MUNICIPAL AND INDUSTRIAL
WATER SUPPLY AND USES
in the
SEVIER RIVER BASIN

(Data Collected for Calendar Year 2005)

Prepared by

Utah Department of Natural Resources
Division of Water Resources

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Dennis J. Strong, Director

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EXECUTIVE SUMMARY

The purpose of this report is to document the municipal and industrial (M&I) water system supplies and uses within the Sevier River Basin during the calendar year of 2005. These water systems deliver culinary (potable) and/or secondary (non-potable) water and have been separated into four categories, as defined on pages 18 and 19 of this report. The four categories are public community, public non-community, self-supplied industrial and private domestic water systems. Water supplies, under the current hydrologic and each systematic condition, are evaluated for only potable water service in public community water systems.

The base data for both water supply and uses of public community water systems was provided by each of the water systems. Data for the other categories of water systems was compiled by also using various other agencies and references.

M&I water uses, for the basin, were then totaled and tabulated by county. Portions of the counties of Garfield, Iron, Juab, Kane, Millard, Piute, Sanpete, and Sevier are contained within the Sevier River Basin.

Public Community Water Systems

Of the aforementioned categories, public community systems serve about 95 percent of all residents in the State of Utah. Within the Sevier River Basin, approximately 86 percent of the population is served by 55 public community water systems. Refer to **Figure 3** on page 6 for a location map of these systems, as well as the general boundaries of the basin.

For planning purposes, accurate and detailed current water use and supply information is invaluable in determining the ability of the basin to meet future water demands. The Division of Water Resources (DWRe) uses the annual reliable potable water supply, as defined on page 9, as a tool to quantify the amount of water that can be delivered by each public community water system to satisfy current and projected peak day demands with present water supply conditions.

In the Sevier River Basin, it was determined that the current annual reliable potable water supply is 30,643 acre-feet. Springs account for 34 percent and wells 66 percent of this supply. Currently, there are no developed surface water sources in the basin. The breakdown of this supply is presented in the following **Table I**.

TABLE I
SEVIER RIVER BASIN
Reliable Potable Water Supplies for Public Community Systems
(Acre-feet/year)

County	Springs	Wells	Surface	Total
Garfield	492.0	346.4	0.0	**838.4**
Juab	362.9	448.7	0.0	**811.6**
Kane	0.0	150.0	0.0	**150.0**
Millard	1,773.0	7,552.2	0.0	**9,325.2**
Piute	540.3	581.2	0.0	**1,121.5**
Sanpete	3,266.0	6,218.8	0.0	**9,484.8**
Sevier	4,010.6	4,901.3	0.0	**8,911.9**
BASIN TOTALS	**10,444.8**	**20,198.5**	**0.0**	**30,643.3**

M&I water use, within these systems, can be subdivided by two types of water: potable (culinary) and non-potable (secondary). Potable water is delivered by the public community system itself. However, secondary water can be delivered not only by the system, but also by separate irrigation companies, exclusively in some locations.

Table II, on the following page, shows public community system water use data for both potable and non-potable categories within the Sevier River Basin. Categorically, the percentage of total water use is 21% residential indoor, 49% residential outdoor, 7% commercial, 18% institutional, and 5% light industrial/stockwatering.

TABLE II
SEVIER RIVER BASIN
Water Use for Public Community Systems
(Acre-Feet/Year)

	Garfield County	Juab County	Kane County	Millard County	Piute County	Sanpete County	Sevier County	Total
Potable Use								
Residential Indoor	190.4	123.4	35.0	814.3	98.1	1,925.9	1,448.2	**4,635.3**
Residential Outdoor	80.2	294.7	2.5	1,625.7	212.1	1,087.9	1,929.3	**5,232.4**
Commercial	65.5	2.3	12.0	364.9	52.8	393.8	695.8	**1,587.1**
Institutional	51.0	64.6	0.0	984.2	79.6	582.4	612.9	**2,374.7**
Industrial	0.5	15.4	0.0	298.4	181.4	336.4	300.9	**1,133.0**
Total Potable	**387.6**	**500.4**	**49.5**	**4,087.5**	**624.0**	**4,326.4**	**4,987.1**	**14,962.5**
Secondary Use								
Residential	197.7	0.0	0.0	1,012.7	68.0	2,525.6	1,457.2	**5,261.2**
Commercial	1.1	0.0	0.0	0.0	0.0	0.0	0.0	**1.1**
Institutional	16.8	0.0	0.0	63.6	56.3	915.0	369.2	**1,420.9**
Industrial	0.3	0.0	0.0	0.0	0.0	0.0	0.0	**0.3**
Total Secondary	**215.9**	**0.0**	**0.0**	**1,076.3**	**124.3**	**3,440.6**	**1,826.4**	**6,683.5**
TOTAL WATER USE	**603.5**	**500.4**	**49.5**	**5,163.8**	**748.3**	**7,767.0**	**6,813.5**	**21,646.0**

In general, and specifically for this report, all per capita water use figures refer to the water use within public community water systems only. Out of a total basin population of 63,550 in 2005, 56,250 people were served by the public community systems. For these systems, residential potable per capita water use calculates to 157 gallons per capita per day (gpcd). Similarly, non-potable residential water use calculated to 83 gpcd. The resultant total per capita water use is 240 gpcd for residential purposes within the public community systems of the basin. With the addition of water use in the commercial, institutional and industrial categories, the per capita water use for public community systems is 237 gpcd for potable and 107 gpcd for non-potable water, for an overall water use of 344 gpcd. Comparatively, in 2005, the statewide average per capita water use was 190 gpcd potable and 70 gpcd non-potable, for a total of 260 gpcd.

Dry summer months, a long growing season and comparatively large lot sizes, in this basin, greatly increase the outside watering requirements compared with the more densely populated basins along the Wasatch Front. Additionally, secondary (non-potable) water comprises a relatively high percentage of the residential and institutional outdoor use. Considering that secondary water is rarely metered, its use tends to far exceed outdoor watering needs. Combined, these factors all contribute to the above average per capita water use, in this basin. The per capita water use values for various combinations of categories and types of water are shown in the following **Table III**.

TABLE III
SEVIER RIVER BASIN
Average Per Capita Water Use
(Supplied by Public Community Systems)

Category	Average Per Capita Use (Ac-ft/yr)	Average Per Capita Use (GPCD)
Residential Potable Use	0.175	157
Residential Potable Use Plus Secondary Use	0.269	240
Total Potable Use	0.266	237
Total Potable Plus Secondary Use	0.385	344

Note: Total potable categories include residential, commerical,

Total M&I Water Use

Table IV, on the following page, shows the total potable and non-potable M&I water use for all system types in the Sevier River Basin for the year 2005. As can be seen, public community systems deliver the majority of the potable water used within the basin. However, as in this basin, self-supplied industries can also use significant amounts of water. The table indicates that the total potable M&I water use in 2005 was about 21,094 acre-feet. Total non-potable M&I water use in 2005 for the basin was just over 27,246 acre-feet. Therefore, total M&I water use for all system categories and types of water in 2005, for the Cedar/Beaver basin, was 48,340 acre-feet.

TABLE IV
SEVIER RIVER BASIN
Total M&I Water Use for all Categories
(Acre-Feet/Year)

	Garfield County	Iron County	Juab County	Kane County	Millard County	Piute County	Sanpete County	Sevier County	Total
Potable Use									
Public Community Systems	387.6	0.0	500.4	49.5	4,087.5	624.0	4,326.4	4,987.1	**14,962.5**
Public Non-Community Systems	247.4	0.0	21.6	30.2	5.0	14.3	115.2	21.4	**455.1**
Self-Supplied Industries	0.0	0.0	0.0	0.0	3,170.5	0.0	551.1	15.3	**3,736.9**
Private Domestic	115.0	2.0	12.0	0.0	770.0	100.0	690.0	250.0	**1,939.0**
Total Potable	**750.0**	**2.0**	**534.0**	**79.7**	**8,033.0**	**738.3**	**5,682.7**	**5,273.8**	**21,093.5**
Secondary Use									
Secondary Irrigation Co.'s	215.9	0.0	0.0	0.0	1,076.3	124.3	3,440.6	1,826.4	**6,683.5**
Public Non-Community Systems	10.0	0.0	0.0	0.0	260.0	0.0	300.0	0.0	**570.0**
Self-Supplied Industries	0.0	0.0	411.7	0.0	19,494.3	0.0	0.0	86.9	**19,992.9**
Total Secondary	**225.9**	**0.0**	**411.7**	**0.0**	**20,830.6**	**124.3**	**3,740.6**	**1,913.3**	**27,246.4**
TOTAL WATER USE	**975.9**	**2.0**	**945.7**	**79.7**	**28,863.6**	**862.6**	**9,423.3**	**7,187.1**	**48,339.9**

M&I Water Deliveries and Depletions

On the following page, **Table V** shows both the deliveries and depletions for all the M&I water in the basin. The information contained in the table is very useful for overall water planning purposes. See pages 20 and 21 for detailed definitions of the terms used. In **Appendix B**, there is a table that contains a breakdown of all the deliveries and depletions of each public community water system, as well as all other categories of water systems, within the basin.

TABLE V
SEVIER RIVER BASIN
M&I Deliveries and Depletions
(Acre-Feet/Year)

COUNTY	Deliveries			Depletions		
	Indoor Use	Outdoor Use	Total	Indoor Use	Outdoor Use	Total
Garfield	456.1	519.8	**975.9**	47.0	346.5	**393.5**
Iron	2.0	0.0	**2.0**	0.1	0.0	**0.1**
Juab	574.0	371.7	**945.7**	36.1	659.5	**695.6**
Kane	52.6	27.1	**79.7**	3.7	18.0	**21.7**
Millard	24,521.4	4,342.2	**28,863.6**	3,862.2	22,389.1	**26,251.3**
Piute	376.1	486.5	**862.6**	194.8	324.4	**519.2**
Sanpete	3,511.9	5,911.4	**9,423.3**	1,530.9	3,940.9	**5,471.8**
Sevier	2,609.6	4,577.5	**7,187.1**	946.5	3,051.6	**3,998.1**
Basin Totals	**32,103.7**	**16,236.2**	**48,339.9**	**6,621.3**	**30,730.0**	**37,351.3**

INTRODUCTION

Authority

The Utah Division of Water Resources (DWRe) has the overall responsibility for completing studies, investigations, and plans to assist the responsible development and utilization of the water resources of the state of Utah. The State Water Plan, prepared and distributed in early 1990, provided the foundation and overall direction to establish and implement the state policy framework of water management. As part of the state water planning process, detailed plans are prepared for the 11 hydrologic basins in the state. The Sevier River Basin is one of these 11 basins. A location map of the Sevier River Basin is shown on the following page in **Figure 1**.

Each basin water plan identifies potential conservation and development projects and describes alternatives to efficiently satisfy the water needs of that basin. As part of this effort, background data reports are completed for each river basin. These include a Water-Related Land Use Report and a Municipal & Industrial (M&I) Water Supply & Use Report.

Scope

As stated earlier, the subject of this report is a determination of the present M&I water supplies and uses within the Sevier River Basin. The data presented in all the referenced reports may be used in the State Water Plan for the Sevier River Basin, as well as other division reports and studies. Information considered for this report also includes related investigations recently completed by the DWRe and the Utah Division of Water Rights (DWRi).

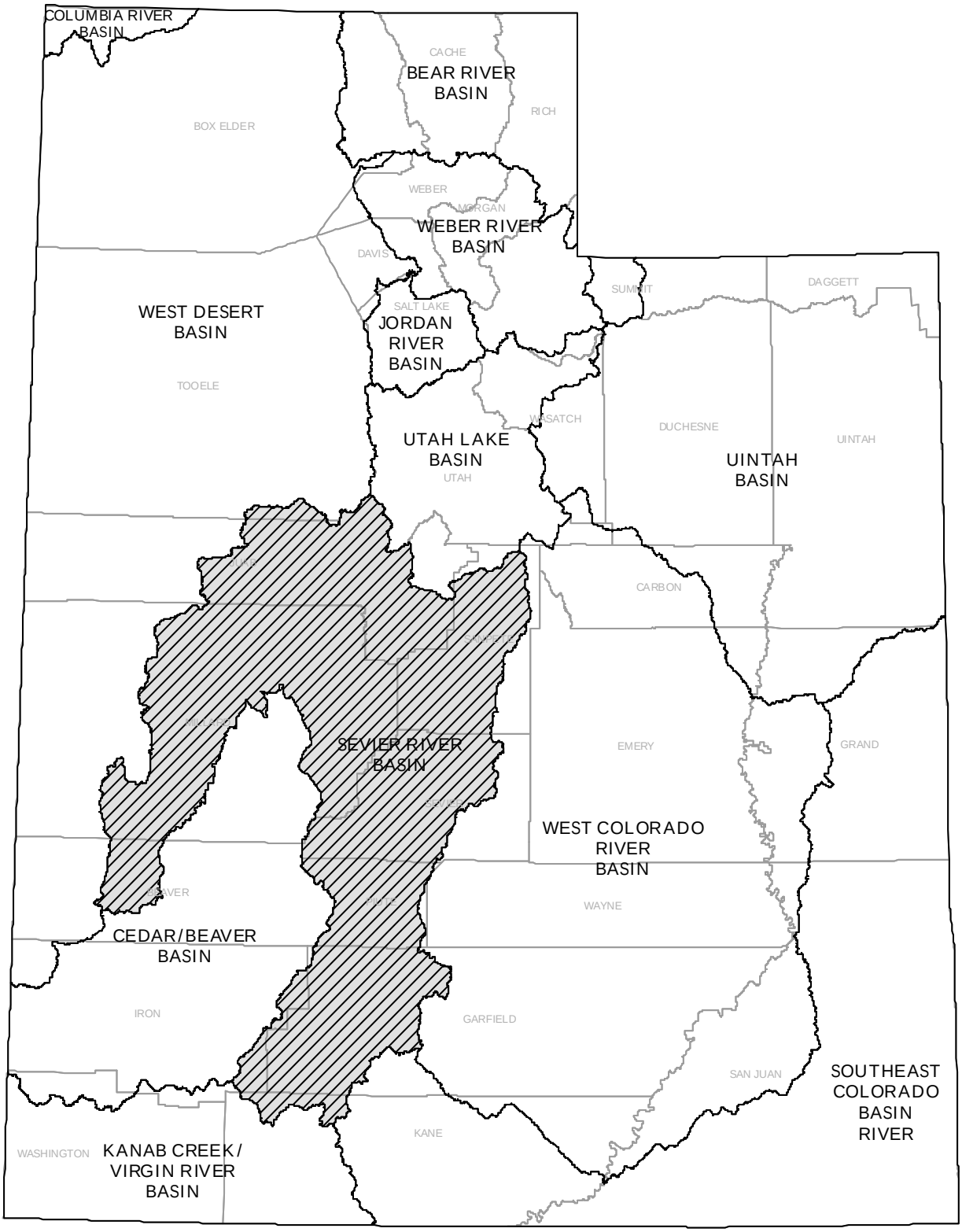


Figure 1. Location of the Sevier River Basin

Data Collection

This study was initiated in March 2006. The 2005 *Municipal and Industrial Water Use Forms,* distributed by the DWRe, in cooperation with the DWRi and the Utah Division of Drinking Water (DDW), were used as the basis for the study. In all counties, the data collection process is as described in the following section, *Water Supply and Use Methodology*. Water rights discussions presented herein were prepared based on information obtained from the DWRi.

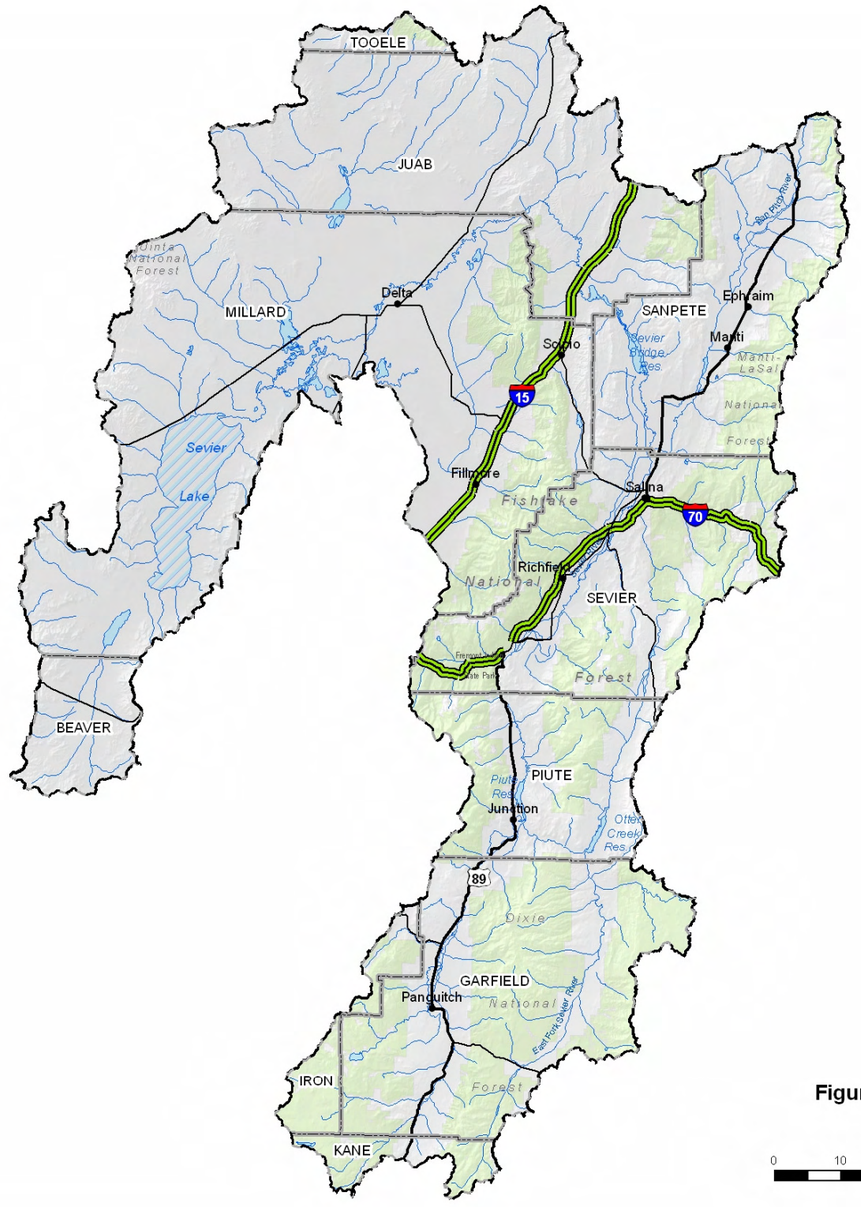
General Description of the Basin

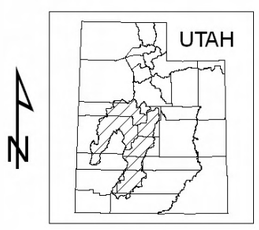
The Sevier River Basin covers approximately 10,522 square miles (about 12.5 percent of Utah) in the south-central portion of the state. The northern boundary generally follows the Sheeprock Mountains and the Tintic Range. Land forms such as the Wasatch, Awapa, Aquarius and Paunsaugunt Plateaus, The Pink Cliffs, and the Tushar Mountains surround the eastern bend of the basin. The Crickett, Beaver, San Francisco and Wah Wah Mountains along with the House Range comprise the boundary of the western bend of the basin.

The Sevier River Basin covers all or part of eight counties: Garfield, Iron, Juab, Kane, Millard, Piute, Sanpete, and Sevier. Furthermore, the basin contains the Delta, East Fork Sevier, Fillmore, Gunnison, San Pitch, Sevier, Sevier Lake and Upper Sevier sub areas.

The shape of the basin generally resembles a large horseshoe and is made up of high plateaus, narrow valleys and broad deserts. The mountains of the basin generally trend from southwest to northeast. Valleys in the basin are generally long and narrow, except where the river flows into Sevier Lake. Drainage in the basin is primarily to the north and west. However, unlike any other basin, the Sevier River Basin has no outward drainage. In other words, any precipitation that falls within the basin remains in the basin. See **Figure 2** on page 5 for a drainage map of the basin.

Currently, the basin includes 55 public community systems. These systems serve 56,250 people (about 90 percent of the basin's 63,550 total population). **Figure 3**, on page 6 shows each system's location. The basin also includes 67 public non-community systems. These systems serve National Parks, State Parks, campgrounds, isolated commercial establishments, roadside rest stops, and parks.





Basin Location

Figure 2. - Sevier River Basin Drainage Map

0 10 20 40 60 80 Miles

COMMUNITY SYSTEMS

Garfield County

1 Antimony Town Water System
2 Hatch Culinary Water
3 Panguitch City Water

Juab County

4 Eureka City Water
5 Levan Culinary Water

Kane County

6 Kane County WCD

Millard County

7 Country Estates
8 Delta City
9 Deseret - Oasis Special Service District
10 Fillmore Municipal Water System
11 Hinckley City Water
12 Holden Town Corp. Water
14 Kanosh City Water System
13 Kanosh-Paiute Indian Reservation
15 Leamington Town Water
16 Lynndyl
17 Meadow Town Corporation Water
18 Oak City Municipal Water System
19 Oak Meadows Subdivision
20 Scipio Culinary Water System

Piute County

21 Circleville Culinary Water
22 Greenwich Waterworks
23 Junction Town
24 Kingston Town Corporation
25 Marysvale Culinary Water

Sanpete County

26 Axtell Community SSD
27 Centerfield Water and Improvement District
28 Ephraim Municipal Water Department
29 Fairview Municipal Water
30 Fayette Town
31 Fountain Green
32 Gunnison City Corporation Water
33 Manti City Corporation Water
34 Mayfield Water Department
35 Moroni Municipal Water System
36 Mt. Pleasant
37 Spring City Municipal Water System
38 Sterling Municipal Water System
39 Wales Town Water

Sevier County

40 Annabella Municipal Water System
41 Aurora Municipal Water System
42 Austin Community Special Service District
43 Brooklyn Tap Line Company
44 Central Waterworks Company
45 Cove Special Service District
46 Elsinore Town Water System
47 Glenwood Municipal Water System
48 Joseph Municipal Water System
49 Koosharem Culinary Water
50 Monroe City
51 Redmond Municipal Water System
52 Richfield Culinary Water
53 Salina Municipal Water System
54 Sigurd Municipal Water System
55 South Monroe Culinary Water

NON-COMMUNITY SYSTEMS

Garfield County

A Aspen Highlands
B Bear Paw Lakeview Resort
C Beaver Dam Lodge
D Bryce Canyon National Park
E Bryce Canyon Pines
F Bryce Junction Inn
G Forest Garden Subdivision
H Foster's Steakhouse and Market
I Kings Creek CG
J Lakefront Estates
K Panguitch Lake CG
L Panguitch Lake General Store
M Panguitch Lake Resort
N Paradise RV Park
O Pine Lake CG
P Pink Cliffs - Bryce Village
Q Red Canyon CG
R Red Canyon Rest Stop
S Red Canyon RV Park
T Ruby's Inn
U Skoots Creek Well
V White Bridge CG
W Yellow Pine Water Co.

Juab County

X Chicken Creek CG
Y Maple Peak-Little Sahara
Z Yuba Lake State Recreation Area

Kane County

AA Boy Scout Spring
BB Bryce Woodland Estates
CC Duck Creek CG
DD Elk Ridge Estates
EE Meadow View Heights
FF Navajo Lake Spruces CG
GG Swains Creek Pines
HH Teah Campground
II Timber Trails Subdivision

Millard County

JJ Adelaide CG
KK Chalk Creek Water System
LL Maple Grove CG
MM Maple Hollow Picnic Area
NN Oak Creek CG
OO Sunset View Golf Course
PP Sutherland LDS Church

Piute County

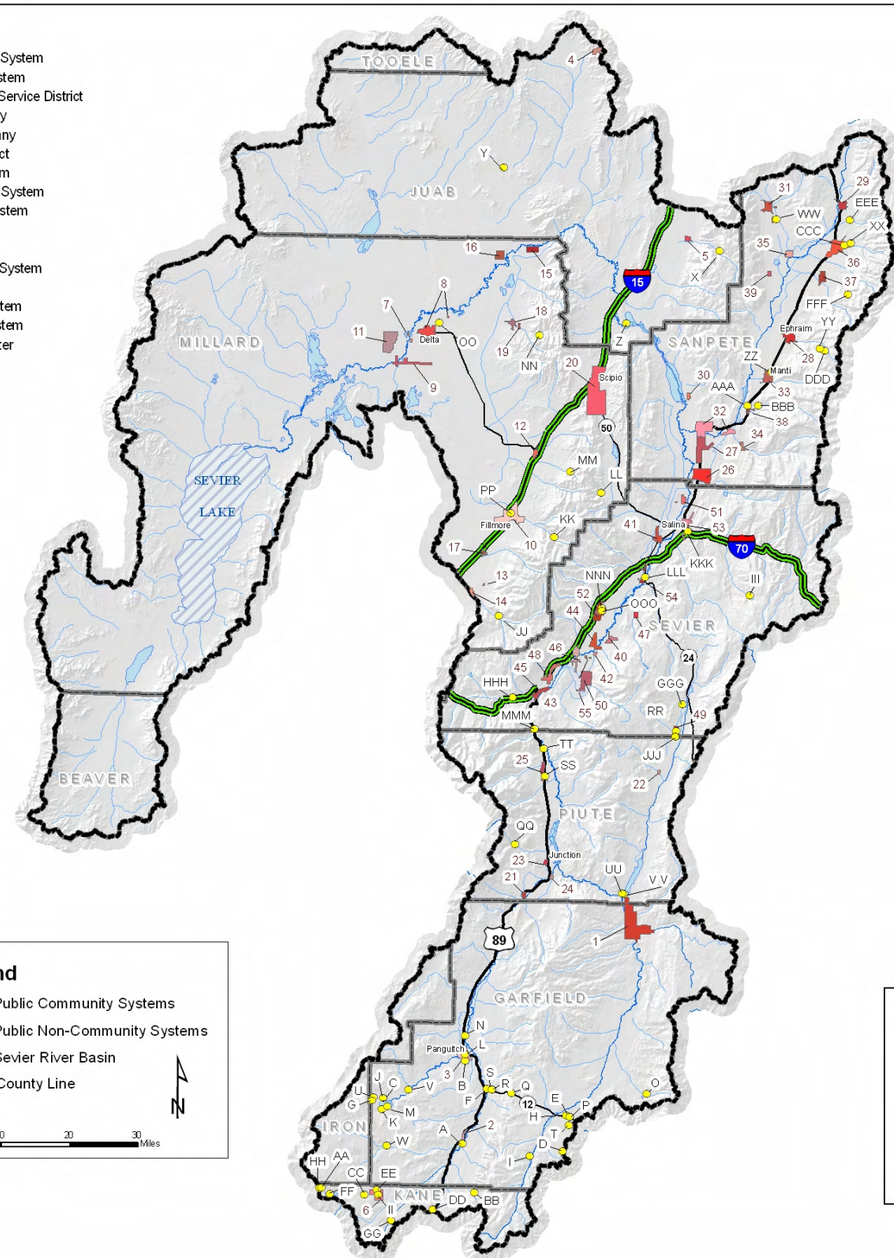
QQ City Creek CG
RR Grass Valley Guest Ranch
SS Hoover's Cafe
TT Hoover State Hwy Rest Stop
UU Otter Creek Lake State Park
VV Otter Creek RV Park

Sanpete County

WW Burns RV Park
XX Camperworld - Mt. Pleasant
YY Lake Hill Campground
ZZ Manti Community CG
AAA Palisade Lodge
BBB Palisade State Park
CCC Pine Creek Property Owners
DDD Provo/Orem Stake Girls Camp
EEE Skyline Mtn. Resort/SSD
FFF Spring City CG

Sevier County

GGG Burrville Culinary Water
HHH Fremont Indian State Park
III Gooseberry CG
JJJ High Top Cafe
KKK Ivie Creek RS
LLL Oak Springs State Hwy RS
MMM Piute-Sevier/Deer Creek WC
NNN St. Elizabeth Catholic Church
OOO Venice Ward



Basin Location

Figure 3: Location of Public Water Systems

WATER SUPPLY AND USE METHODOLOGY

Background

Over the past 45 years, the Division of Water Resources (DWRe) has employed various procedures to obtain municipal and industrial (M&I) water use data. In recent years, these procedures have become more comprehensive. When the DWRe began water planning in the 1960's, available data consisted mainly of supplies and uses for the state as a whole. At that time, Utah's agricultural water uses far exceeded M&I uses. M&I water use was calculated simply by multiplying estimated per capita water use rates by census population data.

By the early 1980's, M&I diversions made up a larger percent of all statewide water uses and the entire water community increased their focus on M&I water supplies and uses. The Division of Water Rights (DWRi) and the Division of Drinking Water (DDW) launched a program to collect yearly, statewide M&I data from each public community water system. The procedure involved mailing a survey designed to query major public water suppliers about their sources of water supply. Additionally, the United States Geological Survey (USGS) began M&I water use studies. The DWRe relied on both data sources in its planning efforts by the late 1980's.

With the preparation of the State Water Plan Basin reports, and the increasing focus on water conservation, the DWRe saw the need to verify and improve the quality and quantity of the available data. The first method used included assisting the DWRi and the DDW in the improvement of their M&I data collection program. Currently, the collection of water use data is a joint effort between all three divisions, administered by the DWRi. Additionally, the DWRe began verifying the accuracy of the data through yearly field surveys, as described in the following four sections.

Data Collection Methodology for Public Community Water Systems

Each year, the DWRe targets several hydrologic basins for M&I water supply and use analysis. The most recent water use information supplied by the DWRi is the basis used to begin the study. Prior to 2003, this information was submitted using a standard form by each water supplier. An example of the water use data form for Enoch is found in **Appendix A**. Since 2003, the program has been updated, allowing for the water suppliers to electronically submit their data.

The DWRe staff contact the manager or operator of each community water system (as defined by the DDW) to schedule a data collection and analysis meeting. These meetings are necessary because data often is not reported (either on the water use forms or electronically) in the detail required for a complete M&I water use study. During these meetings, staff clarifies and collects additional data as needed. Total water supply and usage of the water systems are calculated based on information gathered during these meetings. When data is not available, it is necessary to estimate a part or all of the system use.

A secondary objective of these meetings is to instruct the operator or manager on how to most accurately and effectively complete the water use data form and/or submit their information electronically. This methodology has been used since 1992.

Water Supply

Potable Water

Two factors define the potable water supply for public community water systems: maximum developed potable water supply available under present conditions and reliable potable water supply. The maximum developed potable water supply available under present conditions is defined as the water resource that is presently being utilized. It is limited by a mechanical constraint (such as pump capacity or pipe size), a hydrologic constraint (such as reliable stream flow or

groundwater safe yield) or a legal constraint (such as a water right or legal contract). **The lesser amount of water supply, due to these three constraints, is considered to be the maximum developed potable water supply available under present conditions used in this analysis.**

The determination of well pump capacities, average annual spring flow estimates, treatment plant capacities, and water right information aid in the calculation of this value. It should be noted that, due to the complexity of water rights, contracts, exchanges, etc., a detailed search of water right limitations associated with each entity is not within the scope of this study.

The reliable potable water supply is defined as the capacity to meet peak day demands, expressed as an annual volume. It is valuable in determining future water supply capacities of the particular community water system sources (wells, springs, etc.). **The reliable potable water supply is calculated by adding together the maximum developed water supply capacity of surface sources, one-half of the maximum yield of wells or their pump capacities (unless otherwise indicated by the system manager), and a percentage of the average annual flow of spring sources.** The determination of the percentage is based on historical flow records, if available and/or information provided by the water supplier.

On page 11, **Figure 4** graphically presents the relationship between the maximum developed potable water supply and the reliable potable water supply of a system. By quantifying the maximum developed and the reliable potable water supply of a system, the total population that a system may potentially support can be determined. The current total yearly water use is the volume under the lower curve (*Present Water Use Pattern*). The future total yearly water use is the volume under the upper curve (*Future Water Use Pattern*). The latter volume is equivalent to the reliable developed potable water supply.

The maximum developed potable water supply under present conditions is the volume under the upper line (*Maximum Water Supply*) in **Figure 4**. This amount is a theoretical annual volume based upon a maximum daily flow rate (limited by the

water right or system capacity). Consequently, the peak day demand point on the future water use curve (*Future Peak Day Demand*) cannot exceed this upper limit. Due to the fluctuating nature of some sources (particularly springs), and the fact that most culinary water system storage tanks are designed to store only about one day of water demand, not all of the total maximum developed potable water supply is available to meet future water needs.

It is important to note that the reliable potable water supply is a theoretical annual volume based upon the current daily peak demand flow rate of any one system, under its current demand conditions. Additional supply may be made available by lowering and/or increasing the size of existing well pumps, pumping existing wells for longer durations, increasing storage capacity and/or distribution pipe sizes. However, being based only on current conditions, these systematic changes may cause operational problems during times of peak demand. Therefore, the DWRe uses the reliable potable water supply only as a reference tool to quantify the annual amount of water that can be delivered by each community water system.

For planning purposes, the reliable potable water supply is essential for estimating what population base each system can theoretically support with current demand patterns. It is also a guideline to help predict the approximate timing of future system improvements in order to meet any increase in demand.

Secondary Water

Deliveries of non-potable (secondary) water are an important component of the water use within the boundaries of public community water systems. However, quantifying the available supply of this water is difficult. In Utah, many of the secondary water systems are part of a larger agricultural irrigation system. Hence, the theoretical supply includes both agricultural and M&I water. Currently, separating M&I secondary from agricultural water is mostly estimated, due to the lack of and/or absence of metering, particularly at the level of individual property connections.

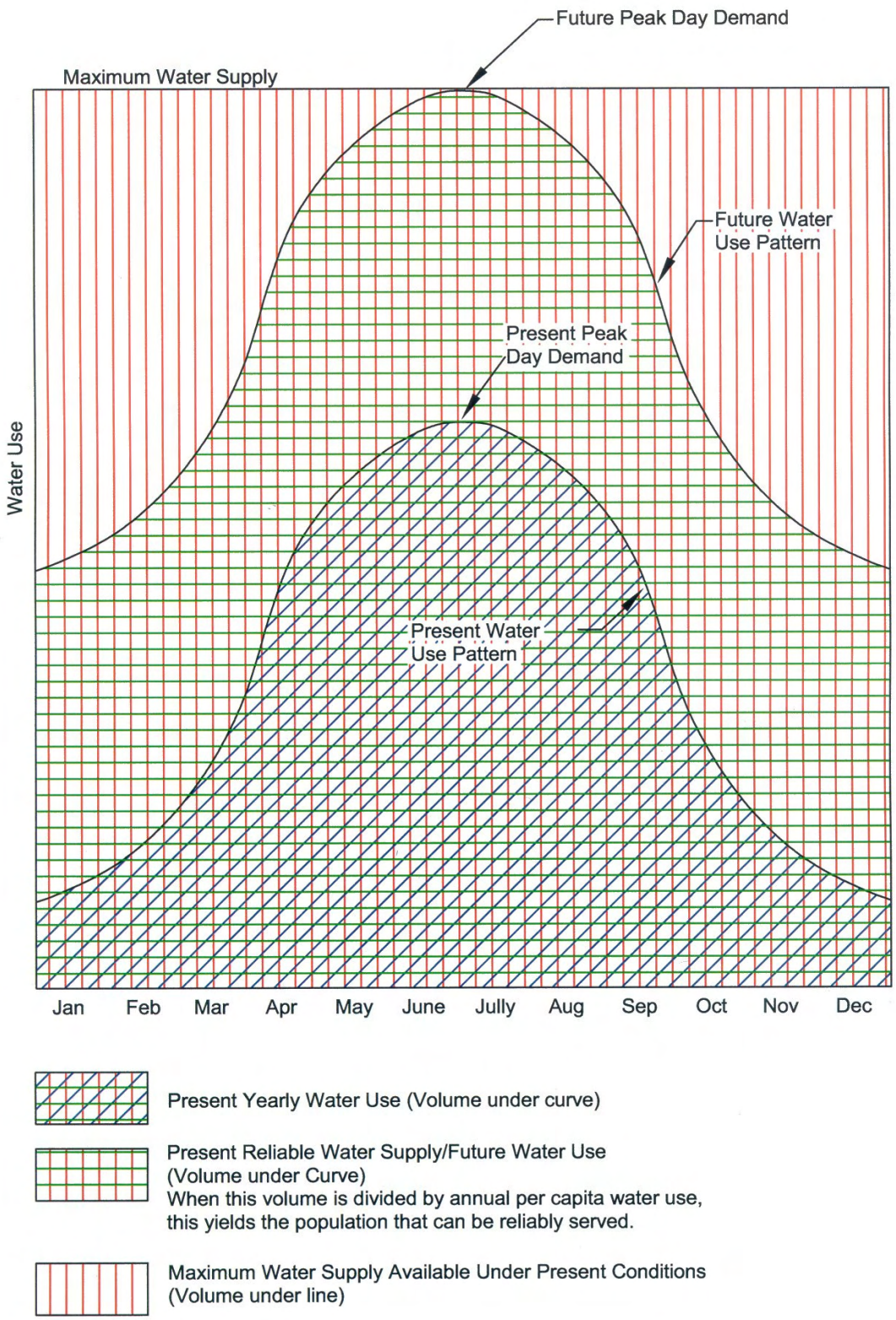


Figure 4. Water Supply and Use Hydrograph

With secondary water use becoming more prevalent for outdoor landscaping, estimating the available supply of this water is becoming increasingly more important. **For planning purposes, the DWRe assumes that the supply for M&I secondary irrigation is simply equal to the current use.**

Water Use

Present water use, as defined herein, is the developed water supply that is actually delivered by the distribution system from surface or subsurface sources. Water use is divided into four categories: residential, commercial, institutional and industrial.

Residential

The staff collects data about the number of residential connections and the amount of water used by those connections from a water system representative. Water use in this category is divided into three subcategories: culinary-outdoor, culinary-indoor, and secondary-outdoor. While most systems will meter the total culinary residential water use, indoor and outdoor use are rarely metered separately. Secondary water use is rarely metered. Therefore, the DWRe usually estimates these subcategory totals.

Typically, culinary indoor use will be estimated first. One method to estimate the indoor use is to review residential meter reading totals for the system from the winter months, if available. Since outdoor watering typically does not occur during the winter months, it can be assumed that the water used in winter months is for indoor use only. The winter water use is then used to determine the total yearly indoor use.

When the above method does not yield a reasonable value for indoor use, the per capita indoor water use for a system can be estimated by using an equation thatwas developed in a detailed residential study, “Identifying Residential Water Use”,completed by the DWRe in 2001. The mathematical equation that was developed is as follows:

$$GPCD_{Indoor} = 90.3 / P_{PH} + 42.3$$

where:

$GPCD_{Indoor}$ = gallons per capita day (per capita indoor water use)

P_{PH} = persons per household (US Census Bureau)

The total yearly indoor water use is then calculated for the system by multiplying the result of the above equation by the current population. Outdoor culinary water use can then be estimated by subtracting the total yearly indoor water use from the given total residential culinary water use.

Because very few entities meter secondary outdoor water use, the DWRe staff estimates the outdoor secondary water use by using the average lot size, percent irrigated, percent of residences that are supplied by separate secondary (pressurized and ditch) irrigation systems, water right-duty rates (volume of water required for turf growth) in the area, and other related information for each system. In determining residential secondary use, care is taken to not include irrigation water use for small pastures or farm fields that can often be found adjacent to residences, particularly in rural communities.

Commercial

For most systems, the system operator can separate metered commercial water use data from the total water use. In cases where this data is not available, or is extremely difficult to obtain, the DWRe staff attempts to estimate commercial water use by inventorying commercial businesses in the area and using published commercial water use estimates. The DDW and the Utah State Water Lab, among others, publish these estimates. In some rural communities where there are a relatively small number of commercial connections, the businesses are visited individually by the DWRe staff and asked about their water use.

Some commercial facilities use secondary water to irrigate outside landscapes. This is especially typical for commercial golf courses. Again, it is typical that secondary water is not metered. The DWRe staff estimates this use by multiplying the size of the irrigated area by a water right-duty rate or the evapotranspiration (ET) rate with assumed application efficiency percentage. The ET used is indicative of the amount of water, in inches, necessary for turf growth.

Institutional

Institutional water use is water used for city, county, state and federal government facilities, parks, municipal golf courses, schools, hospitals, churches, military facilities, as well as fire hydrant testing and other municipal losses in the water system. Because this water use is often not metered, the process to acquire this data is difficult. The system operator is asked to provide information about city facilities such as the number and size (irrigated acreage) of parks, schools, churches, and municipal golf courses. Water right-duty rates and/or the ET, with appropriate efficiencies, are used to calculate the amount of water that is needed to irrigate these areas. Estimates of leakage and water use for testing of system facilities are also included in this category.

Industrial

Industrial water use is defined as water used in the production of a product. Therefore, such commercial establishments as dairies, mink farms, and greenhouses, as well as stockwatering, are included in this category, provided a community water system serves them. Industrial water use within community water systems is calculated with the same process used to calculate commercial water use data discussed earlier.

Data Collection Methodology for Public Non-Community Water Systems

The DWRe staff attempts to contact each non-community system and/or make a personal visit to these systems. Non-community systems rarely meter their water use, so the DWRe staff estimate the annual water use. Questions are asked to determine the types of facilities on the system, population served, water source information, irrigation of outside areas, etc. This data, along with information found in water-related publications, is used to determine water use. The maximum and reliable water supplies for these systems are relatively small, often not available and are therefore not included in this study. However, for planning purposes, the DWRe assumes that the water supply for these systems is equal to their water use.

Data Collection Methodology for Self-Supplied Industrial Water Systems

Although self-supplied industries are included in the Non-Community Water Systems category as defined by the DDW, the DWRe has divided them into a separate category due to their importance. The category is equivalent to the DDW's Non-Community, Non-Transient category.

Water use is acquired for self-supplied industries by using data from the DWRi's Industrial Water Use Form and/or electronically submitted data. The DWRi

collects annual water use data from most of the major self-supplied industrial water users in the state. This data is confidential. Therefore, the data presented in this M&I study is only presented as county totals. As with other non-community systems, the maximum and reliable water supplies are often not available and are not in the scope of this study. For planning purposes, the DWRe assumes that the water supply for these systems is equal to their water use.

Data Collection Methodology for Private Domestic Water Systems

Private domestic systems are residences that are not connected to any public community or non-community water system. They are usually supplied by individual wells. To determine the water use data for this category, the population of those served by private domestic systems is estimated. This population is estimated by subtracting the population served by community water systems from the county population data acquired from the Governor's Office of Planning and Budget (GOPB). The remainder is assumed to be the population that is served by private domestic systems. The per capita water use rate for this category is assumed to be the same as the rate for the public community system residential category for that county. To determine the total water use by private domestic systems, the estimated population is then multiplied by this rate. Again, the maximum and reliable water supplies for private wells, being relatively small, are not in the scope of this study. Similarly, for planning purposes, the DWRe assumes that the water supply for these systems is equal to their water use.

DEFINITIONS OF WATER TERMS

Water is supplied by a variety of systems for many types of users. The general term supply is defined as the amount of water available. Municipalities own most of the individual water supply systems. However, in some cases the owner/operator is a private company, state or federal agency. Thus, a "public" water supply may be either publicly or privately owned and supply treated and/or untreated water.

Water Supply Terms

Maximum Developed Potable Water Supply - The annual volume of potable (culinary) water which is the lesser of the hydrologic capacity of the water source, the physical capacity of the water system, or the amount allowed by the collective water rights. (See pages 8-10 for a more detailed explanation)

Reliable Potable Water Supply - The annual volume within the maximum developed water supply that is available to meet peak demands. This is generally calculated as 100% of the maximum supply from surface water sources, 50% of the maximum yield of wells, and between 50% and 100% of the average annual spring flows. When this number is divided by the average per capita usage, the resulting number represents the theoretical maximum population that the water source can serve. (See pages 8-10 for a more detailed explanation)

Municipal and Industrial Water Supply - Includes all water (potable and non-potable) supplied for residential, commercial, institutional, light industry, and self-supplied industries. This supply is delivered by public community systems, public non-community (transient and non-transient) systems, self-supplied industrial systems, unregulated Indian water systems and private wells.

Types of Water

Potable Water – Includes water meeting all applicable Federal, State, and Local drinking water requirements for residential, commercial, institutional and industrial uses. It is also referred to as culinary water supply.

Secondary Water – Includes water not meeting safe drinking water requirements. It is also referred to as non-potable (non-culinary) water. This water is usually delivered by pressurized or open ditch systems for irrigation of privately and publicly owned landscapes, gardens, parks, cemeteries, golf courses and other open areas. Sometimes called "dual" water systems, they are installed to provide an alternative to irrigating with culinary water for these outdoor areas. Although Irrigation companies most often provide this water, public community systems may deliver this water as well. Self-supplied industries can also use secondary water for industrial processes.

Water System Categories

Public Community Water System - Provides potable and/or non-potable water by either a privately or publicly owned water system which serves at least 15 service connections used by year-round residents or regularly serves at least 25 year-round residents. Water from the public community water supplies may be used in both indoor and outdoor applications for residential, commercial, institutional, and industrial purposes.

Public Non-Community Water System - Provides potable and/or non-potable water by either a privately or publicly owned water system of one of two types: transient and non-transient. Transient systems are systems that do not serve 25 of the same non-resident persons per day for more than six months per year. Examples include campgrounds, RV parks, restaurants, convenience stores, etc. Non-transient systems are systems that regularly serve 25 of the same non-resident persons per day for more than six months per year. Examples include churches, schools and

industries. This report categorizes industrial non-transient systems as self-supplied industries.

Self-Supplied Industrial System - Provides potable and/or non-potable water for use by individual privately owned industries (usually from their own wells or springs).

Private Domestic System – Provides potable and/or non-potable water from privately owned wells and/or springs for use by individual homes.

Water Use Terms

Water is used in a variety of ways and for many purposes. It is often said that water is "used" when it is diverted, demanded, withdrawn, depleted or consumed. But it is also "used" in place for such things as fish and wildlife habitat, recreation and hydropower production. **Water use in this report is defined as "delivered" water.** A table that shows the basin's M&I water deliveries and depletions is provided in **Appendix B**.

In the previous water supply section, the word "use" can be interchanged with the word "supply" to define the current demand associated with those definitions. Some additional water use terms are as follows:

Commercial Use - Use normally associated with small business operations that may include drinking water, food preparation, personal sanitation, facility cleaning and maintenance and irrigation of facility landscapes. Examples include retail businesses, restaurants and hotels.

Industrial Use - Use associated with the manufacturing or production of products. The volume of water used by industrial businesses can be considerably greater than water used by commercial businesses. Examples include manufacturing plants, oil and gas producers, mining companies, mink farms and dairies.

Institutional Use - Use normally associated with general operation of various public agencies and institutions (i.e. schools, municipal buildings, churches) including drinking water, personal sanitation, facility cleaning and maintenance and irrigation of parks, cemeteries, playgrounds, recreational areas, golf courses, and other facilities. The amount of water used by cities for outside irrigation of public areas typically is not metered.

Residential Use - Use associated with residential cooking, drinking water, washing clothes, miscellaneous cleaning, personal grooming and sanitation, irrigation of lawns, gardens and landscapes, and washing automobiles, driveways and other outside residential facilities. Examples include single-family homes, apartments, duplexes and condominiums.

Other Water Terms

Consumption - Water evaporated, transpired or irreversibly bound in either a physical, chemical or biological process. Consumed water results in a loss of the original water supplied.

Consumptive Use - Losses of water brought about by human endeavors when used for residential, commercial, institutional, industrial, agricultural, power generation, and recreation. Naturally occurring vegetation, fish and wildlife also consumptively use water.

Deliveries - Water already within a system that is being provided to an individual connection, whether potable or non-potable and/or metered or not. The connection can be for residential, commercial, institutional, and/or industrial uses. **For the purpose of this report, the delivered water amount is equivalent to water use.**

Depletion - Water consumed and made unavailable for return to a given designated area, river system or basin. It is intended to represent the net loss to a system. The terms consumption and depletion are often used interchangeably but are not the same. For example, water exported from a basin is depletion from the basin system but is not consumed in the basin. The exported water is available for use (consumption) in another basin or system. Water diverted to irrigate crops in a given
system, but not returned for later use, is depletion. Precipitation that falls on irrigated crops is not considered a part of the supply like surface water and groundwater diversions. For this reason, precipitation falling on and consumed by irrigated crops is not considered as being depletion from the system.

Diversion - Water diverted from supply sources such as streams, lakes, reservoirs or groundwater for a variety of purposes, including cropland irrigation, as well as residential, commercial, institutional and industrial uses.

Withdrawal - Water withdrawn from supply sources such as lakes, streams, reservoirs or groundwater. This term is normally used in association with groundwater withdrawal. The terms *diversion* and *withdrawal* are often used interchangeably.

WATER RIGHTS IN THE SEVIER RIVER BASIN

Although a detailed analysis of water rights is not part of this report, a water supply and use study would not be complete without a discussion on the current water right regulations in the area. The following discussion was obtained from the Division of Water Rights, Richfield area office. It explains the current general water right regulations in the Sevier River Basin with regards to M&I uses.

Millard County

Surface and groundwater is fully appropriated except for the area west of Delta in Range 8 and 9 W, the area around Sevier Lake and Pavant Valley near Fillmore. This area is open for small applications for inside use for one family with 0.1 acres of irrigation and 5 head of stock.

All Other Counties

Surface and groundwater is fully appropriated. The entire drainage is closed to new applications.

Miscellaneous

A common method for obtaining municipal and industrial rights is to purchase existing agricultural rights and file a change application with the State Engineer to transfer these to a domestic purpose.

GARFIELD COUNTY M&I WATER SUPPLIES AND USES

The Sevier River Basin incorporates the most western third of Garfield County. This portion of Garfield County includes the incorporated communities of Anitmony, Hatch, and Panguitch. Within this area are the three previously mentioned public community systems and 23 non-community systems. The locations of the public community systems are in **Figure 3** on page 6.

Table 1 shows the maximum annual water supply for public community systems in this portion of Garfield County. The combined spring and well source capacity is 1,511 ac-ft.

TABLE 1
GARFIELD COUNTY
Maximum Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Antimony	285.7	0.0	0.0	**285.7**
Hatch	0.0	144.8	0.0	**144.8**
Panguitch	677.5	403.3	0.0	**1,080.7**
GARFIELD COUNTY TOTALS	**963.2**	**548.1**	**0.0**	**1,511.2**

Note: All values represent maximum system source capacities limited by water rights, hydrologic constraints, and/or system constraints.

The reliable potable water supply of public community water systems in this portion of Garfield County is 838 ac-ft, which is slightly more than half the maximum source capacity. The breakdown of the reliable supply for the public community water systems is presented in the following **Table 2.**

TABLE 2
GARFIELD COUNTY
Reliable Potable Water Supplies for Public Community Systems

WATER SUPPLIER	Springs	Wells	Surface	Total
Antimony	153.2	0.0	0.0	**153.2**
Hatch	0.0	144.8	0.0	**144.8**
Panguitch	338.7	201.6	0.0	**540.4**
GARFIELD COUNTY TOTALS	**492.0**	**346.4**	**0.0**	**838.4**

Note: Springs and wells are considered reliable at one half of their maximum flow rate, provided water rights and/or system constraints are not more limiting.

The following **Table 3** is a breakdown of the potable water use for each of the public community water systems. The table shows an annual potable water use of about 388 acre-feet. This current annual use is about one half of the reliable potable water supply of the county.

TABLE 3
GARFIELD COUNTY
Water Use for Public Community Systems

GARFIELD COUNTY WATER SUPPLIER	POTABLE USAGE (Acre-Feet/Year)						Service Population	Gallons Per Capita Per Day
	Residential Indoor	Residential Outdoor	Commercial Total	Institutional Total	Industrial Total	Total M & I		
Antimony Town Water System	10.4	60.5	16.3	11.0	0.0	**98.2**	130	674.4
Hatch Culinary Water	20.7	0.0	2.6	0.9	0.0	**24.2**	120	180.0
Panguitch City Water	159.3	19.7	46.6	39.1	0.5	**265.2**	1,650	143.5
GARFIELD COUNTY TOTALS	**190.4**	**80.2**	**65.5**	**51.0**	**0.5**	**387.6**	**1,900**	**182.1**
A	B	C	D	E	F	G	H	J

A, B, C, D, E, F, H — Input data
G=B+C+D+E+F — Potable M&I Water Use
J=G*(325,851 gallons per acre-foot)/H/(365 days per year) — Average gallons per capita per day water use

Table 4 presents the annual amount of secondary water used within the boundaries of the public community systems. In Garfield County, municipalities deliver secondary water within the public community systems. Total secondary use is estimated to be 216 acre-feet.

TABLE 4
GARFIELD COUNTY
Secondary (Non-Potable) Water Use
Within Public Community Water System Service Areas
(Acre-Feet/Year)

WATER SUPPLIER	Residential Use	Commercial Use	Institutional Use	Industrial Use	Total Secondary Use
Antimony Town Water System	0.0	0.0	0.0	0.0	**0.0**
Hatch Culinary Water					
Hatch Irrigation Company	20.7	1.1	12.6	0.3	**34.7**
Panguitch City Water					
West Panguitch Irrigation Co.	177.0	0.0	4.2	0.0	**181.2**
GARFIELD COUNTY TOTALS	**197.7**	**1.1**	**16.8**	**0.3**	**215.9**

Per capita water use rates for the public community water systems are given in the following **Table 5**.

TABLE 5
GARFIELD COUNTY
Average Per Capita M&I Water Use for Public Community Systems

Water Supplier	Service Population	Residential Water Use			CII Water Use*			TOTAL WATER USE		
		Potable	Non-Potable	Sub Total	Potable	Non-Potable	Sub Total	Potable	Non-Potable	TOTAL
Antimony Town Water System	130	487	0	**487**	187	0	**187**	674	0	**674**
Hatch Culinary Water	120	154	154	**308**	26	104	**130**	180	258	**438**
Panguitch City Water	1,650	97	96	**193**	47	2	**49**	143	98	**242**
GARFIELD COUNTY TOTALS	**1,900**	**127**	**93**	**220**	**55**	**9**	**64**	**182**	**101**	**284**

*Commmercial, Institutional, and Industrial

Table 6, on the following page, shows the water use for public non-community and private domestic systems. Garfield County does not contain any self-supplied industries. Collectively, these uses amount to 362 acre-feet of potable water use and 10 acre-feet of secondary water use.

TABLE 6
GARFIELD COUNTY
Water Use for Public Non-Community Systems, Self-Supplied Industries and Private Domestic Systems

GARFIELD COUNTY WATER SUPPLIER	POTABLE USAGE (Ac-Ft/Yr)					Secondary Water Use (Ac-Ft/Yr)
	Residential	Commercial	Institutional	Industrial/ Stockwater	Total Potable Use	
Forest Service Systems						
Kings Creek Campground	0.0	0.0	0.2	0.0	**0.2**	0.0
Panguitch Lake Campground	0.0	0.0	1.8	0.0	**1.8**	0.0
Pine Lake Campground	0.0	0.0	0.1	0.0	**0.1**	0.0
Red Canyon Campground	0.0	0.0	0.3	0.0	**0.3**	0.0
Red Canyon Rest Stop	0.0	0.0	1.0	0.0	**1.0**	0.0
White Bridge Campground	0.0	0.0	0.2	0.0	**0.2**	0.0
National Park Systems						
Bryce Canyon National Park	12.5	23.2	20.4	0.3	**56.4**	0.0
Aspen Highlands Subdivision	2.0	0.0	0.0	0.0	**2.0**	0.0
Bear Paw Lakeview Resort	2.0	0.5	0.0	0.0	**2.5**	0.0
Beaver Dam Lodge	0.0	1.0	0.0	0.0	**1.0**	0.0
Bryce Canyon Pines	0.0	5.4	0.0	0.0	**5.4**	0.0
Bryce Junction Inn	0.0	3.0	0.0	0.0	**3.0**	0.0
Forest Garden Subdivision	5.0	0.0	0.0	0.0	**5.0**	0.0
Foster's Steakhouse & Market	1.0	3.0	0.0	0.0	**4.0**	0.0
Lake Front Estates	4.0	0.0	0.0	0.0	**4.0**	0.0
Panguitch Lake General Store	0.0	1.5	0.0	0.0	**1.5**	0.0
Panguitch Lake Resort	0.5	3.0	0.0	0.0	**3.5**	0.0
Paradise RV Park	0.0	2.5	0.0	0.0	**2.5**	0.0
Pink Cliffs - Bryce Village	1.0	4.0	0.0	0.0	**5.0**	0.0
Red Canyon RV Park	0.0	4.0	0.0	0.0	**4.0**	0.0
Ruby's Inn	0.0	138.0	0.0	0.0	**138.0**	10.0
Skoot's Creek	2.0	0.0	0.0	0.0	**2.0**	0.0
Yellow Pine Water Company	4.0	0.0	0.0	0.0	**4.0**	0.0
Total Non-Community Use	**34.0**	**189.1**	**24.0**	**0.3**	**247.4**	**10.0**
Self-Supplied Industries*	0.0	0.0	0.0	0.0	**0.0**	0.0
Private Domestic	115.0	0.0	0.0	0.0	**115.0**	0.0
GARFIELD COUNTY TOTALS	**149.0**	**189.1**	**24.0**	**0.3**	**362.4**	**10.0**

*There are no self-supplied industries

The combined total potable M&I water use of all categories of water systems in the county is 750 acre-feet and secondary water use is about 226 acre-feet. Therefore, the county total annual M&I water use is about 976 acre-feet.

IRON COUNTY M&I WATER SUPPLIES AND USES

The Sevier River Basin portion of Iron County has no public community water systems in the area. Within the area, there are also no public non-community water systems, nor any self-supplied industries. However, there are some private domestic wells in use, totaling around two acre-feet of water use. Maximum and reliable supplies are only calculated for public community water systems. Therefore, only water use is shown. The following **Table 7** shows the indicated water use for the area.

TABLE 7
IRON COUNTY
Water Use for Public Non-Community Systems,
Self-Supplied Industries and Private Domestic Systems

IRON COUNTY WATER SUPPLIER	POTABLE USAGE (Ac-Ft/Yr)					Secondary Use (Ac-Ft/yr)
	Residential	Commercial	Institutional	Industrial/ Stockwater	Total Potable Use	
Non-Community Systems						
none	0.0	0.0	0.0	0.0	**0.0**	0.0
Self-Supplied Industries*	0.0	0.0	0.0	0.0	**0.0**	0.0
Private Domestic	2.0	0.0	0.0	0.0	**2.0**	0.0
IRON COUNTY TOTALS	**2.0**	**0.0**	**0.0**	**0.0**	**2.0**	**0.0**

*There are no self-supplied industries

JUAB COUNTY M&I WATER SUPPLIES AND USES

The Sevier River portion of Juab County includes the incorporated communities of Eureka and Levan. Within this area are the two previously mentioned public community systems, three public non-community systems, and one self-supplied industry. The locations of the public community systems are shown in **Figure 3** on page 6.

Table 8 shows that the maximum annual potable water supply for public community systems in Juab County is 1,336 acre-feet. Springs supply 565 acre-feet and wells contribute 771 acre-feet.

TABLE 8
JUAB COUNTY
Maximum Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Eureka	0.0	206.7	0.0	**206.7**
Levan	564.7	564.7	0.0	**1,129.4**
JUAB COUNTY TOTALS	**564.7**	**771.4**	**0.0**	**1,336.1**

Note: All values represent maximum system source capacities limited by water rights, hydrologic constraints, and/or physical system constraint.

The reliable potable water supply for public community systems in Juab County is 812 acre-feet or about 61 percent of the maximum annual water supply. The breakdown of this supply is presented in the following **Table 9**.

TABLE 9
JUAB COUNTY
Reliable Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Eureka	0.0	206.7	0.0	**206.7**
Levan	362.9	242.0	0.0	**604.9**
JUAB COUNTY TOTALS	**362.9**	**448.7**	**0.0**	**811.6**

Note: Springs and wells are considered reliable at one half of their maximum flow rate, provided water rights and/or system constraints are not more limiting.

Table 10 shows a breakdown of the potable water use for each public community system. Juab County's annual potable water use for public community systems is 500 ac-ft. Juab County is currently consuming approximately 62% of their reliable system source capacity.

TABLE 10
JUAB COUNTY
Water Use for Public Community Systems

JUAB COUNTY WATER SUPPLIER	POTABLE USAGE (Acre-Feet/Year)						Service Population	Gallons Per Capita Per Day
	Residential Indoor	Residential Outdoor	Commercial Total	Institutional Total	Industrial Total	TOTAL M&I		
Eureka City Water	60.1	23.4	1.8	12.6	0.0	**97.9**	770	113.5
Levan Culinary Water	63.3	271.3	0.5	52.0	15.4	**402.5**	810	443.6
JUAB COUNTY TOTAL	**123.4**	**294.7**	**2.3**	**64.6**	**15.4**	**500.4**	**1,580**	**282.7**
A	B	C	D	E	F	G	H	J

A, B, C, D, E, F, H	Input data
G=B+C+D+E+F	Potable M&I Water Use
J=G*(325,851 gallons per acre-foot)/H/(365 days per year)	Average gallons per capita per day water use

Eureka and Levan only use potable water for all municipal and industrial (M&I) use. **Table 11** shows no secondary water use in Juab County.

TABLE 11
JUAB COUNTY
Secondary (Non-Potable) Water Use
Within Public Community Water System Service Areas
(Acre-Feet/Year)

WATER SUPPLIER	Residential Use	Commercial Use	Institutional Use	Industrial Use	Total Secondary Use
Eureka City Water	0.0	0.0	0.0	0.0	**0.0**
Levan Culinary Water	0.0	0.0	0.0	0.0	**0.0**
JUAB COUNTY TOTALS	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Various per capita rates for the public community systems of Juab County are shown in **Table 12**.

TABLE 12
JUAB COUNTY
Average Per Capita M&I Water Use for Public Community Systems

Water Supplier	Service Population	Residential Water Use			CII Water Use*			TOTAL WATER USE		
		Potable	Non-Potable	Sub Total	Potable	Non-Potable	Sub Total	Potable	Non-Potable	TOTAL
Eureka City Water	770	97	0	**97**	17	0	**17**	114	0	**114**
Levan Culinary Water	810	369	0	**369**	75	0	**75**	444	0	**444**
JUAB COUNTY TOTALS	**1,580**	**236**	**0**	**236**	**47**	**0**	**47**	**283**	**0**	**283**

Table 13 shows the annual water use for public non-community systems, self-supplied industries, and private domestic systems. There are three non-community systems and one self-supplied industry. Private domestic use is estimated at 12 ac-ft. The total water use of these water systems is approximately 34 acre-feet of potable water and 412 acre-feet of secondary water use.

TABLE 13
JUAB COUNTY
Water Use for Public Non-Community Systems,
Self-Supplied Industries and Private Domestic Systems
(Acre-Feet/Year)

JUAB COUNTY WATER SUPPLIER	POTABLE USAGE (Ac-Ft/Yr)					Secondary Use (Ac-Ft/yr)
	Residential	Commercial	Institutional	Industrial/ Stockwater	Total Potable Use	
Bureau of Land Management						
Maple Peak - Little Sahara	3.0	0.0	13.5	0.0	**16.5**	0.0
Forest Service Systems						
Chicken Creek Campground	0.0	0.0	0.1	0.0	**0.1**	0.0
State Park Systems						
Yuba Lake State Recreation Area	0.0	0.0	5.0	0.0	**5.0**	0.0
Total Non-Community Use	**3.0**	**0.0**	**18.6**	**0.0**	**21.6**	**0.0**
Self-Supplied Industries*	0.0	0.0	0.0	0.0	**0.0**	411.7
Private Domestic	12.0	0.0	0.0	0.0	**12.0**	0.0
JUAB COUNTY TOTALS	**15.0**	**0.0**	**18.6**	**0.0**	**33.6**	**411.7**

*Ash Grove Cement, Inc.

Total potable M&I water use for all categories of water systems in the county is then about 534 acre-feet, while non-potable use is 412 acre-feet. The overall total annual M&I water use is then 946 acre-feet.

KANE COUNTY M&I WATER SUPPLIES AND USES

The Sevier River Basin portion of Kane County contains one public community water system and 9 public non-community systems. There are no self-supplied industries, and no private domestic wells. The locations of the water systems are shown in **Figure 3** on page 6.

As shown in **Table 14**, the maximum annual potable water supply for the public community system is 300 acre-feet from well sources.

TABLE 14
KANE COUNTY
Maximum Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Kane County WCD	0.0	300.0	0.0	**300.0**
KANE COUNTY TOTALS	**0.0**	**300.0**	**0.0**	**300.0**

Note: All values represent maximum system source capacities limited by water rights, hydrologic constraints, and/or physical system constraint.

The reliable potable water supply for the public community system is 150 acre-feet, fifty percent of the maximum supply. This is shown in **Table 15** below.

TABLE 15
KANE COUNTY
Reliable Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Kane County WCD	0.0	150.0	0.0	**150.0**
KANE COUNTY TOTALS	**0.0**	**150.0**	**0.0**	**150.0**

Note: Wells are considered reliable at one half of their maximum flow rate, provided water rights and/or system constraints are not more limiting.

The following **Table 16** shows the breakdown of the potable water use for the public community water system in the Sevier River Basin portion of Kane County. As indicated by the table, the current annual potable use is 50 ac-ft which is 33 percent of the reliable supply.

TABLE 16
KANE COUNTY
Water Use for Public Community Systems

KANE COUNTY WATER SUPPLIER	POTABLE USAGE (Acre-Feet/Year)						Service Population	Gallons Per Capita Per Day
	Residential Indoor	Residential Outdoor	Commercial Total	Institutional Total	Industrial Total	Total M & I		
Kane County WCD[1]	35.0	2.5	12.0	0.0	0.0	**49.5**	1,500	29.5
KANE COUNTY TOTALS	**35.0**	**2.5**	**12.0**	**0.0**	**0.0**	**49.5**	**1,500**	**29.5**
A	B	C	D	E	F	G	H	J

A, B, C, D, E, F, H — Input data
G=B+C+D+E+F — Potable M&I Water Use
J=G*(325,851 gallons per acre-foot)/H/(365 days per year) — Average gallons per capita per day water use

[1] Kane Co. Water Conservancy District retails water to the former service areas of Duck Creek Ridge Homeowners, Hilltop East Water Association, Meadow View Water Users, Movie Ranch Unit B, Strawberry Valley Mutual, Swains Creek Pines, and Timber Trails Subdivision, as well as Lost Creek Subdivision.

There is no secondary water use in the service area of the public community water system in this portion of Kane County, as shown in the following **Table 17**.

TABLE 17
KANE COUNTY
Secondary (Non-Potable) Water Use
Within Public Community Water System Service Areas
(Acre-Feet/Year)

WATER SUPPLIER	Residential Use	Commercial Use	Institutional Use	Industrial Use	Total Secondary Use
Kane County WCD	0.0	0.0	0.0	0.0	**0.0**
KANE COUNTY TOTALS	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Table 18, on the following page shows the breakdown of per capita water use rates for the one public community water system.

TABLE 18
KANE COUNTY
Average Per Capita M&I Water Use for Public Community Systems

Water Supplier	Service Population	Residential Water Use			CII Water Use*			TOTAL WATER USE		
		Potable	Non-Potable	Sub Total	Potable	Non-Potable	Sub Total	Potable	Non-Potable	TOTAL
Kane County WCD	1,500	22	0	**22**	7	0	**7**	29	0	**29**
KANE COUNTY TOTALS	**1,500**	**22**	**0**	**22**	**7**	**0**	**7**	**29**	**0**	**29**

*Commmercial, Institutional, and Industrial

Table 19 displays water use for the public non-community systems. Secondary water is not used by either the community system or any of the non-community systems. This water use in Kane County is 30 ac-ft.

TABLE 19
KANE COUNTY
Water Use for Public Non-Community Systems, Self-Supplied Industries and Private Domestic Systems (Acre-Feet/Year)

KANE COUNTY WATER SUPPLIER	POTABLE USAGE (Ac-Ft/Yr)					Secondary Use (Ac-Ft/yr)
	Residential	Commercial	Institutional	Industrial/ Stockwater	Total Potable Use	
Forest Service Systems						
Boy Scout Spring	2.0	0.0	0.0	0.0	**2.0**	0.0
Duck Creek Campground	0.0	0.0	10.0	0.0	**10.0**	0.0
Navajo Lake Spruces Campground	2.0	0.0	5.0	0.0	**7.0**	0.0
Te-ah Campground	0.0	0.0	0.8	0.0	**0.8**	0.0
Bryce Woodland Estates	1.0	0.0	0.0	0.0	**1.0**	0.0
Elkridge Estates	1.5	0.0	0.0	0.0	**1.5**	0.0
Meadow View Heights	2.4	0.0	0.0	0.0	**2.4**	0.0
Swains Creek Pines	3.5	0.0	0.0	0.0	**3.5**	0.0
Timber Trails Subdivision	2.0	0.0	0.0	0.0	**2.0**	0.0
Total Non-Community Use	**14.4**	**0.0**	**15.8**	**0.0**	**30.2**	**0.0**
Self-Supplied Industries*	0.0	0.0	0.0	0.0	**0.0**	0.0
Private Domestic	0.0	0.0	0.0	0.0	**0.0**	0.0
KANE COUNTY TOTALS	**14.4**	**0.0**	**15.8**	**0.0**	**30.2**	**0.0**

*There are no self-supplied industries

Collectively, total potable use is 80 acre-feet, with no secondary use, for a overall total M&I water use of 80 acre-feet.

MILLARD COUNTY M&I WATER SUPPLIES AND USES

The Sevier River Basin portion of Millard County includes the incorporated communities of Delta, Fillmore, Hinckley, Holden, Kanosh, Leamington, Lynndyl, Meadow, Oak City, and Scipio. Within this area are 14 public community systems, the Kanosh-Paiute Indian Reservation, 7 public non-community systems, and 3 self-supplied industries. Locations of the public community systems are previously shown in **Figure 3** on page 6.

Table 20 shows the maximum annual potable water supply for public community systems in Millard County is 15,444 acre-feet. Springs contribute 3,906 acre-feet, and wells provide 11,538 acre-feet.

TABLE 20
MILLARD COUNTY
Maximum Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Country Estates	0.0	37.9	0.0	**37.9**
Delta	0.0	4,887.4	0.0	**4,887.4**
Deseret-Oasis	0.0	347.8	0.0	**347.8**
Fillmore	724.0	3,447.8	0.0	**4,171.8**
Hinckley	0.0	573.3	0.0	**573.3**
Holden	481.5	40.3	0.0	**521.9**
Kanosh	671.7	0.0	0.0	**671.7**
Leamington	180.7	322.6	0.0	**503.3**
Lynndyl	0.0	1,161.4	0.0	**1,161.4**
Meadow	402.5	316.0	0.0	**718.5**
Oak City	967.8	322.6	0.0	**1,290.4**
Oak Meadows	0.0	80.7	0.0	**80.7**
Scipio	477.8	0.0	0.0	**477.8**
MILLARD COUNTY TOTALS	**3,905.9**	**11,537.8**	**0.0**	**15,443.7**

Note: All values represent maximum system source capacities limited by water rights, hydrologic constraints, and/or physical system constraints.

The reliable potable water supply is shown in **Table 21**. The reliable potable water supply is 9,325 ac-ft, which is 60 percent of the maximum potable water supply.

TABLE 21
MILLARD COUNTY
Reliable Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Country Estates	0.0	37.9	0.0	**37.9**
Delta	0.0	2,943.7	0.0	**2,943.7**
Deseret-Oasis	0.0	347.8	0.0	**347.8**
Fillmore	362.9	2,298.5	0.0	**2,661.5**
Hinckley	0.0	573.3	0.0	**573.3**
Holden	282.3	20.2	0.0	**302.4**
Kanosh	335.8	0.0	0.0	**335.8**
Leamington	90.3	161.3	0.0	**251.6**
Lynndyl	0.0	580.7	0.0	**580.7**
Meadow	125.0	145.2	0.0	**270.2**
Oak City	483.9	161.3	0.0	**645.2**
Oak Meadows	0.0	40.3	0.0	**40.3**
Scipio	92.7	242.0	0.0	**334.7**
MILLARD COUNTY TOTALS	**1,773.0**	**7,552.2**	**0.0**	**9,325.2**

Note: Springs and wells are considered reliable at one half of their maximum flow rate, provided water rights and/or system constraints are not more limiting.

Table 22 shows a breakdown of the potable water use for each public community system. As indicated by the table, the current annual potable water use is 4,088 acre-feet, which is 44 percent of the reliable potable water supply.

TABLE 22
MILLARD COUNTY
Water Use for Public Community Systems

MILLARD COUNTY WATER SUPPLIER	POTABLE USAGE (Acre-Feet/Year)						Service Population	Gallons Per Capita Per Day
	Residential Indoor	Residential Outdoor	Commercial Total	Institutional Total	Industrial Total	TOTAL M&I		
Country Estates	13.7	13.2	0.0	0.0	0.0	**26.9**	170	141.3
Delta City	269.2	346.1	97.1	277.1	14.0	**1,003.5**	3,390	264.3
Deseret-Oasis SSD	19.2	65.3	0.0	15.0	0.0	**99.5**	680	130.6
Fillmore Municipal Water System	192.5	361.2	247.1	539.5	194.9	**1,535.2**	2,420	566.3
Hinkley City Water	64.3	107.7	1.3	18.8	0.0	**192.1**	810	211.7
Holden Town Corporation	33.4	100.0	9.2	20.0	46.0	**208.6**	420	443.4
Kanosh City Water System	39.8	10.2	0.1	4.6	0.4	**55.1**	510	96.5
Kanosh-Paiute Reservation	7.5	8.5	0.0	0.5	0.0	**16.5**	70	210.4
Leamington Town Water	20.9	32.7	1.5	6.2	7.4	**68.7**	260	235.9
Lynndyl	12.3	28.0	1.1	5.3	1.8	**48.5**	160	270.6
Meadow Town Corporation Water	54.3	216.7	3.0	52.1	0.0	**326.1**	680	428.1
Oak City Municipal Water System	54.7	276.0	2.5	45.1	15.6	**393.9**	690	509.6
Oak Meadows Subdivision	6.4	15.0	0.0	0.0	0.0	**21.4**	80	238.8
Scipio Culinary Water System	26.1	45.1	2.0	0.0	18.3	**91.5**	330	247.5
MILLARD COUNTY TOTAL	**814.3**	**1,625.7**	**364.9**	**984.2**	**298.4**	**4,087.5**	**10,670**	**342.0**
A	B	C	D	E	F	G	H	J

A, B, C, D, E, F, H — Input data
G=B+C+D+E+F — Potable M&I Water Use
J=G*(325,851 gallons per acre-foot)/H/(365 days per year) — Average gallons per capita per day water use

Secondary water is another important aspect of total M&I water use. **Table 23** shows the amount of secondary water use for public community systems. In Millard County, public community systems use 1,076 ac-ft secondary water.

TABLE 23
MILLARD COUNTY
Secondary (Non-Potable) Water Use
Within Public Community Water System Service Areas
(Acre-Feet/Year)

WATER SUPPLIER	Residential Use	Commercial Use	Institutional Use	Industrial Use	Total Secondary Use
Country Estates	0.0	0.0	0.0	0.0	**0.0**
Delta City					
Delta Canal Company	154.0	0.0	0.0	0.0	**154.0**
Deseret-Oasis SSD	0.0	0.0	0.0	0.0	**0.0**
Fillmore Municipal Water System					
Fillmore Water Users Association	510.1	0.0	0.0	0.0	**510.1**
Hinckley City Water					
Melville Irrigation Co.	92.4	0.0	29.5	0.0	**121.9**
Holden Town Corporation	150.0	0.0	0.0	0.0	**150.0**
Kanosh City Water System					
Corn Creek Irrigation Co.	40.6	0.0	0.0	0.0	**40.6**
Kanosh-Paiute Indian Reservation	0.0	0.0	0.0	0.0	**0.0**
Leamington Town Water	0.0	0.0	0.0	0.0	**0.0**
Lynndyl	0.0	0.0	0.0	0.0	**0.0**
Meadow Town Corporation Water	0.0	0.0	0.0	0.0	**0.0**
Oak City Municipal Water System	0.0	0.0	0.0	0.0	**0.0**
Oak Meadows Subdivision	0.0	0.0	0.0	0.0	**0.0**
Scipio Culinary Water System					
Scipio Irrigation Co.	65.6	0.0	34.1	0.0	**99.7**
MILLARD COUNTY TOTALS	**1,012.7**	**0.0**	**63.6**	**0.0**	**1,076.3**

Table 24 gives various gallons per capita per day water use rates for the public community systems.

TABLE 24
MILLARD COUNTY
Average Per Capita M&I Water Use for Public Community Systems

Water Supplier	Service Population	Residential Water Use			CII Water Use*			TOTAL WATER USE		
		Potable	Non-Potable	Sub Total	Potable	Non-Potable	Sub Total	Potable	Non-Potable	TOTAL
Country Estates	170	141	0	**141**	0	0	**0**	141	0	**141**
Delta City	3,390	162	41	**203**	102	0	**102**	264	41	**305**
Deseret-Oasis SSD	680	111	0	**111**	20	0	**20**	131	0	**131**
Fillmore Municipal Water System	2,420	204	188	**392**	362	0	**362**	566	188	**755**
Hinkley City Water	810	190	102	**291**	22	33	**55**	212	134	**346**
Holden Town Corporation	420	284	319	**602**	160	0	**160**	443	319	**762**
Kanosh City Water System	510	88	71	**159**	9	0	**9**	96	71	**168**
Kanosh-Paiute Reservation	70	204	0	**204**	6	0	**6**	210	0	**210**
Leamington Town Water	260	184	0	**184**	52	0	**52**	236	0	**236**
Lynndyl	160	225	0	**225**	46	0	**46**	271	0	**271**
Meadow Town Corporation Water	680	356	0	**356**	72	0	**72**	428	0	**428**
Oak City Municipal Water System	690	428	0	**428**	82	0	**82**	510	0	**510**
Oak Meadows Subdivision	80	239	0	**239**	0	0	**0**	239	0	**239**
Scipio Culinary Water System	330	193	177	**370**	55	92	**147**	248	270	**517**
MILLARD COUNTY TOTALS	**10,670**	**204**	**85**	**289**	**138**	**5**	**143**	**342**	**90**	**432**

*Commmercial, Institutional, and Industrial

Table 25 indicates the water use for public non-community systems and private domestic systems. Five Forest Service Systems, one golf course, and a church comprise Millard County Non-Community systems. Millard County has three self-supplied industries. Non-community, private domestic, and self-supplied industry uses amount to 3,946 acre-feet of potable water and 19,754 acre-feet of non-potable water.

TABLE 25
MILLARD COUNTY
Water Use for Public Non-Community Systems, Self-Supplied Industries and Private Domestic Systems (Acre-Feet/Year)

MILLARD COUNTY WATER SUPPLIER	POTABLE USAGE (Ac-Ft/Yr)					Secondary Use (Ac-Ft/yr)
	Residential	Commercial	Institutional	Industrial/ Stockwater	Total Potable Use	
Forest Service Systems						
Adelaide Campground	0.0	0.0	0.2	0.0	**0.2**	0.0
Chalk Creek Water System	0.0	0.0	0.2	0.0	**0.2**	0.0
Maple Grove Campground	0.0	0.0	0.2	0.0	**0.2**	0.0
Maple Hollow Picnic Area	0.0	0.0	0.2	0.0	**0.2**	0.0
Oak Creek Campground	0.0	0.0	0.2	0.0	**0.2**	0.0
Sunset View Golf Course	0.0	0.0	0.5	0.0	**0.5**	260.0
Sutherland Latter Day Saints Church	0.0	0.0	3.5	0.0	**3.5**	0.0
Total Non-Community Use	**0.0**	**0.0**	**5.0**	**0.0**	**5.0**	**260.0**
Self-Supplied Industries*	0.0	0.0	0.0	3,170.5	**3,170.5**	19,494.3
Private Domestic	770.0	0.0	0.0	0.0	**770.0**	0.0
MILLARD COUNTY TOTALS	**770.0**	**0.0**	**5.0**	**3,170.5**	**3,945.5**	**19,754.3**

*Brush-Wellman, Inc., Intermountain Power Service Corp., Delta Egg Farm

Total potable M&I water use for all categories of water systems in the county is 8,033 acre-feet, while total non-potable water use is 20,831 acre-feet, giving a total overall M&I water use in 2005 of about 28,864 acre-feet for Millard County.

PIUTE COUNTY M&I WATER SUPPLIES AND USES

The Sevier River Basin encompasses nearly all of Piute County. The incorporated communities of Circleville, Junction, Kingston, and Marysvale are included in this portion of Piute County. There are 5 public community systems and 6 non-community systems. The locations of public community systems are shown in **Figure 3** on page 6.

Table 26 shows the maximum annual water supply for public community systems. Springs contribute 685 acre-feet to maximum supply and wells add 843 acre-feet. The total maximum potable supply is 1,529 acre-feet.

TABLE 26
PIUTE COUNTY
Maximum Potable Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Circleville	258.1	362.9	0.0	**621.0**
Greenwich Water Association	150.0	0.0	0.0	**150.0**
Junction	80.9	105.4	0.0	**186.4**
Kingston	32.3	161.3	0.0	**193.6**
Marysvale	164.2	213.7	0.0	**377.9**
PIUTE COUNTY TOTALS	**685.4**	**843.3**	**0.0**	**1,528.8**

Note: All values represent maximum system source capacities limited by water rights, hydrologic constraints, and/or physical system constraints.

The reliable potable water supply is listed in **Table 27**. The total reliable water supply is 1,122 acre-feet, which is approximately 73% of the maximum potable water supply.

TABLE 27
PIUTE COUNTY
Reliable Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Circleville	129.0	181.5	0.0	**310.5**
Greenwich Water Association	150.0	0.0	0.0	**150.0**
Junction	80.9	105.4	0.0	**186.4**
Kingston	16.1	80.7	0.0	**96.8**
Marysvale	164.2	213.7	0.0	**377.9**
PIUTE COUNTY TOTALS	**540.3**	**581.2**	**0.0**	**1,121.5**

Note: Springs are considered reliable at a percentage of and wells at one half of their maximum flow rate, provided water rights and/or system constraints are not more limiting.

Table 28 presents the breakdown of the potable water use for each public community system of the county. As indicated by the table, the current total annual potable water use is 624 acre-feet, which is about half of the current reliable potable water supply.

TABLE 28
PIUTE COUNTY
Water Use for Public Community Systems

PIUTE COUNTY WATER SUPPLIER	POTABLE USAGE (Acre-Feet/Year)						Service Population	Gallons Per Capita Per Day
	Residential Indoor	Residential Outdoor	Commercial Total	Institutional Total	Industrial Total	TOTAL M&I		
Circleville Culinary Water	36.9	84.4	18.4	29.6	156.8	**326.1**	470	619.4
Greenwich Water Association	5.0	5.0	2.0	2.0	2.0	**16.0**	60	238.1
Junction Town	13.9	15.9	6.8	2.0	16.6	**55.2**	160	308.0
Kingston Town Corporation	11.4	6.8	0.1	16.0	1.0	**35.3**	140	225.1
Marysvale Culinary Water	30.9	100.0	25.5	30.0	5.0	**191.4**	370	461.8
PIUTE COUNTY TOTALS	**98.1**	**212.1**	**52.8**	**79.6**	**181.4**	**624.0**	**1,200**	**464.2**
A	B	C	D	E	F	G	H	J

A, B, C, D, E, F, H — Input data
G=B+C+D+E+F — Potable M&I Water Use
J=G*(325,851 gallons per acre-foot)/H/(365 days per year) — Average gallons per capita per day water use

Table 29 shows the amount of secondary water supplied for various uses within the public community water systems service areas. The total secondary water use for Piute County is 124 acre-feet.

TABLE 29
PIUTE COUNTY
Secondary (Non-Potable) Water Use
Within Public Community Water System Service Areas
(Acre-Feet/Year)

WATER SUPPLIER	Residential Use	Commercial Use	Institutional Use	Industrial Use	Total Secondary Use
Circleville Culinary Water	0.0	0.0	0.0	0.0	**0.0**
Greenwich Water Association	10.0	0.0	1.0	0.0	**11.0**
Junction Town					
City Creek Reservoir & Irrig.Co.	10.8	0.0	10.0	0.0	**20.8**
Junction Canal Co.	43.0	0.0	40.3	0.0	**83.3**
Kingston Town Corporation					
Kingston Irrigation Co.	4.2	0.0	5.0	0.0	**9.2**
Marysvale Culinary Water	0.0	0.0	0.0	0.0	**0.0**
PIUTE COUNTY TOTALS	**68.0**	**0.0**	**56.3**	**0.0**	**124.3**

Table 30 gives various per capita use rates for the public community water systems of the county.

TABLE 30
PIUTE COUNTY
Average Per Capita M&I Water Use for Public Community Systems

Water Supplier	Service Population	Residential Water Use			CII Water Use*			TOTAL WATER USE		
		Potable	Non-Potable	Sub Total	Potable	Non-Potable	Sub Total	Potable	Non-Potable	TOTAL
Circleville Culinary Water	470	230	0	**230**	389	0	**389**	619	0	**619**
Greenwich Water Association	60	149	149	**298**	89	15	**104**	238	164	**402**
Junction Town	160	166	300	**466**	142	281	**422**	308	581	**889**
Kingston Town Corporation	140	116	27	**143**	109	32	**141**	225	59	**284**
Marysvale Culinary Water	370	316	0	**316**	146	0	**146**	462	0	**462**
PIUTE COUNTY TOTALS	**1,200**	**231**	**51**	**281**	**233**	**42**	**275**	**464**	**92**	**557**

*Commmercial, Institutional, and Industrial

Table 31 gives the water use for public non-community, self-supplied industries, and private domestic water systems. Public non-community water is used by one Forest Service System campground, Otter Creek State Park, four other non-community systems, and private domestic systems. There are no self-supplied industries in Piute County. Total potable water use is 114 ac-ft. Secondary water is not used by Piute non-community systems.

TABLE 31
PIUTE COUNTY
Water Use for Public Non-Community Systems,
Self-Supplied Industries and Private Domestic Systems
(Acre-Feet/Year)

PIUTE COUNTY WATER SUPPLIER	POTABLE USAGE (Ac-Ft/Yr)					Secondary Use (Ac-Ft/yr)
	Residential	Commercial	Institutional	Industrial/ Stockwater	Total Potable Use	
Forest Service Systems						
City Creek Campground	0.1	0.0	0.0	0.0	**0.1**	0.0
State Park Systems						0.0
Otter Creek Lake State Park	0.0	0.0	8.5	0.0	**8.5**	0.0
Grass Valley Guest Ranch	0.0	2.0	0.0	0.0	**2.0**	0.0
Hoover's Café	0.0	0.2	0.0	0.0	**0.2**	0.0
Hoover Hwy State Rest Stop	0.0	0.0	1.5	0.0	**1.5**	0.0
Otter Creek RV Park	0.0	2.0	0.0	0.0	**2.0**	0.0
Total Non-Community Use	**0.1**	**4.2**	**10.0**	**0.0**	**14.3**	**0.0**
Self-Supplied Industries*	0.0	0.0	0.0	0.0	**0.0**	0.0
Private Domestic	100.0	0.0	0.0	0.0	**100.0**	0.0
PIUTE COUNTY TOTALS	**100.1**	**4.2**	**10.0**	**0.0**	**114.3**	**0.0**

*There are no self-supplied industries

Total M&I potable water use for all water systems in the county is about 738 acre-feet. Non-potable use is 124 acre-feet for a total overall M&I water use of 862 acre-feet.

SANPETE COUNTY M&I WATER SUPPLIES AND USES

The Sanpete County section of the Sevier River Basin includes the incorporated communities of Centerfield, Ephraim, Fairview, Fayette, Fountain Green, Gunnison, Manti, Mayfield, Moroni, Mt. Pleasant, Spring City, Sterling, and Wales. Within this area are 14 public community systems, 10 public non-community systems, and 1 self-supplied industry. The locations of the most of these water systems are shown in **Figure 3** on page 6.

Table 32 shows the maximum annual water supply for public community systems in Sanpete County with 6,395 acre-feet from springs and 8,980 acre-feet from wells. The total maximum water supply is 15,375 acre-feet.

TABLE 32
SANPETE COUNTY
Maximum Potable Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Axtell	0.0	242.0	0.0	**242.0**
Centerfield	587.0	0.0	0.0	**587.0**
Ephraim	2,171.3	846.8	0.0	**3,018.0**
Fairview	179.0	1,269.4	0.0	**1,448.5**
Fayette	0.0	177.4	0.0	**177.4**
Fountain Green	145.2	0.0	0.0	**145.2**
Gunnison	413.8	1,448.0	0.0	**1,861.8**
Manti	926.0	777.6	0.0	**1,703.6**
Mayfield	63.2	90.3	0.0	**153.4**
Moroni	0.0	1,990.9	0.0	**1,990.9**
Mt. Pleasant	693.6	1,613.0	0.0	**2,306.6**
Spring City	554.9	524.2	0.0	**1,079.1**
Sterling	483.9	0.0	0.0	**483.9**
Wales	177.6	0.0	0.0	**177.6**
SANPETE COUNTY TOTALS	**6,395.3**	**8,979.6**	**0.0**	**15,375.0**

Note: All values represent maximum system source capacities limited by water rights, hydrologic constraints, and/or physical system constraints.

The reliable potable water supply, listed in **Table 33**, is 9,930 acre-feet. It is approximately 65% of the maximum potable water supply.

TABLE 33
SANPETE COUNTY
Reliable Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Axtell	0.0	121.0	0.0	**121.0**
Centerfield	362.9	0.0	0.0	**362.9**
Ephraim	508.1	1,451.7	0.0	**1,959.8**
Fairview	89.5	634.7	0.0	**724.2**
Fayette	88.7	0.0	0.0	**88.7**
Fountain Green	72.6	0.0	0.0	**72.6**
Gunnison	530.7	838.8	0.0	**1,369.4**
Manti	926.0	777.6	0.0	**1,703.6**
Mayfield	63.2	90.3	0.0	**153.4**
Moroni	0.0	1,262.2	0.0	**1,262.2**
Mt. Pleasant	346.8	806.5	0.0	**1,153.3**
Spring City	277.4	262.1	0.0	**539.6**
Sterling	242.0	0.0	0.0	**242.0**
Wales	177.6	0.0	0.0	**177.6**
SANPETE COUNTY TOTALS	**3,685.4**	**6,244.8**	**0.0**	**9,930.2**

Note: Springs are considered reliable at a percentage of and wells at one half of their maximum flow rate, provided water rights and/or system constraints are not more limiting

Table 34, on the following page, presents the breakdown of the potable water use for each public community system of the county. As indicated by the table, the current total annual potable water use is 4,326 acre-feet, which is approximately 50 percent of the current reliable potable water supply.

TABLE 34
SANPETE COUNTY
Water Use for Public Community Systems

SANPETE COUNTY WATER SUPPLIER	POTABLE USAGE (Acre-Feet/Year)						Service Population	Gallons Per Capita Per Day
	Residential Indoor	Residential Outdoor	Commercial Total	Institutional Total	Industrial Total	Total M & I		
Axtell Community Service District	15.7	16.1	0.0	3.2	4.1	**39.1**	200	174.5
Centerfield W.I.D.	90.1	32.7	27.6	30.7	171.9	**353.0**	1,150	274.0
Ephraim Municipal Water Dept.	417.5	646.4	96.5	198.0	55.3	**1,413.7**	5,320	237.2
Fairview City Water System	85.0	0.0	10.3	0.0	1.8	**97.1**	1,300	66.7
Fayette Town Water	17.1	108.5	0.0	4.1	1.2	**130.9**	220	531.2
Fountain Green	80.6	100.2	11.0	1.1	83.8	**276.7**	1,030	239.8
Gunnison City Water Corp.	165.1	0.0	72.6	151.6	0.0	**389.3**	2,790	124.6
Manti City Corp. Water	477.2	0.0	58.3	2.2	1.2	**538.9**	3,310	145.3
Mayfield Water Department	35.4	23.9	2.2	16.0	0.2	**77.7**	450	154.1
Moroni Municipal Water System	109.1	31.6	20.5	31.5	12.3	**205.0**	1,390	131.7
Mt. Pleasant City	299.2	0.0	88.1	94.5	3.3	**485.1**	2,930	147.8
Spring City Municipal Water	77.9	0.0	1.4	48.8	0.9	**129.0**	1,130	101.9
Sterling Municipal Water System	36.8	0.0	5.3	0.7	0.4	**43.2**	280	137.7
Wales Town Water	19.2	128.5	0.0	0.0	0.0	**147.7**	240	549.4
SANPETE COUNTY TOTALS	**1,925.9**	**1,087.9**	**393.8**	**582.4**	**336.4**	**4,326.4**	**21,740**	**177.7**

A, B, C, D, E, F, H — Input data
G=B+C+D+E+F — Potable M&I Water Use
J=G*(325,851 gallons per acre-foot)/H/(365 days per year) — Average gallons per capita per day water use

The following **Table 35** shows the amount of secondary water supplied for various uses within the public community water systems service areas. The total secondary water use for Sanpete County is 3,441 acre-feet.

TABLE 35
SANPETE COUNTY
Secondary (Non-Potable) Water Use
Within Public Community Water System Service Areas
(Acre-Feet/Year)

SANPETE COUNTY WATER SUPPLIER	Residential Use	Commercial Use	Institutional Use	Industrial Use	Total Secondary Use
Axtell Community Service District					
Willow Creek Irrigation Co.	16.1	0.0	0.0	0.0	**16.1**
Centerfield W.I.D.					
Gunnison Irrigation Co.	258.0	0.0	17.9	0.0	**275.9**
Ephraim Municipal Water Dept.	0.0	0.0	0.0	0.0	**0.0**
Fairview City Water System					
Cottonwood-Gooseberry Irr. Co.	195.0	0.0	55.2	0.0	**250.2**
Fayette Town Water	0.0	0.0	0.0	0.0	**0.0**
Fountain Green					
Fountain Green Irrigation Co.	149.5	0.0	53.3	0.0	**202.8**
Gunnison City Water Corp.					
Gunnison City Canal	291.5	0.0	590.2	0.0	**881.7**
Manti City Corp. Water					
Manti Irrigation Co.	172.3	0.0	76.5	0.0	**248.8**
Mayfield Water Department					
Mayfield Irrigation Co.	71.6	0.0	19.0	0.0	**90.6**
Moroni Municipal Water System					
Moroni Irrigation Co.	187.4	0.0	48.5	0.0	**235.9**
M&M Irrigation Co.	93.7	0.0	24.3	0.0	**118.0**
Mt. Pleasant City					
Pleasant Creek Irr. Co.	289.6	0.0	0.0	0.0	**289.6**
Twin Creek Irrigation Co.	144.3	0.0	0.0	0.0	**144.3**
Spring City Municipal Water					
Horseshoe Irrigation Co.	572.0	0.0	0.0	0.0	**572.0**
Sterling Municipal Water System					
Sterling Irrigation Co.	81.2	0.0	20.8	0.0	**102.0**
Wales Town Water					
Wales Irrigation Co.	3.4	0.0	9.3	0.0	**12.7**
SANPETE COUNTY TOTALS	**2,525.6**	**0.0**	**915.0**	**0.0**	**3,440.6**

Table 36 gives various per capita use rates for the public community water systems of the county.

TABLE 36
SANPETE COUNTY
Average Per Capita M&I Water Use for Public Community Systems

Water Supplier	Service Population	Residential Water Use			CII Water Use*			TOTAL WATER USE		
		Potable	Non-Potable	Sub Total	Potable	Non-Potable	Sub Total	Potable	Non-Potable	TOTAL
Axtell Community Service District	200	142	72	**214**	33	0	**33**	175	72	**246**
Centerfield W.I.D.	1,150	95	200	**296**	179	14	**193**	274	214	**488**
Ephraim Municipal Water Dept.	5,320	179	0	**179**	59	0	**59**	237	0	**237**
Fairview City Water System	1,300	58	134	**192**	8	38	**46**	67	172	**238**
Fayette Town Water	220	510	0	**510**	22	0	**22**	531	0	**531**
Fountain Green	1,030	157	130	**286**	83	46	**129**	240	176	**416**
Gunnison City Water Corp.	2,790	53	93	**146**	72	189	**261**	125	282	**407**
Manti City Corp. Water	3,310	129	46	**175**	17	21	**37**	145	67	**212**
Mayfield Water Department	450	118	0	**118**	37	0	**37**	154	0	**154**
Moroni Municipal Water System	1,390	90	181	**271**	41	47	**88**	132	227	**359**
Mt. Pleasant City	2,930	91	132	**223**	57	0	**57**	148	132	**280**
Spring City Municipal Water	1,130	62	452	**513**	40	0	**40**	102	452	**554**
Sterling Municipal Water System	280	117	259	**376**	20	66	**87**	138	325	**463**
Wales Town Water	240	549	13	**562**	0	35	**35**	549	47	**597**
SANPETE COUNTY TOTALS	**21,740**	**124**	**104**	**227**	**54**	**38**	**91**	**178**	**141**	**319**

*Commmercial, Institutional, and Industrial

Table 37 indicates the water use for public non-community, self-supplied industries, and private domestic water systems. Three Forest Service campgrounds, Palisade State Park, and various public developments and businesses comprise Sanpete County's non-community systems. Private homes and one self-supplied industry are also included in Sanpete County. Public non-community systems, self-supplied industries, and private homes use 1,356 ac-ft of potable water. Secondary water use amounts to 300 act-ft.

TABLE 37
SANPETE COUNTY
Water Use for Public Non-Community Systems, Self-Supplied Industries and Private Domestic Systems (Acre-Feet/Year)

SANPETE COUNTY WATER SUPPLIER	POTABLE USAGE (Ac-Ft/Yr)					Secondary Use (Ac-Ft/yr)
	Residential	Commercial	Institutional	Industrial/ Stockwater	Total Potable Use	
Forest Service Systems						
Lake Hill Campground	0.0	0.0	0.2	0.0	**0.2**	0.0
Manti Community Campground	0.0	0.0	0.2	0.0	**0.2**	0.0
Spring City Campground	0.0	0.0	0.3	0.0	**0.3**	0.0
State Park Systems						
Palisade State Park	0.0	0.0	39.5	0.0	**39.5**	300.0
Burns Bros. Ranch/RV Park	0.0	3.5	0.0	0.0	**3.5**	0.0
Camperworld - Mt. Pleasant	0.0	4.0	0.0	0.0	**4.0**	0.0
Palisade Lodge	1.0	2.0	0.0	0.0	**3.0**	0.0
Pine Creek Property Owners	3.0	0.0	0.0	0.0	**3.0**	0.0
Provo/Orem Stake Girls Camp	0.0	0.0	1.5	0.0	**1.5**	0.0
Skyline Mountain Resort/SSD	60.0	0.0	0.0	0.0	**60.0**	0.0
Total Non-Community Use	**64.0**	**9.5**	**41.7**	**0.0**	**115.2**	**300.0**
Self-Supplied Industries*	0.0	0.0	0.0	551.1	**551.1**	0.0
Private Domestic	690.0	0.0	0.0	0.0	**690.0**	0.0
SANPETE COUNTY TOTALS	**754.0**	**9.5**	**41.7**	**551.1**	**1,356.3**	**300.0**

*Moroni Feed Co.

Total M&I potable water use for all water systems in the county is about 5,683 acre-feet, while non-potable use is 3,741 acre-feet for a total overall M&I water use of 9,424 acre-feet.

SEVIER COUNTY M&I WATER SUPPLIES AND USES

The Sevier River Basin portion of Sevier County includes the incorporated communities of Annabella, Aurora, Elsinore, Glenwood, Joseph, Koosharem, Monroe, Redmond, Richfield, Salina, and Sigurd. There are 14 public community systems, 9 public non-community systems, and 2 self-supplied industries located in the area. The locations of these systems are shown in **Figure 3**, on page 6.

Table 38 shows the maximum annual water supply for public community systems. Springs supply 6,941 acre-feet and wells contribute 4,877 acre-feet. The total maximum potable supply is 11,818 acre-feet.

TABLE 38
SEVIER COUNTY
Maximum Potable Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Annabella	724.0	54.8	0.0	**778.7**
Aurora	318.5	446.7	0.0	**765.2**
Austin	105.4	0.0	0.0	**105.4**
Central	102.1	257.8	0.0	**359.8**
Cove	0.0	146.0	0.0	**146.0**
Elsinore	129.6	553.1	0.0	**682.7**
Glenwood	362.0	0.0	0.0	**362.0**
Joseph	351.1	56.8	0.0	**408.0**
Koosharem	112.9	242.0	0.0	**354.9**
Monroe	2,171.9	724.0	0.0	**2,895.9**
Redmond	0.0	572.7	0.0	**572.7**
Richfield	1,448.0	1,158.4	0.0	**2,606.4**
Salina	710.0	181.0	0.0	**891.0**
Sigurd	405.8	483.9	0.0	**889.7**
SEVIER COUNTY TOTALS	**6,941.3**	**4,877.0**	**0.0**	**11,818.3**

Note: All values represent maximum system source capacities limited by water rights, hydrologic constraints, and/or physical system constraints.

The reliable potable water supply is listed in **Table 39**. The total reliable water supply is 8,912 acre-feet, which is approximately 75% of the maximum potable water supply.

TABLE 39
SEVIER COUNTY
Reliable Potable Water Supplies for Public Community Systems
(Acre-Feet/Year)

WATER SUPPLIER	Springs	Wells	Surface	Total
Annabella	724.0	54.8	0.0	**778.7**
Aurora	72.6	343.6	0.0	**416.2**
Austin	52.7	0.0	0.0	**52.7**
Central	62.9	158.9	0.0	**221.8**
Cove	0.0	129.0	0.0	**129.0**
Elsinore	89.5	532.3	0.0	**621.8**
Glenwood	362.0	0.0	0.0	**362.0**
Joseph	48.4	217.8	0.0	**266.1**
Koosharem	56.5	121.0	0.0	**177.4**
Monroe	326.6	1,129.1	0.0	**1,455.7**
Redmond	0.0	572.7	0.0	**572.7**
Richfield	1,448.0	1,158.4	0.0	**2,606.4**
Salina	564.6	242.0	0.0	**806.5**
Sigurd	202.9	242.0	0.0	**444.8**
SEVIER COUNTY TOTALS	**4,010.6**	**4,901.3**	**0.0**	**8,911.9**

Note: Springs are considered reliable at a percentage of and wells at one half of their maximum flow rate, provided water rights and/or system constraints are not more limiting

Table 40, on the following page, presents the breakdown of the potable water use for each public community system of the county. As indicated by the table, the current total annual potable water use is 4,987 acre-feet, which is less than 50 percent of the current reliable potable water supply.

TABLE 40
SEVIER COUNTY
Water Use for Public Community Systems

SEVIER COUNTY WATER SUPPLIER	POTABLE USAGE (Acre-Feet/Year)						Service Population	Gallons Per Capita Per Day
	Residential Indoor	Residential Outdoor	Commercial Total	Institutional Total	Industrial Total	Total M & I		
Annabella	49.0	34.0	0.0	1.5	0.0	**84.5**	610	123.7
Aurora	77.5	36.6	8.0	7.4	0.7	**130.2**	960	121.1
Austin Community SSD	10.5	16.1	1.4	0.0	1.9	**29.9**	130	205.3
Brooklyn Tap Line Company	14.0	13.0	3.0	0.0	0.0	**30.0**	180	148.8
Central Water Works	76.5	151.7	0.0	4.1	5.5	**237.8**	950	223.5
Cove SSD	11.9	49.4	0.0	0.1	26.1	**87.5**	150	520.8
Elsinore Town	61.0	251.5	4.2	30.9	2.5	**350.1**	760	411.2
Glenwood Municipal Water System	58.5	0.0	1.1	5.5	0.3	**65.4**	440	132.7
Joseph	24.6	97.5	2.6	47.6	2.0	**174.3**	300	518.7
Koosharem	24.3	29.6	12.5	13.4	0.0	**79.8**	300	237.5
Monroe City	155.0	315.0	51.4	22.4	47.6	**591.4**	1,900	277.9
Redmond	65.0	97.6	3.4	27.0	12.0	**205.0**	810	225.9
Richfield City	583.6	774.6	351.2	441.0	0.0	**2,150.4**	7,240	265.2
Salina	196.3	25.7	255.1	9.6	189.7	**676.4**	2,430	248.5
Sigurd Municipal Water System	36.5	31.0	1.9	2.4	12.6	**84.4**	450	167.4
South Monroe	4.0	6.0	0.0	0.0	0.0	**10.0**	50	178.5
SEVIER COUNTY TOTALS	**1,448.2**	**1,929.3**	**695.8**	**612.9**	**300.9**	**4,987.1**	**17,660**	**252.1**

A, B, C, D, E, F, H — Input data
G=B+C+D+E+F — Potable M&I Water Use
J=G*(325,851 gallons per acre-foot)/H/(365 days per year) — Average gallons per capita per day water use

Table 41 shows the amount of secondary water supplied for various uses within the public community water systems service areas. The total secondary water use for Sevier County is 1,826 acre-feet.

TABLE 41
SEVIER COUNTY
Secondary (Non-Potable) Water Use
Within Public Community Water System Service Areas
(Acre-Feet/Year)

WATER SUPPLIER	Residential Use	Commercial Use	Institutional Use	Industrial/ Stockwater Use	Total Secondary Use
Annabella	71.2	0.0	24.3	0.0	**95.5**
Aurora					
Piute Reservoir & Irrigation Co.	234.2	0.0	24.3	0.0	**258.5**
Austin Community SSD	0.0	0.0	0.0	0.0	**0.0**
Brooklyn Tap Line Company	5.0	0.0	0.0	0.0	**5.0**
Central Waterworks Company	0.0	0.0	0.0	0.0	**0.0**
Cove SSD					
Clear Creek Irrigation Co.	4.0	0.0	0.0	0.0	**4.0**
Elsinore Town					
Elsinore Bench Irrigation Co.	9.7	0.0	0.0	0.0	**9.7**
Elsinore Canal Irrigation Co.	19.3	0.0	0.0	0.0	**19.3**
Glenwood Municipal Water System					
Glenwood Irrigation Co.	60.8	0.0	16.2	0.0	**77.0**
Joseph	0.0	0.0	0.0	0.0	**0.0**
Koosharem					
Rosebud Irrigation Co.	5.7	0.0	0.0	0.0	**5.7**
Koosharem Irrigation Co.	7.0	0.0	0.0	0.0	**7.0**
Monroe City					
Monroe Creek Irrigation Co.	254.3	0.0	25.7	0.0	**280.0**
South Bend Irrigation Co.	148.4	0.0	15.0	0.0	**163.4**
Monroe Irrigation Co.	21.2	0.0	2.1	0.0	**23.3**
Redmond					
Redmond Lake Irrigation Co.	38.5	0.0	0.0	0.0	**38.5**
Richfield City					
Richfield Irrigation Canal Co.	18.8	0.0	83.7	0.0	**102.5**
Sevier Valley Canal Co.	20.9	0.0	93.0	0.0	**113.9**
Piute A&B Irrigation Co.	2.1	0.0	9.3	0.0	**11.4**
Salina					
Salina Creek Irrigation Co.	488.6	0.0	67.5	0.0	**556.1**
Sigurd Municipal Water System	42.5	0.0	8.1	0.0	**50.6**
South Monroe Culinary Water System	5.0	0.0	0.0	0.0	**5.0**
SEVIER COUNTY TOTAL	**1,457.2**	**0.0**	**369.2**	**0.0**	**1,826.4**

Table 42 gives various per capita use rates for the public community water systems of the county.

TABLE 42
SEVIER COUNTY
Average Per Capita M&I Water Use for Public Community Systems

Water Supplier	Service Population	Residential Water Use			CII Water Use*			TOTAL WATER USE		
		Potable	Non-Potable	Sub Total	Potable	Non-Potable	Sub Total	Potable	Non-Potable	TOTAL
Annabella	610	121	104	**226**	2	36	**38**	124	140	**263**
Aurora	960	106	218	**324**	15	23	**38**	121	240	**361**
Austin Community SSD	130	183	0	**183**	23	0	**23**	205	0	**205**
Brooklyn Tap Line Company	180	134	25	**159**	15	0	**15**	149	25	**174**
Central Water Works	950	214	0	**214**	9	0	**9**	223	0	**223**
Cove SSD	150	365	24	**389**	156	0	**156**	521	24	**545**
Elsinore Town	760	367	34	**401**	44	0	**44**	411	34	**445**
Glenwood Municipal Water System	440	119	123	**242**	14	33	**47**	133	156	**289**
Joseph	300	363	0	**363**	155	0	**155**	519	0	**519**
Koosharem	300	160	38	**198**	77	0	**77**	237	38	**275**
Monroe City	1,900	221	199	**420**	57	20	**77**	278	219	**497**
Redmond	810	179	42	**222**	47	0	**47**	226	42	**268**
Richfield City	7,240	167	5	**173**	98	23	**121**	265	28	**293**
Salina	2,430	82	180	**261**	167	25	**192**	248	204	**453**
Sigurd Municipal Water System	450	134	84	**218**	34	16	**50**	167	100	**268**
South Monroe Culinary Water System	50	179	89	**268**	0	0	**0**	179	89	**268**
SEVIER COUNTY TOTALS	**17,660**	**171**	**74**	**244**	**81**	**19**	**100**	**252**	**92**	**344**

*Commmercial, Institutional, and Industrial

Table 43 on the following page gives the water use for public non-community, self-supplied industries, and private domestic water systems. One Forest Service System, one State Park System, and various public locations constitute Sevier County's public non-community systems. There are private homes in Sevier County as well as two self-supplied industries. Non-community systems, self-supplied industries, and private homes total water use is 374 ac-ft. Of this, potable water use equals 287 ac-ft and secondary water use is 87 ac-ft.

TABLE 43
SEVIER COUNTY
Water Use for Public Non-Community Systems, Self-Supplied Industries and Private Domestic Systems (Acre-Feet/Year)

SEVIER COUNTY WATER SUPPLIER	POTABLE USAGE (Ac-Ft/Yr)					Secondary Use (Ac-Ft/yr)
	Residential	Commercial	Institutional	Industrial/ Stockwater	Total Potable Use	
Forest Service Systems						
Gooseberry Campground	0.0	0.0	0.1	0.0	**0.1**	0.0
State Park Systems						
Fremont Indian State Park	0.0	0.0	2.0	0.0	**2.0**	0.0
Burrville Culinary Water	7.1	0.0	0.0	0.0	**7.1**	0.0
High Top Café	0.0	0.2	0.0	0.0	**0.2**	0.0
Ivie Creek Rest Stop	0.0	0.0	1.5	0.0	**1.5**	0.0
Oak Springs Hwy Rest Stop	0.0	0.0	1.5	0.0	**1.5**	0.0
Piute-Sevier/Deer Creek WC	3.0	0.0	0.0	0.0	**3.0**	0.0
St. Elizabeth Catholic Church	0.0	0.0	2.0	0.0	**2.0**	0.0
Venice Ward	0.0	0.0	4.0	0.0	**4.0**	0.0
Total Non-Community Use	**10.1**	**0.2**	**11.1**	**0.0**	**21.4**	**0.0**
Self-Supplied Industries*	0.0	0.0	0.0	15.3	**15.3**	86.9
Private Domestic	250.0	0.0	0.0	0.0	**250.0**	0.0
SEVIER COUNTY TOTALS	**260.1**	**0.2**	**11.1**	**15.3**	**286.7**	**86.9**

*United States Gypsum Co., Canyon Fuel Co.

Total M&I potable water use for all water systems in Sevier County is 5,274 acre-feet. Non-potable water use is 1,913 acre-feet. Therefore, total overall M&I water use is 7,187 acre-feet.

APPENDIX A

Typical Water Use Data Form

AR-1 3/8/04 G

Information jointly requested by:
Utah Division of Water Resources, 538-7264
Utah Division of Drinking Water, 536-4200; and
Utah Division of Water Rights, 538-7392.

UTAH WATER USE DATA FORM
DATA FOR 2003

Return completed form to:
Utah Division of Water Rights
PO Box 146300
Salt Lake City, UT 84114-6300

System Name: Richfield Culinary Water
Address: P.O. Box 250, 75 East Center
Richfield, UT 84701

Population Served: 7000 DEQ#: 21013
County: Sevier
E-Mail Address: mike@richfieldcity.com

Contact Person: Gary Barney
Form filled out by: Mike Langston

Phone Number: (801) 896-6430
Phone Number:

RECEIVED
MAR - 4 2004
WATER RIGHTS
SALT LAKE

I. STORAGE INVENTORY: Total treated storage capacity: 4.65 in gallons. Number of Tanks: 2

II. SOURCE INVENTORY:

1 Source Name: Main Street Well (10")
Type: Well Location: Sec 25, T23S, R3W, SLB&M WR Number: 63-1084 63-1093
Method of Measurement: (X) Master Meter, ( ) Estimate, ( ) Other
Units of Measurement: 1,000
Rated Pump Capacity: ( ) gpm, ( ) cfs
Date of Last Pump Test: Yield of Well ( ) gpm, ( ) cfs

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
0	0	0	188	27,674	29,846	30,565	30,475	30,670	30,464	1,813	0	181,695

2 Source Name: Richfield Spring
Type: Spring Location: Sec 26, T23S, R3W, SLB&M WR Number: 63-3160
Method of Measurement: (X) Master Meter, ( ) Estimate, ( ) Other
Units of Measurement: 1,000
Are there any spills/overflow? ( ) Yes, ( ) No If yes, estimate annual quantity 194,963 Where is source measured? (X) Before overflow, ( ) After overflow
When do spills/overflow occur? Are spills/overflow included in the quantities reported? ( ) Yes ( ) No

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
36,171	45,951	31,708	48,324	52,361	63,449	65,239	60,557	64,149	59,508	46,151	46,353	619,921

3 Source Name: Well (10")
Type: Well Location: Sec 02, T24S, R3W, SLB&M WR Number: 63-1084 63-1091
Method of Measurement: (X) Master Meter, ( ) Estimate, ( ) Other
Units of Measurement: 1,000
Rated Pump Capacity: ( ) gpm, ( ) cfs
Date of Last Pump Test: Yield of Well ( ) gpm, ( ) cfs

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
4,256	9,299	11,481	17,574	10,240	13,879	25,249	5,685	4,046	244	1,037	0	102,990

III. WATER USE BREAKDOWN: (Please use sum of the readings from individual meters, not master meter readings at source. If quantities are not known, please estimate. See instructions for definition of uses shown in bold).

Units of Measurement: 1,000

Residential: Annual quantity of water delivered for residential purposes 441,950. Total number of residential connections 2,107

Meter readings at individual connections [ ]; or Estimated [ ]

Number of connections serving multiple units (apartments) from a single connection _____; Units per connection (avg) 358

Commercial: Annual quantity of water delivered for commercial purposes 129,279. Total number of commercial connections _____

Meter readings at individual connections [ ]; or Estimated [ ]

Industrial: Annual quantity of water delivered for industrial purposes _____. Total number of industrial connections _____

Meter readings at individual connections [ ]; or Estimated [ ]

Institutional: Annual quantity of water delivered for institutional purposes 59,592. Total number of institutional connections 73

Meter readings at individual connections [ ]; or Estimated [ ]

Stockwatering: Annual quantity of water delivered for stockwatering purposes _____. Total number of stockwatering connections _____

Meter readings at individual connections [ ]; or Estimated [ ]

Wholesale: Annual quantity of water delivered for wholesale purposes _____. Please attach a listing of those supplied.

Meter readings at individual connections [ ]; or Estimated [ ]

Other Uses: Annual quantity of water delivered for other purposes 101,000. Total number of other connections 20

Meter readings at individual connections [ ]; or Estimated [ ]

Describe other uses city owned.

Unmetered: Annual estimate of water delivered by unmetered connections 50,000. Total number of unmetered connections _____

Unmetered connections used for fines, construction, unmetered city owned properties.

Total annual quantity of water delivered for all purposes 781,821. **Total number of all connections** 2558

Of this total, how many connections are active? 2395

IV. IRRIGATION SYSTEM (Separate lawn and garden irrigation system, **whether controlled by the drinking water supplier or not**)

Is any of your area served by a separate ditch or pipe fed irrigation water system? [ ] Yes, [ ] No If yes, please provide the following information:

What percent of your customers are served by a separate irrigation system? _____%

Of these customers, what percent are served by ditch? _____%

What percent are served by pressurized pipe? _____%

Do you operate and maintain the separate lawn and garden irrigation water system? [ ] Yes, [ ] No

If the separate irrigation system is operated by other entities, please give name of companies, contact person & phone number:

_____

_____

_____

_____

APPENDIX B

2005 SEVIER RIVER BASIN DELIVERIES AND DEPLETIONS

2005 SEVIER RIVER BASIN M&I DELIVERIES AND DEPLETIONS TABLE

(Acre-Feet/Year)

WATER SUPPLIER	Potable Residential Indoor Use	Potable Residential Outdoor Use	Potable Commercial Use	Potable Institutional Use	Potable Industrial/ Stockwater Use	Total Potable Use	Secondary Water Use	Total Indoor Use	Total Outdoor Use	Residential Indoor Return Flow	Commercial Indoor Return Flow	Institutional Indoor Return Flow	Industrial/ Stockwater Indoor Return Flow	Total Indoor Return Flow To Treatment Facility	Pond Evaporation	Treatment Facility Outflow (Indoor) Return Flow	Outdoor Return Flow	Total Return Flow	Total Deliveries	Total Depletion
Garfield County																				
Antimony	10.4	60.5	16.3	11.0	0.0	98.2	0.0	25.6	72.6	10.2	12.8	2.2	0.0	25.1	0.0	23.9	24.2	48.1	98.2	50.1
Hatch	20.7	0.0	2.6	0.9	0.0	24.2	34.7	23.0	35.9	20.3	2.0	0.2	0.0	22.5	0.0	21.4	12.0	33.4	58.9	25.5
Panguitch	159.3	19.7	46.6	39.1	0.5	265.2	181.2	204.9	241.5	156.1	36.5	7.7	0.0	200.3	14.8	175.5	80.5	256.0	446.4	190.4
Total Community Systems	190.4	80.2	65.5	51.0	0.5	387.6	215.9	253.5	350.0	186.6	51.4	10.0	0.0	247.9	14.8	220.8	116.7	337.4	603.5	266.1
Non-community Systems	11.2	22.8	189.1	24.0	0.3	247.4	10.0	167.6	89.8	11.0	148.3	4.7	0.0	164.0	0.0	155.8	29.9	185.7	257.4	71.7
Self Supplied Industries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private Domestic Systems	35.0	80.0	0.0	0.0	0.0	115.0	0.0	35.0	80.0	34.3	0.0	0.0	0.0	34.3	0.0	32.6	26.7	59.3	115.0	55.7
COUNTY TOTALS	236.6	183.0	254.6	75.0	0.8	750.0	225.9	456.1	519.8	231.9	199.6	14.7	0.0	446.2	14.8	409.1	173.3	582.4	975.9	393.5
Iron County																				
none	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Community Systems	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Non-community Systems	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Self Supplied Industries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private Domestic Systems	2.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	1.9	0.0	1.9	2.0	0.1
COUNTY TOTALS	2.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	1.9	0.0	1.9	2.0	0.1
Juab County																				
Eureka	60.1	23.4	1.8	12.6	0.0	97.9	0.0	64.1	33.8	58.9	1.4	2.5	0.0	62.8	10.6	49.1	11.3	60.3	97.9	37.6
Levan	63.3	271.3	0.5	52.0	15.4	402.5	0.0	89.5	313.0	62.0	0.4	10.2	0.0	72.6	0.0	69.0	104.3	173.3	402.5	229.2
Total Community Systems	123.4	294.7	2.3	64.6	15.4	500.4	0.0	153.6	346.8	120.9	1.8	12.7	0.0	135.4	10.6	118.1	115.6	233.7	500.4	266.7
Non-community systems	1.0	2.0	0.0	18.6	0.0	21.6	0.0	4.7	16.9	1.0	0.0	3.6	0.0	4.6	0.0	4.4	5.6	10.0	21.6	11.6
Self Supplied Industries	0.0	0.0	0.0	0.0	0.0	0.0	411.7	411.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	411.7	411.7
Private Domestic Systems	4.0	8.0	0.0	0.0	0.0	12.0	0.0	4.0	8.0	3.9	0.0	0.0	0.0	3.9	0.0	3.7	2.7	6.4	12.0	5.6
COUNTY TOTALS	128.4	304.7	2.3	83.2	15.4	534.0	411.7	574.0	371.7	125.8	1.8	16.3	0.0	143.9	10.6	126.2	123.9	250.1	945.7	695.6
Kane County																				
Kane County WCD (Duck Creek)	35.0	2.5	12.0	0.0	0.0	49.5	0.0	44.6	4.9	34.3	9.4	0.0	0.0	43.7	0.0	41.5	1.6	43.2	49.5	6.3
Total Community Systems	35.0	2.5	12.0	0.0	0.0	49.5	0.0	44.6	4.9	34.3	9.4	0.0	0.0	43.7	0.0	41.5	1.6	43.2	49.5	6.3
Non-community systems	4.8	9.6	0.0	15.8	0.0	30.2	0.0	8.0	22.2	4.7	0.0	3.1	0.0	7.8	0.0	7.4	7.4	14.8	30.2	15.4
Self Supplied Industries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Private Domestic Systems	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
COUNTY TOTALS	39.8	12.1	12.0	15.8	0.0	79.7	0.0	52.6	27.1	39.0	9.4	3.1	0.0	51.5	0.0	48.9	9.0	58.0	79.7	21.7
Millard County																				
Country Estates	13.7	13.2	0.0	0.0	0.0	26.9	0.0	13.7	13.2	13.4	0.0	0.0	0.0	13.4	0.0	12.8	4.4	17.2	26.9	9.7
Delta City	269.2	346.1	97.1	277.1	14.0	1,003.5	154.0	416.3	741.2	263.8	76.1	54.3	0.0	394.3	180.1	194.5	247.1	441.5	1,157.5	716.0
Deseret-Oasis SSD	19.2	65.3	0.0	15.0	0.0	99.5	0.0	22.2	77.3	18.8	0.0	2.9	0.0	21.8	0.0	20.7	25.8	46.4	99.5	53.1
Fillmore Municipal Water System	192.5	361.2	247.1	539.5	194.9	1,535.2	510.1	693.0	1,352.3	188.7	193.7	105.7	0.0	488.1	82.5	381.3	450.8	832.0	2,045.3	1,213.3
Hinkley City Water	64.3	107.7	1.3	18.8	0.0	192.1	121.9	69.1	244.9	63.0	1.0	3.7	0.0	67.7	23.2	41.1	81.6	122.7	314.0	191.3
Holden Town Corporation	33.4	100.0	9.2	20.0	46.0	208.6	150.0	90.8	267.8	32.7	7.2	3.9	0.0	43.9	0.0	41.7	89.3	131.0	358.6	227.6
Kanosh City Water System	39.8	10.2	0.1	4.6	0.4	55.1	40.6	41.2	54.5	39.0	0.1	0.9	0.0	40.0	0.0	38.0	18.2	56.2	95.7	39.5
Kanosh-Paiute Reservation	7.5	8.5	0.0	0.5	0.0	16.5	0.0	7.6	8.9	7.4	0.0	0.1	0.0	7.4	0.0	7.1	3.0	10.0	16.5	6.5
Leamington Town Water	20.9	32.7	1.5	6.2	7.4	68.7	0.0	30.7	38.0	20.5	1.2	1.2	0.0	22.9	0.0	21.7	12.7	34.4	68.7	34.3
Lynndyl	12.3	28.0	1.1	5.3	1.8	48.5	0.0	16.0	32.5	12.1	0.9	1.0	0.0	14.0	0.0	13.3	10.8	24.1	48.5	24.4
Meadow Town Corporation Water	54.3	216.7	3.0	52.1	0.0	326.1	0.0	67.1	259.0	53.2	2.4	10.2	0.0	65.8	0.0	62.5	86.3	148.8	326.1	177.3
Oak City Municipal Water System	54.7	276.0	2.5	45.1	15.6	393.9	0.0	81.3	312.6	53.6	2.0	8.8	0.0	64.4	0.0	61.2	104.2	165.4	393.9	228.5
Oak Meadows Subdivision	6.4	15.0	0.0	0.0	0.0	21.4	0.0	6.4	15.0	6.3	0.0	0.0	0.0	6.3	0.0	6.0	5.0	11.0	21.4	10.4
Scipio Culinary Water System	26.1	45.1	2.0	0.0	18.3	91.5	99.7	46.0	145.2	25.6	1.6	0.0	0.0	27.1	0.0	25.8	48.4	74.2	191.2	117.0
Total Community Systems	814.3	1,625.7	364.9	984.2	298.4	4,087.5	1,076.3	1,601.5	3,562.3	798.0	286.1	192.9	0.0	1,277.0	285.7	927.4	1,187.4	2,114.9	5,163.8	3,048.9
Non-community Systems	0.0	0.0	0.0	5.0	0.0	5.0	260.0	1.0	264.0	0.0	0.0	1.0	0.0	1.0	0.0	0.9	88.0	88.9	265.0	176.1
Self Supplied Industries	0.0	0.0	0.0	0.0	3,170.5	3,170.5	19,494.3	22,664.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22,664.8	22,664.8
Private Domestic Systems	254.1	515.9	0.0	0.0	0.0	770.0	0.0	254.1	515.9	249.0	0.0	0.0	0.0	249.0	0.0	236.6	172.0	408.5	770.0	361.5
COUNTY TOTALS	1,068.4	2,141.6	364.9	989.2	3,468.9	8,033.0	20,830.6	24,521.4	4,342.2	1,047.0	286.1	193.9	0.0	1,527.0	285.7	1,164.9	1,447.4	2,612.3	28,863.6	26,251.3

(table continued on following page)

2005 SEVIER RIVER BASIN M&I DELIVERIES AND DEPLETIONS TABLE - cont.

(Acre-Feet/Year)

WATER SUPPLIER	Potable Residential Indoor Use	Potable Residential Outdoor Use	Potable Commercial Use	Potable Institutional Use	Potable Industrial/ Stockwater Use	Total Potable Use	Secondary Water Use	Total Indoor Use	Total Outdoor Use	Residential Indoor Return Flow	Commercial Indoor Return Flow	Institutional Indoor Return Flow	Industrial/ Stockwater Indoor Return Flow	Total Indoor Return Flow To Treatment Facility	Pond Evaporation	Treatment Facility Outflow (Indoor) Return Flow	Outdoor Return Flow	Total Return Flow	Total Deliveries	Total Depletion
Piute County																				
Circleville	36.9	84.4	18.4	29.6	156.8	326.1	0.0	214.3	111.8	36.2	14.4	5.8	0.0	56.4	0.0	***53.6***	37.3	90.8	**326.1**	**235.3**
Greenwich Water Association	5.0	5.0	2.0	2.0	2.0	16.0	11.0	9.0	18.0	4.9	1.6	0.4	0.0	6.9	0.0	***6.5***	6.0	12.5	**27.0**	**14.5**
Junction	13.9	15.9	6.8	2.0	16.6	55.2	104.1	36.3	123.0	13.6	5.3	0.4	0.0	19.3	0.0	***18.4***	41.0	59.4	**159.3**	**99.9**
Kingston	11.4	6.8	0.1	16.0	1.0	35.3	9.2	15.7	28.8	11.2	0.1	3.1	0.0	14.4	0.0	***13.7***	9.6	23.3	**44.5**	**21.2**
Marysvale	30.9	100.0	25.5	30.0	5.0	191.4	0.0	62.3	129.1	30.3	20.0	5.9	0.0	56.2	0.0	***53.3***	43.0	96.4	**191.4**	**95.0**
Total Community Systems	**98.1**	**212.1**	**52.8**	**79.6**	**181.4**	**624.0**	**124.3**	**337.7**	**410.6**	**96.1**	**41.4**	**15.6**	**0.0**	**153.1**	**0.0**	**145.5**	**136.9**	**282.4**	**748.3**	**465.9**
Non-community systems	0.1	0.0	4.2	10.0	0.0	14.3	0.0	5.5	8.8	0.1	3.3	2.0	0.0	5.4	0.0	***5.1***	2.9	8.0	**14.3**	**6.3**
Self Supplied Industries	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	***0.0***	0.0	0.0	**0.0**	**0.0**
Private Domestic Systems	33.0	67.0	0.0	0.0	0.0	100.0	0.0	33.0	67.0	32.3	0.0	0.0	0.0	32.3	0.0	***30.7***	22.3	53.1	**100.0**	**46.9**
COUNTY TOTALS	**131.2**	**279.1**	**57.0**	**89.6**	**181.4**	**738.3**	**124.3**	**376.1**	**486.5**	**128.6**	**44.7**	**17.6**	**0.0**	**190.8**	**0.0**	**181.3**	**162.2**	**343.4**	**862.6**	**519.2**
Sanpete County																				
Axtell Community Service District	15.7	16.1	0.0	3.2	4.1	39.1	16.1	20.4	34.8	15.4	0.0	0.6	0.0	16.0	0.0	***15.2***	11.6	26.8	**55.2**	**28.4**
Centerfield W.I.D.	90.1	32.7	27.6	30.7	171.9	353.0	275.9	290.2	338.7	88.3	21.6	6.0	0.0	116.0	0.0	**110.2**	112.9	223.0	**628.9**	**405.9**
Ephraim Municipal Water Dept.	417.5	646.4	96.5	198.0	55.3	1,413.7	0.0	589.6	824.1	409.2	75.7	38.8	0.0	523.6	108.4	**389.1**	274.7	663.8	**1,413.7**	**749.9**
Fairview City Water System	85.0	0.0	10.3	0.0	1.8	97.1	250.2	95.0	252.3	83.3	8.1	0.0	0.0	91.4	0.0	***86.8***	84.1	170.9	**347.3**	**176.4**
Fayette Town Water	17.1	108.5	0.0	4.1	1.2	130.9	0.0	19.1	111.8	16.8	0.0	0.8	0.0	17.6	0.0	***16.7***	37.3	53.9	**130.9**	**77.0**
Fountain Green	80.6	100.2	11.0	1.1	83.8	276.7	202.8	173.4	306.1	79.0	8.6	0.2	0.0	87.8	73.9	***9.6***	102.0	111.6	**479.5**	**367.9**
Gunnison City Water Corp.	165.1	0.0	72.6	151.6	0.0	389.3	881.7	253.5	1,017.5	161.8	56.9	29.7	0.0	248.4	72.2	**163.8**	339.2	502.9	**1,271.0**	**768.1**
Manti City Corp. Water	477.2	0.0	58.3	2.2	1.2	538.9	248.8	525.5	262.2	467.7	45.7	0.4	0.0	513.8	65.0	**423.1**	87.4	510.5	**787.7**	**277.2**
Mayfield Water Department	35.4	23.9	2.2	16.0	0.2	77.7	90.6	40.6	127.7	34.7	1.7	3.1	0.0	39.6	0.0	***37.6***	42.6	80.2	**168.3**	**88.1**
Moroni Municipal Water System	109.1	31.6	20.5	31.5	12.3	205.0	353.9	144.1	414.8	106.9	16.1	6.2	0.0	129.2	0.0	***122.7***	138.3	261.0	**558.9**	**297.9**
Mt. Pleasant City	299.2	0.0	88.1	94.5	3.3	485.1	433.9	391.9	527.1	293.2	69.1	18.5	0.0	380.8	83.7	**278.1**	175.7	453.8	**919.0**	**465.2**
Spring City Municipal Water	77.9	0.0	1.4	48.8	0.9	129.0	572.0	89.7	611.3	76.3	1.1	9.6	0.0	87.0	59.1	**23.6**	203.8	227.3	**701.0**	**473.7**
Sterling Municipal Water System	36.8	0.0	5.3	0.7	0.4	43.2	102.0	41.6	103.6	36.1	4.2	0.1	0.0	40.4	0.0	***38.3***	34.5	72.9	**145.2**	**72.3**
Wales Town Water	19.2	128.5	0.0	0.0	0.0	147.7	12.7	19.2	141.2	18.8	0.0	0.0	0.0	18.8	0.0	***17.9***	47.1	64.9	**160.4**	**95.5**
Total Community Systems	1,925.9	1,087.9	393.8	582.4	336.4	4,326.4	3,440.6	2,693.8	5,073.2	1,887.4	308.7	114.2	0.0	2,310.3	462.2	1,732.5	1,691.1	3,423.6	**7,767.0**	**4,343.4**
Non-community Systems	21.0	43.0	9.5	41.7	0.0	115.2	300.0	36.9	378.3	20.6	7.4	8.2	0.0	36.2	0.0	***34.4***	126.1	160.5	**415.2**	**254.7**
Self Supplied Industries	0.0	0.0	0.0	0.0	551.1	551.1	0.0	551.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	***0.0***	0.0	0.0	**551.1**	**551.1**
Private Domestic Systems	230.0	460.0	0.0	0.0	0.0	690.0	0.0	230.0	460.0	225.4	0.0	0.0	0.0	225.4	0.0	***214.1***	153.3	367.5	**690.0**	**322.5**
COUNTY TOTALS	**2,176.9**	**1,590.9**	**403.3**	**624.1**	**887.5**	**5,682.7**	**3,740.6**	**3,511.9**	**5,911.4**	**2,133.4**	**316.2**	**122.3**	**0.0**	**2,571.9**	**462.2**	**1,981.1**	**1,970.5**	**3,951.5**	**9,423.3**	**5,471.8**

(table continued on following page)

2005 SEVIER RIVER BASIN M&I DELIVERIES AND DEPLETIONS TABLE - cont.

(Acre-Feet/Year)

WATER SUPPLIER	Potable Residential Indoor Use	Potable Residential Outdoor Use	Potable Commercial Use	Potable Institutional Use	Potable Industrial/ Stockwater Use	Total Potable Use	Secondary Water Use	Total Indoor Use	Total Outdoor Use	Residential Indoor Return Flow	Commercial Indoor Return Flow	Institutional Indoor Return Flow	Industrial/ Stockwater Indoor Return Flow	Total Indoor Return Flow To Treatment Facility	Pond Evaporation	Treatment Facility Outflow (Indoor) Return Flow	Outdoor Return Flow	Total Return Flow	Total Deliveries	Total Depletion
Sevier County																				
Annabella	49.0	34.0	0.0	1.5	0.0	84.5	95.5	49.3	130.7	48.0	0.0	0.3	0.0	48.3	0.0	***45.9***	43.6	89.5	**180.0**	**90.5**
Aurora	77.5	36.6	8.0	7.4	0.7	130.2	258.5	86.1	302.6	76.0	6.3	1.5	0.0	83.7	11.1	**68.4**	100.9	169.3	**388.7**	**219.4**
Austin Community SSD	10.5	16.1	1.4	0.0	1.9	29.9	0.0	13.5	16.4	10.3	1.1	0.0	0.0	11.4	0.0	***10.8***	5.5	16.3	**29.9**	**13.6**
Brooklyn Tap Line Company	14.0	13.0	3.0	0.0	0.0	30.0	5.0	16.4	18.6	13.7	2.4	0.0	0.0	16.1	0.0	***15.3***	6.2	21.5	**35.0**	**13.5**
Central Water Works	76.5	151.7	0.0	4.1	5.5	237.8	0.0	82.8	155.0	75.0	0.0	0.8	0.0	75.8	0.0	***72.0***	51.7	123.6	**237.8**	**114.2**
Cove SSD	11.9	49.4	0.0	0.1	26.1	87.5	4.0	38.0	53.5	11.7	0.0	0.0	0.0	11.7	0.0	***11.1***	17.8	28.9	**91.5**	**62.6**
Elsinore Town	61.0	251.5	4.2	30.9	2.5	350.1	29.0	73.0	306.1	59.8	3.3	6.1	0.0	69.1	0.0	***65.7***	102.0	167.7	**379.1**	**211.4**
Glenwood Municipal Water System	58.5	0.0	1.1	5.5	0.3	65.4	77.0	60.8	81.6	57.3	0.9	1.1	0.0	59.3	0.0	***56.3***	27.2	83.5	**142.4**	**58.9**
Joseph	24.6	97.5	2.6	47.6	2.0	174.3	0.0	38.2	136.1	24.1	2.0	9.3	0.0	35.5	0.0	***33.7***	45.4	79.1	**174.3**	**95.2**
Koosharem	24.3	29.6	12.5	13.4	0.0	79.8	12.7	37.0	55.5	23.8	9.8	2.6	0.0	36.2	0.0	***34.4***	18.5	52.9	**92.5**	**39.6**
Monroe City	155.0	315.0	51.4	22.4	47.6	591.4	466.7	248.2	809.9	151.9	40.3	4.4	0.0	196.6	0.0	***186.8***	270.0	456.7	**1,058.1**	**601.4**
Redmond	65.0	97.6	3.4	27.0	12.0	205.0	38.5	85.1	158.4	63.7	2.7	5.3	0.0	71.7	17.2	**50.9**	52.8	103.7	**243.5**	**139.8**
Richfield City	583.6	774.6	351.2	441.0	0.0	2,150.4	227.8	952.8	1,425.4	571.9	275.3	86.4	0.0	933.7	126.4	**760.6**	475.1	1,235.7	**2,378.2**	**1,142.5**
Salina	196.3	25.7	255.1	9.6	189.7	676.4	556.1	592.0	640.5	192.4	200.0	1.9	0.0	394.3	245.8	**128.8**	213.5	342.3	**1,232.5**	**890.2**
Sigurd Municipal Water System	36.5	31.0	1.9	2.4	12.6	84.4	50.6	51.1	83.9	35.8	1.5	0.5	0.0	37.7	0.0	***35.8***	28.0	63.8	**135.0**	**71.2**
South Monroe	4.0	6.0	0.0	0.0	0.0	10.0	5.0	4.0	11.0	3.9	0.0	0.0	0.0	3.9	0.0	***3.7***	3.7	7.4	**15.0**	**7.6**
Total Community Systems	1,448.2	1,929.3	695.8	612.9	300.9	4,987.1	1,826.4	2,428.3	4,385.2	1,419.2	545.5	120.1	0.0	2,084.9	400.4	1,580.2	1,461.7	3,041.9	**6,813.5**	**3,771.6**
Non-community Systems	3.4	6.7	0.2	11.1	0.0	21.4	0.0	5.7	15.7	3.3	0.2	2.2	0.0	5.6	0.0	***5.4***	5.2	10.6	**21.4**	10.8
Self Supplied Industries	0.0	0.0	0.0	0.0	15.3	15.3	86.9	92.2	10.0	0.0	0.0	0.0	0.0	0.0	0.0	***0.0***	3.3	3.3	**102.2**	98.9
Private Domestic Systems	83.3	166.7	0.0	0.0	0.0	250.0	0.0	83.3	166.7	81.7	0.0	0.0	0.0	81.7	0.0	***77.6***	55.6	133.1	**250.0**	116.9
COUNTY TOTALS	**1,534.9**	**2,102.7**	**696.0**	**624.0**	**316.2**	**5,273.8**	**1,913.3**	**2,609.6**	**4,577.5**	**1,504.2**	**545.7**	**122.3**	**0.0**	**2,172.2**	**400.4**	**1,663.1**	**1,525.8**	**3,189.0**	**7,187.1**	**3,998.1**
BASIN COMMUNITY SYSTEMS	**4,635.3**	**5,232.4**	**1,587.1**	**2,374.7**	**1,133.0**	**14,962.5**	**6,683.5**	**7,512.9**	**14,133.1**	**4,542.6**	**1,244.3**	**465.4**	**0.0**	**6,252.3**	**1,173.8**	**4,766.0**	**4,711.0**	**9,477.0**	**21,646.0**	**12,169.0**
Total Non-community Systems	41.5	84.1	203.0	126.2	0.3	455.1	570.0	229.4	795.7	40.7	159.2	24.7	0.0	224.5	0.0	213.3	265.2	478.5	1,025.1	546.6
Self Supplied Industries	0.0	0.0	0.0	0.0	3,736.9	3,736.9	19,992.9	23,719.8	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.3	3.3	23,729.8	23,726.5
Private Domestic Systems	641.4	1,297.6	0.0	0.0	0.0	1,939.0	0.0	641.4	1,297.6	628.6	0.0	0.0	0.0	628.6	0.0	597.2	432.5	1,029.7	1,939.0	909.3
SEVIER RIVER BASIN TOTALS	**5,318.2**	**6,614.1**	**1,790.1**	**2,500.9**	**4,870.2**	**21,093.5**	**27,246.4**	**32,103.6**	**16,236.3**	**5,211.9**	**1,403.4**	**490.2**	**0.0**	**7,105.5**	**1,173.8**	**5,576.4**	**5,412.1**	**10,988.6**	**48,339.9**	**37,351.3**

- Potable Use Data
- Secondary Use Data
- Indoor/Outdoor Use Data
- Return Flow Data
- Delivery Data
- Depletion Data

Regular = Sewage Treatment Plant
Bold = Faculative ponds/Lagoons
Bold/Italics = Septic System/Tanks