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THE TRANSFER OF AGRICULTURAL WATER TO
MUNICIPAL AND INDUSTRIAL USAGES

by

Dallin Stephens

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF SCIENCE

in

Civil and Environmental Engineering

Approved:

Michael C. Johnson
Committee Chairman

Blake P. Tullis
Committee Member

Laurie S. McNeill
Committee Member

Todd D. Adams
Committee Member

Byron R. Burnham
Dean of Graduate Studies

UTAH STATE UNIVERSITY
Logan, Utah
2010

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ABSTRACT

The Transfer of Agricultural Water to Municipal and Industrial Uses

by

Dallin Stephens, Master of Science

Utah State University, 2010

Major Professor: Dr. Michael C. Johnson
Department: Civil and Environmental Engineering

The water that is available for beneficial use in Utah is quickly approaching full appropriation; water that has been claimed is nearing the amount that is available for use. The Division of Water Resources of the State of Utah has organized a three-part plan to “Plan, Conserve, Develop and Protect Utah’s Water Resources.” One of these three elements has a focus to “provide comprehensive water planning.” Such planning is best achieved when current and accurate data on the uses of the state’s water are available.

The primary purpose of this thesis was to provide an evaluation, from data collected on various case studies across the state, on the accuracy of water rights information. The studies were selected based on land that had recently been developed from agricultural usage to residential, commercial, or other municipal uses. After identifying the accuracy of the water rights information, observations to the methods of recording water right transfers were made. A template to summarize a municipality’s water rights will also be made available.

(86 pages)

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Additionally, I wish to thank my family and close friends for their support and belief in my success of this project. Finally, I give credit to my God for endowing me with the intellect and facilities to understand and prevail in my academic research and my personal goals related to this thesis.

Dallin Stephens

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LIST OF SYMBOLS AND ABBREVIATIONS

af, ac-ft	acre-feet
cfs	cubic feet per second
DWRi	Division of Water Rights
DWRe	Division of Water Resources
EDU	Equivalent Domestic Units
ELU	Equivalent Livestock Units
gpm	gallons per minute
Irrg	Irrigation
NR	No Response
POD	Point of Diversion
POU	Place of Use
USU	Utah State University
WCD	Water Conservancy District

CHAPTER I

INTRODUCTION

Development and growth in the western United States is, in part, conditional upon the amount of water that is legally available and practically accessible. Over the past decade, several western states, including Nevada, Colorado and Utah, have been among the fastest growing in the nation (GOPB, 2000). There is a limited amount of water that can be developed to accommodate growth in the west. For example, the State of Utah estimates that more than 90% of its developable water resources have already been developed and put to use (Utah DWR, 2001). In order for these arid states to continue to grow without being limited by water resources, a wise water management plan must be put to use. The addition of new policies or strategies may improve the management of existing supplies and delay the need for new water development projects.

Prudent management of water resources begins with accurate information of the location and quantity of water as well as the type of use. Both land and water rights can be bought and sold, but the right to use the water is not required to remain with the land. The transfer of ownership in the land need not include the transfer for the water rights (Getches, 1990).

Having a correct understanding of the location of water, the current user, and the type of use is invaluable information to entities that are responsible for water distribution and management. The Division of Water Resources (DWRe) for the State of Utah is well aware of the need to have accurate data. Among other goals, one of their mission statement objectives is to, “Maintain accurate and current water supply and land use data for each hydrologic basin in the state” (Utah DWR, 2010).

CHAPTER II

PURPOSES AND METHODS

One purpose of this research project is to track the transfer of water rights as land use changes from agricultural irrigation to municipal and industrial uses in Utah. The Utah Division of Water Rights (DWRi) maintains a system of recording these types of transfers. This project will, first, briefly review the DWRi recording system to show the process employed. Secondly, the DWRi water right database will be utilized to identify water rights records that do not accurately describe how a given right is being used, or that lack the data that will provide sufficient information for decision-making about water resources in the state. This thesis will only catalog these errant transfers; it will not attempt to reconcile the lost data in these transfers. Finally, this thesis will identify a select few case studies in which transfers of water rights from agricultural use to municipal use were conducted properly and where all pertinent data was provided to the State. These studies will be used as the basis for creating a general flowchart on which future transfers of rights may be based. A template will be provided to municipalities to better track and identify actions needed for each water right within the city.

The method to search and identify the errant transfers was as follows: Locations of development across the state were identified as potential case study locations at which water right transfers may have occurred. Over 200 locations were selected as potential sites to determine how water right transfers have been conducted and recorded. These locations represent a significant portion of recently developed plots of land across the state of Utah. Of these sites, 120 were evaluated in depth. These sites were chosen based on aerial data accessed via the software program Google™ Earth. Recent and historical

aerial imagery, ranging from 1993 to 2008, were compared to select sites that had formerly been used as agricultural land, but were shown to have been developed as residential, commercial or other urban development sites. Table 1 shows the distribution of potential case study sites by city. The sites were also analyzed to determine the types of developments on each case site. The type of development, by percentage, is summarized in Figure 1.

Table 1. Potential Case Study Sites by City

City	No. of Potential Sites	City	No. of Potential Sites
Beaver	4	Orem	3
Bluffdale	1	Payson	7
Brigham City	14	Plain City	2
Cedar Hills	2	Pleasant Grove	3
Centerville	2	Pleasant View	3
Clinton	3	Providence	1
Draper	8	Provo	2
Farmington	2	Richfield	1
Farr West	6	Riverdale	1
Fruit Heights	1	Riverton	5
Grantsville	3	Salem	1
Harrisville	6	Santaquin	5
Herriman	9	South Jordan	9
Highland	2	South Ogden	4
Hooper	1	South Willard	3
Hurricane	2	Spanish Fork	4
Ivins	1	Springville	2
Kaysville	3	St George	2
Kearns	4	Stansbury Park	2
La Verkin	2	Syracuse	5
Lakeview	1	Taylorsville	2
Layton	8	Tremonton	4
Lehi	8	Washington Terrace	1
Logan	5	West Bountiful	2
Magna	3	West Haven	3
Mapleton	3	West Jordan	8
Nephi	4	West Point	4
North Logan	3	West Valley	8
North Salt Lake	1	Willard	2
Ogden	1	TOTAL	212

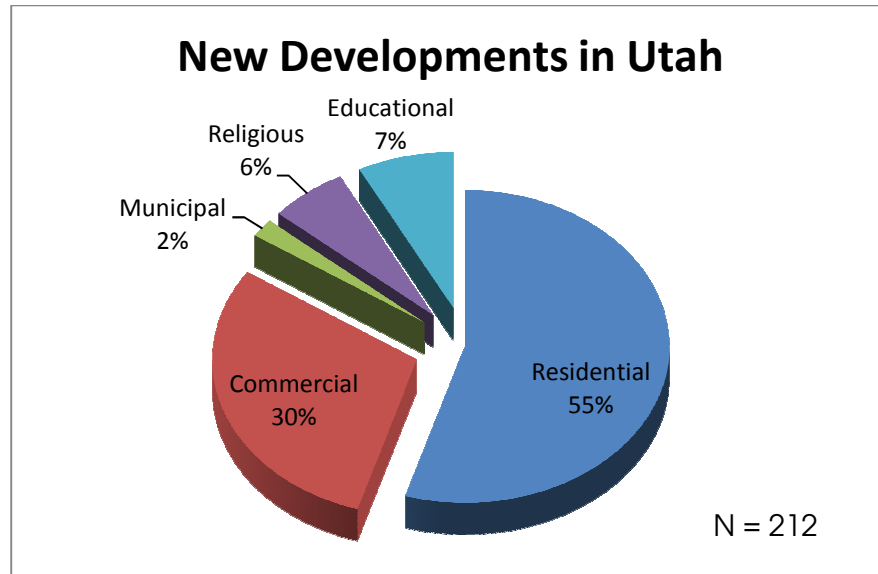


Figure 1. New developments in Utah.

On the DWRi webpage, the location map was utilized to determine water rights which had points of diversion on or near the case study site (Utah DWR, 2009 a). Each water right connected to the site was searched under the webpage's database. A record of each of these water rights investigated is included in Appendix A, with a brief description of the condition of each right. Scanned documents were downloaded and studied to determine the transfer of the water right, if there was one. These documents were compared to aerial imagery to determine if the description of the attributes had correlation to the current conditions of the land upon which it was to be used. In conditions where the use of the water right, as described in the associated documents, did not agree with the aerial imagery – that is to say, that the right could not be used in its described use due to the development that occurred – the right was identified as an inaccurate water right record. A complete list of all sites that were considered is also

included in Appendix A. Due to the sheer number of potential sites, several sites were not evaluated beyond identifying them as recently developed plots of land.

Prior to assessing the water rights' records, a web-based survey was emailed to city engineers, public works directors, water superintendants and other city managers who were knowledgeable about their city's water systems and needs. This survey was created and given to assess various cities' methods of transferring water rights into the municipality. In addition to giving insights as to how cities handle water right transfers, this survey also provided valuable peripheral information on cities' water management systems. The full survey is included in Appendix B of this thesis. The survey was sent to approximately 80 cities in Utah, with 36 (45%) responding and answering at least a portion of the questions on the survey. Questions included in the survey were focused on the topics of the city's water sources and use, water right (and water share) acquisition and use, and general city development and growth.

Following the investigation of the case study locations, and connected water rights, the data was reviewed and general observations were made. These observations identified what may have been the cause of errant transfers, the effect of these transfers on the accuracy of the system, and other possible areas of inaccuracy in water rights records.

CHAPTER III

CITY SURVEY RESULTS AND COMMENTS

A web-based survey was sent to 80 cities in the State of Utah with 36 cities responding to part or all of the survey questions. The survey was sent to city engineers, public works directors, or water supervisors, according to each city. Questions were organized into categories of general information, water source, water rights, and questions about the development of the city. There were approximately 15 questions asked of each city. Results were tabulated and the complete responses are available in Appendix B. Among all the information gathered from this survey, there were a few points of particular interest, as they apply more directly to the investigations of this thesis.

More than 50% of the cities surveyed indicated that they are at or near the capacity of their water supplies. This may indicate that as many cities develop, they will be looking to dig additional wells and/or purchase more water from water conservancy districts.

Of great interest was the method in which cities obtained additional water rights or shares as development occurred. A common practice of obtaining additional rights was to require the entity that was developing the land to acquire and provide the city with a specified quantity of water rights to support the water requirements of the developed land. Fourteen (39%) of the cities employed such a system. However, half of the cities (18) indicated that no system was used to obtain additional rights. Of these 18 cities, the explanation of why no additional rights were acquired is varied. Table 2 shows the responses of these 18 cities.

Table 2. City Responses of Not Acquiring Additional Rights

City	Method
Centerville	None - Enough Shares
Clinton	We do have enough water/shares/rights for culinary needs; however secondary water requires that shares be provided or bought by the developer to support growth
Kanab	The Lake Powell pipeline will make 10,000 acre-feet of water available to Kane County
Kearns	There are few water rights and no canals available in our area to share
Hurricane	WCWCD receives the supply part of our impact fee and will sell us the water as needed
Midvale	Purchase of wholesale water from WCD
Moab	None - Enough Shares
Morgan	None - Enough Shares
North Ogden	None - Enough Shares
Ogden	We rely on the conservancy district and our own acquisition of rights
Provo	Budgeting to purchase water shares
Price	The City has a yearly budget to buy water shares with water revenues
Riverdale	None - Enough Shares
Sandy	We are buying irrigation company shares
South Salt Lake	None - Enough Shares
St. George	We have joined a regional pool with the WCWCD. New sources of water will be the WCWCD responsibility
Tremonton	We have the cost of additional water/water rights covered in our Impact Fees that new users pay as they come to the City
West Bountiful	If the developer has water rights then they are required to turn them over to the city
Woods Cross	None - Enough Shares

Also asked of the cities was the question of what was done with water rights or shares once they were obtained. There was an even distribution among the uses of newly obtained water rights or shares. The uses were (1) stockpiling the right for use in the future (as allowed by State Code 73-1-4, which will be discussed later in this thesis), (2) filing a change application to the right and using it as was needed in the city, (3) using it in a secondary water system. Figure 2 shows the distribution of the uses. It is noted that of the 14 cities that acquire these rights, many of them employ more than one method of using the water right.

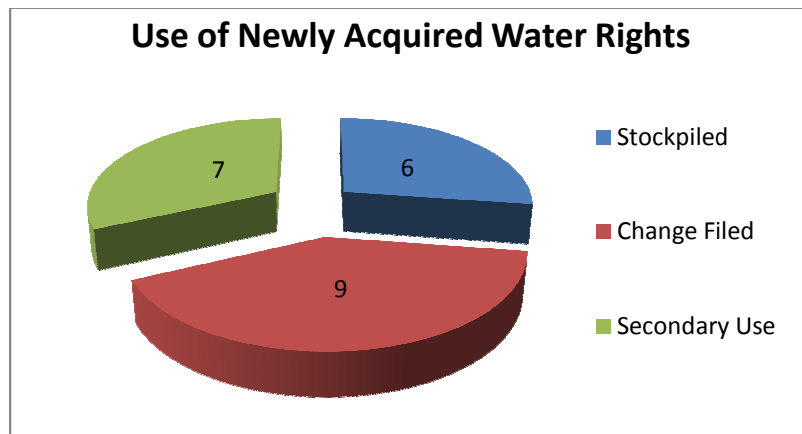


Figure 2. Use of newly acquired water rights.

CHAPTER IV

REVIEW OF WATER RIGHTS RECORDING SYSTEM

The DWRi of the state of Utah uses a record-keeping system in which pertinent documents are scanned and uploaded to their webpage (Utah DWR, 2010). There are a variety of documents which may be provided with each water right. These include, but are not limited to: legal documents which may include warranty or quitclaim deeds for land or water rights, legal descriptions of land, or legal hearings related to water right protests; correspondence letters between the water right applicant or owner with the DWRi; newspaper publications for proof of public notice; and documents each water right holder must file with the DWRi – Applications to Appropriate, Change Applications, Non-Use Applications, Reports of Conveyance, Segregation Applications and so forth.

In regards to the study at hand, the most important documents contained in the DWRi database are the warranty and quitclaim deeds, the reports of conveyance and the change applications. Reports of conveyance declare to the State that a change in the ownership of the water right has occurred and that the records are to be updated in the State's database. Warranty and quitclaim deeds are “written document[s] transferring ownership of land from one person to another” (Utah DWR, 2009 b).

If these documents are not present, and if the water right has indeed changed ownership and/or any of the properties of its use, then the State lacks the correct information about the use of such a right. Take, for example, a given right that had changed ownership (as land was developed) from a private owner to a city, and the water right's use also changed from irrigation to municipal use. If there was not a Report of

Conveyance nor a Change Application filed, the State would not be correctly informed as to how the water associated with that right was being put to use.

When all pertinent records (Reports of Conveyance, Change Applications, deeds, and so forth) are available, a full accounting of the transfer of the water right can be made. This complete accounting includes any and all changes to flow, time of use, point of diversion, place of use, type of use, owner and so forth.

Another challenge faced in collecting a sufficient amount of information to identify the status of each water right was the matter of water shares. To understand the issue of information associated with water shares, a brief review of a water share follows.

A water right is the permission given by the state to allow a water user to use a designated amount of public water for beneficial use. In the State of Utah, irrigation companies have been organized to obtain water rights, and then distribute that right among a community of water users. These companies were often created to provide large quantities of water as for large fields of crops or pasture. Each individual in this community pays, in addition to the purchasing cost of the share, an annual assessment fee to use a number of shares – because of the concept that the individual is a shareholder in the irrigation company – that represents a fraction of the water right.

Often, when an agricultural parcel of land is developed into residential or commercial use, there may be a transfer of water rights, water shares, or both. As observed in the survey, each city has a different method of handling those rights or shares.

The issue that must be addressed is that the transfer of water shares is not nearly as well documented as the transfer of water rights. With a water right, a deed is signed

and a change application must be filed if the water right is to be altered in any way. A water share, however, does not have as much information. Often, in an irrigation company's record books, a limited amount of information is given such as the name of the shareholder, the number of shares owned, and the assessment fee. Therefore, when a transfer of shares occurs within an irrigation company, only the quantity of shares owned by those involved in the transfer is edited in the record book. This makes it difficult to identify where particular water shares are being used and how they are moving due to a transfer. Only those water shares which are transferred out of an irrigation company to another water basin must be recorded and reported to the DWRi. Additionally, irrigation companies are not required to provide public information about the ownership of water shares within their company.

For the purpose of this study, it is not possible to make any accurate assumptions about the transfer of water shares. Therefore, the movement of water shares among owners within irrigation companies is not included in this thesis. If it is determined that this information is critical to the record-keeping needs of the state, additional research may be conducted.

CHAPTER V
FORFEITURE PROTECTION FOR CITIES

One exception to accounting for water rights as development occurs has come about because of legislation recently passed. The portion of Utah Code of interest is found in section 73-1-4. This section of the law describes the “Reversion to the public by abandonment or forfeiture for nonuse within seven years,” of a water right. In general, a right may be protected from abandonment or forfeiture by filing a non-use application. An amendment to this law in 2008 allows an exception that adds another level of uncertainty to this research project. The code states that, “This section [of code which pertains to abandonment or forfeiture] does not apply to . . . a water right: owned by a public water right supplier, represented by a public water supplier's ownership interest in a water company; or to which a public water supplier owns the right of use; and conserved or held for the reasonable future water requirement of the public. . . . The reasonable future water requirement of the public is the amount of water needed in the next 40 years by the persons within the public water supplier’s projected service area based on projected population growth or other water use demand” (Utah State Legislature, 2008).

Therefore, a city that gains ownership of an unused water right has the legal right to retain that right, without using it, for a period of time up to 40 years. This is subject to the proof that the city will grow enough to justify use of the water right within that same 40-year period. This also applies to water shares obtained by the city. One implication of this legislation is that if a right owned by a city protected from abandonment is not being used, the State lacks the correct information about the use of the right.

CHAPTER VI

CASE STUDY REVIEWS

Using the methods described in previous sections, it was determined that the majority of the water right transfers are correctly recorded in the State's database. As mentioned earlier, 120 of the 212 sites of interest were investigated in depth. Of those investigated, 23 (19%) were found to not have up-to-date records. The remaining 97 sites were either determined to have up-to-date records or were indeterminable in regards to their accuracy. Figure 3 shows this distribution.

Not all 23 sites are specifically cited in this section, due to some sites having similar reasons for being out-of-date. This section details a few of these sites, with explanations as to what appears to be out of date. The following list, shown in Table 3, details each of the case sites that were analyzed. In order to keep this thesis concise, and due to similar circumstances between subdivisions, only a few of these sites listed will be discussed in this report in detail. A list of case study locations, along with a table fully detailing each water right researched is included in Appendix C.

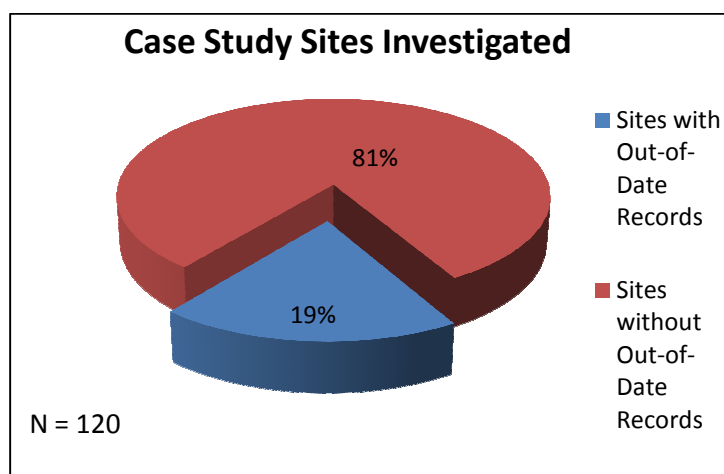


Figure 3. Potential case sites.

Table 3. Case Study Locations of Interest

Type	Location	City	Est. Year Built	Water Rights of Interest
Residential	9550 W Main St	Lehi	2006	54-1127, 55-2720, 55-2730, 55-2731
Residential	7750 N 9550 W	Lehi	2004	55-2903
Residential	11600 S State St	Payson	2002	51-2585
Residential	2530 W 1800 N	Clinton	2003	31-3709
Commercial	400 W Parrish Ln	Centerville	2006	31-630, 31-691, 31-726, 31-762, 31-770 31-796, 31-816
Residential	1250 W 600 S	Logan	2004	25-4895
Residential	925 W 1250 S	South Willard	2006	29-429
Residential	2700 S Titanium Dr	Magna	2005	59-1679
Residential	3940 S 6800 W	Magna	2003	59-2061
Commercial	2700 W Taylorsville Blvd	Taylorsville	2003	59-1590
Residential	3200 W 11400 S	South Jordan	2004	59-4459
Residential	2700 W 13400 S	Riverton	2005	59-2101

9550 West Main Street, Lehi

This residential development is located on the southwest intersection of the address given. Water right numbers 55-2720, 55-2730, 55-2731 appear to be in similar situations. Each of these rights claims a beneficial use of irrigation of 20 acres on the land that has been developed. (See Figure 4.) Owners of these rights are still individuals (Elnora Gray and Worlton Estates), not Lehi City. Comments in the summary page of each of these three rights indicate that the rights have been disallowed due to burial and abandonment. However, these changes are not apparent in the general information of the right and no documents indicate these changes.

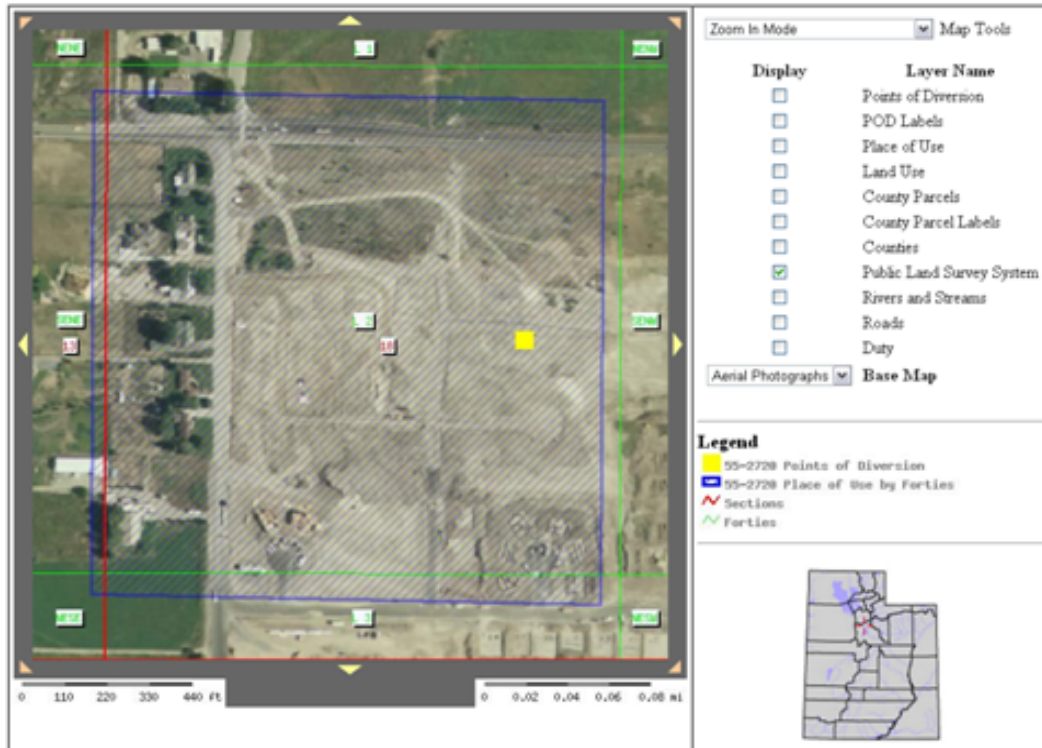


Figure 4. Place of use of Water Rights 55-2720, 55-2730, and 55-2731 – SW $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 18.

An initial investigation in water right number 54-1127 showed that a portion of it is used for stockwatering (18 ELUs). The POU of this right is shown in Figure 5. A deeper investigation into the documents of this right shows that both a report of conveyance and change application has been filed. However, this information is not up-to-date in the DWRi's webpage. Therefore, while the right is correctly updated by associated documents, this information is not readily accessible in a summarized page. This may limit the accuracy of information needed for the DWRe.

Water right 55-2903, associated with the residential subdivision near 7750 North and 9550 West, in Lehi, has similar circumstances as 54-1127 and will not be discussed in detail here.

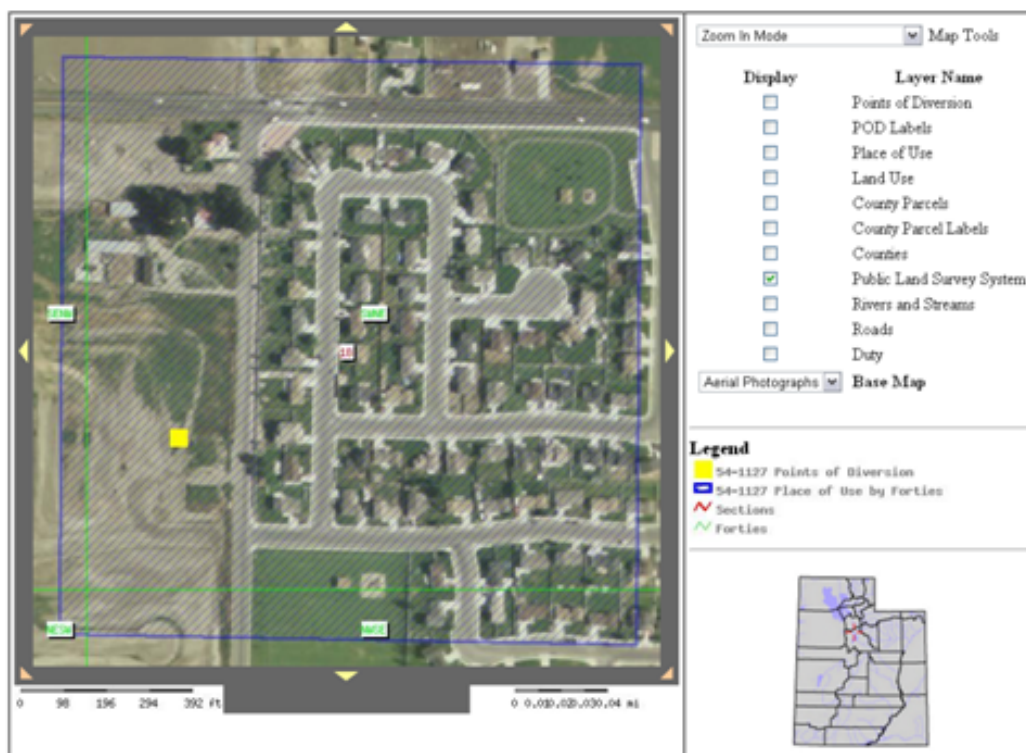


Figure 5. Place of use of Water Right 54-1127 – SW $\frac{1}{4}$ NE $\frac{1}{4}$ of Section 18.

11600 South State Street, Payson

With water right 51-2585, the entire 40-acre section in which the water right is to be used, with the exception of approximately two acres, has been developed with residential homes. The use of the water right indicates 14 ELUs and 0.5 acres of irrigation. It is highly improbable that those two acres are being used for any stockwatering, as seen in the aerial imagery. (See Figure 6.) According to the DWRI's webpage, the water right currently resides in the ownership of Kriser Homes and Communities, Inc. Attempts to speak with the owner were unsuccessful, and no further information about the actual use of the right was obtainable.

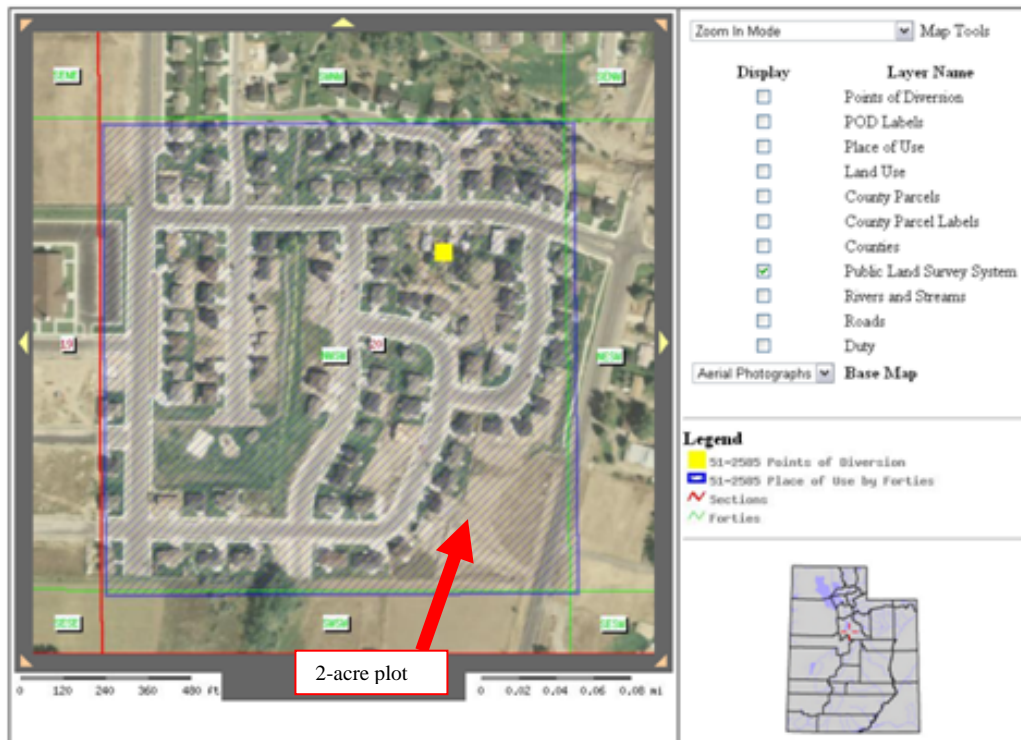


Figure 6. Place of use of Water Right 51-2585 – NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 20.

The case study located at 3940 South and 6800 West in Magna (water right number 59-2061), and the case study at 1250 West and 600 South in Logan, have a similar situations in which the residential developer (Ivory Homes and Horizon Development, respectively) is currently in possession of the right.

2530 West 1800 North, Clinton

This subdivision, or series of subdivisions, were likely developed in the time period from 2003-2006. Figure 7 shows an aerial photograph taken in 1997 of the area with existing streets superimposed for reference.

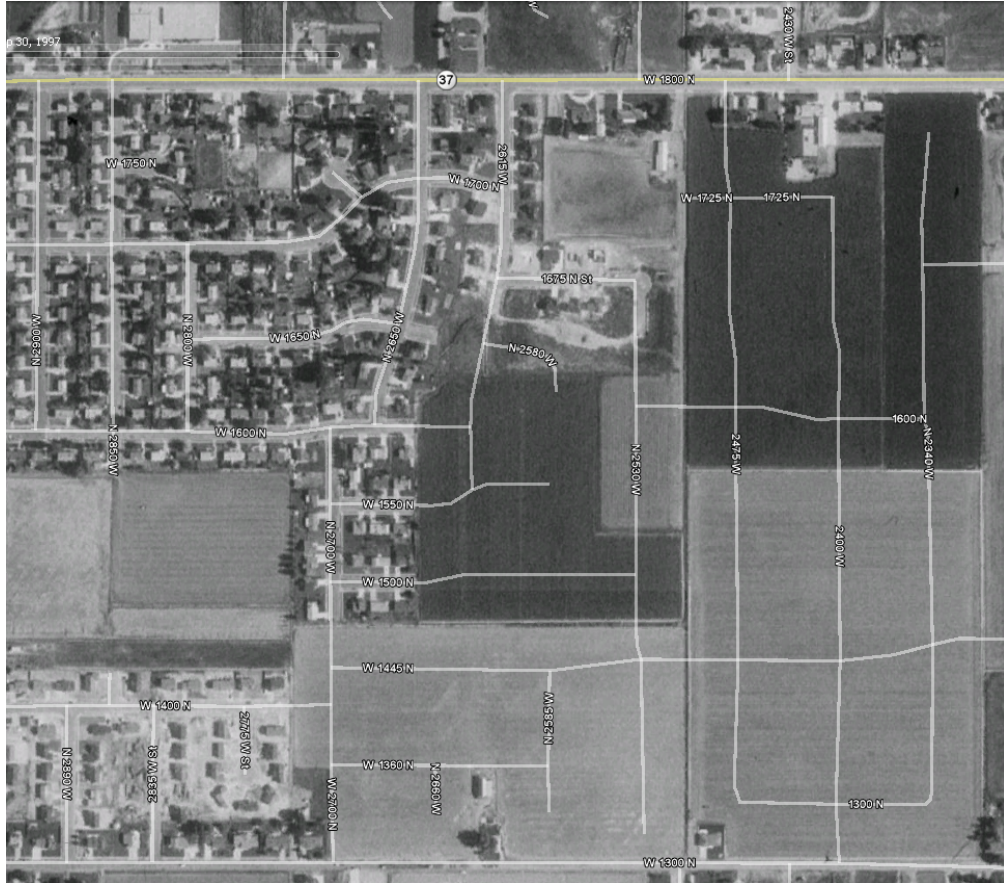


Figure 7. 1997 Historical image of 2530 West 1800 North, Clinton Region.

The water right of interest, 31-3709, originally existed as a right with 0.078 cfs, or 8.85 acre-feet for use in 300 equivalent livestock units (ELUs) and 1 equivalent domestic unit (EDU). In 1998, water right 31-5192 was segregated from 31-3709, taking the water use to the 66 ELUs and the domestic unit equaling 2.29 acre-feet of the original right, with the same place of use. As Figure 8 shows, there is only a 3.7 acre field where stock could be kept. The conclusion is that there are no longer 300 ELUs using this water on this land, or the water is being transferred to another location for stockwatering, or the use has been altered in some other way. In either case, this record appears to not be accurately describing the actual use of the right.

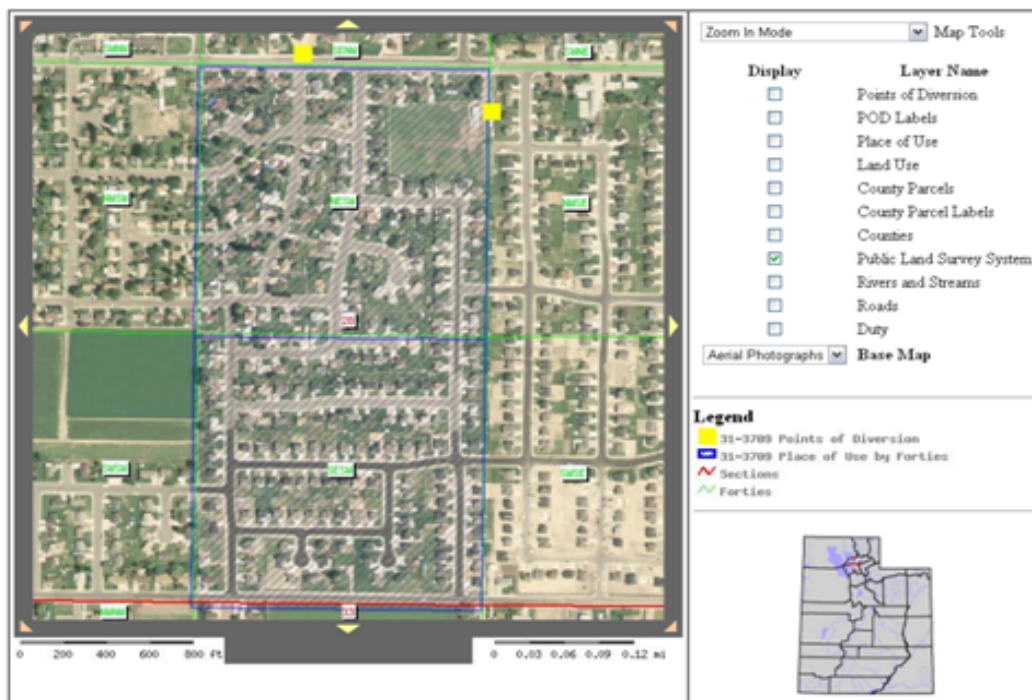


Figure 8. Place of Use of Water Right 31-3709 – E $\frac{1}{2}$ SW $\frac{1}{4}$ of Section 28.

Supporting this conclusion is the comment on the DWRi website's summary page: "This Underground Water Claim is being amended at this time to correct the place of use and points of diversion. Upon checking . . . it does appear that this claim may have been in error when initially filed" (DWR, 2010). With no contact information of the owner of the water right, it was not possible to clarify any information about the right's use.

400 West Parrish Lane, Centerville

On the southeast corner of this intersection a commercial development was built. 2006 aerial photographs show the site still under construction; when the construction was completed, the site was occupied by Walmart.

This site has similar characteristics as the 9550 West Main Street case study in Lehi. That is to say that each of the six water rights in question associated with this site have individual, private owners with claims to use the water for irrigation purposes. The places of use for all six of these rights are within the three quadrants shown in Figure 9 (aerial photographs from GoogleEarth, instead of the DWR were used to show the more recent images taken in March 2006). (It should be noted that the open grassy area in the north section of the southeast quadrant has also begun development since the 2006 aerial photos).



Figure 9. Places of use of Water Rights 31-630, 31-691, 31-726, 31-762, 31-770, 31-796 and 31-816 – SE ¼ of Section 07.

Additionally, it is noted that the points of diversion for each of these water rights are in locations that have been developed. Because each of these six rights has an underground well as a point of diversion, it is likely that this section of the water right is out of date. Table 4 catalogs each water right's current information. Furthermore, while these records are out of date, it is worth observing that these rights are part of a supplemental group for the Centerville Deuel Creek Irrigation Company, which includes irrigation usage throughout most of the city of Centerville. A supplemental group is a collection of multiple rights that are allowed to be used for a common beneficial use. Therefore, it is highly probable that these rights are being used in other sections of the city, as allowed in the supplemental group. However, for tracking purposes, these rights do not adequately describe their POD or POU.

Table 4. List of Water Rights' Details for 400 West Parrish Lane, Centerville

Water Right #	Owner	Quantity (cfs)	Acreage Irrigated	Point of Diversion	Place of Use
31-630	Rodney Porter	0.032	10.92	NE	NW, SE
31-691	Rulon Smith	0.134	5.58	NE	NW
31-726	Rodney Porter	0.089	10.92	NE	NW, NE, SE
31-762	Ralph Smith	0.134	6.03	NE	NE
31-770	Lorin Wooley Estate	0.111	5.00	NE	NE
31-796	Rodney Porter	0.750	10.92	SE	NW, SE
31-816	William Parrish	0.300	4.08	NE	NW

2700 West Taylorsville Boulevard, Taylorsville

There are two matters of interest in this case study. First, scanned documents associated with the water right (No. 59-1590), indicate that a Quit Claim Deed was filed that deeded this right from the original owners, Namba Brothers, to Taylorsville City. However, there are no records of Reports of Conveyance that indicate this change of ownership. Another detail to take note of in this study was that the water right owner attempted to file a non-use application, but that application was rejected.

The second issue is that the right claims irrigation of 77 acres, which according to Figure 10, is nearly the entire shaded area. As is seen, there are not 77 available acres to irrigate, and this right is no longer valid as stated in the claim.

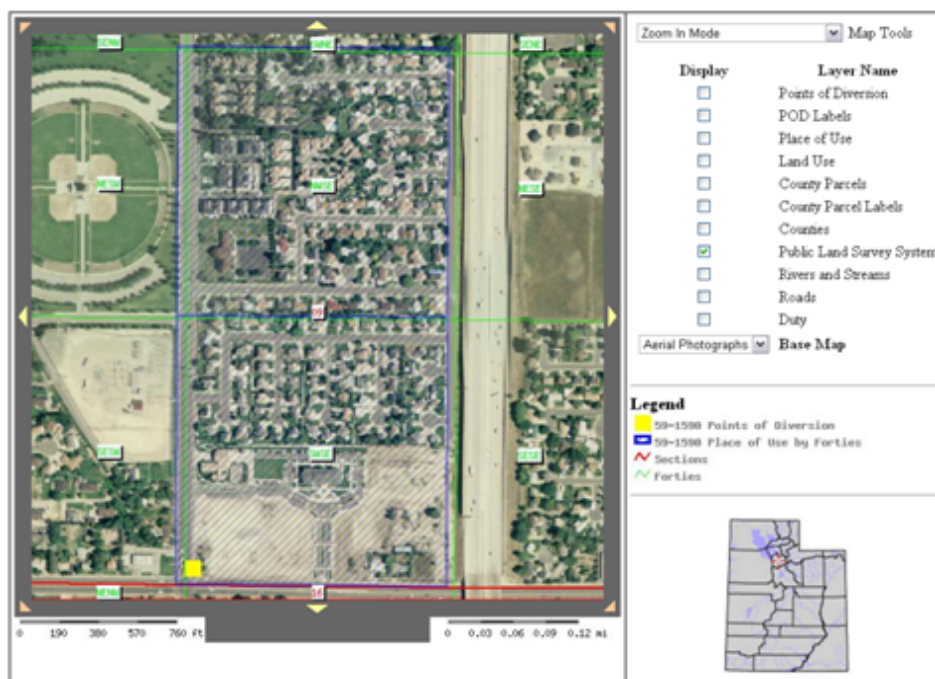


Figure 10. Place of use of Water Right 59-1590 – W $\frac{1}{2}$ SE $\frac{1}{4}$ of Section 09.

If the right is still in ownership by the Namba Brothers, a change application is required. If the right has indeed been transferred to Taylorsville City, as the Quit Claim Deed suggested, then the Report of Conveyance should be filed as well as other documentation to clarify if the city has set this right aside for future development, as allowed in Utah Code 73-1-4, or if it has been put to beneficial use.

3200 West 11400 South, South Jordan

This case site represents a potentially common situation that may exist due to change of property ownership and land development. This right, 59-4459, originally filed for in 1977, by Norman Jessee, is for use on 6 acres of irrigation land using the quantity of 0.015 cfs (7 gpm). The land upon which the water right owner could use the water has been developed (see Figure 11). However, similar to the rights in the Centerville area, this right is connected to a supplemental group, which includes water used in the Provo Reservoir Water Users Company. Therefore, it is likely that this right is now being used in areas within the supplemental group. Although this right is for a relatively insignificant flow, the concern must be raised that if there are many privately owned water rights of similar flows that are not up to date, these small flows add up to large quantities of water which have misinformation about actual ownership and usage.

A similar situation arises with water right number 59-2101, used in the area of 2700 West 13400 South in Riverton. In this case a corporation holds a small quantity of water (0.011 cfs) on a right for irrigation and stockwatering in an area that has been developed with residential units. The same question can be raised of how inaccurate information is if there are several corporations holding small quantities of water rights that are not in use as prescribed.

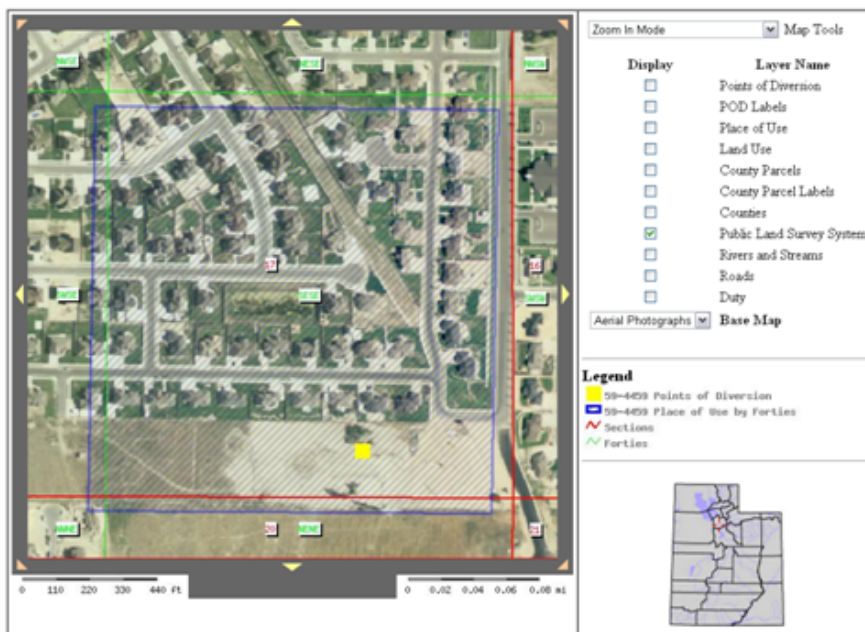


Figure 11. Place of use of Water Right 59-4459 – SE 1/4 SE 1/4 of Section 17.

While these several examples are evidence of rights that have not been documented correctly through ownership transfers of land and water, cases in which water rights transfers have been successfully documented are given here. These cases are ones in which an agriculturally used water right is transferred to a city due to development on the land. These rights are indicative of how the documentation of transferring any qualities of a right should occur, especially for a city receiving rights from a developing plot of land.

Four rights that have had change of ownership and change of use are included here as examples as to how a city may carry out changes with other transfers. Table 5 shows these rights, with information about their former use.

Table 5. Example Water Rights of Correct Transfers

WR No.	Current Owner	Former Use	Current Use
15-2978	Stansbury Park Improvement District	Irrigation	Municipal – Irrigation
25-4990	Logan City	Irrigation & Stockwatering	Municipal – Culinary
31-2704	Layton City	Irrigation & Stockwatering	Municipal – Culinary
55-1351	Heber City	Irrigation	Municipal - Culinary

Each of these municipalities (or the Improvement District) obtained the rights originally from development companies, or from individual owners. In the case of 31-2704, Layton City required the developer to submit the changes to the water right prior to the developer deeding it to the city. In speaking to the water engineer at the City, the purpose of this was to ensure that the quantity of water received from the developer was the actual flow that could be put to beneficial use (Personal Communication, Jackson, S., October 2010). In some cases, as water rights are transferred from agricultural uses to municipal, year-round uses, a percentage of the flow is not allowed for use in a municipal application. Therefore, a city, seeking the greatest flow from a right, can identify that quantity after the transfer to municipal use has occurred.

In all cases, proof of use must be presented before the right's attributes can be changed. For instance, in water right 25-4990, applications for change to POD into the city's wells has been submitted, but has not been fully approved because satisfactory proof has not been provided.

CHAPTER VII

OBSERVATIONS AND SUMMARY TEMPLATES

The data collected leads to the observation that while the majority of records may properly record the transfer of water rights as land is developed, there are a small number of water rights where this information has not been recorded and/or given to the State. This has left voids in the understanding of the current condition of many water rights. The primary cause of these voids in data is due to the lack of updating water right documents. Also noted in this research is a select few cases in which transfers of water rights from agricultural to municipal uses was properly recorded. These cases provide a method upon which future transfers into municipal use can be based. The general steps taken in these cases are summarized into a flowchart. This flowchart, shown in Figure 12, is a simplified guideline to documenting transfers; future research may refine and detail this flowchart further.

The following list summarizes the general observations made from the analysis of the case studies:

- The DWRi record keeping processes are an efficient system of tracking water rights' transfers. However, if the proper documents are not submitted, namely Change Applications and Reports of Conveyance, there is uncertainty about the condition of the water right in question.
- The majority of water rights' transfers are documented properly, and the state has up-to-date information on the rights. There are a small number of rights that have not been correctly documented.

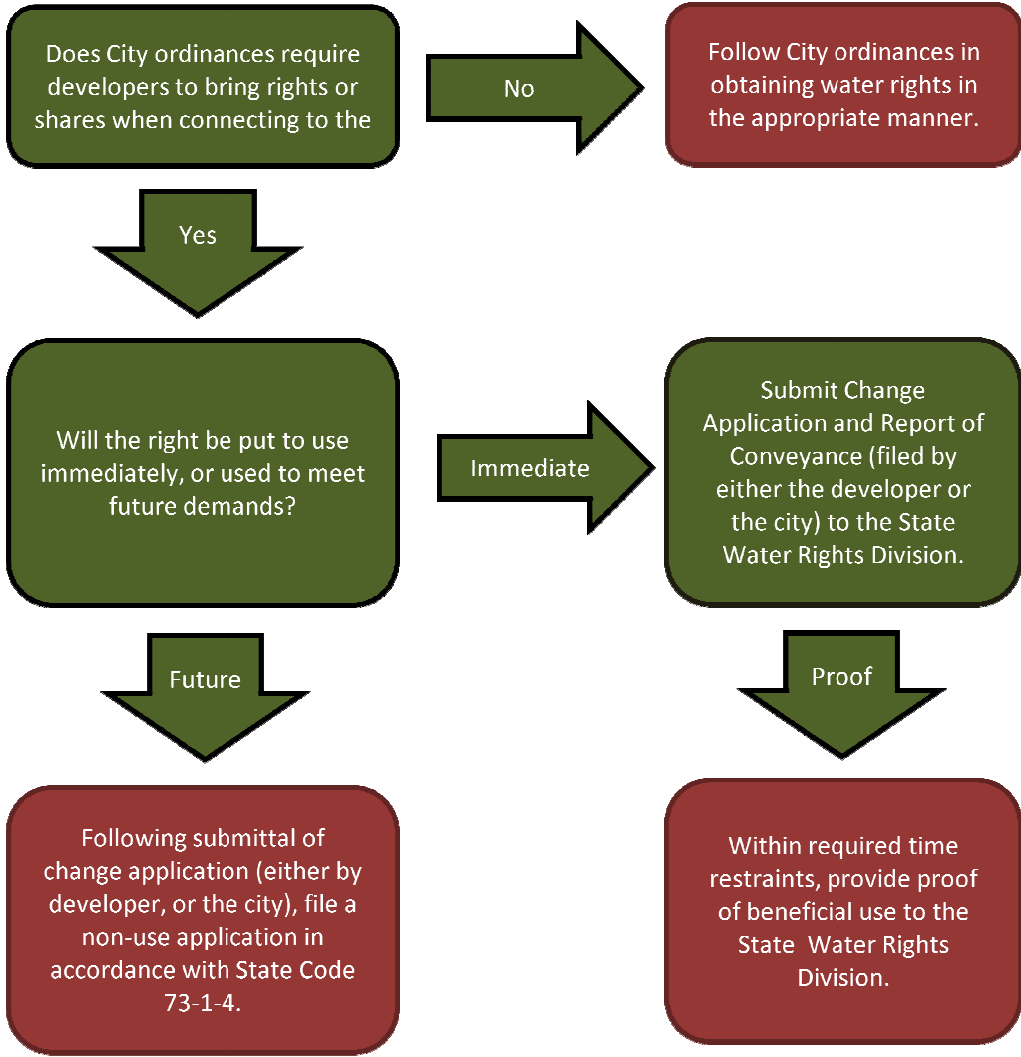


Figure 12. Flowchart for purchase of water right.

- While the great majority (more than 80%) of water right transfers appear to be recorded accurately through Reports of Conveyance and Change Applications, there are a number of rights with small flows (less than 0.1 cfs) that have not been correctly documented in their transfer, and the summation of these inaccuracies in small quantities may add up to significant errors in correct information.
- The lack of information on water shares provides great uncertainty in tracking water through transfers. It is recommended that decision-makers become aware that the use of water in water shares may be inaccurate and that further research into this process may be needed.
- There may be several rights (or shares) that have become dormant through the process of being transferred to a municipality and stockpiled, legally, under the statute of Utah Code 73-1-4.

In addition to these observations, it is noted that there may be several municipalities in the State that are not fully aware of the status of water rights under their possession. As the State Division of Water Resources is better able to make water management decisions with up-to-date records, a municipality is also benefited by understanding the condition of each of their rights. The following spreadsheets provide a general template that a municipality can use to record and track both owned water rights and shares. These are optional forms that can be utilized so that information about water in the city is retained in a concise form available to city officials.

Figure 13 shows an example use of the template, using Utah State University (USU) as the owning entity. It is noted that while USU does indeed own these rights

used in this example, it is not a complete list. The spreadsheet includes a set of instructions for use, a list of possible statuses of water right. The components of the sheet include categories of uses of rights (municipal/domestic, power, irrigation and other uses), and columns for input of flow or volume of use, priority dates, time of use, status, description of the right and any actions needed to be taken with the right. The spreadsheet then produces a value of total flow and volume available to the city.

A template that tracks water shares is also available to municipalities and large entities. An example of this sheet is provided in Figure 14. The entities in this sheet are purely hypothetical, with the sole purpose of providing an example of the layout of the sheet.

As water share information is less available, this template is not as comprehensive as the water rights template. This sheet includes input for irrigation company names and total shares and the flow or volume value of each share. Information about shares in each company are to be obtained from the city or irrigation company records, as the State does not keep records of water shares. The quantities to input into the template are dates, certificate number, and number of shares each certificate is allowed. A section for comments on the use of the share is available for identification purposes.

CITY/ENTITY NAME: Ex: Utah State University
 DATE FILED: 12-Oct-10
 FILED BY: Dallon Stephens

WATER RIGHTS SUMMARY PAGE							
Water Right Number	Flow (cfs)	Volume (ac-ft)	Priority Date	Time of Use	Status	Description of Use	Action Needed
Municipal/Domestic Use							
25-10844	--	749.98	12/28/2007	Jan-Dec	UNAP	140 EDUS; Right shared with Milville, North Logan & CV Ranches Application to add a second redundancy well for domestic/experimentation	Submit sufficient mitigation plan to S.E. Changes approved.
25-8765	1	--	6/19/1986	Jan-Dec	WUC		
Municipal Sub-Total							
Power Use							
25-3511	146.0	108595	6/11/1908	Jan-Dec	CERT	Power from hydro-plant & research projects	None
25-9079	1000.0	--	6/27/1990	Jan-Dec	APP	Power from hydro-plant	None
Power Sub-Total						1146.0	108595.0
Irrigation Use							
25-3347	1.569	--	7/8/1959	Apr-Oct	WUC	Use on 97.7 acres in western Logan	None
25-6094	0.2	--	1/18/1974	Apr-Oct	WUC	Use on 12.67 acres at USU physical plant	None
Irrigation Sub-Total						1.81	0.0
Other Uses							
25-8856	9.0	6515.82	7/20/1987	Jan-Dec	REJ	Non-consumptive use for research	
25-4185	10.0	--	1/16/1964	Jan-Dec	REJ	Non-consumptive use for research	
25-4184	10.0	--	1/16/1964	Jan-Dec	WUC	Non-consumptive use for research	
Other Sub-Total						29.0	6515.82
TOTALS						1177.81	115860.8

Instructions:

- Search for water rights by owner on the Water Rights website: <http://www.waterrights.utah.gov/cgi-bin/wrindex.exe?Startup>. A search under various titles should be considered. For example, Logan City may search for rights by owner under, "Logan City," "City of Logan," "Corporation of Logan City," etc.
- Identify all rights owned by the municipality and list all attributes as given on the summary page on the Water Rights website. Insert additional rows as needed.
- As known, provide a comprehensive description of each right so that its use is fully understood.
- If a right is unapproved, note any actions that need to be taken in order for right to be approved.
- Total up water flows and volumes; it is the decision of the municipality of whether to include flows/volumes from DIS, EXP, LAP, REJ, TERM, UNAP, or WD water rights.
- Compare the State's records with the municipality's own records (including deeds) and note any inconsistencies.

Table of Abbreviations

APP:	Approved
CERT:	Certificated: official documentation serving as evidence of a perfected water right
DIS:	Disallowed
EXP:	Expired
LAP:	Permanently Lapsed: failed to show proof within allotted time
LIT:	Litigation: pending court action on a right
NPR:	No Proof Required: applications filed from 1940's to 1961 for 0.015 cfs or less were not required to submit proof
NUSE:	A Non-Use Application has been filed
REJ:	Rejected
TERM:	Terminated
UNAP:	Unapproved
WD:	Withdrawn

Figure 13. Example use of water rights summary template.

CITY/ENTITY NAME:	Utah State University
DATE FILED:	13-Oct-10
FILED BY:	Dallin Stephens

WATER SHARES SUMMARY PAGE						
<i>Company:</i>	Northern Irrigation	<i>Total Shares:</i>	1500	<i>Share Value:</i>	2	cubic feet per second ▼
Date	Certificate Number	Shares Owned	Comments			
1/1/1950	250	3	Using shares for secondary irrg.			
1/1/1950	670	8	Using shares for secondary irrg.			
1/1/1950	915	13	Using shares for secondary irrg.			
1/1/1950	916	10	Using shares for secondary irrg.			
Sub-Totals	Shares:	34	Flow:	68	cfs	Ownership: 2.3%

<i>Company:</i>	Southern Irrigation	<i>Total Shares:</i>	1000	<i>Share Value:</i>	3	cubic feet per second ▼
Date	Certificate Number	Shares Owned	Comments			
1/1/1920	166	8				
2/5/1936	185	6				
12/10/1940	200	7				
8/15/1966	215	2				
1/1/1972	218	11				
5/5/1995	385	20				
Sub-Totals	Shares:	54	Flow:	162	cfs	Ownership: 5.4%

<i>Company:</i>	Western Irrigation	<i>Total Shares:</i>	100	<i>Share Value:</i>	0.5	cubic feet per second ▼
Date	Certificate Number	Shares Owned	Comments			
1/1/1918	87	12				
Sub-Totals	Shares:	12	Flow:	6	cfs	Ownership: 1.2%
TOTALS	SHARES:	100	FLOWES:	236	cfs	

Instructions:

1. Refer to records (such as share certificates) held by the municipality or irrigation company for share dates, certificate numbers and quantity of shares owned.
2. Identify the use of each share (as secondary irrigation supply, rental or so forth) and input into "Comments" column.
3. Contact irrigation company to identify the total number of shares and quantity of flow or volume to which each share is entitled.

Figure 14. Example use of water shares summary template.

CHAPTER VIII

CONCLUSIONS

An investigation of the water rights that had been sold or transferred in ownership, location, use or changed in any other form has been conducted. This study located these rights by identifying land in Utah that had previously been used as agricultural land, and had recently been developed into a municipal or industrial use.

Two hundred twelve sites were located throughout the state, and 120 of these sites were inspected in greater detail. Of those sites examined, 23 were found to have water rights whose type or place of use, ownership, quantity of water, or other attribute that was not consistent with the actual use of the water right.

Through an analysis of these errant water rights, discrepancies in the accuracy of the water rights records of the State were identified. Among other observations, this thesis recognized that the majority of the water rights in the State appear to be used according to their stated purposes and uses. However, this thesis is clear to bring to light that the rights that are out of date lead to some inaccuracies and error in the data available to the state that describes the condition of its water rights.

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- Utah State Legislature (2008). Utah Code Title 73 Chapter 1 Section 4 Reversion to the public by abandonment or forfeiture for nonuse within seven years -- Nonuse application. <http://le.utah.gov/~code/TITLE73/htm/73_01_000400.htm> (March 04, 2010).

APPENDICES

APPENDIX A

Case Study Data

Table A.1. List of Case Study Locations and Associated Water Rights

Type	Address	City	Water Rights of Interest	Notes
Educational	2400 N 400 E	North Logan	25-6137, 25-6138, 25-6139, 25-6140, 25-6141, 25-6142, 25-6143, 25-6144, 25-8085, 25-8354	
Residential	2600 N 400 E	North Logan	25-6137, 25-6138, 25-6139, 25-6140, 25-6141, 25-6142, 25-6143, 25-6144, 25-8085, 25-8354	
Educational	1500 N 600 E	North Logan	25-3056, 25-3450, 25-6110, 25-6111, 25-6112, 25-6113, 25-6418	
Commercial	200 N 950 W	Logan	25-5800, 25-5972	
Residential	1250 W 600 S	Logan	25-5147, 25-5148, 25-4895, 25-5143, 25-2599, 25-9062, 25-5146	
Municipal	500 W 400 S	Logan	25-4990, 25-5243, 25-2589, 25-4944, 25-2596	
Educational	1200 N 400 W	Logan	25-5243, 25-8685, 25-7337, 25-2731	
Religious	485 W 200 S	Providence	--	Site was not evaluated
Commercial	300 E 1400 N	Logan	--	Site was not evaluated
Residential	900 W 6th N	Tremonton	--	No PODs near site
Residential	270 W 3rd N	Tremonton	--	No PODs near site
Residential	960 S Wendell Dr	Tremonton	29-597, 29-600, 29-601, 29-606, 29-2856, 29-2857, 29-2858	
Commercial	550 W 10400 N	Tremonton	29-597, 29-600, 29-601, 29-606, 29-2856, 29-2857, 29-2858	
Commercial	1200 W 1100 S	Brigham City	29-1274	
Commercial	1200 W 1100 S	Brigham City	29-1274	
Residential	1575 S HW 89	Brigham City	29-121	
Educational	1200 W 2520 S	Brigham City	29-2004, 29-3748	
Residential	165 W 1750 S	Brigham City	29-2270, 29-3728	
Residential	775 W 2700 S	Brigham City	29-1017, 29-162, 29-707	
Residential	900 N Beecher Dr	Brigham City	--	Site was not evaluated
Commercial	Fishburn Dr SR 69	Brigham City	--	Site was not evaluated
Commercial	1200 W 1100 S	Brigham City	--	Site was not evaluated
Commercial	Greenwood Dr. 500 W	Brigham City	--	Site was not evaluated
Residential	2825 S Peach St	Brigham City	--	Site was not evaluated
Residential	385 W 2300 S	Brigham City	--	Site was not evaluated
Commercial	1200 W 1100 S	Brigham City	--	Site was not evaluated

Table A.1. Continued

Residential	1425 S Main St	Brigham City	--	Site was not evaluated
Religious	7615 S 750 W	South Willard	29-843, 29-572, 29-1043	
Residential	200 W 300 S	Willard	29-1250, 29-473	
Residential	7615 S 480 W	South Willard	29-843, 29-572, 29-1043	
Residential	925 W 7950 S	South Willard	29-828, 29-2283, 29-430, 29-438, 29-1171, 29-436, 29-427, 29-2469, 29-2470, 29-2471, 29-2475, 29-429, 29-4448	
Residential	2575 W Plain City	Farr West	35-1661, 35-763, 35-1391, 35-5106, 35-5388, 35-3960, 35-3789	
Residential	Jacobs Mill Rd HW 89	Pleasant View	35-3104, 35-11570, 35-3117	
Residential	1050 W Mountain Orchard Dr	Pleasant View	35-3407, 35-3408, 35-4899, 35-5120, 35-3892	
Residential	2575 W 2700 N	Plain City	35-3080	
Commercial	2000 W 1800 N	Farr West	--	Site was not evaluated
Residential	3200 N 750 W	Pleasant View	--	Site was not evaluated
Residential	900 S HW 89	Willard	--	Site was not evaluated
Residential	Pheasantbrook Way 2600 N	Plain City	--	Site was not evaluated
Residential	1350 W Farr West Dr	Farr West	--	Site was not evaluated
Commercial	2100 W 1850 N	Farr West	--	Site was not evaluated
Residential	200 W 2550 N	Farr West	--	Site was not evaluated
Commercial	900 W 2700 N	Farr West	--	Site was not evaluated
Commercial	650 N Washington Blvd	Harrisville	--	
Commercial	475 N Washington Blvd	Harrisville	35-3562, 35-496, 35-3079, 35-1956	
Residential	Century Dr 2nd St	Harrisville	35-7066, 35-3776	
Religious	1300 W 400 N	Harrisville	35-1391, 35-7025, 35-7030	
Commercial	Stewart Way Critchlow St	Harrisville	35-3322	
Residential	1425 S Main St	Brigham City	--	Site was not evaluated
Religious	7615 S 750 W	South Willard	29-843, 29-572, 29-1043	
Residential	200 W 300 S	Willard	29-1250, 29-473	

Table A.1. Continued

Residential	7615 S 480 W	South Willard	29-843, 29-572, 29-1043	
Residential	925 W 7950 S	South Willard	29-828, 29-2283, 29-430, 29-438, 29-1171, 29-436, 29-427, 29-2469, 29-2470, 29-2471, 29-2475, 29-429, 29-4448	
Residential	2575 W Plain City	Farr West	35-1661, 35-763, 35-1391, 35-5106, 35-5388, 35-3960, 35-3789	
Residential	Jacobs Mill Rd HW 89	Pleasant View	35-3104, 35-11570, 35-3117	
Residential	1050 W Mountain Orchard Dr	Pleasant View	35-3407, 35-3408, 35-4899, 35-5120, 35-3892	
Residential	2575 W 2700 N	Plain City	35-3080	
Commercial	2000 W 1800 N	Farr West	--	Site was not evaluated
Residential	3200 N 750 W	Pleasant View	--	Site was not evaluated
Residential	900 S HW 89	Willard	--	Site was not evaluated
Residential	Pheasantbrook Way 2600 N	Plain City	--	Site was not evaluated
Residential	1350 W Farr West Dr	Farr West	--	Site was not evaluated
Commercial	2100 W 1850 N	Farr West	--	Site was not evaluated
Residential	200 W 2550 N	Farr West	--	Site was not evaluated
Commercial	900 W 2700 N	Farr West	--	Site was not evaluated
Commercial	650 N Washington Blvd	Harrisville	--	
Commercial	475 N Washington Blvd	Harrisville	35-3562, 35-496, 35-3079, 35-1956	
Residential	Century Dr 2nd St	Harrisville	35-7066, 35-3776	
Religious	1300 W 400 N	Harrisville	35-1391, 35-7025, 35-7030	
Commercial	Stewart Way Critchlow St	Harrisville	35-3322	
Commercial	1100 W 1700 S	Ogden	35-3672, 35-5609	
Commercial	Skyline Dr HW 89	South Ogden	--	Site was not evaluated
Residential	Skyline Dr Hampton Green Way	South Ogden	--	Site was not evaluated
Residential	1500 E Lakeview Way	South Ogden	--	Site was not evaluated

Table A.1. Continued

Commercial	Chambers Ave Glassman Way	South Ogden	--	Site was not evaluated
Residential	670 N Quincey Ave	Harrisville	--	Site was not evaluated
Commercial	5350 S Adam Ave Pkwy	Washington Terrace	--	Site was not evaluated
Commercial	1150 W River Park Dr	Riverdale	--	Site was not evaluated
Residential	3700 S 3600 W	West Haven	35-205, 31-2994, 31- 2083	
Municipal	3900 W 4200 S	West Haven	35-2147	
Residential	4825 S 5100 W	Hooper	35-4785	
Residential	2530 W 1800 N	Clinton	31-3709, 31-5192	
Residential	1445 N 2400 W	Clinton	31-3583, 31-3709, 31- 5192, 31-3497, 31-4738	
Residential	1000 N 750 W	Clinton	31-2538, 31-3495	
Residential	200 N 3000 W	West Point	31-3186, 31-3982, 31- 3672, 31-3671	
Religious	2700 W 300 N	West Point	31-4451, 31-4561	
Residential	300 N Quail Run	West Point	31-2556, 31-3386, 31- 3387, 31-2415, 31-2516, 31-2707, 31-3482	
Educational	700 S 2000 W	Syracuse	31-3230, 31-3227	
Commercial	2210 W 1700 S	Syracuse	31-5227	
Educational	3900 W 4400 S	West Haven	--	Site was not evaluated
Residential	3500 W 700 S	West Point	--	Site was not evaluated
Municipal	1915 S Heritage Ln	Syracuse	31-5227, 31-2661	
Residential	2010 S 775 W	Syracuse	31-2768	
Residential	1125 N 2375 W	Layton	31-2692, 31-3933, 31- 4144	
Educational	150 N 3200 W	Layton	--	No PODs near site
Commercial	800 W Antelope Dr	Layton	31-2313, 31-3549	
Educational	2600 N 1100 W	Layton	--	No PODs near site
Residential	1300 E St Joseph St	Layton	31-2773, 31-2781	
Residential	750 W Weaver Ln	Layton	31-4119	
Commercial	1298 N Main St	Layton	--	No PODs near site
Commercial	2750 N Church St	Layton	--	Site was not evaluated
Religious	2350 W 1900 S	Syracuse	--	Site was not evaluated

Table A.1. Continued

Residential	Angel St Galbraith Ln	Kaysville	31-3187, 31-3044, 31-3043, 31-4303	
Residential	County Mill Dr Kays Dr	Kaysville	31-2733	
Residential	1525 W 100 N	Farmington	31-5146, 31-4621, 31-4605, 31-4606, 31-4157, 31-3541, 31-3079, 31-3821, 31-3820, 31-3869, 31-3819, 31-4951, 31-3822, 31-4445, 31-4446, 31-3594, 31-2761, 31-5202, 31-5106, 31-5165, 31-5173, 31-3667, 31-3875	
<i>Commercial</i>	<i>400 W Parrish Ln</i>	<i>Centerville</i>	31-762, 31-691, 31-630, 31-726, 31-796, 31-816	
Commercial	400 W 200 N	Kaysville	--	Site was not evaluated
Residential	Mountain Rd Hidden Springs Pkwy	Fruit Heights	--	Site was not evaluated
Commercial	400 W Glovers Ln	Farmington	--	Site was not evaluated
Residential	Davinci Ln Florentine Ln	Centerville	--	Site was not evaluated
Residential	Foxboro Dr Redwood Rd	North Salt Lake	31-5091, 31-1979, 31-2385	
Residential	725 W 2200 N	West Bountiful	--	Site was not evaluated
Residential	700 W 1000 N	West Bountiful	--	Site was not evaluated
Residential	400 N Cooley St	Grantsville	15-1017, 15-1016, 15-1015, 15-1014, 15-4546	
Religious	400 S Hale St	Grantsville	15-2171	
Residential	Clark St Meadowlark Cir	Grantsville	15-1691	
Residential	Ardennes Way Village Blvd	Stansbury Park	15-3334, 15-362, 15-2583, 15-2978, 15-424	
Religious	250 Interlochen Ln	Stansbury Park	15-3334, 15-362, 15-2583, 15-2978, 15-424	
Residential	2700 S Titanium Dr	Magna	59-1679, 59-5729, 59-1793, 59-185	
Commercial	3100 S 5600 W	West Valley	59-2828, 59-3620, 59-1669	
Residential	3500 S Meadow Breeze Way	West Valley	59-204, 59-2881, 59-3034, 59-306, 59-368, 59-398	

Table A.1. Continued

Residential	Hunter Oak Way Hunter Valley Dr	Magna	59-183, 59-3238, 59-3395, 59-4184, 59-504, 59-676	
Residential	3940 S Othello Way	Magna	59-2061	
Commercial	3100 S 5600 W	West Valley	--	Site was not evaluated
Commercial	4700 S 5600 W	Kearns	--	Site was not evaluated
Residential	4490 S 6000 W	Kearns	--	Site was not evaluated
Commercial	6980 W 2100 S	West Valley	--	Site was not evaluated
Commercial	4700 S 3600 W	Kearns	59-2295	
Residential	3680 W Meadowbrook Dr	West Valley	59-253, 59-3083	
Commercial	2700 W Taylorsville Blvd	Taylorsville	59-1590, 59-2659	
Residential	4385 W 4530 S	Kearns	--	Site was not evaluated
Commercial	2670 S 3200 W	West Valley	--	Site was not evaluated
Residential	5050 S Whitaker Way	Taylorsville	--	Site was not evaluated
Residential	3840 S Hawkeye St	West Valley	--	Site was not evaluated
Commercial	3031 S 5600 W	West Valley	--	Site was not evaluated
Residential	Uintah Park Dr 6400 S	West Jordan	59-2721, 59-1354, 59-4711, 59-4992, 59-5526, 59-5568	
Commercial	6722 Airport Rd	West Jordan	59-4984	
Residential	Oakshade Ln High Bluff Dr	West Jordan	59-1854	
Commercial	Balsa Ave 5600 W	West Jordan	--	Site was not evaluated
Residential	6350 Gold Medal Dr	West Jordan	--	Site was not evaluated
Residential	Fall Oak Dr 6400 W	West Jordan	--	Site was not evaluated
Commercial	7250 S 1700 W	West Jordan	--	Site was not evaluated
Educational	10701 S River Front Pkwy	South Jordan	--	No PODs near site
Residential	5600 W Frisco Dr	West Jordan	59-1572, 59-3584, 59-5081, 59-5665	
Residential	10670 S Wynview Ln	South Jordan	59-5632	

Table A.1. Continued

Residential	3200 W Alta Peak Rd	South Jordan	59-3122, 59-2146, 59-3042, 59-8567, 59-1689, 59-3565, 59-3597, 59-4459, 59-4622	
Commercial	12850 S 3600 W	Riverton	59-1224	
Residential	13400 S 2990 W	Riverton	59-5281, 59-2101	
Commercial	2000 W 12765 S	Riverton	--	Site was not evaluated
Residential	Mont Sur Dr 2565 W	Riverton	--	Site was not evaluated
Commercial	10200 S Prosperity Rd	South Jordan	--	Site was not evaluated
Commercial	Dannon Way Prosperity Rd	South Jordan	--	Site was not evaluated
Commercial	12600 S Bangerter HW	Riverton	--	Site was not evaluated
Commercial	11400 S South Jordan Gateway	South Jordan	--	Site was not evaluated
Residential	Willow Way Bear River Rd	South Jordan	--	Site was not evaluated
Commercial	9800 S Bangerter HW	South Jordan	--	Site was not evaluated
Residential	Lazy Oaks Dr Riverside Dr	South Jordan	--	Site was not evaluated
Residential	400 E Carlquist Dr	Draper	57-7616	
Educational	13500 S 150 E	Draper	--	Site was not evaluated
Residential	Alder Hills Highland Dr	Draper	--	Site was not evaluated
Commercial	14100 Bangerter Pkwy	Draper	--	Site was not evaluated
Commercial	13200 S State St	Draper	--	Site was not evaluated
Municipal	Flowerfiled Cir Southfork Dr	Draper	--	Site was not evaluated
Residential	12600 S 1700 E	Draper	--	Site was not evaluated
Residential	11400 S Alondra Way	Draper	--	Site was not evaluated
Residential	1690 W Iron Horse Blvd	Bluffdale	59-5627	
Commercial	4000 W 13400 S	Herriman	59-2392, 59-4038, 59-5392	
Residential	Pistol Ln Black Powder Dr	Herriman	59-3980, 59-3623	
Residential	Imperia Way Varconna St	Herriman	59-1609, 59-3614	

Table A.1. Continued

Residential	Cora Ln Blayde Dr	Herriman	59-3402, 59-1249, 59-4619, 59-5325, 59-5454, 59-5459, 59-5597, 59-3901, 59-3864, 59-4587, 59-5700	
Commercial	5600 W 13400 S	Herriman	--	Site was not evaluated
Residential	Heritage Hill Dr Pioneer St	Herriman	--	Site was not evaluated
Residential	Freeman Ln 13400 S	Herriman	--	Site was not evaluated
Residential	Shaggy Peak Dr Monarch Meadows Pkwy	Herriman	--	Site was not evaluated
Educational	6875 Mary Leizan Ln	Herriman	--	Site was not evaluated
Residential	2175 N Pointe Meadow Dr	Lehi	55-865, 55-8192	
Residential	9150 W Colony Pointe Dr	Lehi	55-3652, 55-4771, 55-5723, 55-6489, 55-6620, 55-6600, 55-8331, 55-8332, 55-8334, 55-8190, 55-7682	
Residential	9550 W Main St	Lehi	55-6553, 55-2730, 55-2720, 55-2731, 55-1128, 55-1129, 55-11918, 55-12114, 55-2728, 55-2732, 55-2733, 55-2734, 55-2785, 55-797, 57-10282, 55-2888, 55-1985, 55-2177, 55-2765, 55-3410, 55-6044, 55-6232, 55-9254, 54-1127, 55-972, 55-7812, 55-2743	
Residential	7750 N 9550 W	Lehi	55-432, 55-2911, 55-7865, 55-2906, 55-8644, 55-12047, 55-2910, 55-2903, 55-2904,	
Commercial	7735 E 3200 N	Highland	55-1107	
Residential	1035 E 3200 N	Highland	55-5903, 55-7192	
Residential	9400 N Cedar Ridge Rd	Lehi	55-9018, 55-7679, 55-2768, 55-7677, 55-7678, 55-5956	
Residential	1250 E Cooper Hollow	Lehi	--	Site was not evaluated
Residential	780 S 2475 W	Lehi	--	Site was not evaluated
Residential	1000 W 300 N	Lehi	--	Site was not evaluated

Table A.1. Continued

Residential	100 E Siena Dr	Cedar Hills	55-2069, 55-899, 55-9347, 55-1931, 55-698, 55-2121	
Commercial	1270 E Warnick Ln	Cedar Hills	--	No PODs near site
Residential	1070 W 1320 N	Pleasant Grove	55-1120, 55-1196, 55-6093, 55-7609, 55-9282	
Residential	100 S Pleasant Grove Blvd	Pleasant Grove	--	Site was not evaluated
Residential	930 E 60 S	Pleasant Grove	--	Site was not evaluated
Residential	575 E 600 S	Orem	--	No PODs near site
Residential	250 E Timpanogas Blvd	Orem	--	No PODs near site
Religious	700 S 800 E	Orem	--	No PODs near site
Residential	960 N Geneva Rd	Lakeview	55-2270, 55-5649, 55-1000	
Residential	410 S 2050 W	Provo	55-3615, 55-319, 55-1228, 55-1477, 55-1479, 55-1474	
Residential	1420 E Cinnamon Ridge Dr	Provo	--	Site was not evaluated
Residential	600 W 550 N	Springville	51-1843, 51-5247	
Commercial	3900 S Wood Springs Dr	Springville	51-3977	
Residential	1600 W Harvest Pkwy	Mapleton	51-2282, 51-6453	
Educational	400 E 1200 N	Mapleton	51-1641	
Religious	1300 S Main St	Mapleton	--	Site was not evaluated
Residential	950 W 450 S	Spanish Fork	51-1059, 51-1211, 51-2114, 51-2285, 51-2286, 51-2287	
Residential	1400 S 1200 E	Spanish Fork	51-4769	
Commercial	Park Dr Volunteer Dr	Spanish Fork	--	No PODs near site
Residential	River Rock Rd River View Dr	Spanish Fork	--	Site was not evaluated
Religious	460 W HW 6	Salem	51-2371	
Religious	1750 S 500 W	Payson	51-6121	
Residential	11600 S State St	Payson	51-4785, 51-12169, 51-2585, 51-5394	
Commercial	1050 S 4240 W	Payson	--	No PODs near site
Commercial	1000 S 4240 W	Payson	--	Site was not evaluated

Table A.1. Continued

Commercial	1040 W 800 S	Payson	--	Site was not evaluated
Educational	100 E 400 S	Payson	--	Site was not evaluated
Commercial	1100 W 800 S	Payson	--	Site was not evaluated
Residential	400 E 400 S	Nephi	--	No PODs near site
Commercial	1300 N 200 W	Nephi	--	No PODs near site
Residential	1250 N Main St	Nephi	--	No PODs near site
Residential	750 N 5950 W	Santaquin	51-6303	
Educational	200 E 610 S	Santaquin	--	No PODs near site
Residential	1200 S Turkey Hill Rd	Nephi	--	Site was not evaluated
Religious	550 N 5350 W	Santaquin	--	Site was not evaluated
Commercial	Highland Dr Main St	Santaquin	--	Site was not evaluated
Residential	300 S 1000 E	Santaquin	--	Site was not evaluated
Residential	1000 N 500 E	Richfield	--	No PODs near site
Residential	600 N 400 W	Beaver	--	No PODs near site
Residential	1100 E Creek Rd	Beaver	--	No PODs near site
Commercial	885 N Main St	Beaver	--	Site was not evaluated
Commercial	1050 N Main St	Beaver	--	Site was not evaluated
Residential	375 S 525 W	Hurricane	--	No PODs near site
Religious	75 S 300 W	La Verkin	--	No PODs near site
Educational	1100 Tuacahn Dr	Ivins	--	Site was not evaluated
Educational	850 N 2450 E	St George	--	Site was not evaluated
Commercial	2376 E Red Cliffs Dr	St George	--	Site was not evaluated
Commercial	300 S State St	La Verkin	--	Site was not evaluated
Residential	800 N 200 W	Hurricane	--	Site was not evaluated

Table A.2. List of Individual Water Rights Researched

Water Right #	Up-to-Date Records?	Notes
15-362	Y	POU is not on case site
15-424	Y	POU is not on case site
15-1014	I	Right may or may not be used on case site; indeterminable
15-1015	I	Right may or may not be used on case site; indeterminable
15-1016	I	Right may or may not be used on case site; indeterminable
15-1017	Y	POU is not on case site
15-1691	Y	POU is not on case site
15-2171	Y	Right is unapproved
15-2583	Y	Right was disallowed
15-2978	Y	Right owned by Stansbury Park Improvement District
15-3334	Y	POU is not on case site
15-4546	Y	POU is not on case site
25-2589	N	POU on case site is noted; right is not mentioned specifically in thesis due to small flow
25-2596	Y	Right is disallowed
25-2599	Y	POU is not on case site
25-2731	Y	POU is not on case site
25-3056	Y	Water owned by irrigation company; multiple POU
25-3450	Y	Right was transferred to USU
25-3490	Y	POU is not on case site
25-4895	N	Right is mentioned in thesis
25-4944	N	POU on case site is noted; right is not mentioned specifically in thesis due to small flow
25-4990	Y	Right sold to Logan City, 1991; change application also exists
25-5143	Y	Water owned by irrigation company; multiple POU
25-5146	Y	POU is not on case site
25-5147	Y	POU is not on case site
25-5148	I	Right may or may not be used on case site; indeterminable
25-5243	Y	Water owned by irrigation company; multiple POU
25-5243	Y	Water owned by irrigation company; multiple POU
25-5800	Y	Water owned by irrigation company; multiple POU
25-5972	Y	POU is not on case site
25-6110	Y	Water owned by irrigation company; multiple POU
25-6111	Y	Water owned by irrigation company; multiple POU
25-6112	Y	Water owned by irrigation company; multiple POU
25-6113	Y	Water owned by irrigation company; multiple POU
25-6137	Y	Water owned by irrigation company; multiple POU

Table A.2. Continued

25-6138	Y	Water owned by irrigation company; multiple POU
25-6139	Y	Water owned by irrigation company; multiple POU
25-6140	Y	Water owned by irrigation company; multiple POU
25-6141	Y	Water owned by irrigation company; multiple POU
25-6142	Y	Water owned by irrigation company; multiple POU
25-6143	Y	Water owned by irrigation company; multiple POU
25-6144	Y	Water owned by irrigation company; multiple POU
25-6418	Y	Water owned by irrigation company; multiple POU
25-7337	Y	Right was transferred to Logan City in 1997
25-8085	Y	POU is not on case site
25-8354	Y	Right has lapsed
25-8685	Y	Right was transferred to Logan City in 1997
25-9062	Y	Right was unapproved
29-121	I	Right may or may not be used on case site; indeterminable
29-162	Y	Right owned by Perry City with municipal use
29-427	Y	POU is not on case site
29-429	N	Land is developed, but right has not changed ownership or use; see report
29-430	I	Right may or may not be used on case site; indeterminable
29-436	I	Right may or may not be used on case site; indeterminable
29-438	I	Right may or may not be used on case site; indeterminable
29-473	I	Right may or may not be used on case site; indeterminable
29-572	Y	POU is not on case site
29-597	Y	Right owned by Canal Company; multiple POU
29-600	Y	Right owned by Canal Company; multiple POU
29-601	Y	Right owned by Canal Company; multiple POU
29-606	Y	Right owned by Canal Company; multiple POU
29-707	Y	Right owned by Perry City with municipal use
29-828	I	Right may or may not be used on case site; indeterminable
29-843	Y	Right was disallowed
29-1017	Y	Right owned by Perry City with municipal use
29-1043	Y	Right was disallowed
29-1171	Y	Right was rejected
29-1250	I	Right may or may not be used on case site; indeterminable
29-1274	I	Right may or may not be used on case site; indeterminable
29-2004	Y	Right has lapsed
29-2270	Y	Right has lapsed

Table A.2. Continued

29-2283	I	Right may or may not be used on case site; indeterminable
29-2469	I	Right may or may not be used on case site; indeterminable
29-2470	I	Right may or may not be used on case site; indeterminable
29-2471	Y	POU is not on case site
29-2475	I	Right may or may not be used on case site; indeterminable
29-2856	Y	Right owned by Canal Company; multiple POU
29-2857	Y	Right owned by Canal Company; multiple POU
29-2858	Y	Right owned by Canal Company; multiple POU
29-3728	Y	Right owned by Perry City with municipal use
29-3748	Y	Right has lapsed
29-4448	I	No POU is indicated; indeterminable
31-630	N	Right referred to in report
31-691	N	Right referred to in report
31-726	N	Right referred to in report
31-762	N	Right referred to in report
31-770	N	Right referred to in report
31-796	N	Right referred to in report
31-816	N	Right referred to in report
31-1979	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
31-2083	Y	PU is not on case site
31-2313	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
31-2385	Y	Right is disallowed
31-2415	Y	POU is not on case site
31-2516	Y	POU is not on case site
31-2538	Y	POU is not on case site
31-2556	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
31-2661	Y	POU is not on case site
31-2692	Y	POU is a single domestic unit
31-2707	Y	Right was disallowed
31-2733	Y	Right has lapsed
31-2761	Y	Right has lapsed
31-2768	Y	Right owned by City
31-2773	Y	POU is a single domestic unit
31-2781	Y	POU is a single domestic unit
31-2994	I	Right may or may not be used on case site; indeterminable
31-3043	Y	POU is not on case site

Table A.2. Continued

31-3044	Y	POU is not on case site
31-3079	I	No flow is associated with this right
31-3186	Y	Right was disallowed
31-3187	I	Right may or may not be used on case site; indeterminable
31-3227	Y	POU is not on case site
31-3230	Y	Ownership is with Davis School District
31-3386	Y	POU is a single domestic unit
31-3387	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
31-3482	Y	POU is not on case site
31-3495	Y	POU is not on case site
31-3497	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
31-3541	I	Right may or may not be used on case site; indeterminable
31-3549	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
31-3583	Y	POU is not on case site
31-3594	Y	POU is not on case site
31-3667	I	Right may or may not be used on case site; indeterminable
31-3671	Y	Right was disallowed
31-3672	Y	Right was disallowed
31-3709	N	Right referred to in report
31-3819	Y	Right has lapsed
31-3820	Y	Right has lapsed
31-3821	Y	Right has lapsed
31-3822	Y	Right has lapsed
31-3869	I	Right may or may not be used on case site; indeterminable
31-3875	I	Right may or may not be used on case site; indeterminable
31-3933	Y	POU is a single domestic unit
31-3940	Y	Right appears to be in use as indicated
31-3982	I	Right may or may not be used on case site; indeterminable
31-4119	Y	Right has lapsed
31-4144	I	Right may or may not be used on a case site
31-4157	Y	Right has lapsed
31-4303	Y	POU is a single domestic unit
31-4445	Y	Right appears to be in use as indicated
31-4446	Y	Right appears to be in use as indicated
31-4451	Y	Right was rejected
31-4561	Y	POU is not on case site

Table A.2. Continued

31-4605	Y	Application was withdrawn
31-4606	Y	Application was withdrawn
31-4621	Y	Right has lapsed
31-4738	Y	Right has lapsed
31-4951	Y	Right appears to be in use as indicated
31-5091	Y	Right has lapsed
31-5106	Y	Right has lapsed
31-5146	Y	Right is unapproved
31-5165	Y	POU is not on case site
31-5173	Y	Right has lapsed
31-5192	N	Right was segregated from 31-3709; still in use
31-5202	Y	Right has lapsed
31-5227	Y	Right owned by City
35-205	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
35-496	I	Right may or may not be used on case site; indeterminable
35-763	Y	Right has lapsed
35-1391	Y	Right owned by Bureau of Reclamation; various POU
35-1391	Y	Right owned by Bureau of Reclamation; various POU
35-1661	Y	Right has multiple POU outside of development
35-1956	N	Ownership appears to be out of date; refer to 9550 W Main St, Lehi case study
35-2147	Y	POU is not on case site
35-2994	Y	POU is a single domestic unit
35-3079	Y	POU is not on case site
35-3080	Y	POU is not on case site
35-3104	I	Right may or may not be used on case site; indeterminable
35-3117	I	Right may or may not be used on case site; indeterminable
35-3322	Y	POU is not on case site
35-3407	I	No information on water right
35-3408	I	No information on water right
35-3528	Y	POU is not on case site
35-3562	Y	POU is not on case site
35-3672	Y	POU is not on case site
35-3776	I	Right may or may not be used on case site; indeterminable
35-3789	Y	POU is not on case site
35-3892	Y	Right has multiple POU outside of development
35-3960	Y	POU is not on case site

Table A.2. Continued

35-4785	Y	POU is a single domestic unit
35-4899	Y	Right was rejected
35-5106	Y	Right was rejected
35-5120	Y	Right has lapsed
35-5388	Y	POU is not on case site
35-5609	Y	Right was rejected
35-7025	Y	Right owned by Canal Company; multiple POU
35-7030	Y	Right owned by Canal Company; multiple POU
35-7066	I	Right may or may not be used on case site; indeterminable
35-11570	Y	Right was rejected
51-1059	I	Right may or may not be used on case site; indeterminable
51-1211	I	Right may or may not be used on case site; indeterminable
51-1641	Y	Right was rejected
51-1843	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
51-2114	I	Right may or may not be used on case site; indeterminable
51-2282	Y	POU is not on case site
51-2285	Y	POU is not on case site
51-2286	I	Right may or may not be used on case site; indeterminable
51-2287	I	Right may or may not be used on case site; indeterminable
51-2371	I	Right may or may not be used on case site; indeterminable
51-2585	N	Right referred to in report
51-3977	Y	Water owned by irrigation company; multiple POU
51-4769	Y	Right has lapsed
51-4785	Y	Right appears to be in use as indicated
51-5247	Y	Water owned by irrigation company; multiple POU
51-5394	Y	Right was rejected
51-6121	Y	Right was rejected
51-6303	I	Right may or may not be used on case site; indeterminable
51-6453	Y	Right has lapsed
51-12169	Y	Right appears to be in use as indicated
54-1127	N	Right referred to in report
55-319	I	Right may or may not be used on case site; indeterminable
55-432	Y	Right appears to be in use as indicated
55-698	I	Right may or may not be used on case site; indeterminable
55-797	N	Right is connected to 54-1127
55-865	Y	Right is owned by Lehi City

Table A.2. Continued

55-899	Y	POU is not on case site
55-972	N	Right is connected to 54-1127
55-1000	I	Right may or may not be used on case site; indeterminable
55-1107	Y	Right was rejected
55-1120	I	Right may or may not be used on case site; indeterminable
55-1128	Y	Right was rejected
55-1129	Y	Right owned by Provo City
55-1196	I	Right may or may not be used on case site; indeterminable
55-1228	Y	Right was rejected
55-1474	I	Right may or may not be used on case site; indeterminable
55-1477	Y	Right appears to be in use as indicated
55-1479	Y	Right appears to be in use as indicated
55-1931	Y	Right was disallowed
55-1985	Y	POU is not on case site
55-2069	Y	POU is not on case site
55-2121	I	Right may or may not be used on case site; indeterminable
55-2177	Y	POU is not on case site
55-2270	Y	Right appears to be in use as indicated
55-2720	N	Right referred to in report
55-2728	Y	Right owned by Lehi City for municipal use
55-2730	N	Right referred to in report
55-2731	N	Right referred to in report
55-2732	N	Right is connected to 54-1127
55-2733	N	Right is connected to 54-1127
55-2734	N	Right is connected to 54-1127
55-2743	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
55-2765	I	Right may or may not be used on case site; indeterminable
55-2768	Y	POU is not on case site
55-2785	N	Right is connected to 54-1127
55-2888	Y	POU is not on case site
55-2903	N	Right referred to in report
55-2904	N	Right is connected to 55-2903
55-2906	N	Right is connected to 55-2903
55-2910	Y	Right appears to be in use as indicated
55-2911	N	Right is connected to 55-2903
55-3410	Y	Right has multiple POU and may still be in use

Table A.2. Continued

55-3615	I	Right may or may not be used on case site; indeterminable
55-3652	I	Right may or may not be used on case site; indeterminable
55-4771	Y	Right has lapsed
55-5649	I	POU on case site is noted; right is not mentioned specifically in report due to small flow
55-5723	Y	Right has lapsed
55-5903	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
55-5956	Y	Right was rejected
55-6044	Y	Right has multiple POU and may still be in use
55-6093	Y	Right has lapsed
55-6232	Y	Right has multiple POU and may still be in use
55-6489	Y	Right appears to be in use as indicated
55-6553	Y	Right was rejected
55-6600	Y	Right appears to be in use as indicated
55-6620	Y	Right appears to be in use as indicated
55-7192	Y	Right is owned by Lehi City
55-7609	Y	Right was rejected
55-7677	Y	POU is not on case site
55-7678	Y	POU is not on case site
55-7679	Y	POU is not on case site
55-7682	Y	Right has lapsed
55-7812	I	Right may or may not be used on case site; indeterminable
55-7865	Y	Right appears to be in use as indicated
55-8190	Y	Right appears to be in use as indicated
55-8192	Y	Right is owned by Lehi City
55-8331	Y	Right has lapsed
55-8332	Y	Right appears to be in use as indicated
55-8334	Y	Right has lapsed
55-8644	Y	Right appears to be in use as indicated
55-9018	Y	POU is not on case site
55-9254	Y	Right owned by Lehi City with municipal use
55-9282	Y	Water owned by irrigation company; multiple POU
55-9347	Y	Water owned by irrigation company; multiple POU
55-11918	N	Right is connected to 54-1127
55-12047	Y	POU is not on case site
55-12114	Y	Right owned by Lehi City with municipal use
57-7616	Y	Right has lapsed
57-10282	Y	Right was rejected

Table A.2. Continued

59-183	Y	Right appears to be in use as indicated
59-185	N	POU on case site is noted; right is not mentioned specifically in report due to small flow
59-204	Y	Right appears to be in use as indicated
59-253	I	Right may or may not be used on case site; indeterminable
59-306	Y	Right appears to be in use as indicated
59-368	Y	Right appears to be in use as indicated
59-398	Y	Right appears to be in use as indicated
59-504	Y	Right was disallowed
59-676	Y	POU is a single domestic unit
59-1224	N	Right is similar to 51-2585, mentioned in report
59-1249	Y	Right has multiple POU and may still be in use
59-1354	Y	Right owned by Taylorsville-Bennion Irrigation District with municipal use
59-1572	Y	Right is owned by West Jordan City for municipal uses
59-1590	N	Right referred to in report
59-1609	Y	Right is transferred to Herriman City and to municipal uses
59-1669	Y	POU is a single domestic unit
59-1679	N	Right referred to in report
59-1689	Y	Right was rejected
59-1793	Y	Right was disallowed
59-1854	Y	Right was disallowed
59-2061	N	Right referred to in report
59-2101	N	Right referred to in report
59-2146	Y	Right was disallowed
59-2295	I	Right may or may not be used on case site; indeterminable
59-2392	Y	Right was disallowed
59-2659	Y	Right was disallowed
59-2721	Y	Right appears to be in use as indicated
59-2828	Y	POU on case site is noted; right is not mentioned specifically in report due to small flow
59-2881	Y	Right appears to be in use as indicated
59-3034	Y	Right was disallowed
59-3042	Y	Right appears to be in use as indicated
59-3083	Y	Right was disallowed
59-3122	Y	Right was disallowed
59-3238	Y	Right appears to be in use as indicated
59-3395	Y	Right has lapsed
59-3402	Y	Right was rejected

Table A.2. Continued

59-4587	Y	Right was rejected
59-4619	Y	Right has multiple POU and may still be in use
59-4622	Y	Right has lapsed
59-4711	Y	Right owned by Taylorsville-Bennion Irrigation District with municipal use
59-4984	Y	Right has lapsed
59-4992	Y	Right owned by Taylorsville-Bennion Irrigation District with municipal use
59-5081	Y	Right is owned by West Jordan City for municipal uses
59-5281	Y	POU is not on case site
59-5325	Y	POU is a single domestic unit
59-5392	Y	Right appears to be in use as indicated
59-5454	Y	Right has lapsed
59-5459	Y	Right has lapsed
59-5526	Y	Right owned by Taylorsville-Bennion Irrigation District with municipal use
59-5568	Y	Right owned by Taylorsville-Bennion Irrigation District with municipal use
59-5597	Y	Right has lapsed
59-5627	Y	Right is owned by Jordan Valley WCD for municipal uses
59-5632	Y	Right is owned by Jordan Valley WCD for municipal uses
59-5665	Y	Right is owned by West Jordan City for municipal uses
59-5700	Y	Right has lapsed
59-5729	Y	Right owned by Magna Water District with municipal uses
59-8567	I	No information on water right

APPENDIX B

City Survey Data

General Information

Please provide some general information about your city:

1. Contact information:

Name:

Title/Position:

Address:

City/Town:

Email Address:

Phone Number:

2. As of the end of 2008, what was your city's estimated population?

3. Approximately how many water connections are there in your city?

4. Roughly how large (sq. miles) is your city?

5. What percentage of your city's land is there (either within your city limits or that can be annexed later) that has the potential of being developed into residential or commercial use?

- Less than 5% of total city land.
- 5 - 15%
- 15 - 30%
- 30 - 50%
- More than 50%

6. (Alternative question): Roughly how many acres of potentially developable land are available to your city?

Figure B.1. City survey, general information questions.

Water Source Questions

Questions in this section ask specifically about water sources, not water rights.

1. What are the main sources of your culinary water? Please rank the sources according to which provides the highest quantity.

	Provides all or majority of water	Provides some water	Provides some water only during high demands	Provides little or no water
City-owned wells	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Springs/surface waters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water Conservancy District (WCD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Please specify)

2. What are the main sources of your secondary water? Please rank the sources according to which provides the highest quantity.

	Provides all or majority of water	Provides some water	Provides some water only during high demands	Provides little or no water
Non-potable wells/surface waters	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Secondary Irrigation Companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Water Conservancy District (WCD)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Culinary Water System (No secondary system)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(Please specify)

3. Will your city have capacity to serve future development in terms of water supply?

- We are currently at or above our city's capacity.
- In the near future we will be at or above our city's capacity.
- No, we have enough water to sustain the city permanently.

Other comments

4. What is your city's long-term plan to provide enough water for growth (check all that apply)?

- Digging additional wells
- Buying water from other cities or WCDs
- We do not have enough growth that requires a plan to secure more water
- Other methods (Please specify)

Figure B.2. City survey, water source questions.

Water Rights/Shares

Questions in this section pertain to water rights and the legal use of water.

*** 1. In some cities, when a developer wants to build, they are required to provide enough water rights/shares to cover the amount of water his development will demand. In this way the city always has enough water shares as the city grows. Does your city employ a similar method of acquiring rights/shares to support development?**

- Yes, our system is essentially the same as the one mentioned above.
- Yes, but our system is different from the one described.
- No, we do not use a system that demands water shares from the developer.

Figure B.3. City survey, water rights/shares questions.

Page 3A: Water Rights/Shares cont'd

This question is based on your response to the previous question.

1. When your city receives shares of water from a developer, what is done with them (select all that apply)?

- They are stockpiled for later use; the water source for those shares is unusable (i.e., untreated or unpressurized) at this time, but will be developed in the future.
- We submit a change application in which shares/rights are transferred from the agricultural use/source to a municipal use/source.
- Those shares are used to supply secondary water to city residents. If the shares are connected to an irrigation company, that company provides the secondary water.
- Other (please specify)

Figure B.4. City survey, water rights/shares questions, page 3A.

Page 3B: Water Rights/Shares cont'd

This question is based on your response to the previous question.

1. Can you please describe your city's process of acquiring additional water rights/shares as growth occurs?

2. When your city receives shares of water, what is done with them (select all that apply)?

They are stockpiled for later use; the water source for those shares is unusable (i.e., untreated or unpressurized) at this time, but will be developed in the future.

We submit a change application in which shares/rights are transferred from the agricultural use/source to a municipal use/source.

Those shares are used to supply secondary water to city residents. If the shares were connected to an irrigation company, that company agrees to provide the secondary water to city residents.

Other (please specify)

Figure B.5. City survey, water rights/shares questions, page 3B.

Page 3C: Water Rights/Shares cont'd

This question is based on your response to the previous question.

1. Separate from actual physical water, does your city have enough water rights/shares to support a full build-out (i.e., if all developable land was developed)?

Yes, that is why we don't require the developer to provide water rights/shares

No, but we have a process of obtaining our water rights/shares from other sources than developers. (Please explain)

Figure B.6. City survey, water rights/shares questions, page 3C.

Additional Information

1. Which of the following types of developments have been constructed in your city in the past two years (check all that apply)?

- Large retail (e.g., Walmart, Home Depot, etc.)
- Restaurants (e.g., Olive Garden, Arby's, etc.)
- Strip malls
- Manufacturing plants
- Gas Stations
- Business Parks/Districts
- Residential Subdivisions
- Other (please specify)

2. Would you be willing to discuss with me over the phone further about a few of these developments and the water rights associated with them?

- Yes, that would be fine.
- No, thanks.

3. Is there any additional information you would like to give?

Figure B.7. City survey, additional information.

Table B.1. City Survey, General Information Responses

<i>GENERAL INFORMATION</i>					
City	2008 Pop	Water Connect	City Area	Develop. Land	Develop. Land
			(mi ²)	(%)	(Acres)
American Fork	28,000	7,500	11	> 50	5500
Beaver	2,865	1,956	4.6	30 - 50	NR
Cedar City	27,000	8,500	27	> 50	20000
Centerville	16,500	4,300	6	5 - 15	NR
Clinton	21,500	6,000	6.5	30 - 50	1300
Draper	NR	3,533	NR	< 5	NR
Farmington	17,500	4,740	7.8	NR	NR
Grantsville	8,500	2,450	27	> 50	NR
Heber City	10,500	3,400	7	5 - 15	NR
Herriman	18,500	5,100	19.7	30 - 50	5500
Hurricane	15,000	4,685	51	> 50	NR
Hyrum	7,600	2,380	4.1	> 50	NR
Kanab	4,000	1,945	15	30 - 50	NR
Kearns	47,000	13,000	10.5	15 - 30	NR
Layton	70,456	17,500	22.1	15 - 30	NR
Mantua	750	250	6	> 50	1000 - 1500
Mapleton	7,500	2,000	13	> 50	11
Midvale	28,000	6,100	6.5	15 - 30	NR
Moab	5,180	1,900	4	15 - 30	NR
Morgan	3,250	1,200	3.2	> 50	NR
Murray	NR	9,490	NR	NR	NR
North Ogden	17,000	5,400	6.5	5 - 15	NR
Ogden	80,000	29,000	26.6	5 - 15	NR
Pleasant Grove	33,000	6,329	9.5	NR	NR
Price	8,174	3,990	6	15 - 30	1152
Provo	116,000	18,869	42.68	> 50	NR
Riverdale	8,400	2,308	4.6	> 50	NR
Riverton	38,000	9,000	12	5 - 15	3500
Sandy	115,000	27,900	22	5 - 15	NR
South Jordan	53,208	18,029	22	15 - 30	4313
South Salt Lake	24,000	3,000	7.5	< 5	NR
St. George	NR	20,638	NR	NR	NR
Tremonton	7,000	2,320	8	> 50	NR
Vernal	9,000	2,900	4.6	> 50	NR
West Bountiful	5,561	1,551	7	5 - 15	1100
Woods Cross	8,500	2,900	6	5 - 15	NR

Table B.2. City Survey, Water Source Responses

WATER SOURCE QUESTIONS						
City	Culinary Water Sources			Secondary Water Sources		
	Primary	Secondary	Tertiary	Primary	Secondary	Tertiary
American Fork	Well, Surface	--	--	--	Irrig, WCD	Culinary
Beaver	--	Well, Surface	--	Well	Irrigation	--
Cedar City	Well	Surface	--	Culinary	Well	--
Centerville	Well	--	WCD	--	--	--
Clinton	WCD	--	Wells	Irrigation Co.	--	--
Draper	WCD	--	--	Culinary	--	--
Farmington	--	--	--	--	--	--
Grantsville	Well	--	--	Irrigation Co.	--	--
Heber City	Well	Surface	--	Irrigation Co.	--	--
Herriman	Well	WCD	--	Culinary	--	--
Hurricane	--	--	--	--	--	--
Hyrum	Surface	Well	--	Irrigation Co.	Well	--
Kanab	Well	Surface	--	Culinary	Secondary	--
Kearns	WCD	Well	--	Culinary	--	--
Layton	--	Well, WCD	--	--	Irrg., WCD, Culinary	--
Mantua	Well	Surface	--	Irrigation Co.	Culinary	--
Mapleton	--	Well, Surface	--	--	Well, Secondary	--
Midvale	Surface	WCD	--	Culinary	--	--
Moab	Surface	Well	--	Culinary	Secondary	--
Morgan	Surface	--	Wells	Irrigation Co.	Culinary	--
Murray	--	--	--	--	--	--
North Ogden	Well, Surface	--	--	Irrigation Co.	--	--
Ogden	--	Well, WCD, Surface	--	Culinary	--	--
Pleasant Grove	Well, Surface	--	--	Well, Irrg, WCD	--	--
Price	Surface	--	--	Irrigation Co.	--	--
Provo	Surface	Well	WCD	Irrg, Culinary	--	--
Riverdale	Well	--	WCD	Irrigation Co.	--	--
Riverton	Well	--	WCD	Irrigation Co.	--	--
Sandy	--	Well, WCD, Surface	--	--	--	--
South Jordan	WCD	--	--	Irrigation Co.	--	--
South Salt Lake	Wells	WCD	--	Culinary	--	--
St. George	Well, WCD	Surface	--	Culinary	--	--
Tremonton	Surface	--	--	Culinary	--	--
Vernal	Surface, WCD	--	--	Culinary	--	--
West Bountiful	WCD	Well	--	Irrigation Co.	Culinary	--
Woods Cross	Well	--	--	WCD	Irrigation	--

Table B.3. City Survey, Water Source Responses, Page 2

<i>WATER SOURCE QUESTIONS</i>		
City	Water Supply	Methods of Acquiring Water
American Fork	Near-capacity	Dig wells
Beaver	Near-capacity	Repair water lines
Cedar City	Below Capacity	Dig wells
Centerville	At-Capacity	Dig wells, Purchasing Water
Clinton	Below Capacity	"We have enough water allocated or that will be developed."
Draper	At-Capacity	"Current contract provides for continued and future growth"
Farmington	NR	Dig wells
Grantsville	Below Capacity	Dig wells
Heber City	Near-capacity	Dig wells
Herriman	Near-capacity	Dig wells, "Secondary System"
Hurricane	Near-capacity	Purchase water
Hyrum	Below Capacity	Dig wells
Kanab	Near-capacity	Dig wells, Larger water line
Kearns	Near-capacity	Dig wells, "Reuse water for major irrigation users"
Layton	Near-capacity	Dig wells, Purchase Water
Mantua	Below Capacity	Purchasing Water
Mapleton	Near-capacity	Dig wells, Purchase water
Midvale	Near-capacity	Purchasing Water
Moab	Below Capacity	None
Morgan	Near-capacity	Dig wells
Murray	NR	NR
North Ogden	At-capacity	Dig wells
Ogden	Near-capacity	Dig wells, Purchasing Water
Pleasant Grove	Below Capacity	"Taking in water from developments"
Price	Below Capacity	Dig wells, Purchasing Water
Provo	Below Capacity	Dig wells
Riverdale	Near-capacity	Dig wells
Riverton	Below Capacity	Dig wells
Sandy	Below Capacity	"We have enough water to carry us through 2030"
South Jordan	Near-capacity	Purchase water
South Salt Lake	Below Capacity	"Right now our water outlook looks good."
St. George	Near-capacity	Purchase water
Tremonton	Near-capacity	Dig wells
Vernal	Below Capacity	None
West Bountiful	At-Capacity	Dig Wells
Woods Cross	Below Capacity	Dig Wells

Table B.4. City Survey, Water Rights/Shares Responses

WATER RIGHTS/SHARES						
City	Share Acquisition	Newly Acquired Share Usage*				
		1	2	3	Enough Rights	Does the City Own Enough Rights (Page 3C)
American Fork	Same		x	x		Yes
Beaver	Same		x			Developer must bring 4 acre-ft/acre of water
Cedar City	Same	x				Yes
Centerville	None				x	Yes
Clinton	None					Enough culinary shares, 2nd shares from developer
Draper	Same			x		Yes
Farmington	NR					Yes
Grantsville	Same		x	x		Yes
Heber City	Same	x	x	x		Yes
Herriman	Same		x	x		Yes
Hurricane	NR					Yes
Hyrum	Same	x	x	x		Yes
Kanab	None					Lake Powell Pipeline will make 10,000 acre-feet of water available
Kearns	None					Few water rights & no canals available in our area to share
Layton	Same	x	x			Yes
Mantua	Same		x			Yes
Mapleton	Same	x				Yes
Midvale	None					Purchase from WCD
Moab	None				x	Yes
Morgan	None				x	Yes
Murray	NR					Yes
North Ogden	None				x	Yes
Ogden	None					Purchase from WCD
Pleasant Grove	Same		x			Yes
Price	None					Purchase using water revenues
Provo	None				x	Yes
Riverdale	None				x	Yes
Riverton	Different					Enough culinary shares, 2nd shares come from developer
Sandy	None					Buy shares from Irrigation Companies
South Jordan	Same			x		Yes
South Salt Lake	None				x	Yes
St. George	None					Purchase from WCD
Tremonton	None					Use impact fees to cover costs
Vernal	Same	x				Yes
West Bountiful	None					If developer has rights, must turn them over to city
Woods Cross	None				x	Yes

In cases where additional rights are obtained: 1 – Water is stockpiled for later use (see Utah Code 73-1-4) 2 – Right changed from agricultural to municipal use 3 – Right used as secondary water for city

Table B.5. City Survey, Additional Information Responses

ADDITIONAL INFORMATION							
City	Types of Development						
	Retail	Restaurants	Strip Malls	Industrial	Gas Stations	Business	Residential
American Fork		x	x			x	x
Beaver							x
Cedar City		x	x	x		x	x
Centerville	x	x			x	x	x
Clinton	x		x				x
Draper	x	x	x				x
Farmington							
Grantsville			x		x		x
Heber City		x				x	x
Herriman		x	x		x		x
Hurricane							
Hyrum							x
Kanab			x	x	x		x
Kearns		x					x
Layton	x	x	x		x	x	x
Mantua							
Mapleton							x
Midvale		x					x
Moab							x
Morgan						x	
Murray							
North Ogden		x	x		x	x	x
Ogden	x	x	x	x		x	x
Pleasant Grove							x
Price		x					x
Provo						x	x
Riverdale	x	x	x			x	x
Riverton	x	x	x				x
Sandy	x	x	x	x	x	x	x
South Jordan	x	x				x	x
South Salt Lake						x	x
St. George	x	x	x	x	x	x	x
Tremonton				x	x	x	x
Vernal		x					x
West Bountiful	x	x	x			x	x
Woods Cross	x	x	x				x

*NR= No Response

APPENDIX C

Blank Documents of the Utah Division of Water Rights

FILING FOR WATER IN THE STATE OF UTAH

Rec. by _____
Fec Rec. _____
Receipt # _____
Microfilmed _____
Roll # _____

APPLICATION TO APPROPRIATE WATER

For the purpose of acquiring the right to use a portion of the unappropriated water of the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements to Title 73, Chapter 3 of the Utah Code Annotated (1953, as amended).

*WATER RIGHT NO. _____ *APPLICATION NO. A _____

1. *PRIORITY OF RIGHT: _____ *FILING DATE: _____

2. OWNER INFORMATION County Tax ID _____
Name(s): _____ Interest: _____ %
Address: _____
City: _____ State: _____ Zip Code: _____
Is the land owned by the applicant? Yes ___ No ___ (If "No", please explain in EXPLANATORY section.)

3. QUANTITY OF WATER: _____ cfs and/or _____ ac-ft.

4. SOURCE: _____ DRAINAGE: _____
which is tributary to _____
which is tributary to _____
POINT(S) OF DIVERSION: _____ COUNTY: _____

Description of Diverting Works: _____
COMMON DESCRIPTION: _____

5. POINT(S) OF REDIVERSION _____ at a point:
The water will be rediverted from _____
Description of Diverting Works: _____

6. POINT(S) OF RETURN
The amount of water consumed will be _____ cfs or _____ ac-ft.
The amount of water returned will be _____ cfs or _____ ac-ft.
The water will be returned to the natural stream/source at a point(s): _____

7. STORAGE
Reservoir Name: _____ Storage Period: from _____ to _____
Capacity: _____ ac-ft. Inundated Area: _____ acres.
Height of dam: _____ feet
Legal description of inundated area by 40 acre tract(s): _____

* These items are to be completed by the Division of Water Rights



Figure C.1. Application to Appropriate, page 1.

8. List any other water rights which will supplement this application.

9. NATURE AND PERIOD OF USE

Irrigation:	From _____	to _____
Stockwatering:	From _____	to _____
Domestic:	From _____	to _____
Municipal:	From _____	to _____
Mining:	From _____	to _____
Power:	From _____	to _____
Other:	From _____	to _____

10. PURPOSE AND EXTENT OF USE

Irrigation: _____ acres. Sole supply of _____ acres.
 Stockwatering (number and kind): _____
 Domestic: _____ Families and/or _____ Persons.
 Municipal (name): _____
 Mining: _____ Mining District in the _____ Mine.
 Ores mined: _____
 Power: Plant name: _____ Type: _____ Capacity: _____
 Other (describe): _____

11. PLACE OF USE

Legal description of place of use by 40 acre tract(s):

12. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. (Use additional pages of the same size if necessary):

The applicant(s) hereby acknowledges that he/she/they are a citizen(s) of the United States of America or intends to become such a citizen(s). The quantity of water sought to be appropriated is limited to that which can be beneficially used for the purposes herein described. The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

 Signature of Applicant(s)*

*If applicant is a corporation or other organization, signature must be the name of such corporation or organization by its authorized agent, or in the name of the partnership by one of the partners.

 Authorized Agent (please print)

 Authorized Agent (signature)

Figure C.2. Application to Appropriate, page 2.

APPLICATION FOR PERMANENT CHANGE OF WATER

STATE OF UTAH

Rec. by _____
 Fee Rec. _____
 Receipt # _____

For the purpose of obtaining permission to make a permanent change of water in the State of Utah, application is hereby made to the State Engineer, based upon the following showing of facts, submitted in accordance with the requirements of Section 73-3-3 Utah Code Annotated, as amended.

***WATER RIGHT NO.** _____ ***APPLICATION NO. a** _____
 Changes are proposed in (check those applicable)
 _____ point of diversion. _____ place of use. _____ nature of use. _____ period of use.

1. OWNER INFORMATION County Tax ID
 Name(s): _____ Interest: _____ %
 Address: _____
 City: _____ State: _____ Zip Code: _____

2. *PRIORITY OF CHANGE: _____ **FILING DATE:** _____
 *Is this change amendatory? (Yes/No): _____

3. RIGHT EVIDENCED BY: _____
 Prior Approved Change Applications for this right: _____

*****HERETOFORE*****

4. QUANTITY OF WATER: _____ cfs and/or _____ ac-ft.

5. SOURCE: _____

6. COUNTY: _____

7. POINT(S) OF DIVERSION: _____

 Description of Diverting Works: _____

8. POINT(S) OF REDIVERSION
 The water has been rediverted from _____ at a point: _____

 Description of Diverting Works: _____

9. POINT(S) OF RETURN
 The amount of water consumed is _____ cfs or _____ ac-ft.
 The amount of water returned is _____ cfs or _____ ac-ft.
 The water has been returned to the natural stream/source at a point(s): _____

* These items are to be completed by the Division of Water Rights



Figure C.3. Change Application, page 1.

10. NATURE AND PERIOD OF USE

Irrigation:	From _____ to _____
Stockwatering:	From _____ to _____
Domestic:	From _____ to _____
Municipal:	From _____ to _____
Mining:	From _____ to _____
Power:	From _____ to _____
Other:	From _____ to _____

11. PURPOSE AND EXTENT OF USE

Irrigation: _____ acres. Sole supply of _____ acres.
 Stockwatering (number and kind): _____
 Domestic: _____ Families and/or _____ Persons.
 Municipal (name): _____
 Mining: _____ Mining District in the _____ Mine.
 Ores mined: _____
 Power: Plant name: _____ Type: _____ Capacity: _____
 Other (describe): _____

12. PLACE OF USE

Legal description of place of use by 40 acre tract(s): _____

13. STORAGE

Reservoir Name: _____ Storage Period: from _____ to _____
 Capacity: _____ ac-ft. Inundated Area: _____ acres.
 Height of dam: _____ feet.
 Legal description of inundated area by 40 acre tract(s): _____

*****THE FOLLOWING CHANGES ARE PROPOSED*****

14. QUANTITY OF WATER: _____ cfs and/or _____ ac-ft.

15. SOURCE: _____
Balance of the water will be abandoned: _____, or will be used as heretofore: _____

16. COUNTY: _____

17. POINT(S) OF DIVERSION: _____

Description of Diverting Works: _____
COMMON DESCRIPTION: _____

18. POINT(S) OF REDIVERSION
The water will be rediverted from _____ at a point: _____

Description of Diverting Works: _____

Figure C.4. Change Application, page 2.

19. POINT(S) OF RETURN

The amount of water to be consumed is _____ cfs or _____ ac-ft.
The amount of water to be returned is _____ cfs or _____ ac-ft.
The water will be returned to the natural stream/source at a point(s): _____

20. NATURE AND PERIOD OF USE

Irrigation: From _____ to _____
Stockwatering: From _____ to _____
Domestic: From _____ to _____
Municipal: From _____ to _____
Mining: From _____ to _____
Power: From _____ to _____
Other: From _____ to _____

21. PURPOSE AND EXTENT OF USE

Irrigation: _____ acres. Sole supply of _____ acres.
Stockwatering (number and kind): _____
Domestic: _____ Families and/or _____ Persons.
Municipal (name): _____
Mining: _____ Mining District at the _____ Mine.
Ores mined: _____
Power: Plant name: _____ Type: _____ Capacity: _____
Other (describe): _____

22. PLACE OF USE

Legal description of place of use by 40 acre tract(s): _____

23. STORAGE

Reservoir Name: _____ Storage Period: from _____ to _____
Capacity: _____ ac-ft. Inundated Area: _____ acres.
Height of dam: _____ feet.
Legal description of inundated area by 40 acre tract(s): _____

24. EXPLANATORY

The following is set forth to define more clearly the full purpose of this application. Include any supplemental water rights used for the same purpose. (Use additional pages of the same size if necessary): _____

The undersigned hereby acknowledges that even though he/she/they may have been assisted in the preparation of the above-numbered application through the courtesy of the employees of the Division of Water Rights, all responsibility for the accuracy of the information contained herein, at the time of filing, rests with the applicant(s).

Signature of Applicant

Signature of Applicant

Figure C.5. Change Application, page 3.

WHEN RECORDED, RETURN TO:
Scott N. Rasmussen, Esq.
SCALLEY READING BATES
HANSEN & RASMUSSEN, P.C.
15 West South Temple, Suite 600
Salt Lake City, Utah 84101

E 2246496 B 4225 P 998-999
RICHARD T. MAUGHAN
DAVIS COUNTY, UTAH RECORDER
2/22/2007 2:08:00 PM
FEE \$12.00 Pgs: 2
DEP eCASH REC'D FOR FIRST AMERICAN TITLE

QUITCLAIM DEED AND ASSIGNMENT OF WATER RIGHTS

Property Reserve, Inc., a Utah nonprofit corporation, Grantor, hereby ASSIGNS and QUIT CLAIMS to H & B Ventures, LLC, a Utah limited liability company, Grantee, of 261 East 300 South, Suite 350, Salt Lake City, Utah 84111 for the sum of TEN AND NO/100 DOLLARS (\$10.00) the following described water rights located in Weber County, State of Utah, to-wit:

All of Water Right 31-2704 (A33057), certificate 6596, but not including water stock in Davis and Weber Canal Company.

Subject to the following interests enforceable at law or in equity that may be outstanding against the property whether of record or not – easements, rights, rights-of-way, reservations, reservations in patents, conditions, restrictions, covenants and taxes and assessment.

IN WITNESS WHEREOF, the said Grantor has hereunto subscribed its name by its Corporate Officers, this 16th day of February, 2007.

PROPERTY RESERVE, INC.,
a Utah non-profit corporation

By: [Signature]
David R. Rasmussen, Vice President

By: [Signature]
Thomas M. King, Vice President

[Notary acknowledgment on following page]

RECEIVED
MAR 22 2007
WATER RIGHTS
SALT LAKE

Figure C.6. Example of Warranty Deed.

REPORT OF WATER RIGHT CONVEYANCE

\$40 Fee Rec'd BY _____

Receipt # _____

USE THIS CONVEYANCE REPORT FORM WHEN 100% OF THE WATER RIGHT IS CONVEYED.

WATER RIGHT # (One and only one) _____

Pending Change Applications _____

Non-use Expiration Date _____

SECTION A. CONVEYANCE SUMMARY

1. Assignment ___ Warranty Deed ___ Quitclaim Deed ___ Sheriff's Deed ___ Trustee's Deed ___ Water Deed ___
Other : _____

2. Date Signed ___/___/___ Date Recorded ___/___/___
Book _____ Page # _____ Recorder's # _____

3. Grantor _____

4. Grantee(s) _____

5. Mailing Address : _____

6. Special Conditions of Conveyance _____

1. Assignment ___ Warranty Deed ___ Quitclaim Deed ___ Sheriff's Deed ___ Trustee's Deed ___ Water Deed ___
Other : _____

2. Date Signed ___/___/___ Date Recorded ___/___/___
Book _____ Page # _____ Recorder's # _____

3. Grantor _____

4. Grantee(s) _____

5. Mailing Address : _____

6. Special Conditions of Conveyance _____

1. Assignment ___ Warranty Deed ___ Quitclaim Deed ___ Sheriff's Deed ___ Trustee's Deed ___ Water Deed ___
Other : _____

2. Date Signed ___/___/___ Date Recorded ___/___/___
Book _____ Page # _____ Recorder's # _____

3. Grantor _____

4. Grantee(s) _____

5. Mailing Address : _____

6. Special Conditions of Conveyance _____

Report of Water Right Conveyance

Figure C.7. Report of Conveyance, page 1.

REPORT OF WATER RIGHT CONVEYANCE

WATER RIGHT # _____

SECTION B. CERTIFICATION

I, _____, certify that I retained _____ to prepare and submit this Report of Water Right Conveyance on my behalf as the owner (grantee) described in **Section A** or as the representative of the current owners described in **Section A**. **If this report was prepared as authorized by Administrative Rule R655-3-3, I further certify that the information contained herein or attached hereto is true and accurate to the best of my knowledge.**

Signature _____ Date _____ Phone # _____

FOR LICENSED PROFESSIONALS ONLY

I, _____, certify that I am licensed as _____ in the State of Utah, that my license number is _____, that I have reviewed the attached documents and have prepared this Report of Water Right Conveyance or that it was done under my direct supervision, and that the information contained herein or attached hereto is true and accurate to the best of my knowledge. I further certify that the documents attached hereto evidence the ownership interest of the "New Owner(s)", named in Section A, in the water right interest listed in Section A:

Signature _____ Date _____ Phone # _____

Address: _____

This report was prepared for the purpose of updating the records of the Division of Water Rights. This report is not a title opinion based on a complete title search. It does not warrant or guarantee title to water rights.

SECTION C. DIVISION OF WATER RIGHTS - FOR OFFICIAL USE ONLY

Received: _____/_____/_____ Filed: _____/_____/_____ Reviewed By: _____

Database Changed: _____/_____/_____ By: _____

File Changed: _____/_____/_____ By: _____

New File Number based on Segregation _____

Remarks: _____

AMOUNT OF WATER RIGHT RETAINED _____

No agency of the State of Utah warrants or guarantees title to certain water rights. The water right ownership information of record in the Division of Water Rights concerning this water is based on the information which has been submitted by this Report of Water Right Conveyance.

REPORT OF WATER RIGHT CONVEYANCE

Figure C.8. Report of Conveyance, page 2.