez and Stephen Kroes. Ms. Houston is available for comments or questions at [janice@utahfoundation.org](mailto:janice@utahfoundation.org) or (801) 288-1838, ext. 123.

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