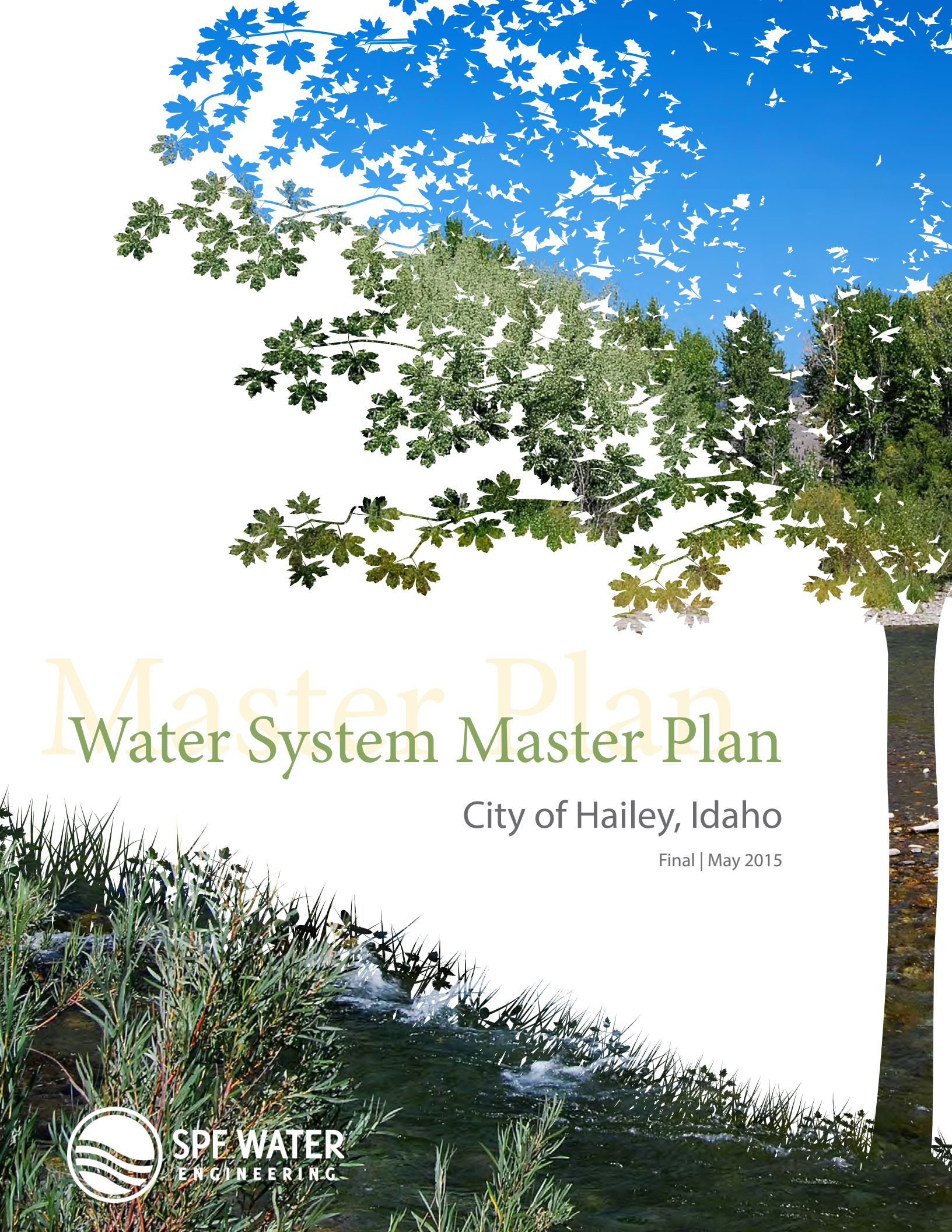

Water System Master Plan

City of Hailey, Idaho

Final | May 2015

SPF WATER ENGINEERING

Water System Master Plan

City of Hailey, Idaho

Final | May 2015

Acknowledgments
Our sincere appreciation to Hailey City staff members who supported the efforts of compiling water system data and providing feedback to the SPF Water Engineering team: Fritz Haemmerle (Mayor), Heather Dawson (City Administrator), Ned Williamson (City Attorney), Mariel Platt (Public Works Director), Tom Hellen (Former Public Works Director), Cole Balis (Water Department Manager), Brandon Lynch (Water Operator), and Roger Parker (Wastewater Superintendent).

SPF WATER ENGINEERING

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

650 Addison Avenue West, Suite 110 • Twin Falls, Idaho 83301 • (208) 736-2190
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C.L. "Butch" Otter, Governor
Curt Fransen, Director

June 15, 2015

The Honorable Fritz Haemmerle
Mayor, City of Hailey
115 S. Main Street, Suite H
Hailey, Idaho 83333

RE: "Facility Planning Report" Review, **City of Hailey February 2015 Drinking Water Facility Planning Report,** Blaine Co.

Dear Mayor Haemmerle

Please be aware that Cathy Cooper, with SPF Water Engineering, has submitted the above referenced facility plan report to this office for our use, review and comment.

We have reviewed the submittal and we have the following comments:

- Appendix B – *"Hydraulic Model"*. 2014 Peak Day plus Fire Output Summary. General Comment. It appears from our review of the presented output table that pressure nodes j-52, j-53, j-54, j-2, j-3, j-100 and j-101 are calculated to have a zero residual pressure during a fire condition. Furthermore, it appears from our review of the distribution node map that the aforementioned nodes are located on the north end of the system and may not serve customers. If residential connections do exist where twenty-(20)-psi pressures may not be maintained then the supply system would need to be improved, pursuant to *IDAPA Section 58.01.08.552.01.b.i.*

It was determined from our review of the May 2015 City of Hailey Facility Planning Report that the report sufficiently outlines the existing public water system; includes the necessary pre-design information for project implementation and the necessary project alternatives that should allow the city to remain compliant with state requirements now and throughout the twenty (20)-year planning period. At this time, we hereby approve the report for use by the city of Hailey for planning and design use.

Be aware that this approval is for general planning and design use only. If the city may seek funding through the state revolving loan fund (SRF) program, additional planning content would be required as is outlined in the enclosed Form 5-A checklist and an environmental information document (EID) prepared.

We are forwarding one facility planning report copy to Mariel Platt for her respective use, review and project record.

If you have any questions, please do not hesitate to contact this office at 736-2190.

Sincerely,

Brian A. Reed, PE
Technical Engineer I

BAR:gl

Enclosure: Drinking Water SRF Loan Program Form 5A Checklist

cc: Cathy Cooper, PE, SPF Water Engineering, Boise w/o enc.
Mariel Platt, Public Works Director, Hailey w/ enclosure and stamped report copy
File: City of Hailey DW Program File w/o enc.

ec: Albert Crawshaw, DEQ-Twin Falls Regional Office w/o enc.
Mike Brown, DEQ-Twin Falls Regional Office w/o enc.

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APPENDICES

Appendix A Existing Facilities
Appendix B Hydraulic Model
Appendix C Water Rights
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1. EXECUTIVE SUMMARY

1.1. Introduction

This Master Plan assesses the City's water system and associated water rights and provides detailed recommendations for needed future upgrades. The plan reviews existing population and water demands, and uses available data to project 20-year demands for planning purposes. The sources of supply, storage, and distribution system facilities are evaluated with regard to Idaho Department of Environmental Quality (IDEQ) regulatory requirements.

1.2. Overview of Existing System

Hailey's existing water system serves approximately 3,300 connections. The system includes one spring source, six well sources, two storage tanks, nearly 57 miles of distribution piping, and three pressure zones across the City. The City's water quality is excellent, with only chorine added to provide a disinfection residual throughout the system.

Hailey lies within the Big Wood River Ground Water Management Area and the Eastern Snake River Plain Moratorium Area. Because of this, developing new water rights in the area is difficult and most new rights must have authorized mitigation plans in place prior to development. It is anticipated that Idaho Department of Water Resources (IDWR) will begin more aggressive management of groundwater and surface water as interconnected sources in the near future (known as "conjunctive administration"). The City has a fairly robust existing water right portfolio for supply to the potable water system that will allow new sources of supply to be added to the system in coming years. An analysis of how conjunctive administration may affect the City is included in this plan, and the City is working on ways to optimize and protect supplies into the future.

Hailey has been a leader in the state in implementing forward-thinking conservation measures. This is apparent in the more than 50 percent decrease in water demands from 680 gallons per person per day (gpcd) in 1990 to 315 gpcd in 2013. The City is interested in additional conservation measures, which will be beneficial in working with continued limitations on water rights in the area.

1.3. Summary of System Evaluation Results

The City currently needs to add additional supply. The City's preference is to increase available supplies from the existing River Street Well, Indian Creek Spring, and Northridge Facility prior to considering construction of new wells. Adding chlorination to the Third Avenue Well so that it can run continuously during high demand times is recommended. The City will need to add standby power generators to several sources of supply in the future, and may choose to add them earlier as a customer service measure.

The City's distribution system meets flow requirements in nearly all areas, with only several small pipeline upgrades identified to provide increased fire flow capacity. However, Hailey's fire chief indicates that fire flows are adequate across the City, so these improvements have been given a low priority. The City has adequate storage through the 20-year planning period.

The City will put a focus on conservation planning and implementation. An emphasis on outdoor (irrigation-use) conservation to decrease summer irrigation demands will reduce (1) the need for additional, future peak-capacity water supply infrastructure, and (2) reliance on junior-priority groundwater rights that are vulnerable to curtailment under conjunctive administration.

1.4. Capital Improvement, Maintenance, and Water Right Plan

Chapter 9 includes detailed capital improvement recommendations and maintenance budgeting suggestions. A summary is included in Tables 1-1 and 1-2. Recommendations for actions by the City to address a tightening water right situation in the Wood River Valley over the planning period are included in Chapters 8 and 9.

Table 1-1
Recommended Capital Improvement Summary

Next 5 Years (2015 – 2019)	
Supply	$667,000
Distribution/Storage	$217,000
Total (2015 – 2019)	**$884,000**
Years 6-20 (2020 – 2034)	
Supply	$1,540,000
Distribution	$2,163,000
Total (2020 – 2034)	**$3,703,000**

Maintenance and repair budgeting of approximately $592,000 per year is recommended to keep pace with replacement of aging assets. The bulk of these dollars would go to pipeline replacement and distribution system maintenance. The City has several repair and replacement activities planned for the near future including replacement of flow meters at existing well facilities.

Table 1-2
Suggested Annual Maintenance and Repair Budgeting

Maintenance and Repair Budgeting	
Supply	$110,000
Storage	$5,000
Distribution	$467,000
Controls System	$10,000
Annual Total	**$592,000**

2. Service Area and Policies

This chapter describes the City's existing water system service area, and background information and policies related to the water system.

2.1. Service Area

The City of Hailey supplies water to approximately 3,300 residential and commercial connections, with a total service population of approximately 8,000 residents, within the incorporated City area. Figure 2-1 shows the area serviced by the City's water system.

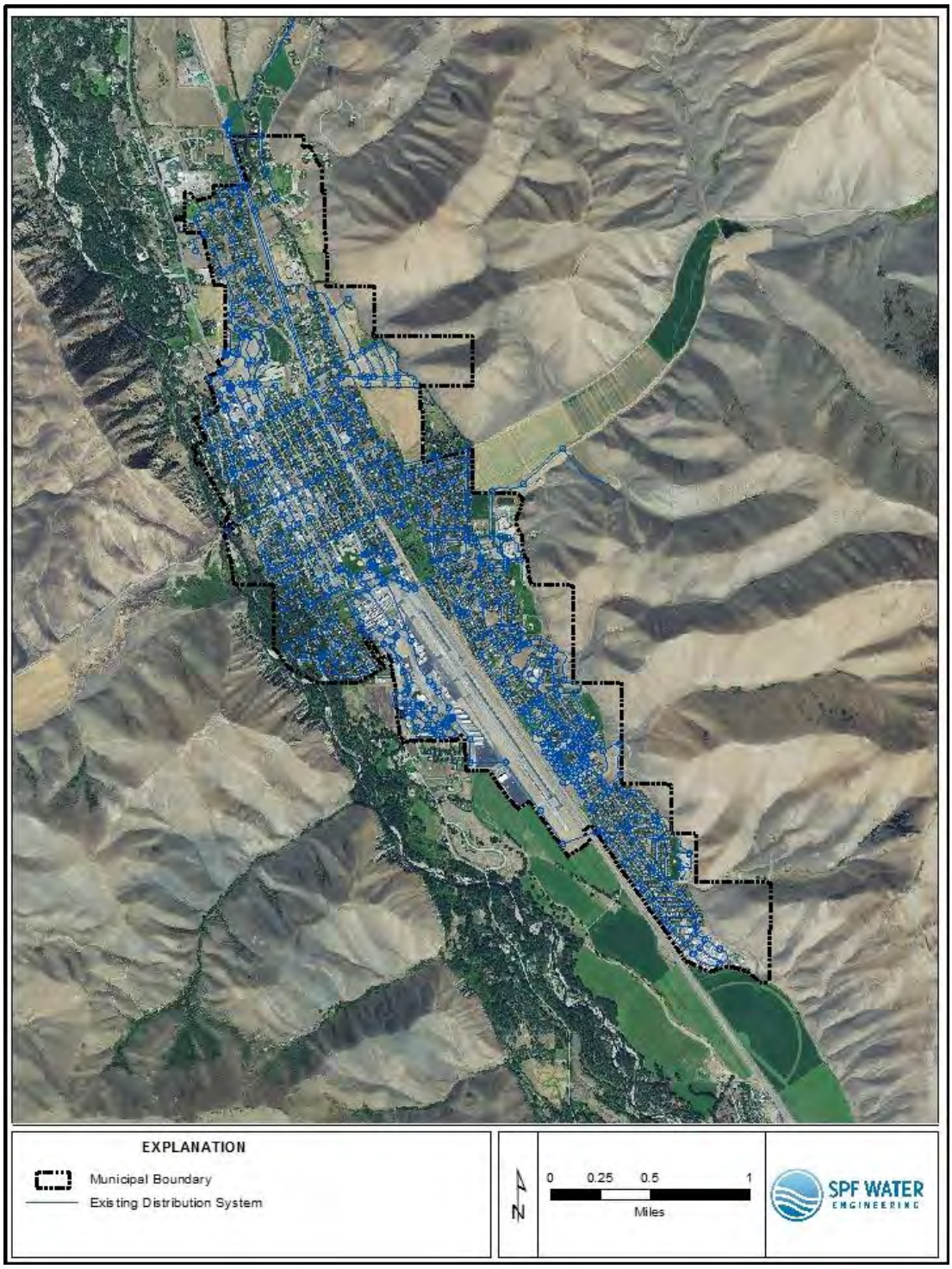
2.1.1. Topography

Hailey is located within the Wood River Valley, a narrow river corridor that runs north to south in the mountains of south central Idaho. The topography of the valley floor generally slopes to the south. Elevations range from a high of about 5,420 feet at the north end of the system to a low of about 5,230 feet at the south end.

2.1.2. Climate

The City receives an average of 16 inches of rain and 81 inches of snowfall per year. The average number of days with any measurable precipitation is 68. On average, there are 209 sunny days per year in Hailey. Over the course of a year, the temperature typically varies from 13°F to 85°F and is rarely below 2°F or above 93°F. The limited precipitation received during the growing season (April through September) requires all landscaped areas to be irrigated.

Figure 2-1
Municipal Service Area



2.2. Water Rate Structure

The City of Hailey has been a leader in the region in establishing a conservation-based rate structure, with escalating rates based on monthly usage. Current rates include a base fee of $8.24, bond fee of $3.89, and the stepped usage rates shown in Table 2-1.

Table 2-1
Hailey 2014-2105 Water Usage Rates

Gallons Used Per Month	Cost per Thousand Gallons
0 – 10,000	$0.25
11,000 – 20,000	$0.50
21,000 – 30,000	$0.75
31,000 – 40,000	$1.00
41,000 – 50,000	$1.25
51,000 – 60,000	$1.50
61,000 – 70,000	$1.75
71,000 – 80,000	$2.00
81,000 – 90,000	$2.50
91,000 – 100,000	$3.00
101,000 – 150,000	$3.50
151,000 and above	$4.00

As examples of total monthly water bills, a customer using 1,000 gallons per month would pay water fees of $12.38; if using 10,000 gallons per month would pay $14.63; if using 50,000 gallons per month would pay $49.63; and if using 100,000 gallons per month would pay $157.13.

2.3. Water Use Ordinances

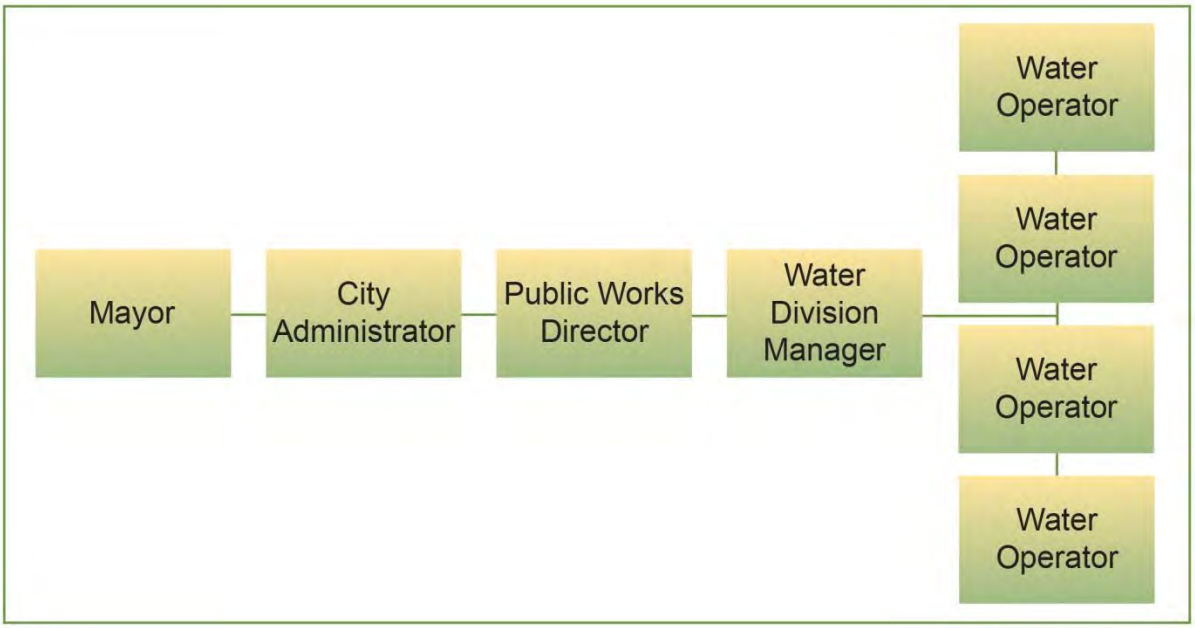
City Ordinance No. 1007 was implemented in 2008 and amends Section 13.08.010 of the Hailey Municipal Code. It includes irrigation limitations that are enforced in the City. Key components of the ordinance include the following.

- Odd-numbered addresses can water only on odd-numbered days.
- Even-numbered addresses can water only on even-numbered days.
- Irrigation watering must be done before 10:00 AM or after 6:00 PM.

2.4. Management Structure

The Water Department reports to the City's Public Works Director.

Figure 2-2
Water Division Structure



2.5. Operator Licensing Requirements

Hailey's Public Water System identification number is ID5070022. It is classified as a DST2 (Distribution 2) system. The City currently has four licensed water system operators to operate and maintain the water system, as shown in Table 2-2.

Table 2-2
Hailey Water Operators and Licenses

License Classification	Number of Operators
Drinking Water Distribution 3	2
Drinking Water Distribution 2	1
Operator-In-Training	1

2.6. Cross Connection Control Program

Hailey has a cross connection control ordinance (Hailey Ordinance No. 1140, effective January 1, 2014) which requires compliance with cross connection control

requirements in Idaho Administrative Code 58.01.08 and lays out requirements for inspections, required installations, minimum backflow prevention devices, installation, annual testing requirements, approved devices, and other parameters. A copy of the ordinance is included in Appendix A. It is recommended that the City review the ordinance annually and make any updates necessary to remain compliant with Idaho Code.

2.7. Regionalization

Hailey's location in the narrow Wood River Valley makes it unlikely that there will be large amounts of growth around the City. Nearby existing municipal water service providers include the City of Ketchum to the north, and the City of Bellevue to the south. The Idaho Department of Environmental Quality (IDEQ) encourages existing water systems to provide service to new growth rather than letting new growth create additional public water systems. Hailey has previously held discussions with new developments considering the area. We recommend that the City continue being open to discussions with new developments to provide water service, but that they consider requiring new developments to provide water rights and contributions to source of supply to serve their water demands. This will have to be examined on a case-by-case basis by the City depending on the proposed development.

3. EXISTING WATER SYSTEM FACILITIES

A map of Hailey's existing water system boundary, major facilities, and water-pressure zones is included as Figure 3-1. Major facilities fall into the following categories: sources of supply, distribution system, and storage facilities. In addition, the City has a Supervisory Control and Data Acquisition (SCADA) system that monitors and controls the water facilities. Hailey operates separate non-potable irrigation systems in several City-owned parks (Figure 3-2). This non-potable supply is briefly described in Section 3.6, but is not included as a component of this Plan.

Additional detail on existing potable water facilities is provided in Appendix A. Portions of the City's system are quite old. A repair and replacement program will be an important part of system maintenance into the future. Specific maintenance budgeting is addressed in Chapter 9.

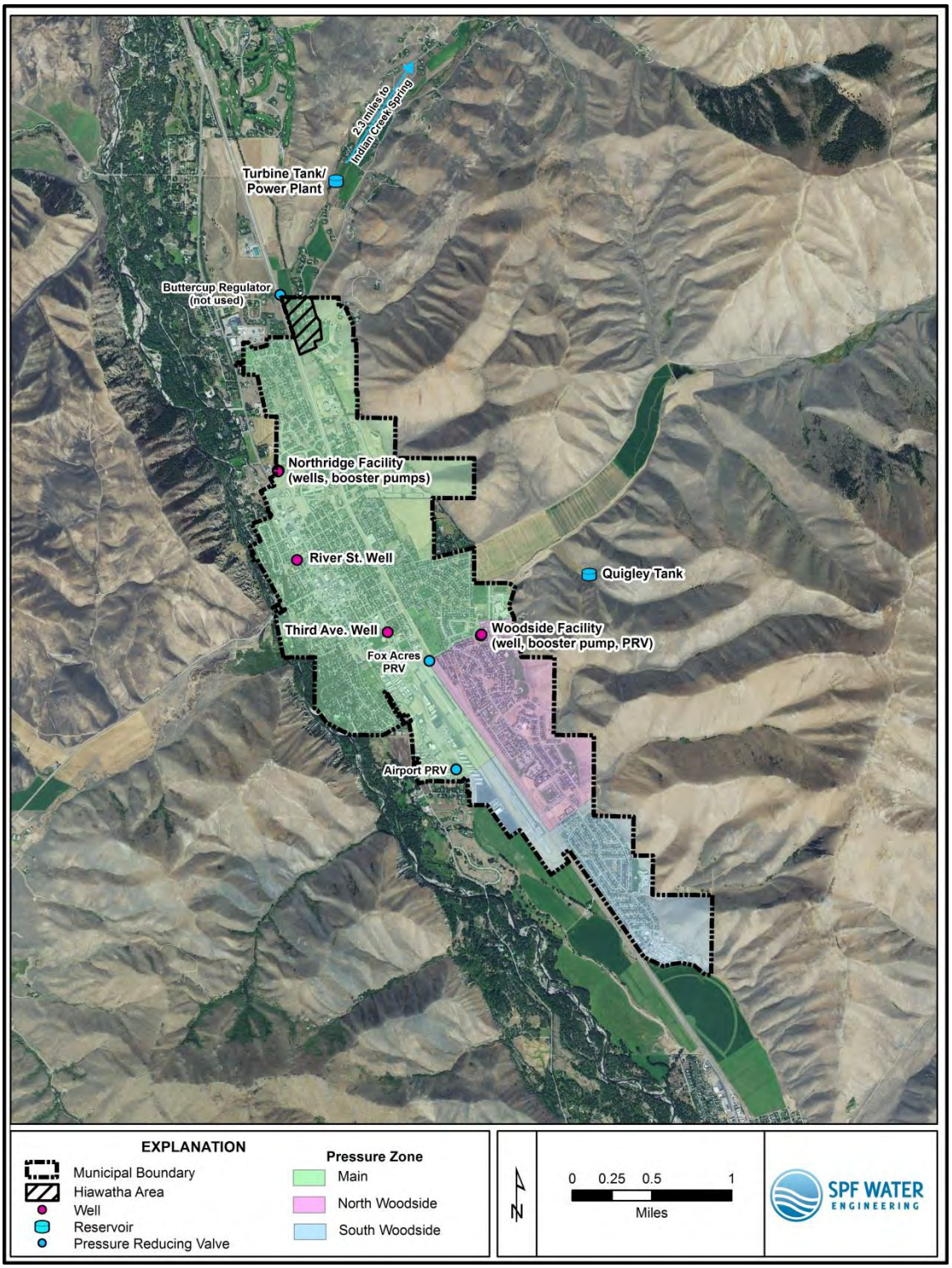
3.1. Sources of Supply

Water supply for the system is provided by one spring source and six groundwater wells. Indian Creek Spring has provided water supply to the City since 1880. The six wells that are currently used were constructed starting in the 1960s to provide additional supply. Chlorine is added at all of the sources of supply except the Third Avenue Well. A chlorine residual of 0.2 to 0.3 mg/L is targeted in the distribution system.

Table 3-1
Source Capacity

Source	Capacity (mgd)	Capacity (gpm)	Comments
Indian Creek Spring	1.22	845	Spring source flows by gravity into system. Capacity shown is average 2013 production measured at turbine inlet.
River Street Well	1.54	1,070	One well, pumps directly into the distribution system. Capacity shown is July 2008 90th percentile production rate.
Third Avenue Well	2.49	1,730	One well, pumps directly into the distribution system. Capacity shown is April - June 2014 90th percentile production rate.
Woodside Facility	1.83	1,270	One well, chlorine contact chamber, and two booster pumps. Capacity shown is 2013 maximum 24-hour production.
Northridge Facility	2.71	1,880	Three wells, chlorine contact chamber, and two booster pumps. Capacity shown is July 2008 90th percentile production rate.
Total Capacity	**9.79**	**6,795**	**Total capacity with all sources of supply in service.**
Total Firm Capacity	**7.30**	**5,065**	**With largest single source (Third Avenue) out of service**

Figure 3-1
City of Hailey Existing Water System Facilities



3.2. Distribution System

The distribution system consists of approximately 57 miles of pipeline ranging in size from 4 inches to 18 inches in diameter. Pipe materials consist of PVC, ductile iron, and steel. The majority of piping in the system is 6-inch and 8-inch diameter. In addition there are significant amounts of 10-inch and 12-inch diameter piping. Table 3-2 summarizes the pipeline information for the system.

Table 3-2
Summary of Distribution Pipes

Diameter (in)	Length (ft)	Length (mi)
4	3,248	0.62
6	116,002	21.97
8	95,363	18.06
10	20,141	3.81
12	54,047	10.24
14	1,809	0.34
16	9,070	1.72
18	313	0.06
24	45	0.01
Total	**300,038**	**56.83**

Source: City of Hailey WaterCAD hydraulic model.

The distribution system is divided into three pressure zones. A total of three pressure reducing stations supply the two lower zones. Each station has a 3-inch and 8-inch valve.

Table 3-3
Pressure Zones

Zone	HGL (nominal) (ft)	Supply
Main	5,530	All sources of supply and storage are in the main pressure zone
North Woodside	5,488	Woodside PRV, Fox Acres PRV
South Woodside	5,435	Airport PRV

The Buttercup Regulator shown in Figure 3-1 was originally used to reduce pressure from the Turbine Tank into town. It is no longer in use, but the body of the valve is still in place. The diaphragm inside the unused Buttercup Regulator was removed in the past several years, improving the flow rate out of Turbine Tank.

According to service meter data, there are a total of 3,313 metered connections in the system, including residential, commercial, industrial, and municipal connections. This equates to an average of 2.4 people per connection based on the estimated 2013 population of 8,000.

3.3. Storage Facilities

There are two water storage reservoirs in the distribution system, the Turbine Tank and the Quigley Tank. They are both buried, cast-in-place concrete tanks.

Table 3-4
Summary of Storage Reservoir Characteristics

Reservoir	Dimensions	Volume (MG)	Invert Elevation(2) (ft)	Overflow Elevation(3) (ft)	Maximum Water Height (ft)
Turbine Tank	120 ft dia.	0.98	5514.65	5526.25	11.6
Quigley Tank	116' x 136' (1)	2.20	5507.90	5530.30	22.4

Notes:
1. Rectangular shape. There are columns, steps, an overflow box and other various obstructions located inside the Quigley Tank. The total available volume is approximately 2.2 million gallons.
2. Invert elevations estimated from surveyed overflow elevations and plan sets.
3. Overflow elevations surveyed by Alpine Enterprises Inc., October 2008.

3.4. SCADA System

The City's Supervisory Control and Data Acquisition (SCADA) system allows for the water system to be monitored remotely. Data is tracked, control setpoints are changed, and alarm conditions are reported using the SCADA system.

3.5. System Operations

Hailey's water operators are skilled in keeping the system running smoothly. A 2008 investigation into why the Quigley Tank was not filling to overflow level revealed that the overflow elevations of the Quigley and Turbine Tanks differ by 4.05 feet (with Quigley overflow being higher). To compensate for the elevation difference, the operators fill the Quigley Tank all the way by selectively operating the Woodside Well. In addition, the diaphragm inside the unused Buttercup Regulator was removed in the past several years, improving the flow rate out of Turbine Tank. Minor Turbine Tank overflows occur because (1) the Turbine Tank overflow elevation is lower than the

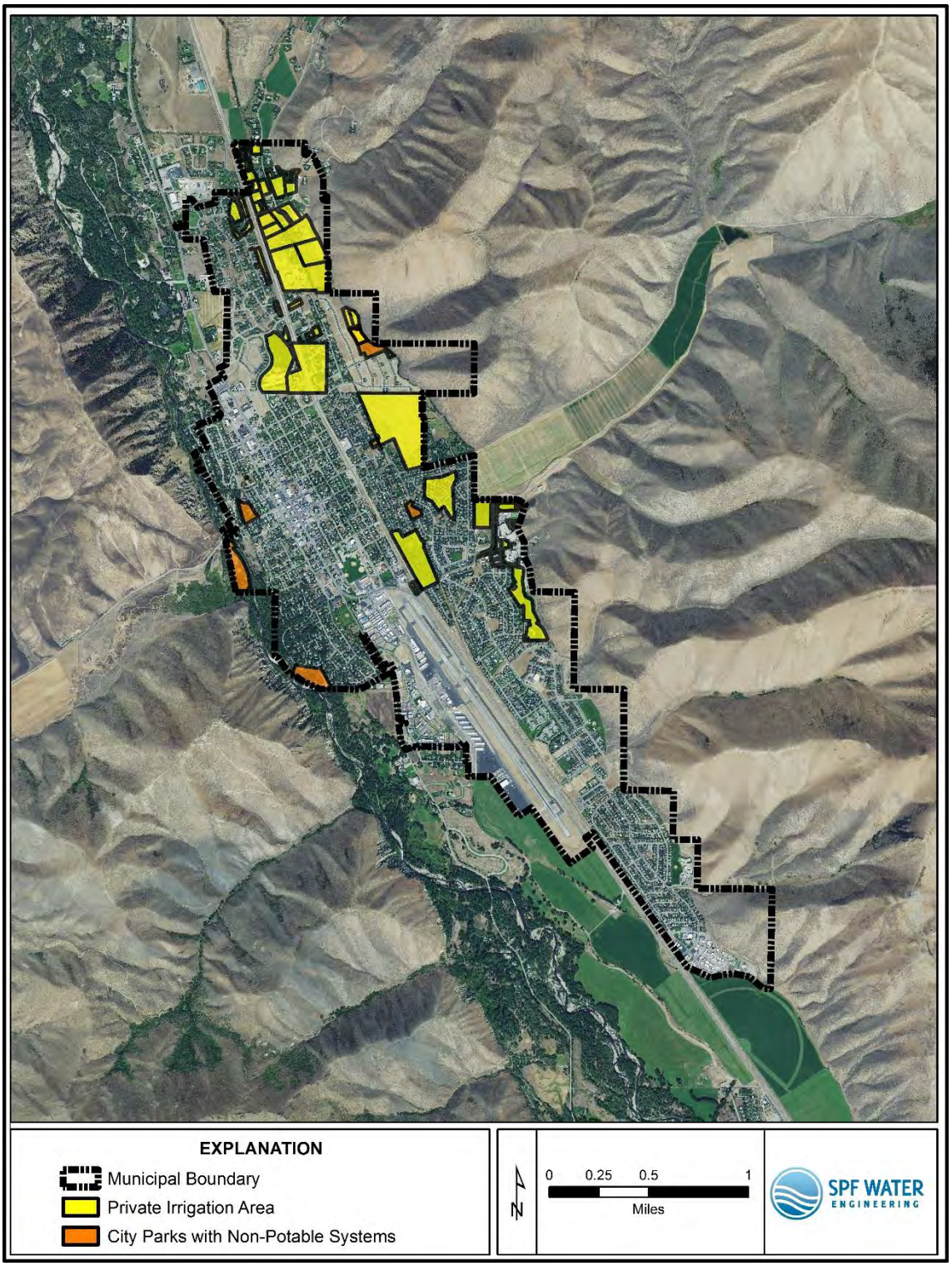
Quigley Tank overflow elevation, and (2) there is a constant spring flow into Turbine Tank regardless of system demand.

During summer when water demands are highest, the system is operated to fill the storage tanks each day and use storage capacity to meet peak irrigation demands which occur between 10:00 pm and 6:00 am.

3.6. Separate Irrigation Systems

The City has been working in recent years to remove large irrigation demands from the potable water system (e.g., irrigation of City-owned parks). In addition, there are some large irrigated areas within the municipal boundary that are (or could be) irrigated with privately-owned water rights such as Woodside Middle School. Figure 3-2 shows areas within the water system service area that have a water source other than the City's potable water system.

Figure 3-2
Separate Irrigation Systems



4. SUPPLY REQUIREMENTS

4.1. Definition of Terms

Demand. Demand is defined as the quantity of water obtained from the water supply source during a given time period. For this report, *demand* refers to the total system demand which is the total amount of water required to meet domestic, commercial, industrial, irrigation, and other public uses, and to provide for firefighting and other miscellaneous applications. Demands are typically quantified in terms of flow rates, such as million gallons per day (mgd) or gallons per minute (gpm). Demand categories pertinent to the analysis and design of water systems are as follows:

- **Average Day Demand (ADD).** The total quantity of water use from all sources of supply as measured over a calendar year divided by three hundred sixty-five days.
- **Maximum Day Demand (MDD).** The highest quantity of water that is used over a twenty-four hour period, excluding unusual events or emergencies.
- **Peak Hourly Demand (PHD).** The highest quantity of water that is used during any single hour.

Production. Production is the amount of water produced from sources of supply (wells and springs).

Peaking Factors. Peaking factors are defined as the ratio between ADD and other demand parameters, such as MDD and PHD. As an example, MDD might have a peaking factor (MDD/ADD) of 2.5 (i.e., MDD is 2.5 times ADD). These factors can be used as a comparison between systems, or a way to estimate MDD or PHD if only ADD is available.

Consumption. Consumption refers to the actual volume of water used by customers measured at their connections to the water distribution system. Consumption is typically measured in cubic feet (cf) or gallons (g). Consumption includes residential, commercial, industrial, and other municipal uses, and the largest component of consumption is typically irrigation demand during the summer.

4.2. Historical Water Production and Demands

Historical water production data for 1990 through 2013 were provided by the City and are summarized in Table 4-1. The data show that average day demand (ADD) and maximum day demand (MDD) both increased in the 1990s, but have tapered off and decreased in the past 10 years.

Table 4-1
Historical Water Demand and Per Capita Consumption, 1990-2013

Year	Population[1]	Average Day Demand (ADD)[2] (mgd)	Maximum Day Demand (MDD)[2] (mgd)	Per Capita Consumption (gpcd)
1990	3575	2.43	ND	680
1991	3942	2.64	ND	670
1992	4203	2.60	ND	619
1993	4481	2.19	ND	489
1994	4816	2.85	ND	592
1995	5059	2.68	7.55	530
1996	5394	3.18	8.10	589
1997	5522	2.51	6.90	454
1998	5526	2.91	9.23	527
1999	5577	2.89	7.67	518
2000	6323	3.05	8.50	482
2001	6783	3.67	8.51	540
2002	7067	3.96	9.13	560
2003	7281	3.83	9.24	525
2004	7451	3.44	8.01	461
2005	7618	2.90	8.52	380
2006	7755	3.06	7.58	394
2007	7860	2.79	6.31	355
2008	7993	3.56	8.47	445
2009	8075	2.91	6.98	361
2010	7960	2.58	7.22	324
2011	7893	2.74	7.65	348
2012	7994	2.96	7.11	370
2013	8000	2.52	6.01	315

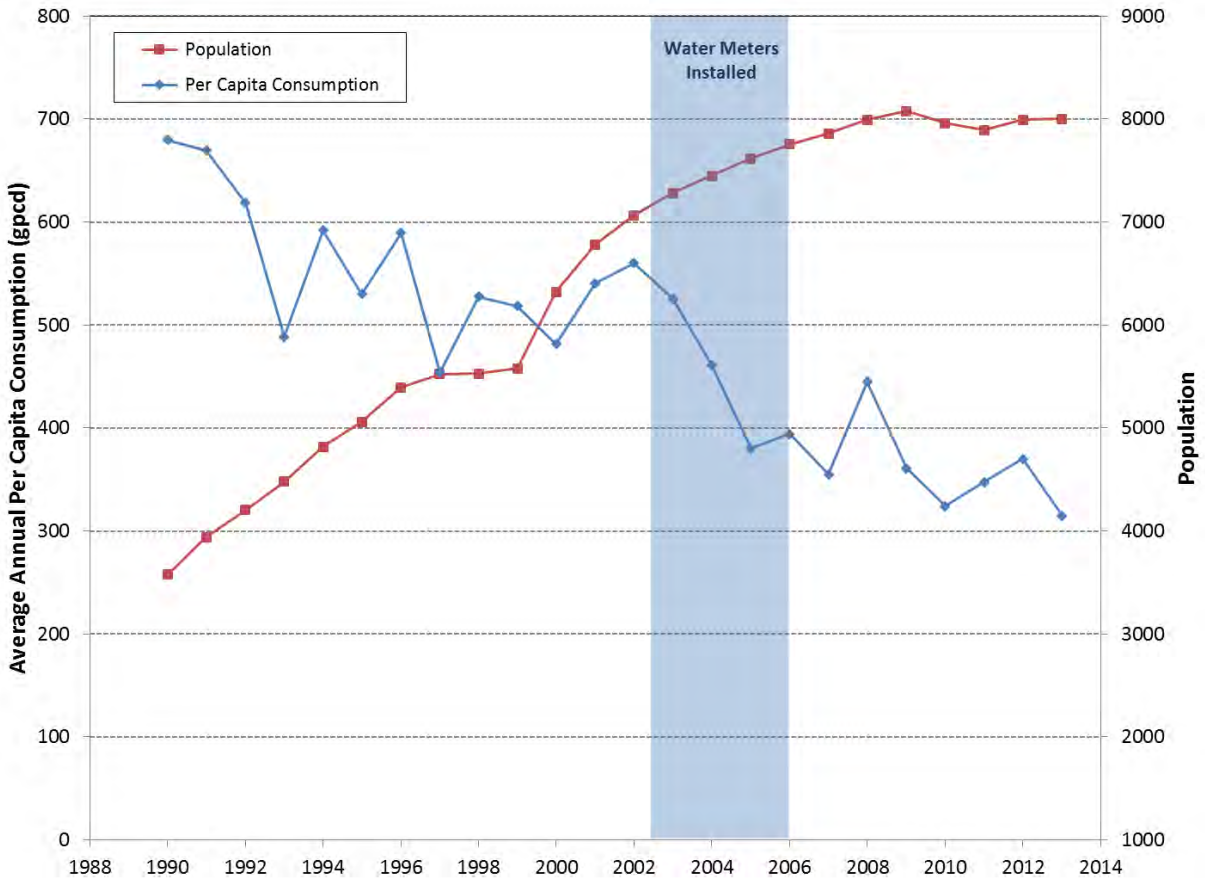
[1] Idaho Department of Commerce data per U.S. Bureau of Census
[2] Source: City of Hailey, Department of Public Works
[3] mgd = million gallons per day
[4] gpcd = gallons per capita per day
[5] ND = no data

4.2.1. Per Capita Consumption

Figure 4-1 shows the City population and average annual per capita consumption for the time period from 1990 to 2013. Over this time period, the population increased

from 3,575 to 8,000, while the average annual per capita water consumption decreased from 680 to 315 gallons per capita per day (gpcd). This is a significant decrease in per capita water consumption and is a testament to the water conservation measures implemented by the City.

Figure 4-1
Per Capita Consumption from 1990 to 2013

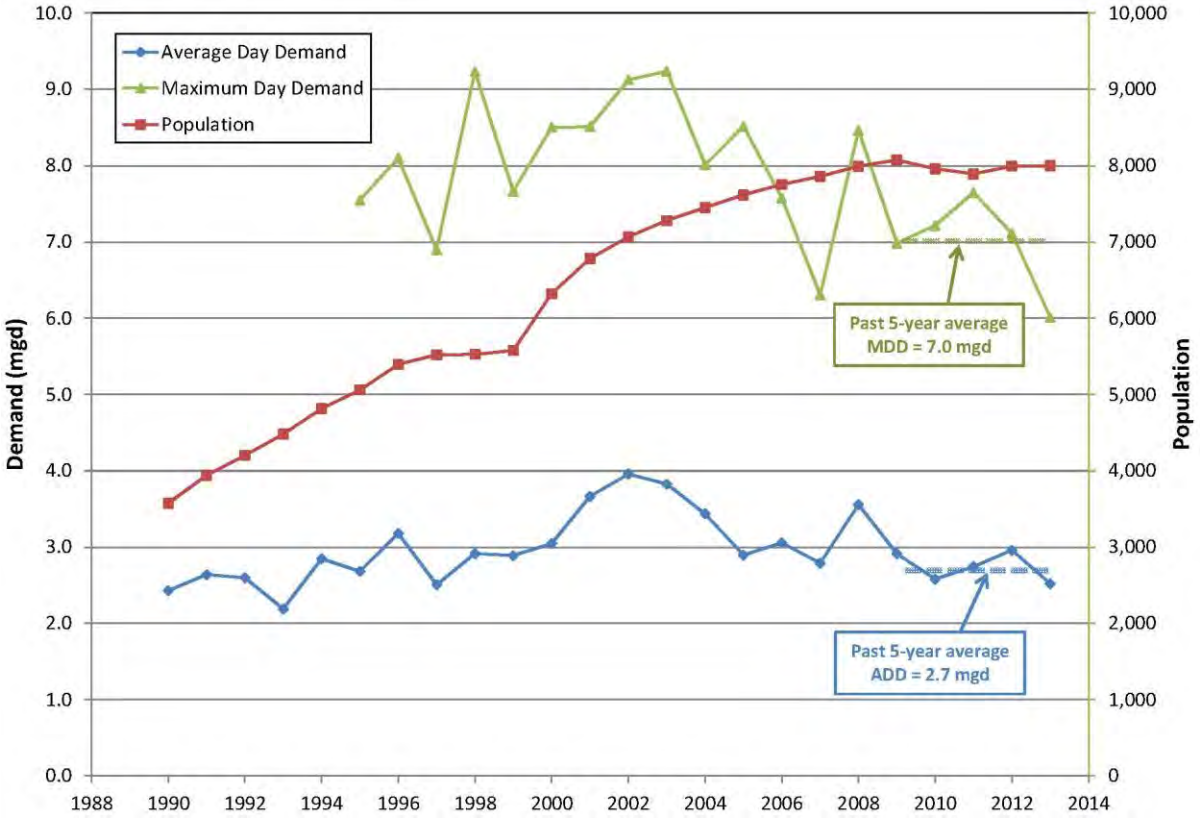


4.2.2. Average Day Demand and Maximum Day Demand

Figure 4-2 shows the ADD and MDD for each year during the period between 1990 and 2013. It is important to note that during this time period the population of Hailey increased from 3,575 to 8,000. ADD increased during the 1990s, but it has decreased since 2002, and has essentially returned to levels observed 20 years ago. The average ADD over the past 5 years was 2.7 mgd.

MDD has also decreased over the past 10 years to the lowest levels observed since MDD data collection started in 1995. The average annual MDD over the past 5 years was 7.0 mgd.

Figure 4-2
Average Day Demand and Maximum Day Demand, 1990-2013



The decrease in ADD and MDD over the past 10 years is likely attributable to the implementation of water conservation measures including irrigation ordinances, a leak detection and repair program, the implementation of service metering, a conservation-based rate structure, and the conversion of some irrigation demands to separate supplies.

4.2.3. Peak Hour Demand

Peak hour demand (PHD) was evaluated and determined to be 9.2 mgd for 2013. This is based on peaking factor data from 2008 because that is the most recent year for which detailed summertime data were available. A PHD/ADD peaking factor of 3.65 was applied to the average day demand of 2.52 mgd, resulting in an estimated PHD of 9.2 mgd for 2013 (2.52 mgd ADD x 3.65 = 9.2 mgd). Peak hour demand typically occurs in the summertime during irrigation hours in the late evening and early morning. When peak hour demand exceeds the production capacity of Indian Creek spring and the wells in service, supply from the City's two storage tanks is relied upon to meet peak demand.

4.2.4. Fire Flow Requirements

Hailey's water system supplies fire flow for use in fighting fires within the City. A minimum fire flow requirement of 1,500 gpm for two hours has been assumed in this planning document for all structures within the Service Area. Only one structure has a fire flow requirement (in accordance with International Fire Code requirements) larger than 1,500 gpm. This is shown in Table 4-2. This fire flow requirement (and 1,500 gpm for the remainder of the City) has been used for the 20-year planning period. Correspondence with the Fire Department is included in Appendix B.

Table 4-2
Hailey Fire Flow Larger than 1,500 gpm

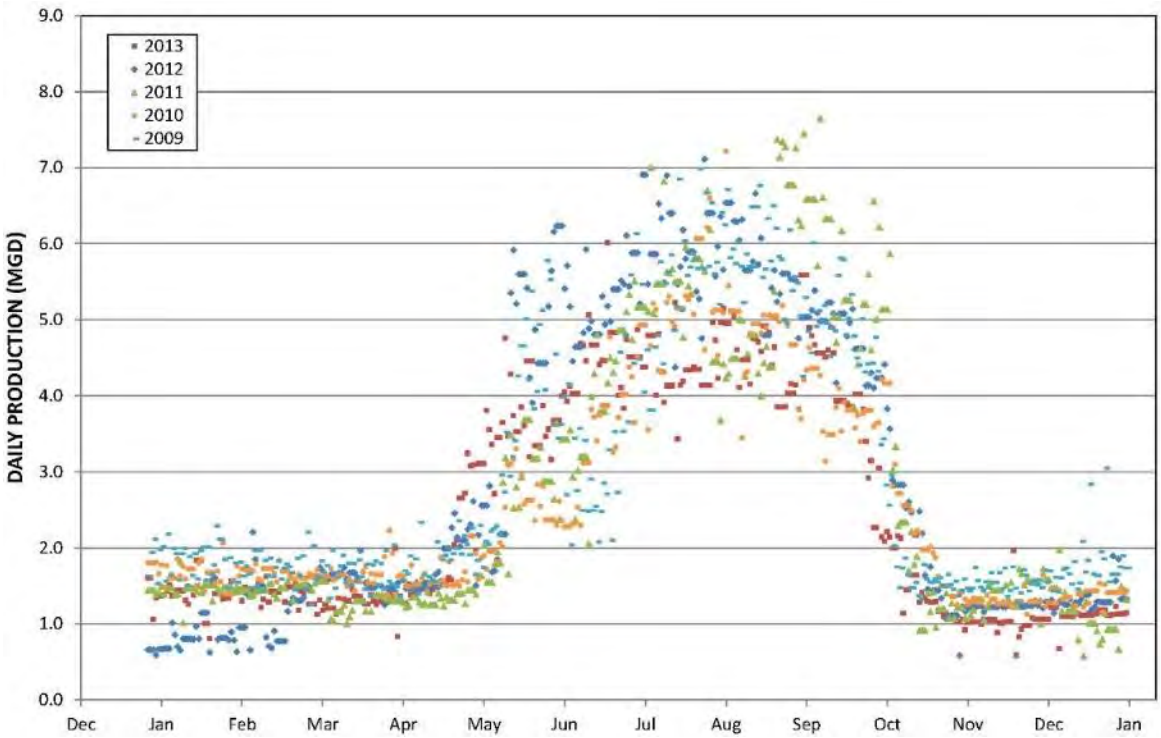
Building	Required Fire Flow[1]	Required Flow Duration[2] (hrs)
Court House (219 S. First Avenue)	3,000	3

[1] Hailey Fire Marshal
[2] International Fire Code

4.2.5. Seasonal Water Demand and Peaking Factors

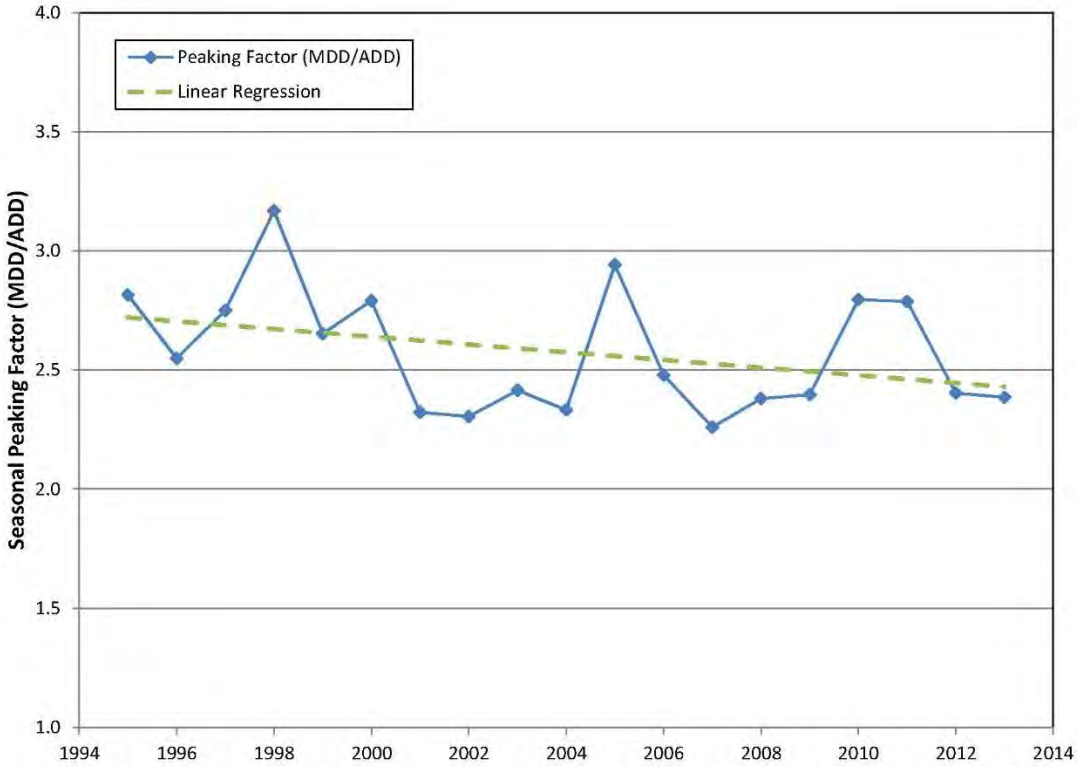
Figure 4-3 shows daily water production for the five-year period from 2009 to 2013. The figure shows that peak demand occurs during the summer as a result of irrigation demand. Base demand in the winter is typically between 1 and 2 million gallons per day (mgd), while demands in July and August are typically between 4 and 7 mgd. Maximum day demand for the past five years ranged from 6.0 to 7.7 mgd.

Figure 4-3
Daily Water Production 2009-2013



The ratio of maximum day demand (MDD) to average day demand (ADD) is a seasonal peaking factor that provides insight into seasonal demands exerted on a water system. Annual MDD/ADD peaking factors for 1995 through 2013 are presented in Figure 4-4.

Figure 4-4
Seasonal Peaking Factor (MDD/ADD)



The average MDD/ADD peaking factor for the 19-year period between 1995 and 2013 was 2.6. The minimum and maximum MDD/ADD peaking factors were 2.3 and 3.2, respectively. Peaking factors for southern Idaho municipalities that provide domestic and municipal irrigation supply typically fall in the range of 2 to 3, reflecting the impact of irrigation demand during the irrigation season.

The MDD/ADD peaking factor data show a slight decline over the past 20 years. Linear regression of the data yields a peaking factor value of 2.7 in 1995 and 2.4 in 2013. This observed decrease may be due to the implementation of alternate day irrigation and/or the conversion of some irrigated areas to other sources of supply (such as the Big Wood River). Additional declines could be achieved in the future as the City continues to pursue projects such as the recent conversion of Lions, Hop Porter and Lawrence Heagle Parks to non-potable sources of irrigation supply.

4.2.6. Unaccounted for Water

Unaccounted for water is the difference between the volume of water produced and the volume of water that is sold to customers. Unaccounted for water can be lost to leaks, unauthorized use, unmetered connections, or water used for flushing mains, fighting fires, and other unmetered uses.

Table 4-3 shows the volume of water produced, volume of water metered to customers, and total percent unaccounted for water for the time period of May 2013 through October 2013. Tracking unaccounted for water during the winter time is difficult because demands are low and the Turbine Tank regularly overflows due to constant spring flow into the Turbine Tank.

Table 4-3
Unaccounted for Water, May 2013 through October 2013

Water Produced (MG)	Water Metered (MG)	Unaccounted for Water (MG)	Unaccounted for Water (%)
692	661	31	4.5%

The volume of unaccounted for water from May through October 2013 was 4.5 percent of total water produced. Industry standards dictate that unaccounted for water levels less than 10 percent indicate that there is low loss of water from the system. Unaccounted for water levels above 15 percent should be addressed by leak detection and repair programs. The unaccounted for water level of 4.5 percent observed for the City of Hailey is very good and does not indicate issues with leakage or other water loss in the system.

4.3. Demand Projections

Water demand projections rely on important assumptions regarding population growth, per capita consumption, and seasonal peaking factors. While past water usage data can inform future water demand projections, trends invariably change over time and future demands can be difficult to predict. Still, demand projections are essential for planning water system improvements and budgeting for projects in order to meet these future demands. Table 4-4 shows the assumptions that were made in preparing demand projections presented later in this Section.

Table 4-4
Key Assumptions for 20 Year Water Demand Projections

	Annual Population Growth Rate	Per Capita Water Demand (gpcd)[1]	Peaking Factor (MDD/ADD)
1990-2013 Minimum	-1.4%	315	2.3
1990-2013 Average	3.6%	470	2.6
1990-2013 Maximum	13.4%	680	3.2
Assumption for 20 Year Demand Projections	2.0% (2)	350(3)	2.5(4)

[1] gpcd = gallons per capita per day
[2] Average annual population growth was 1.0% over past 10 years and 3.0% over past 20 years.
[3] Average per capita demand for past 5 years is 344 gpcd. See Figure 4-2 for graph showing per capita water demand for 1990 to 2013.
[4] Average peaking factor (MDD/ADD) for past 5 years is 2.55.

Water demand projections for the next 20 years are presented in Table 4-5. These projections rely on the assumptions for population growth, per capita water demand, and seasonal peaking factor shown in Table 4-4 above.

Table 4-5
Water Demand Projections, 2014-2034

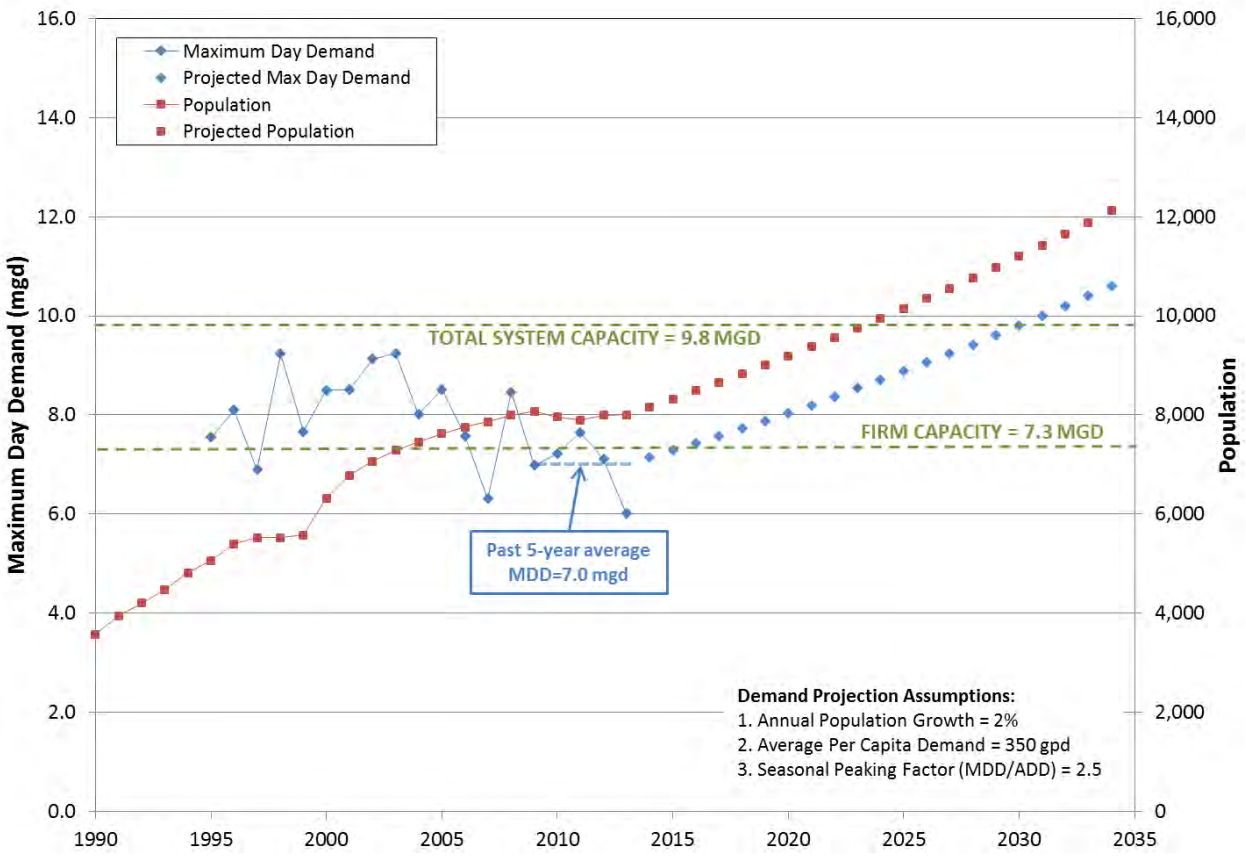
Year	Population[1]	Average Day Demand (ADD)[2] (mgd)	Maximum Day Demand (MDD)[4] (mgd)
2014	8,160	2.9	7.1
2015	8,323	2.9	7.3
2016	8,490	3.0	7.4
2017	8,659	3.0	7.6
2018	8,833	3.1	7.7
2019	9,009	3.2	7.9
2020	9,189	3.2	8.0
2021	9,373	3.3	8.2
2022	9,561	3.3	8.4
2023	9,752	3.4	8.5
2024	9,947	3.5	8.7
2025	10,146	3.6	8.9
2026	10,349	3.6	9.1
2027	10,556	3.7	9.2
2028	10,767	3.8	9.4
2029	10,982	3.8	9.6
2030	11,202	3.9	9.8
2031	11,426	4.0	10.0
2032	11,654	4.1	10.2
2033	11,888	4.2	10.4
2034	12,125	4.2	10.6

[1] Assumes annual population growth rate of 2.0%.
[2] Average day demand (ADD) based on per capita demand of 350 gallons per day.
[3] mgd = million gallons per day
[4] Maximum day demand (MDD) based on seasonal peaking factor of 2.5.

Figure 4-6 on the following page shows projections for population and maximum day demand with respect to the current water system total capacity and firm capacity.[1]

[1] "Firm capacity" refers to the system capacity with the largest source out-of-service.

Figure 4-5
Current Water Demand (1995-2013) and Future Projections (2014-2034)



5. Source and Storage Capacity Analysis

This section analyzes source and storage capacity over the 20-year planning period. Idaho Department of Environmental Quality (IDEQ) regulatory requirements are presented in Table 5-1.

Table 5-1
Source and Storage Regulatory Requirements

Requirement	IDAPA 58.01.08 Citation	Description
Groundwater Source Redundancy	501.17	Under normal operating conditions, with any source out of service, the remaining source(s) shall be capable of providing either peak hour demand (PHD) of the system or a minimum of the maximum day demand (MDD) plus equalization storage.
Reservoir Capacities	544.01 & 003.15	Storage facilities shall have sufficient capacity, as determined from engineering studies that consider peak flows, fire flow capacity, and analysis of the need for various components of finished storage as defined under the term "Components of Finished Water Storage" in Section 003.
Emergency Operation	501.07	During a power outage, the water system shall be able to meet the operating pressure requirements of Subsection 552.01.b. for a minimum of eight (8) hours at average day demand plus fire flow where provided.

Notes:
1. Redundant Pumping Capacity (Non-Fire) is not considered in this analysis. The IDAPA citation for this rule is 541.04.c – "each booster pumping station shall contain not less than two (2) pumps with capacities such that peak hour demand, or maximum day demand plus equalization storage, can be satisfied with the largest pump out of service." Booster pumps at the Northridge and Woodside Facilities are integral to providing source to the water system and have been considered in conjunction with the "Groundwater Source Redundancy" requirement.
2. Redundant Pumping Capacity (Including Fire Flow) is not considered in this analysis. The IDAPA citation is 501.17 – "Public water systems that provide fire flow shall be designed to provide maximum day demand plus fire flow instead of peak hour demand plus fire flow." Fire flows are provided from gravity storage in Hailey's system.

5.1. Groundwater Source Redundancy

The City water supply facilities have a 2014 firm capacity of 7.3 MGD. Peaking and fire supplies are provided from reservoir storage, therefore the sources of supply need to be able to provide MDD with the largest source out of service.

Table 5-2
Groundwater Source Projections

Year	Projected MDD (mgd)	Firm Capacity (mgd)	Notes
2014	7.1	7.3	
2015	7.3	7.3	
2016	7.4	8.0	Additional Supply Online from River Street Well, 0.72 MGD Capacity
2017	7.6	8.0	
2018	7.7	8.0	
2019	7.9	8.6	Additional Supply Online from Indian Creek Spring and Northridge Facility, 0.54 MGD
2020	8.0	8.6	
2021	8.2	8.6	
2022	8.4	8.6	
2023	8.5	8.6	
2024	8.7	10.4	New Well Online, 1.8 MGD Capacity
2025	8.9	10.4	
2026	9.1	10.4	
2027	9.2	10.4	
2028	9.4	10.4	
2029	9.6	10.4	
2030	9.8	10.4	
2031	10.0	10.4	
2032	10.2	10.4	
2033	10.4	12.2	New Well Online, 1.8 MGD Capacity
2034	10.6	12.2	

The City has a slight excess source capacity for 2014 due to conservation efforts, but in previous years MDD has exceeded firm source capacity. Surface water is available in the Hailey area, but would require treatment for use in the municipal water system. We recommend that additional potable supply come from optimization of production from existing facilities and then from new groundwater wells. Increased capacity from the River Street Well is recommended in the immediate future, with increased production from Indian Creek Spring and the Northridge Facility needed by 2019, a new well source needed in 2024, with another source needed in approximately 2033. Conservation efforts by the City (see Chapter 7) could delay the need for additional sources.

The increased capacity from existing sources can occur under existing water rights. The first additional groundwater source (2024) can be constructed under existing water rights by adding a new point of diversion through the administrative transfer process with the Idaho Department of Water Resources (IDWR). Depending on spring flows, it is possible that the 2033 new groundwater source can be constructed under existing water rights by adding a new point of diversion, or it may require a new water right. Chapter 8 contains additional detail and recommendations related to water rights.

The City's existing spring source and several well facilities have the potential for upgrades that would increase supply. There is an immediate need for additional supply, and the following upgrades would delay the need for new well(s). If the upgrades do not provide the anticipated production, a new well may be needed sooner than 2024.

- **Indian Creek Spring.** Spring flows have been variable over the years, ranging from an average of 718 gpm in 2005 to 1,241 gpm in 1998 (measured at the turbine inlet). SPF Water Engineering recently completed an analysis of the spring collection system to investigate ways to increase flows. It is unclear if the perceived decrease in flows is due to lower levels of precipitation in recent years, or to declining capture efficiency of the collection system. Several further investigative steps are recommended in the Capital Improvement Plan to determine if collection system improvements will increase spring flow capture.
- **River Street Well.** It may be feasible to put a larger pump in the existing River Street Well, increasing the available source of supply from this well. Adding a water-level monitoring device to the well and collecting water-level and flow information would allow for an analysis of well productivity. From this information, a determination could be made on how much additional flow the well could produce.
- **Third Avenue Well.** The Third Avenue well does not currently have a chlorination system, although it has the largest pump capacity in the system. The lack of chlorination at the well limits production on some days, as flows from the well are curtailed so that target chlorine residuals in the distribution system can be met. Addition of a chlorination system to the Third Avenue facility is recommended.
- **Northridge Facility.** The Northridge Facility (three wells, chlorine contact chamber, and two booster pumps) has a water right limit of 2,100 gpm. According to SCADA information, the facility produced an average of approximately 1,700 gpm on the peak day in 2008 (2014 data for April to June was similar). The 90th percentile production for the facility is 1,880 gpm. Changing controls, adding variable frequency drives to the well pumps, or potentially changing booster pumps could allow a steady 2,100 gpm to be produced from this facility.

The ideal location for future new wells is in the main pressure zone so that they can serve customers in that pressure zone, fill storage tanks, and also supply customers in the lower pressure zones. The well could potentially be located on one of the existing well lots if hydrogeologic information either supports two wells in close proximity, or indicates the wells could be completed in different aquifer zones. Alternatively, a new well could be located in a city park or an empty lot in a subdivision. IDEQ requires a 50-foot clear radius around a municipal (public drinking water supply) well for sanitary protection.

5.2. Reservoir Capacities

Requirements for reservoir capacity are included in IDAPA 58.01.08.544.01 and IDAPA 58.01.08.003.15. According to these regulations, there are five additive components of storage that must be considered in sizing reservoirs. These components include:

- **Operational Storage.** Operational storage supplies water when, under normal conditions, the sources are off.
- **Equalization Storage.** Storage of finished water in sufficient quantity to compensate for the difference between a water system's maximum pumping capacity and peak hour demand.
- **Standby Storage.** Standby storage provides a measure of reliability or safety factor should sources fail or when unusual conditions impose higher than anticipated demands.
- **Fire Suppression Storage.** The water needed to support fire flow in those systems that provide it, such as the City of Hailey water system.
- **Dead Storage.** Storage that is either not available for use in the system or can provide only substandard flows and pressures.

Reservoir capacities are shown in Table 5-3 for the 20-year planning period. The storage analysis assumes additional supply from River Street is online by 2016, additional supply from Indian Creek Spring and the Northridge Facility are online by 2019, and new wells are online in 2024 and 2033. In addition, we assume that standby power is added to two well facilities over the 20-year planning period (see Section 5.3). Conservation efforts by the City may delay the need for additional supplies (Chapter 7).

Table 5-3
Source and Storage Analysis

Storage Components	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Operational Storage[1]	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
Equalization Storage[2]	1.60	1.64	1.67	1.71	1.73	1.78	1.80	1.85	1.89	1.91	1.96	2.00	2.05	2.07	2.12	2.16	2.21	2.25	2.30	2.34	2.39
Standby Storage[3]	0.95	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.12	1.14	1.16	1.18	1.21	1.23	1.26	1.28	1.31	1.33	1.36	1.39	1.41
Fire Storage[4]	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
Dead Storage[5]	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Subtotal	**3.32**	**3.38**	**3.42**	**3.49**	**3.53**	**3.60**	**3.64**	**3.71**	**3.77**	**3.82**	**3.89**	**3.96**	**4.02**	**4.07**	**4.14**	**4.21**	**4.28**	**4.35**	**4.42**	**4.50**	**4.57**
Equalization Storage Deduction for Excess Well Firm Capacity	-	-	0.22	0.22	-	0.23	0.23	-	-	-	0.76	0.78	0.53	0.54	0.55	0.28	0.29	-	-	0.91	0.62
Standby Storage Deduction for Gravity Spring Flow and Wells With Standby Power	0.40	0.40	0.40	0.40	0.40	0.40	0.40	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.01	1.33	1.36	1.39	1.41
Required Storage Capacity	**2.92**	**2.98**	**2.81**	**2.87**	**3.13**	**2.97**	**3.01**	**2.70**	**2.76**	**2.81**	**2.12**	**2.17**	**2.48**	**2.52**	**2.58**	**2.92**	**2.99**	**3.02**	**3.06**	**2.20**	**2.54**
Available Storage Capacity	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**	**3.18**
Storage Excess (Deficit)	**0.26**	**0.20**	**0.37**	**0.31**	**0.05**	**0.21**	**0.17**	**0.48**	**0.42**	**0.37**	**1.06**	**1.01**	**0.70**	**0.66**	**0.60**	**0.26**	**0.19**	**0.16**	**0.12**	**0.98**	**0.64**
Supplies and Demands (mgd)																					
MDD	7.10	7.30	7.40	7.60	7.70	7.90	8.00	8.20	8.40	8.50	8.70	8.90	9.10	9.20	9.40	9.60	9.80	10.00	10.20	10.40	10.60
Firm Capacity[6]	7.30	7.30	8.02	8.02	8.02	8.56	8.56	8.56	8.56	8.56	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	10.36	12.16	12.16
ADD	2.86	2.91	2.97	3.03	3.09	3.15	3.22	3.28	3.35	3.41	3.48	3.55	3.62	3.69	3.77	3.84	3.92	4.00	4.08	4.16	4.24
Capacity Available During Power Outage[7]	1.20	1.20	1.20	1.20	1.20	1.20	1.20	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	3.03	4.57	4.57	4.57	4.57

[1] One foot in each tank.

[2] MDD * 22.5%, per IDEQ *Guidance for Determining Equalization Water Storage for Public Water Systems* , March 2013. Analysis of Hailey's 2008 detailed SCADA information indicated an equalization storage requirement of 21.4%, very close to the IDEQ guideline. 22.5% has been used in this planning analysis.

[3] Eight hours of ADD.

[4] 3,000 gpm for 3 hours.

[5] 6" in Quigley Tank (1,040 gallons). 4" in Turbine Tank (28,000 gallons).

[6] River Street Well larger pump added before 2016 (500 gpm). Indian Creek Spring and Northridge Capacities increased (155 gpm and 220 gpm) before 2019. Wells added in 2024 and 2033. 1.8 MGD each. Note that conservation efforts (see Chapter 7) could delay the need for new sources of supply.

[7] Standby generator added at Woodside by 2021. Standby generator at another well (River Street assumed) by 2031.

With storage deductions taken in accordance with IDEQ requirements for 1) having more firm well capacity than MDD, and 2) being able to continue to supply water from selected sources during a power outage, the existing reservoir capacities are sufficient throughout the planning period.

Providing peaking supply from storage rather than additional sources of supply is recommended to limit diversion rate increases as conjunctive administration of water rights is implemented. It is recommended that Hailey plan for future additional storage depending on growth, actual production of planned future wells, continued reliability of supply from existing sources, and continued conservation measures.

A likely location for a new storage tank would be the existing Turbine Tank site. The Turbine Tank could be replaced with a larger capacity tank that is slightly taller than the existing tank, and has an overflow elevation that matches Quigley Tank. Alternatively, the City may have an opportunity over the next 20 years to reserve space for a future tank in a planned development. In this scenario, the tank location and its operation within the system can be analyzed when a potential site is presented.

The City may consider establishing a fire flow policy in conjunction with the Hailey Fire Department. This will put boundaries on the upper limits of fire flow the water system needs to provide, and assist during permitting in determining if buildings need to be constructed with fire walls and sprinkler systems to stay within the available fire flow rates and storage volumes.

Two distribution projects related to storage were suggested by City Operators for inclusion in the Capital Improvement Plan. The first is replacement of the aging pipeline between Indian Creek Spring and the Turbine Tank. The existing pipeline is very old and suspected to be leaking. It would likely be replaced with a 12-inch diameter line. The second project is to improve connectivity to Quigley Tank. Currently, it is challenging to fill Quigley Tank all the way to the top, and can only be accomplished with selective operation of the Woodside Well. There are multiple ways connectivity could be improved. A booster pump station could be constructed at the base of Quigley Canyon to fill the tank from the distribution system. Various piping improvements, especially around Third Avenue Well, could improve connectivity and the amount of water flowing to Quigley Tank versus Turbine Tank. Improved connectivity could also make it easier for Quigley Tank to drain out, so care will be needed in selecting the exact improvement for implementation. We recommend that further modeling and planning efforts be conducted prior to selection of the preferred alternative.

An improvement to the access hatches at Quigley Tank was requested by IDEQ during their initial review of the Master Plan. The two access hatches are currently not in compliance with IDAPA 58.01.08.544.07.b which states "*The following access requirements apply to partially buried or below-ground storage structures. Each access manhole shall be elevated a minimum of twenty-four (24) inches above the*

surface of the roof or the ground level, whichever is higher. The actual height above the surface of the roof or the ground level must be sufficient to prevent incidental contamination from snow accumulation, storm water runoff or accumulation, irrigation water, or other potential sources of contamination….". A project has been added to the recommended improvement list to elevate the height of these access hatches to comply with IDEQ requirements.

5.3. Emergency Operation

IDAPA 58.01.08.501.07 requires that water systems have sufficient dedicated on-site standby power, with automatic switch-over capability, and/or storage so that water may be treated and supplied to pressurize the entire distribution system during power outages if standby storage is not available. During a power outage, the water system must be able to meet minimum operating pressure requirements for a minimum of 8 hours at average day demand (ADD) plus fire flow, where provided.

None of the City's existing facilities have standby generators. Indian Creek Spring flows steadily year-round by gravity, with no power required, although a small amount of power is necessary to run the chlorination system. The average 2013 spring flow was 1.2 MGD. Hailey's Average Daily demand (ADD) for 2014 is 2.9 MGD, a shortfall of 1.7 MGD. The additional volume required to be held in storage is 1.7 MGD for 8 hours, or 570,000 gallons. Existing storage volumes with spring flow are sufficient to meet emergency operations criteria with the addition of a standby generator at the Woodside Facility in 2021, and at the Third Avenue facility in 2031 (Table 5-3).

We recommend the Woodside Facility for the first standby generator because of the challenges operators face in keeping Quigley Tank filled if the Woodside facility is not operational. The generator should be sized to power both the well pump and large booster pump. The Third Avenue facility is recommended for the second standby generator because it has the largest current capacity of any one well. The City may choose to add standby generators sooner than 2021, or consider them at alternate locations. Any new source of supply could also be equipped with a standby generator.

The City is interested in purchasing mobile generators. To satisfy IDEQ requirements for standby power, it will have to be demonstrated that the generator would be available at the designated well facility when needed. The City is interested in purchasing the mobile generator for the Woodside Facility sooner than 2021 as a customer service measure.

5.4. Water Quality and Regulatory Evaluation

The City of Hailey has high-quality sources of supply: Indian Creek Spring, River Street Well, Third Avenue Well, Woodside Well, and the three Northridge Wells. Water quality data were reviewed for the five year period from 2008 through 2013, and the City water supply met all Safe Drinking Water Act requirements over this time period.

5.4.1. Source Water Quality

Table 5-4 summarizes available key raw water quality parameters at the sources including average and maximum values for arsenic, nitrate, and gross alpha emitters. Water quality data for other metals was not collected in the past five years. All samples exhibited concentrations less than the regulatory Maximum Contaminant Levels (MCLs) for these parameters.

Table 5-4
Source Water Quality[1]

Parameter	Maximum Contaminant Level (MCL)[2]	Indian Creek Springs	River St Well	Third Ave Well	Woodside Well	Northridge Wells
Arsenic[3]	10 µg/L					
Average		<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L
Maximum		<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L
Nitrate	10 mg/L					
Average		0.38 mg/L	0.52 mg/L	1.17 mg/L	1.26 mg/L	0.67 mg/L
Maximum		0.40 mg/L	0.64 mg/L	1.34 mg/L	1.19 mg/L	0.69 mg/L
Gross Alpha[4]	15 pCi/L					
Average		<3 pCi/L	<3 pCi/L	<3 pCi/L	<3 pCi/L	<3 pCi/L
Maximum		<3 pCi/L	<3 pCi/L	<3 pCi/L	<3 pCi/L	<3 pCi/L

[1] Complete water quality monitoring data for 2008 through 2013 can be found in Appendix A.
[2] Maximum Contaminant Levels are established by the USEPA Primary Drinking Water Standards.
[3] All arsenic results were less than the laboratory minimum detection limit of 5 µg/L.
[4] All gross alpha results were less than the laboratory minimum detection limit of 3 picoCuries per liter.

5.4.2. Water Quality Regulations

The Safe Drinking Water Act (SDWA) establishes water quality regulations for all public water systems in the United States. There are numerous contaminants that are regulated under the SDWA that must be monitored and reported to the regulatory authority, in this case the Idaho Department of Environmental Quality (IDEQ).

Based on this review, the City of Hailey is currently in compliance with all requirements of the SDWA, including regulations for arsenic, nitrate, radionuclides, lead, copper, total trihalomethanes (TTHMs), and five haloacetic acids (HAA5). It is anticipated that the City will maintain compliance with current regulations and future anticipated regulations due to the high quality of the source water upon which the system relies.

5.4.2.1. Total Coliform Bacteria

During 2013, a total of 113 samples were collected from the distribution system and analyzed for total coliform bacteria. All of the samples except one tested negative for total coliform, and follow up testing on the one positive sample was negative. Federal drinking water quality regulations require that less than 5 percent of coliform samples be positive. For 2013, the actual percentage of positive samples was less than 1 percent.

5.4.2.2. Arsenic

The current arsenic maximum contaminant level (MCL) set by EPA is 10 μg/L, however there is some discussion in the industry that the standard could potentially be lowered in the future, perhaps to a level of 5 μg/L or lower. While this may or may not come to pass, the current City arsenic data have a minimum detection limit of 5 μg/L, with all samples collected during the past five years yielding results of non-detect, or <5 μg/L. A lower detection limit, such as 1 μg/L, would provide additional information that would be helpful in assessing future regulatory compliance. We recommend that the City obtain a lower method detection limit (MDL) for arsenic samples for future analyses, either from the laboratory that currently analyzes the samples, or from an alternate laboratory to better quantify arsenic levels.

5.4.2.3. Disinfection Byproducts (DBP)

Disinfection byproducts (DBPs) are formed when organic compounds in the source water, most notably humic and fulvic acids, react with chlorine which is added to the water for disinfection purposes. DBPs are typically more of a concern for surface water sources than for groundwater sources such as those used in Hailey. DBP samples are collected from the distribution system, as opposed to the source or well head, because the reactions between organic precursors and chlorine that form DBPs take some time to occur.

The City collected samples for DBPs during 2011, 2012, and 2013. Samples were collected at four locations in the distribution system as required by the Disinfection Byproduct Rule. The DBP Rule regulates the concentration of total trihalomethanes (TTHMs) and the concentration of five haloacetic acids (HAA5) at MCLs of 80 ug/L and 60 ug/L, respectively. All samples collected were well below these limits, and the results are presented in Table 5-5.

Table 5-5
Disinfection Byproduct Concentrations[1]

Date	Location	TTHM[2] (µg/L)	HAA5[3] (µg/L)
Maximum Contaminant Level (MCL)		**80 µg/L**	**60 µg/L**
2011	4297 Glenbrook	< 0.5 µg/L	< 2 µg/L
	1811 Merlin Loop	< 0.5 µg/L	< 2 µg/L
	Sawmill Drive	5.48 µg/L	< 2 µg/L
	1241 War Eagle	< 0.5 µg/L	< 2 µg/L
2012	4297 Glenbrook	< 0.5 µg/L	< 2 µg/L
	1811 Merlin Loop	< 0.5 µg/L	< 2 µg/L
	Sawmill Drive	2.5 µg/L	< 2 µg/L
	1241 War Eagle	< 0.5 µg/L	< 2 µg/L
2013	4297 Glenbrook	< 0.5 µg/L	< 1 µg/L
	1811 Merlin Loop	< 0.5 µg/L	< 1 µg/L
	Sawmill Drive	1.7 µg/L	< 1 µg/L
	1241 War Eagle	< 0.5 µg/L	3 µg/L

[1] Complete water quality monitoring data for 2008 through 2013 can be found in Appendix A.
[2] Total trihalomethane concentration (TTHM) is the sum of the concentrations of chloroform, bromodichloromethane, dibromochloromethane, and bromoform.
[3] HAA5 is the sum of the concentrations of the following five haloacetic acids: monochloroacetic acid, dichloroacetic acid, trichloroacetic acid, monobromoacetic acid, and dibromoacetic acid.

5.4.2.4. Lead and Copper

The Lead and Copper Rule (LCR) regulates the concentrations of lead and copper in public water systems at Action Limits (ALs) of 0.015 mg/L for lead and 1.3 mg/L for copper. A public water system's 90th percentile lead and copper levels must be less than the respective Action Limits to maintain compliance with the LCR. The City is currently in compliance with the LCR based on the most recent sampling which was conducted during 2012.

Twenty first-draw samples were collected on July 10, 2012 from different locations in the distribution system. The 90th percentile lead concentration was 0.00224 mg/L which is less than the lead AL of 0.015 mg/L and therefore achieves compliance with the lead standard. The 90th percentile copper concentration was 0.0878 mg/L which is less than the copper AL of 1.3 mg/L and therefore achieves compliance with the copper standard. Because the lead and copper sample results are well below their respective ALs, maintaining compliance with the LCR into the future is anticipated.

5.4.2.5. Anticipated Regulations

Future regulatory action by EPA cannot be predicted with absolute certainty; however, there are anticipated regulations that are under discussion within the industry. These include long-term revisions to the Lead and Copper Rule, Disinfection Byproducts (DBP) Rule, Fluoride, Carcinogenic Volatile Organic Chemicals (cVOC) Rule (currently including such chemicals as benzene and trichloroethylene, or TCE), and the future regulation of Hexavalent Chromium.

At this point, it does not appear that anticipated future regulations will impact the City greatly. Current lead, copper, DBP, and fluoride levels are low and will likely meet future requirements. While no cVOC or hexavalent chromium data were available for review, concentrations of these contaminants are expected to be low as they are more commonly found in areas of heavy industry and would not be expected to be present in significant levels in the City's source water.

The only anticipated regulation of concern at this point is the potential for a lower arsenic standard as discussed in Section 5.4.2.2 above. At this time, we simply recommend that the City obtain a lower minimum detection limit (i.e. 1 μg/L, instead of 5 μg/L) for future arsenic analyses.

5.4.2.6. Ground Water Rule

EPA published the Ground Water Rule in the Federal Register on November 8, 2006. The purpose of the rule is to provide for increased protection against microbial pathogens in public water systems that use groundwater sources. The rule takes a targeted, risk-based approach that provides for:

- regular sanitary surveys of public water systems to look for significant deficiencies in key operational areas;
- triggered source water monitoring when a system (that does not sufficiently disinfect drinking water to remove 99.99 percent (4-log) of viruses) identifies a positive sample during its Total Coliform Rule monitoring and assessment monitoring targeted at high-risk systems;
- implementation of corrective actions by groundwater systems with a significant deficiency or evidence of source water fecal contamination to reduce the risk of contamination; and,
- compliance monitoring to ensure that treatment technology installed to treat drinking water reliably achieves 99.99 percent (4-log) inactivation or removal of viruses.

In anticipation of the Ground Water Rule, the City constructed chlorine contact basins at the Northridge and Woodside well facilities. However, based on the final published rule these chlorine contact basins are not required. For future City well facilities, chlorine contact basins will most likely not be necessary.

5.5. Summary of Recommendations

Table 5-6 shows a summary of source and storage recommendations for the 20-year planning period.

Table 5-6
Summary of Source and Storage Recommendations

Recommended Improvement	Year
Source of Supply	
Investigate increasing supply from the River Street Well. Implement Selected Improvements	2015
Add Chlorination to Third Avenue Well	2016
Elevate Quigley Tank Access Hatches	2015-2016
Investigate Potential for Additional Supply from Indian Creek Spring. Implement selected improvements.	2015 - 2019
Investigate potential for increasing supply from the Northridge Facility. Implement selected improvements.	2015 - 2019
Design, Permit, and Construct New Well	2024
Design, Permit, and Construct New Well	2033
Storage	
Plan for New Storage Tank Location	2020-2034
Replace Pipeline between Indian Creek Spring and Turbine Tank	2020-2034
Investigate ways to improve connectivity to Quigley Tank. Implement selected improvements.	2020-2034
Emergency Operation	
Purchase mobile generator (not needed until 2021, City option to purchase earlier). Primary purpose will be to power Woodside Facility.	2015-2019
Standby Generator for Third Avenue Facility	2031
Non-Capital Recommendations	
Establish Fire Flow Policy	2015
Arsenic Testing with Lower Detection Limit	2015 - 2019

5.5.1. No Action Alternative

If the City chose a “no action” alternative, not implementing the recommended improvements, the results could include the following. Related to source of supply, a water supply shortage would be anticipated as the City continued to grow and need additional water to meet demands. Related to emergency operation, without adding future generators, a power outage could create a situation where water was not available to users. Delaying the implementation of either additional supplies or generators could result in additional storage being needed.

6. Distribution System Hydraulic Analysis

Hydraulic network modeling can be a useful tool to predict water system behavior and identify potential problem areas in a distribution system. This chapter describes how a hydraulic model developed for the City of Hailey was used to evaluate the water distribution system under existing (2014), near-term (2019), and long-term (2034) conditions. The tested hydraulic analysis criteria used to evaluate distribution system performance for various water system operating conditions are shown in Table 6-1. Each of these criteria are tested for the existing, near-term, and long-term demands and are used as the design criteria for establishing future water distribution system infrastructure improvements. Details related to how the hydraulic model was developed and data used in the model are included in Appendix B.

Table 6-1
Criteria for Distribution System Hydraulic Analysis

Water Operating Condition	IDAPA 58.01.08 Citation	Hydraulic Analysis Criteria
Static Pressure	552.01.b.vi.	Maximum pressure of 100 psi and ordinarily less than 80 psi
Peak Hour Demand	552.01.b.viii. 552.01.b.v.	Pressure greater than 40 psi throughout the system with both operational storage and equalization storage exhausted
Maximum Day Demand + Fire Flow	552.01.b.i.	Minimum Fire Flow & Pressure > 20 psi throughout the system

6.1. Static Pressure

IDEQ rules require public water systems to keep static pressure within the distribution system below 100 psi, and ordinarily keep static pressure below 80 psi. Hailey added the North and South Woodside pressure zones in 2000 to successfully decrease pressures in areas that were over 100 psi. However, the areas shown red in Figure 6-1 still have static pressures over 100 psi. The highest static pressures are 107 psi south of Cedar Drive and west of Aviation Drive (the “Silver Star Area”) near the Big Wood River. The City may consider creating another pressure zone in this area, or consolidating this area into the North or South Woodside Pressure Zones. In addition, static pressures in the lower elevations of the North Woodside Pressure Zone south of Moonlight Drive calculate as high as 106 psi. Static pressures in this area could be lowered by adjusting the settings for the Woodside and Fox Acres PRVs. The City should field verify these modeled high pressures prior to making PRV adjustments.

6.2. Peak Hour Demand (PHD)

IDEQ rules require public water systems maintain a minimum pressure of 40 psi throughout the distribution system during the peak hour demand condition, measured at the service connection or along the property line adjacent to the consumer's premises. Hydraulic modeling indicates that Hailey's system meets this requirement everywhere except around Indian Creek Road/North Hiawatha Drive (the north end of the "Hiawatha Area" shown in Figure 3-1). The lowest pressures in this area were 34 psi (2014 scenario), 33 psi (2019 scenario), and 28 psi (2034 scenario). Homes in this area have individual wells for potable supply needs and only use the City water system for irrigation and fire flow demands. Since a minimum 20 psi is maintained in the system (ensuring sanitary conditions), and potable supply is not provided in this area, it does not need to meet the 40 psi minimum peak hour demand requirement. If this area of the system is changed in the future to provide potable supply, improvements such as booster pumping will likely be needed to provide the minimum required pressure of 40 psi.

6.3. Maximum Day Demand (MDD) Plus Fire Flow

IDEQ rules require public water systems be capable of providing sufficient water during maximum day demand conditions, including fire flow where provided, to maintain a minimum pressure of twenty (20) psi throughout the distribution system, at ground level, as measured at the service connection or along the property line adjacent to the consumer's premises.

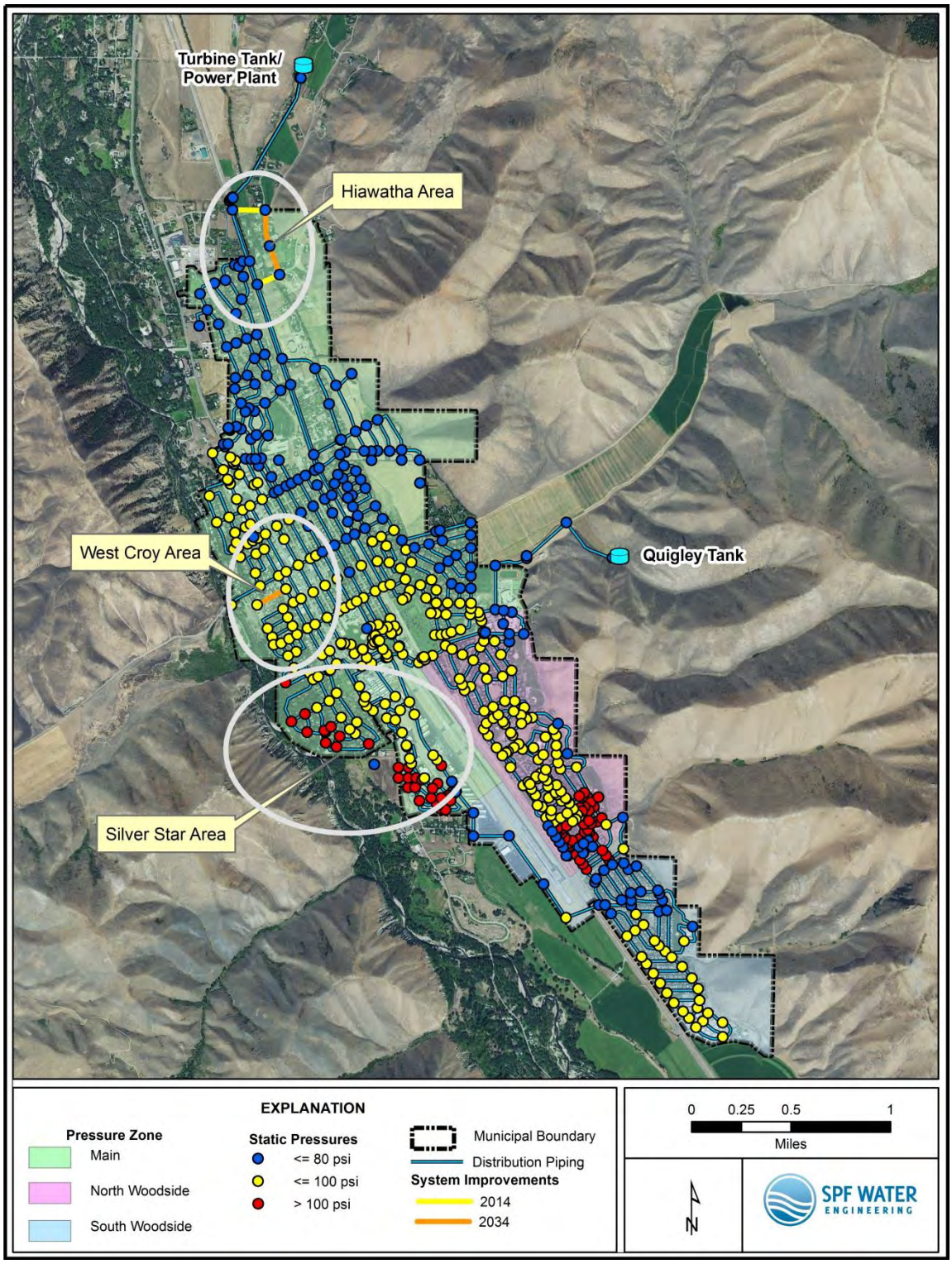
The hydraulic modeling software fire flow analysis routine simulates a single fire at a time for each designated model junction node. Minimum fire flow requirements were set as:

- 3,000 gpm near the court house location;
- 1,500 gpm for all other parts of the system, except upstream of supply pumps and near reservoirs.

Hailey's water system is remarkably robust in providing fire flows. For the 2014 condition, only portions of the Hiawatha Area had fire flows below 1,500 gpm. Replacing the 6-inch lines on Indian Creek Road and Red Devil Drive in the near term, and the 6-inch line along North Hiawatha Drive in the long term, will provide the full 1,500 gpm fire flow to this area. West Croy Street, on the east side of town, was slightly low on fire flow for the future (2034) condition. Replacing the existing 6-inch line with an 8-inch line would allow the full 1,500 gpm fire flow to be transmitted. Hailey's fire chief indicates that there is adequate water everywhere in the City to support firefighting, therefore these improvements have been given low priority and not included in the Capital Improvement Plan. These will be areas for the City to watch as growth continues, and potentially make improvements in the future. If Quigley Canyon is developed, a booster pump station will be needed to provide fire flows to this higher elevation area. This improvement has not been included in the

Capital Improvement Plan as it is assumed that any developer of the Canyon would provide the needed infrastructure. Table 6-2 and Figure 6-1 show the potential improvements.

Figure 6-1
Static Pressures and Recommended Future Improvements



6.4. Summary of Recommendations

Table 6-2 shows a summary of distribution system improvements for the 20-year planning period.

Table 6-2
Summary of Distribution System Improvements Needed

Location	Required Fire Flow (gpm)	Available Fire Flow (gpm)	Description of Needed Improvement	Pipeline diameter (in)	Pipeline length (ft)
2014 Improvements					
Hiawatha	1,500 1,500	1,223 1,153	Replace 6-inch pipe with 8-inch water pipe (a) along Indian Creek Road from Buttercup Road to North Hiawatha Drive and (b) along Red Devil Drive from Buttercup Road to North Hiawatha Drive. Low Priority – Fire Chief indicates firefighting capacity is acceptable.	8 8	880 650
Silver Star Drive	N/A	N/A	Consider creating another pressure zone or consolidating this area with the North or South Woodside Pressure Zones to maintain static pressures below 100 psi.	N/A	N/A
Quigley Canyon	N/A	N/A	If/when Quigley Canyon is developed, a booster pump station will be needed. This improvement is not included in the Capital Improvement Plan, developer to provide.	N/A	N/A
2034 Improvements					
Hiawatha	1,500	1,495	Replace 6-inch pipe in North Hiawatha with 8-inch pipe. Low priority – fire flow availability is close to requirement.	8	1,800
West Croy	1,500	1,452	Replace 6-inch pipe in West Croy Street with 8-inch pipe. Consider easement through private property to avoid dead-end main by connecting to the main in Croy Creek Road. Low priority – fire flow availability is close to requirement.	8	1,300

6.4.1. No Action Alternative

If the City chose a “no action” alternative, not implementing the capital improvements, the results could include the following. Related to pipeline improvements, the fire flows in the City would continue to be acceptable (per consultation with the local fire authority), even though in limited areas available flows are not quite 1,500 gpm. Related to pressure zones, if the Silver Star reduced pressure area is not created, static pressures in this area will continue to be slightly higher than 100 psi.

7. CONSERVATION

7.1. Current Conservation Measures

The City of Hailey has implemented substantial conservation measures in recent years. These measures include installing service meters for each connection, implementing water use restrictions (e.g., alternate-day irrigation), setting a conservation-oriented rate structure, shifting some large irrigation users to separate supplies, and initiating a leak detection and repair program.

These conservation measures have been effective, and the City is interested in implementing additional conservation measures in the future. Focusing on outdoor (irrigation use) conservation will provide the most benefit to Hailey. Peak demands driven by summer irrigation drive the need for additional future infrastructure and water supplies. Effective measures to decrease summer irrigation demands will reduce (1) the need for construction of additional peak-capacity infrastructure, and (2) reliance on junior-priority groundwater rights that are vulnerable to curtailment under conjunctive administration.

7.2. Projected Conservation Results Related to New Infrastructure

The impact of potential water savings on peak-capacity infrastructure can be illustrated using future Maximum Day Demand (MDD) scenarios. For example, various levels of conservation measures (Table 7-1) could reduce the current peak day water usage of 2,100 gallons per day (gpd) per connection to a city-wide average use of as little as approximately 630 gpd per connection. This, combined with an aggressive implementation rate (i.e., “conversion target”) could allow the City to avoid the construction of additional infrastructure during the planning period to meet peak demand (Figure 7-1).

Water usage data from other parts of Idaho suggest that a 630 gpd per connection peak demand for combined indoor and outdoor uses is aggressively low, but possible. The 630 gpd per connection peak demand would require implementation of conservation measures for new households, existing households, commercial and industrial facilities, and common spaces (e.g., parks, school activity fields, etc.). The 630 gpd per connection peak demand reflects an average composite demand for City water users; individual users may use less or more than 630 gpd on days of peak usage.

At a "50-percent" level of conservation (see Table 7-1 and Figure 7-1), the City currently has enough firm capacity to meet MDD for the 20-year planning period. At a "40-percent" level of conservation, and assuming the planned Capital Improvements to optimize production are made to the River Street Well, Indian Creek Spring, and Northridge Well Facility (which, in aggregate, could supply an additional 1.2 MGD), the City would have enough firm capacity available to meet MDD over the 20-year planning period without adding new wells. A "40-percent" conservation level assumes the following:

- All new homes served by the City water system would have an average MDD for indoor and outdoor uses of 1,260 gpd, which is 40% less than what homes in the City are currently using, and
- Over the 20 year planning period, 40 percent of existing homes in the City would be converted to a MDD use of 1,260 gpd versus the current MDD of 2,100 gpd, representing a 40% decrease in maximum day water usage.

These conservation assumptions are just that; there are a variety of ways of achieving these levels of conservation. For example, it may be easier to decrease new homes' water use substantially more than assumed in this example, and convert fewer existing homes (or vice versa). Continuing to take irrigation demands (such as parks) off the potable water system will also reduce the system-wide MDD. The bottom line is that through conservation and irrigation-demand management, the City could postpone the construction of additional infrastructure needed to meet future peak demand.

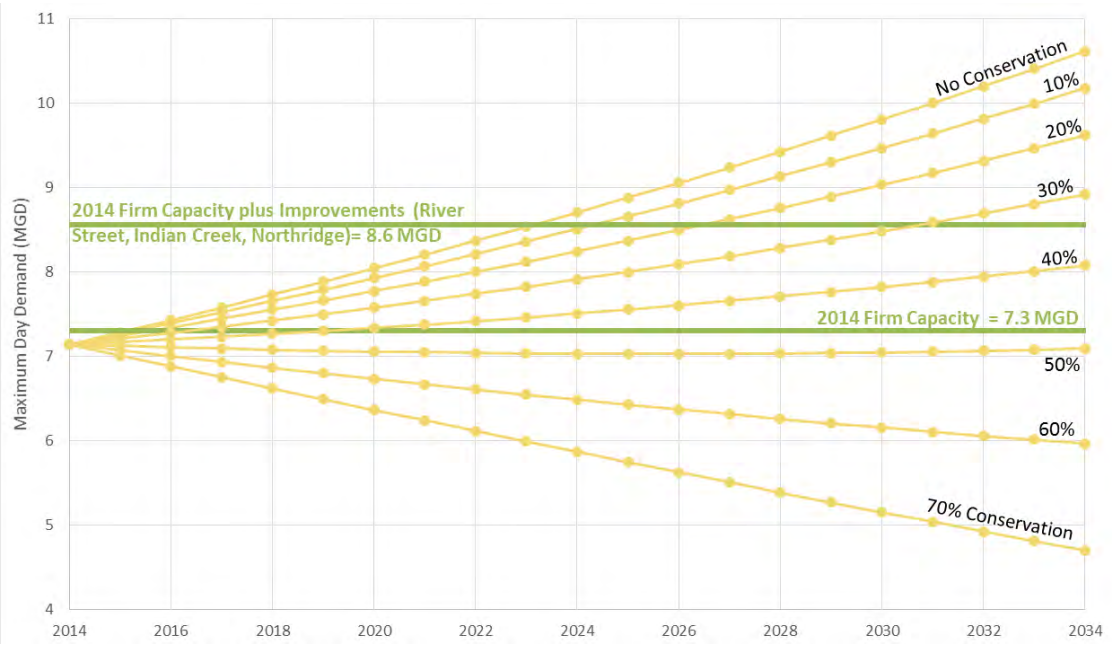
Table 7-1
Level of Conservation Scenarios

	Level of Conservation							
	0%	10%	20%	30%	40%	50%	60%	70%
Water Use Target								
Maximum Day Demand[1] (gpd per connection)	2,100	1,890	1,680	1,470	1,260	1,050	840	630
Conversion Target								
Percentage of New Homes Constructed to MDD Target	100%	100%	100%	100%	100%	100%	100%	100%
Percentage of Existing Homes Converted to Water Use Target[2]	0%	10%	20%	30%	40%	50%	60%	70%

[1]Maximum Day water use of 2,100 gpd per connection is estimated from 2014 MDD and number of connections, and is a system-wide average that includes parks, common areas, commercial and industrial connections, and other irrigation water not directly associated with a residence.

[2] Conversion assumed to occur evenly over the 20-year planning period.

Figure 7-1
Projected (2014 – 2034) MDD Scenarios at Different Levels of Conservation



7.3. Projected Conservation Results Related to Water Rights

Conservation will have an impact on whether the City can reduce reliance for irrigation water on junior-priority groundwater rights that are vulnerable to curtailment under conjunctive administration. Ideally, Hailey would be able to provide all irrigation from its Indian Creek Spring or Big Wood River water rights; these are more senior rights that are less likely to be curtailed (see Chapter 8 for additional water right detail).

Figure 7-2 shows estimated average irrigation production for the City from 2008 to 2013, in addition to the diversion rates for each of the City's potable water rights (Big Wood River rights are not included). Irrigation use is currently substantially over the 1.2 MGD being produced by the spring, and also over the full water right volume available from the spring (2.2 MGD).

Figure 7-3 shows the same information, in addition to estimated irrigation use in Year 2034 at different conservation levels. Even at the 70-percent conservation level, irrigation needs are higher than spring flows. It should be noted that these figures depict average month irrigation use, maximum day irrigation demand will be higher, typically by 15 to 20 percent.

Through conservation and irrigation-demand management, the City can reduce irrigation needs. However, it does not appear likely that without substantial cuts to

irrigation, that irrigation demands can be supplied solely by Indian Creek Springs. Chapter 8 includes additional detail on the likelihood of potential curtailment. The City is working on strategies to maintain irrigation supply under all scenarios.

Figure 7-2
Estimated Irrigation Production (2008 – 2013), Water Right Diversion rates (MGD)

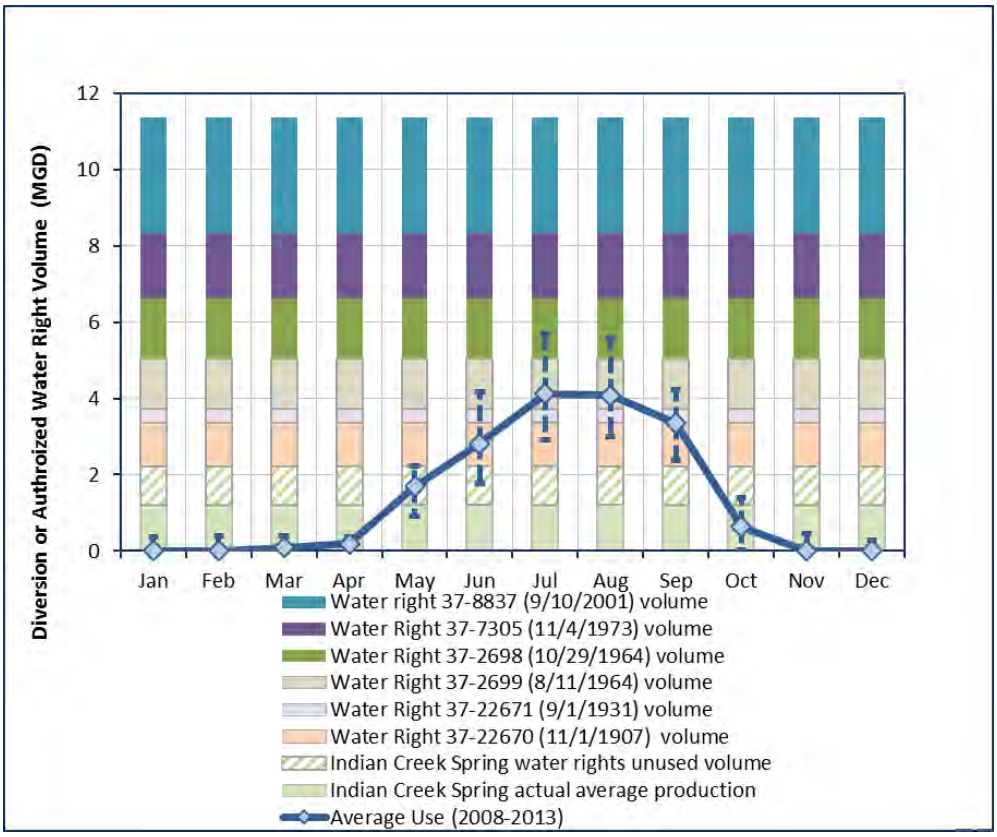
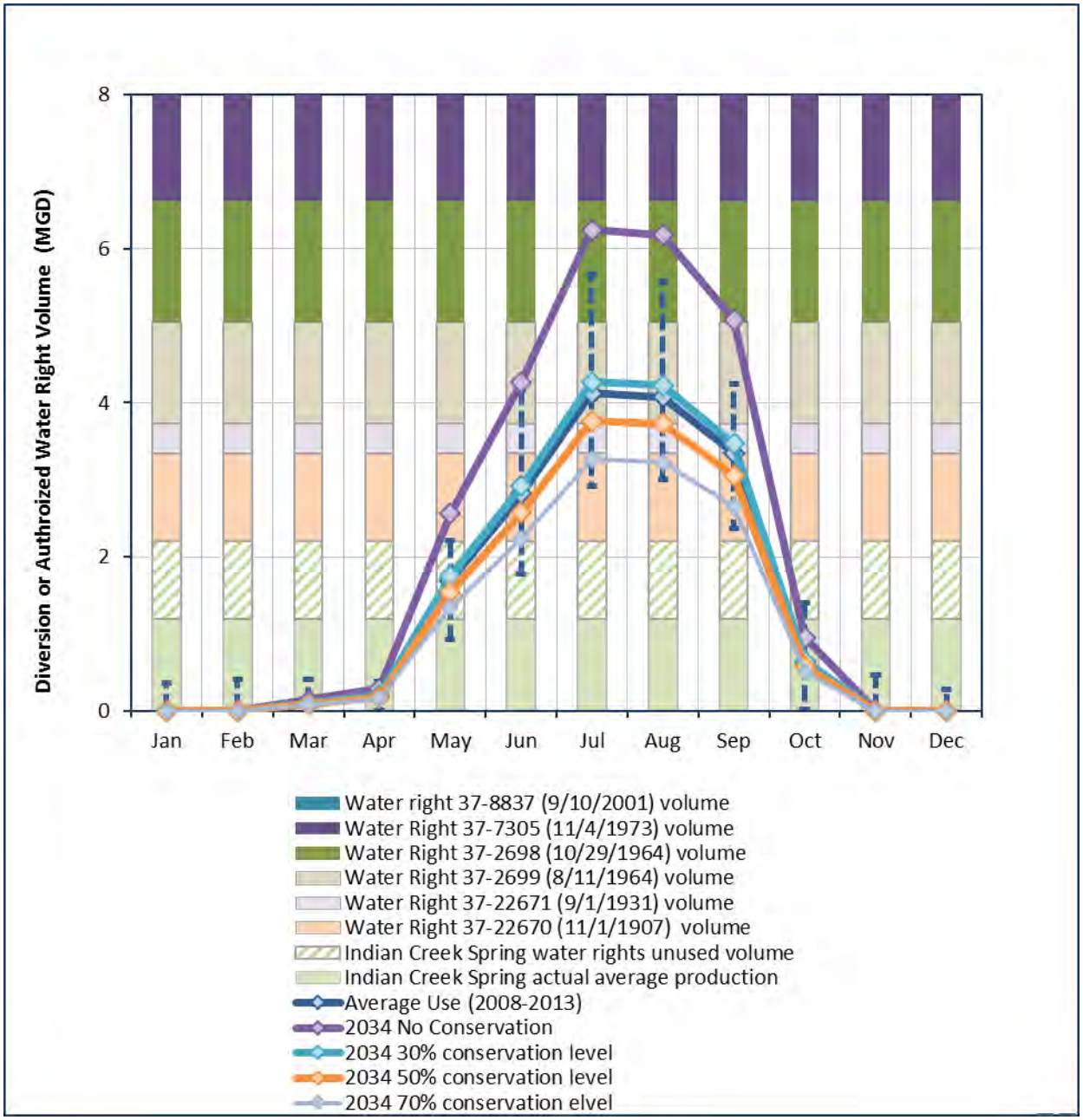


Figure 7-3
Estimated Irrigation Production (2008-2013), Estimated 2034 Irrigation Use with Different Conservation Levels, Water Right Diversion Rates (MGD)



7.4. Future Conservation Measures

The conservation projections referenced above are not based on specific conservation measures, but rather identify general levels of conservation that would be needed to avoid adding future sources of supply or meet certain water right goals. It is

anticipated that the City will develop a detailed conservation plan that accounts for the desired amount of conservation and lays out specific paths to achieve those goals.

It is recommended that Hailey's water conservation efforts focus on reducing outdoor usage because landscape irrigation comprises the largest portion of peak water demand. The City should consider policies encouraging (or requiring) drought-tolerant landscaping (or xeriscaping) and limits on irrigated area. Many cities with aggressive water conservation programs also include provisions to reduce indoor water usage, which Hailey could also consider.

Table 7-2 lists potential conservation measures. Such measures could form the basis for a more detailed conservation plan that will guide the implementation of cost-effective conservation measures. Such a conservation plan could establish:

- Definition of goals and objectives for the conservation program
- Review of a range of potential program elements
- Selection of desired actions
- Development of implementation schedule and budget.

The plan is anticipated to have objectives including the following:

- Lower water usage without compromising Hailey's urban landscape
  - Ease burden on future conjunctive administration requirements
  - Use water more effectively and efficiently – reduce wasted irrigation water.
  - No dead trees
- Target irrigation usage (greatest water conservation opportunity)
- Public education and outreach
- Industry education and outreach
- Sustainable funding and results

The program is planned to include irrigation/landscaping rebates, and will likely target specific items including turf grass conversion, water hose timers, drip irrigation, smart irrigation controllers, specialized sprinkler nozzles and pressure-reducing sprinkler bodies.

Hailey has already established itself as a leader in the state with a forward-thinking, conservation-based rate schedule. The conservation plan and its implementation will advance the City's conservation goals to the next level.

Table 7-2
Potential Conservation Measures

Conservation Measure	Single Family	Multi-family	Non-Residential
Focus on Reducing Consumptive Uses:			
Audits for automatic irrigation	X	X	X
Audits for manual irrigation	X	X	X
Outdoor irrigation devices	X	X	X
Low water use plant guidebook	X	X	X
Rain barrel rebates - 50 gallon	X	X	X
Encourage/require less lawn	X	X	X
Pricing Incentives/ Rebates	X	X	X
Ranked water usage reporting on bills	X		
Potential Indoor Usage Reductions:			
Ultra low flow toilet rebates – 1.6 gpf	X	X	X
High efficiency toilet rebates -1.0 gpf	X	X	X
Waterless (Composting) Toilet Rebates – 0 gpf	X	X	X
Low volume urinal rebates – 1.0 gpf			X
Waterless urinal rebates – 0 gpf			X
Free toilet leak detection tablets and repair information	X	X	X
Free toilet tank displacement devices	X	X	X
Encourage reduced toilet flushes	X	X	X
Free low flow showerheads - 2.5 gpm	X	X	X
Encourage reduced shower use (5-minute timer)	X	X	
Instant hot water valves rebate	X	X	
Free bathroom faucet aerators - 2.2 gpm	X	X	X
Free kitchen faucet aerators – 2.2 gpm	X	X	
Encourage reduced faucet use	X	X	
Efficient clothes washer rebates	X	X	
Encourage reduced partial clothes washer loads	X	X	
Air-cooled ice machine rebates	X	X	X
Free efficient restaurant spray heads			X
Encourage reduced hotel bedding and towel washing			X
Sub-meter multifamily households		X	

City water system infrastructure			
Lower system pressures (distribution system)			
Minimize system leaks (distribution system)			
Minimize flushing water (distribution system)			
Maintain flow meters (source facilities)			
Require new developments to have minimal consumptive (irrigation) use			
Continue to move parks and other high irrigation uses from the potable water system to non-potable irrigation supplies			

One option for funding some of these conservation measures (including rebates, public outreach, or optimizing operation of the City's system) is the WaterSMART grant program managed by the U.S. Bureau of Reclamation (USBR). The USBR provides a 50/50 cost share for entities with water or power delivery authority to implement approved water or energy efficiency projects. Projects *"should seek to conserve and use water more efficiently, increase the use of renewable energy, protect endangered species, or facilitate water markets. Projects are selected through a competitive process and the focus is on projects that can be completed within 24 months and will help sustainable water supplies in the western United States*". Additional information related to WaterSMART grants can be found on the Bureau of Reclamation web site.[2]

7.5. Alternative Irrigation Supply

In addition to the conservation measures outlined in this chapter, the City may wish to consider alternate sources of supply to provide for irrigation of residential lots, commercial properties, and open areas such as schools and parks. Developing the sources outlined in this section could reduce summer demands on the City's potable system, which could also reduce the need for construction of infrastructure and reduce the threat of curtailment under conjunctive administration.

The City owns several water rights authorizing diversions from the Big Wood River (to be delivered mainly through the Hiawatha Canal). These rights have more-senior priority dates and are thus less vulnerable to curtailment (see Chapter 8). A few City parks are currently irrigated from the Big Wood source through stand-alone pump delivery systems. The number of these individual systems could be increased to irrigate parks and residential areas. This would reduce demands on the City's potable supply system and delay the need to invest in additional infrastructure.

A second alternative source of supply for irrigation is recycled water. Treating water for reuse is becoming more common in the arid West. Reuse water can be used to irrigate large

[2] http://www.usbr.gov/WaterSMART/grants.html

common areas or golf courses, but can also be used for individual yards if treated to required levels. During the non-irrigation season, wastewater is typically discharged to a surface water source or percolated into the ground (and could possibly be used as a source for aquifer recharge). If the City plans to consider reuse in the future, wastewater planning should tie in with water system and irrigation planning.

8. WATER RIGHTS

The City of Hailey provides potable water to City residents from six groundwater wells and the Indian Creek Spring collection facility. The City also provides water for irrigation of public parks, landscaped areas, and open space from shallow wells with hydraulic connection to the Big Wood River, and pump facilities diverting from the Hiawatha Canal. The purpose of this chapter is to:

- Document the City's existing water rights portfolio;
- Determine the adequacy of the City's existing water rights to meet the five-year and twenty-year demand forecasts developed in Chapter 4; and
- Provide a brief discussion of water rights administration in the Big Wood River Valley, including anticipated conjunctive administration of groundwater and surface water rights.

8.1. Current Water Right Portfolio

8.1.1. Potable Supply

The City is authorized to use six wells for delivery of groundwater to City customers through its potable supply system (the River Street, Third Avenue, Woodside, and three Northridge wells). In addition, the City is authorized to divert up to a maximum rate of 3.38 cfs (1,500 gpm) year-round from Indian Creek Spring. The City's water rights for potable supply are currently authorized for use within the City's municipal supply area identified in Figure 2-1. The City's currently-held water rights are summarized in Table 8-1, and copies of pertinent water right documents are provided in Appendix C.

Table 8-1
Water Rights Summary, Potable Supply

Water Right No.	Priority Date	Diversion Rate (cfs)	Diversion Rate (gpm)	Authorized Area	Season of Use
Groundwater					
37-22670	11/1/1907	1.78	800	City of Hailey municipal service area	year-round
37-22671	9/1/1931	0.60	270		
37-2699	8/11/1964	2.00	900		
37-2698	10/29/1964	2.56	1,100		
37-7305	11/4/1973	2.62	1,200		
37-8837	9/10/2001	4.67	2,100		
Total Authorized from Groundwater			**6,400**	**gpm**	
Indian Creek Spring					
37-296A	4/1/1880	2.62	1,200	City of Hailey municipal service area	April 15-October 31
37-1216	4/1/1884	0.90	400		November 1-April 14
37-717A	8/1/1907	1.72	770		November 1-April 14
37-717B	8/1/1907	0.76	340		year-round
37-7854	7/23/1980	3.38	1,500	power plant	year-round
Total Authorized from Indian Creek Spring			**1,500**	**gpm**	

8.1.1.1. Groundwater Rights

The City is currently authorized to divert a total of 14.23 cfs (6,400 gpm) from the River St., Third Avenue, Woodside, and three Northridge wells for municipal use (using any combination of the wells). Diversions from the Northridge wells are limited to 4.67 cfs (2,100 gpm). Priority dates for water rights authorizing these diversions range from 1907 to 2001.

The most junior groundwater right (No. 37-8837 for the Northridge wells) is authorized to provide water for domestic uses only.[3] Irrigation of "large projects such as parks, golf courses, or sports activities fields" is specifically prohibited under water right 37-8837.

8.1.1.2. Rights from Indian Creek Spring

The City is authorized to divert at the rate of 3.38 cfs (1,500 gpm) year-round from Indian Creek Spring for power generation (37-7854), but the overall diversion rate from the spring is limited to 3.38 cfs. For the municipal water system, the City is

[3] As defined by Idaho Code § 42-111.

authorized to divert up to 2.45 cfs (1,200 gpm) from the spring under any conditions. The City is authorized to divert up to 1,500 gpm if certain minimum flows in Indian Creek are maintained, pursuant to an agreement between the City and the Indian Creek Ranch Owners' Association (ICROA). Priority dates of the City's Indian Creek Spring rights range from 1880 to 1980.

8.1.1.3. Combined Diversion Rates

The total authorized diversion rate for the potable municipal supply under current water rights is 17.61 cfs (7,900 gpm or 11.4 mgd; 6,400 gpm from wells and up to 1,500 gpm from Indian Creek Spring). However, actual supply is limited by flows available from Indian Creek Spring (approximately 700 to 1,000 gpm under current conditions). Under current spring flow conditions, the combined diversion rate from groundwater wells and Indian Creek Spring is limited to approximately 7,200 gpm or 10.4 mgd.

As stated in Section 8.1.1.1, the three Northridge wells are limited to a combined instantaneous diversion rate of no more than 2,100 gpm. Data provided from the City's SCADA system for these wells should be routinely monitored to ensure instantaneous diversions do not exceed the 2,100 gpm limit.

Table 8-2
Authorized Diversion Rate, Potable Supply

Source	Diversion Rate (cfs)	Diversion Rate (gpm)	Diversion Volume (mgd)
Groundwater	14.23	6,400	9.2
Indian Creek Spring	3.38	1,500	2.2
Authorized Total	**17.61**	**7,900**	**11.4**

8.1.2. Non-Potable Supply

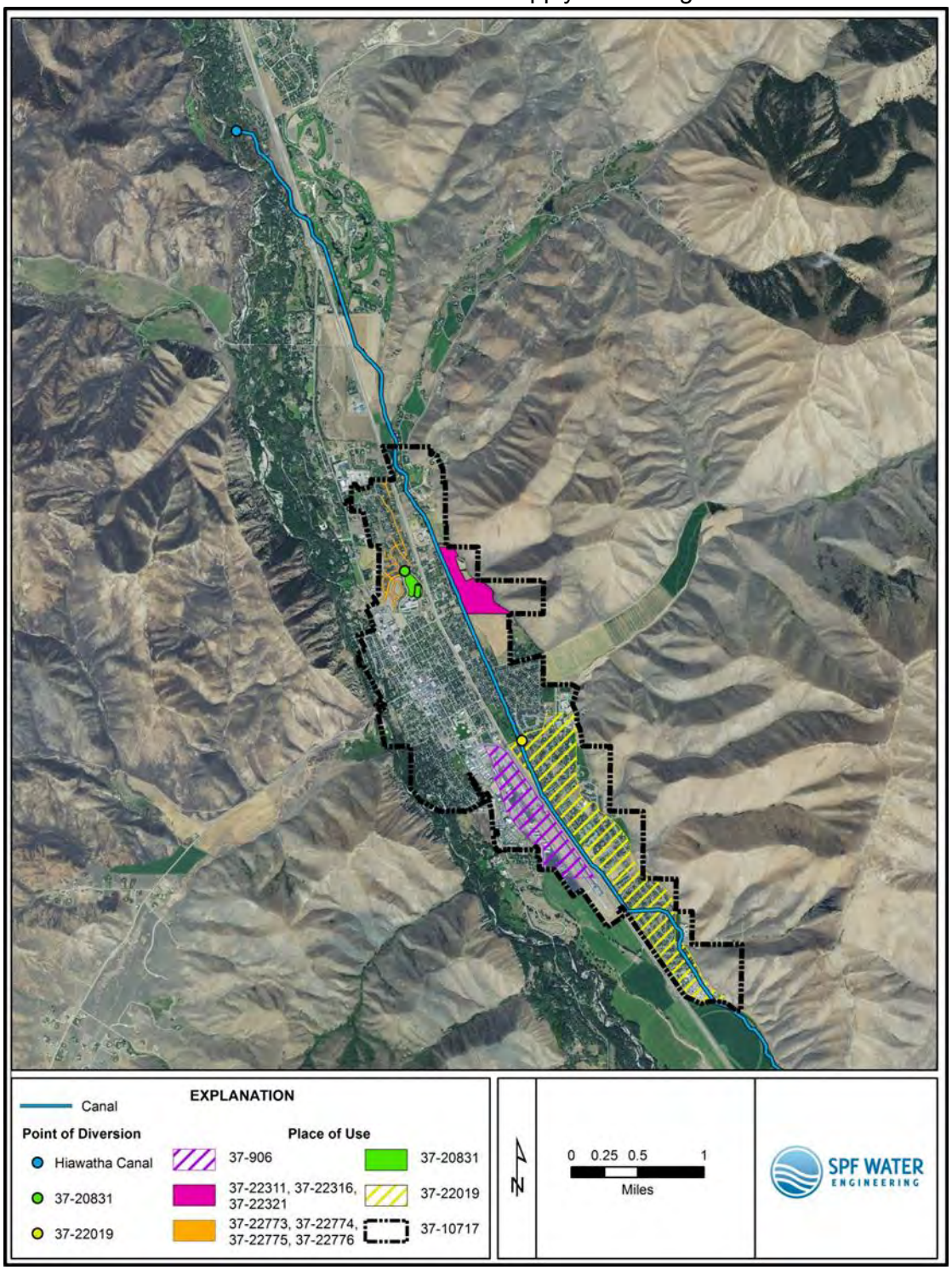
The City holds nine surface water rights that are diverted through the Hiawatha Canal from the Big Wood River that can be delivered for non-potable uses (mainly irrigation).[4] In addition, the City holds two decreed water rights and two water right permits for non-potable diversions from groundwater wells. The City's non-potable water rights and water right permits are summarized in Table 8-3. Pertinent water right documents are attached as Appendix C.

[4] Water right 37-10717 could be used for potable supply with appropriate water treatment.

Table 8-3
Water Rights Summary, Non-Potable Supply

Water Right No.	Parent Location	Priority Date	Water Use	Diversion Rate (cfs)	Diversion Rate (gpm)	Authorized Area/ Irriagted Acreage
Big Wood River (through Hiawatha Canal)						
37-906		4/1/1940	municipal	1.039	466	158.7
37-10717		03/24/1883	municipal	2.860	1,284	Municipal Service Area
37-22311	Old Cutters Subdivision	03/24/1883	irrigation	1.500	673	31.0
37-22316		03/24/1883		0.180	81	
37-22321		03/24/1883		0.190	85	
37-22773	Northridge Subdivision Streets/ROW	05/01/1888	irrigation	0.135	61	14.1
			mitigation	0.059	26	8.7
37-22774		09/18/1885	irrigation	0.136	61	14.1
			mitigation	0.059	26	8.7
37-22775		06/30/1884	irrigation	0.240	108	14.1
			mitigation	0.118	53	8.7
37-22776		03/24/1883	irrigation	0.145	65	14.1
			mitigation	0.072	32	8.7
Total Authorized from Big Wood River				**6.425**	**2,884**	**Varies**
Total Authorized for Groundwater Mitigation				**0.308**	**Mitigation for 37-22825, 37-22831**	
Groundwater (mitigated by Big Wood River water rights)						
37-22825		4/24/2013	irrigation	0.49	220	6.2
37-22831		7/15/2013	irrigation	0.33	148	2.5
Total Authorized from Mitigated Groundwater				**0.82**	**368**	**8.7**
Groundwater (currently unmitigated)						
37-20831		10/14/1977	irrigation	0.21	94	9.1
37-22019		3/29/1961	irrigation	9.37	4,205	486.0
Total Authorized from Unmitigated Groundwater				**9.58**	**4,299**	**495.1**

Figure 8-1
Location of Non-Potable Supply Water Rights



8.1.2.1. Water Rights from the Big Wood River

The City is currently authorized to divert 6.425 cfs (2,900 gpm) from the Big Wood River for irrigation of approximately 200 acres. In addition, one water right (37-10717) authorizes diversion for any municipal purpose within the municipal supply area. The water right, as decreed, does not include any condition precluding municipal irrigation or limiting the number of acres that may be irrigated under the right. This can be interpreted to mean the right could be used to irrigate an unlimited number of acres within the area of the City of Hailey, as long as the diversion rate does not exceed the decreed 2.86 cfs (1,300 gpm) diversion rate. The locations of the authorized places of use are shown in Figure 7-1. The priority dates for the City's water rights from the Big Wood River range from March 24, 1883 to April 1, 1940.

8.1.2.2. Mitigated Groundwater Rights

In 2013, the City of Hailey applied for and obtained two permits to appropriate water from two shallow groundwater wells to be used to irrigate three City parks (Lions, Hop Porter, and Lawrence Heagle). The locations of the new wells and the park sites are shown in Figure 8-1. These permits are summarized in Table 8-3.

Use of groundwater under each of these new water rights will be mitigated by non-use of portions of City-owned water rights from the Big Wood River, having priority dates ranging from 1883 to 1888. To the extent the surface water rights used as mitigation are in priority, the City is authorized to divert groundwater under these permits.

8.1.2.3. Other Groundwater Rights

The City also holds water rights for the Wood River Middle School site (37-20831) and the Cemetery District (37-22019) that together authorize the diversion of 9.58 cfs (4,300 gpm) from groundwater wells for the irrigation of a total of 495.1 acres. These rights are summarized in Table 8-3, and the well sites and authorized places of use for these rights are shown in Figure 8-1.

8.1.2.4. Water Right Summary

The City's current water right portfolio includes rights authorizing the instantaneous diversion of approximately 6,400 gpm from wells and up to 1,500 gpm from Indian Creek Spring (total of 7,900 gpm) to supply potable water to its citizens. Priority dates for the City's potable groundwater supply rights range from 1907 to 2001. Priority dates for Indian Creek Spring potable supply rights range from 1880 to 1907.

The current portfolio also includes water rights for a 3,270 gpm irrigation supply from the Big Wood River (2,900 gpm in the Hiawatha Canal, and two permits for 370 gpm from wells mitigated by Big Wood River rights). Priority dates for these rights range from 1883 to 1940. Two additional groundwater rights provide for irrigation of Wood River Middle School (94 gpm) and the Hailey Cemetery District (approximately 4,200 gpm). Priority dates for these rights are 1977 and 1961, respectively.

8.2. Water Rights and Demand Projections

This section compares the City's current water right portfolio for potable supply to its current and projected future water needs. This is a comparison between the total diversion quantities authorized by the City's currently-held water rights and calculated demands. Actual system capacities are addressed in Chapter 4.

In Figure 8-2, the projected maximum day demand (MDD) for the potable supply system is compared to the total water volume authorized by existing water rights. Projected MDD will exceed the existing rights from groundwater, plus the production of Indian Creek Spring in 2032. Diversions authorized by the City's current water right portfolio could be sufficient until sometime after 2034, if Indian Creek Spring flows are improved. Additional water rights from groundwater (or more stringent conservation measures) may be required prior to 2034 if flows from Indian Creek Spring continue to decline.

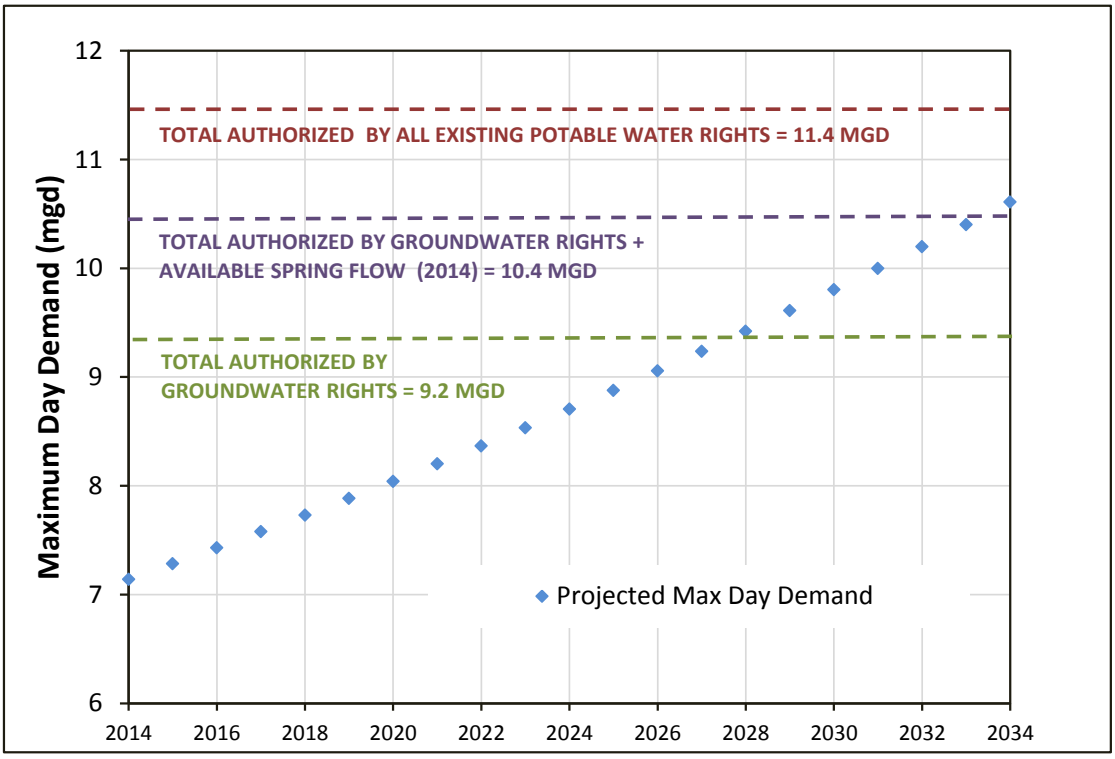


Figure 8-2
Water Rights and Projected Maximum Day Demand

8.2.1. Five-Year Forecast

The City's MDD in five years (2019) is projected to be 7.9 mgd. Current water rights for potable supply authorize the diversion of 11.4 mgd. The City can divert up to 9.2 mgd from its groundwater wells, plus up to 2.2 mgd from Indian Creek Spring. Although Indian Creek Spring flows may decline, the City could satisfy the projected 7.9 mgd forecast using its groundwater rights alone.

Additional water rights will not be required to meet the five-year demand forecast on paper. However, future conjunctive administration of surface water and groundwater rights in Water District 37 (discussed below) has the potential to affect availability of the City's groundwater rights to meet projected future demand, to the extent their diversion would be determined to cause material injury to senior water rights.

8.2.2. Twenty-Year Forecast

The City's MDD in twenty years (2034) is projected to be 10.6 mgd, which is slightly below the total 11.4 mgd authorized by City water rights. However, existing water sources can only supply 10.4 mgd, due to currently reduced flows from Indian Creek Spring.

Additional water rights may be required to meet the twenty-year demand forecast. As with the projected five-year forecast, conjunctive administration has the potential to further affect the City's ability to meet projected demand to the extent diversion of City-held water rights would be determined to cause material injury to senior water rights.

8.3. Water Right Administration in the Upper Big Wood River Valley

The City lies within the Big Wood River Groundwater Management Area and the Eastern Snake River Plain Moratorium Area, and groundwater and surface water rights are subject to administration by the Water District 37 watermaster. Developing new water rights in Water District 37 is difficult and most new rights must have authorized mitigation plans in place prior to development. In addition, it is anticipated that IDWR will begin more aggressive administration of groundwater and surface water as interconnected sources in the near future through "conjunctive administration" which is discussed briefly below.

<u>Conjunctive Administration (Administration by Priority)</u>

Water rights in Idaho are delivered by priority date.[5] Thus, early-priority or "senior" water rights hold more value relative to later-in-time "junior" rights because they are deliverable a greater percentage of time in any given year. Although this was once true for surface water (stream and spring sources) only, IDWR issued a Preliminary Order on September 17, 2013 which included Upper Wood River Valley groundwater rights in Water District 37 and established administration of groundwater and surface

[5] "As between appropriators, the first in time is first in right." (Idaho Code § 42-106)

water rights in the Hailey area under its Conjunctive Management Rules ("CMRs")[6] by the local area watermaster.[7]

Under the CMRs, before a particular junior-priority groundwater right may be curtailed to deliver water to a senior-priority right holder, the senior must be determined to be materially injured by the junior diversion. Where material injury is established, the Director of IDWR may (1) phase in regulation over a five-year period to lessen the economic impact of immediate, complete curtailment, and/or (2) allow out-of-priority diversion by junior-priority water users operating under a mitigation plan that has been submitted, processed and approved under the requirements of the CMRs.

IDWR is currently developing the framework for conjunctive administration of groundwater and surface water rights in the Wood River Valley. Conjunctive administration likely will proceed in the following step-wise manner (in order, with some overlap):

- Installation of measuring devices - Measuring devices are now required on most groundwater delivery systems;
- Monitoring of groundwater diversion rates and/or volumes – Groundwater use will be increasingly monitored and recorded by the Water District 37 Watermaster or an appointed deputy;
- Construction of a groundwater flow model - A groundwater flow model for the Wood River Valley is being constructed by IDWR and the United States Geological Survey (USGS);
- Administration of surface water and groundwater rights - Groundwater rights will ultimately be administered (and possibly curtailed) in response to one or more delivery calls by senior-priority water right holders asserting their water rights are being materially injured by junior-priority groundwater uses.

The priority status of the City's water rights relative to other rights in the Wood River Valley is discussed in Section 8.3.1.

8.3.1. Priority Status of the City's Water Rights

In this section, we summarize the general priority dates of water rights in the Wood River Valley as they relate to City-owned water rights.

8.3.1.1. Big Wood River Water Rights

Water rights authorizing diversions from the Big Wood River downstream of the Hiawatha Canal that are senior to City water rights in the Big Wood River have priority

[6] "Rules for Conjunctive Management of Surface and Ground Water Resources" (IDAPA 37.03.11)
[7] The Preliminary Order became a Final Order on October 4, 2013.

dates which range from June 10, 1880 to December 31, 1887.[8] The City's Big Wood River water rights (with priority dates ranging from 1883 to 1940) have historically been administered by the local watermaster and curtailed by priority each year as stream flows declined.

SPF has reviewed water district records for the period from 1975 to the present and determined the frequency and timing of priority date curtailments by the Watermaster (known as "cuts"). The priority dates impacting the City's Big Wood River water rights are summarized in Table 8-4. The City's Big Wood River priority dates (and associated diversion rates) are highlighted in the table for reference. The largest diversion rate available under City-owned Big Wood River water rights is associated with the March 24, 1883 priority date (2,200 gpm).

The value of each of the City's Big Wood River water rights depends on its priority date and resulting period of availability to meet City water demands during the irrigation season. It is the priority date that will protect City-owned or resident-owned irrigated assets (lawns, gardens, parks, landscaping, etc.) by either (1) providing a direct source of supply for irrigation, or (2) providing mitigation for consumptive junior-priority groundwater uses. In either case, the City's Big Wood River water rights (or groundwater rights such as those used to irrigate Lions, Hop Porter and Lawrence Heagle Park under approved mitigation plans) could be subject to seasonal curtailment during most years.

The diversion rates associated with City rights having 1884, 1885, and 1888 priority dates overlap the water right with the 1883 water right obtained by the City when Northridge Subdivision was developed (Table 8-3). These later-in-time rights authorize additional diversion rate to land irrigated by the 1883 Northridge surface water right, but authorize no additional irrigated area. The 1884, 1885, and 1888 water rights cannot be "unstacked" and will remain associated with the 1883 Northridge right. Because the rights are associated with a March 24, 1883 base right, this analysis is limited to the City rights with March 24, 1883 priority dates.

In the 39-year period reviewed, the City's March 24, 1883 rights were partially or fully curtailed 17 times (approximately 4 years out of 10, or 40% of the years). The median first curtailment date was August 12.[9] The 1883 rights (authorizing a maximum diversion rate of 2,200 gpm) have been available without curtailment during most years (6 years out of 10, or 60% of the years). The earliest date of curtailment on record was July 1; this was a 50% cut that occurred once in 1994, followed by a complete cut by July 12 that same year.

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[8] The City's priority dates in the Big Wood River range from March 24, 1883 to May 1, 1888, with the exception of water right 37-906, which has a 1940 priority date. The 1940 date is significantly junior to other Big Wood River rights, and is not considered in this analysis.

[9] Although Big Wood River water rights may be curtailed at some time during the summer, the rights are sometimes available again later in the season as demand declines.

Table 8-4
Historical Curtailment Dates – Rights Senior to City Big Wood River Rights
(Hailey's Priority Dates Highlighted)

Priority Date	No. of Yrs Cut since 1975	Earliest Cut Date	Median Cut Date	City Diversion Rate (gpm)
7/1/1881	2	7/29		
7/31/1881	2	7/29		
5/15/1882	2	7/6		
8/1/1882	3	7/6	8/8	
12/19/1882	4	7/6	8/11	
3/10/1883	6	7/6	8/13	
3/24/1883	17	7/1	8/12	2,200
4/12/1883	17	7/1	8/2	
5/1/1883	17	7/1	7/30	
5/15/1883	17	7/1	7/26	
6/1/1883	17	7/1	7/30	
6/3/1883	17	7/1	7/30	
6/15/1883	21	6/28	8/1	
6/20/1883	21	6/28	8/1	
6/26/1883	22	6/28	8/1	
7/26/1883	22	6/28	8/1	
12/19/1883	23	6/28	8/2	
4/3/1884	25	6/28	8/2	
5/2/1884	26	6/28	8/2	
5/15/1884	26	6/28	8/1	
6/1/1884	26	6/26	8/1	
6/3/1884	26	6/22	7/30	
6/15/1884	27	6/22	7/31	
6/20/1884	27	6/22	7/28	

Priority Date	No. of Yrs Cut since 1975	Earliest Cut Date	Median Cut Date	City Diversion Rate (gpm)
6/30/1884	27	6/22	7/26	160
7/10/1884	28	6/22	7/23	
7/15/1884	28	6/22	7/23	
8/1/1884	28	6/22	7/21	
10/15/1884	29	6/22	7/23	
5/15/1885	29	6/16	7/20	
6/15/1885	29	6/16	7/20	
7/15/1885	30	6/16	7/22	
8/15/1885	30	6/16	7/22	
9/18/1885	30	6/16	7/21	90
5/1/1886	31	4/1	7/22	
6/1/1886	31	4/1	7/22	
6/6/1886	31	4/1	7/18	
6/12/1886	33	4/1	7/18	
10/26/1886	33	4/1	7/18	
5/1/1887	33	4/1	7/18	
5/10/1887	33	4/1	7/15	
5/15/1887	33	4/1	7/15	
5/31/1887	33	4/1	7/15	
6/1/1887	34	4/1	7/16	
6/10/1887	34	4/1	7/14	
12/31/1887	34	4/1	7/16	
5/1/1888	35	4/1	7/15	90

8.3.1.2. Indian Creek Spring Water Rights

The City holds water rights in Indian Creek Spring that authorize diversions for municipal use. These rights have priority dates ranging from April 1, 1880 to August 1, 1907. All rights from Indian Creek Spring and Indian Creek are summarized in Table 8-5, with the City's rights highlighted for reference. The only other water right holder in the Indian Creek drainage is the Indian Creek Ranch Owners' Association (ICROA), with the exception of the Mandeville Damasco Trust which is currently developing a right under a permit with a 2012 priority date. Table 8-5 does not include the Mandeville Damasco permit.

The City has the most-senior water right in the Indian Creek drainage (37-296A) with an 1880 priority date. In addition, the City's water right is protected from the ICROA rights with the same priority date by the following condition placed on the partial decree of 37-296A: "Pursuant to a call in times of scarcity, this right is senior to Water Right Nos. 37-296B and 37-296C." Water right 37-296A is limited to the irrigation season only.

A general provision for Administrative Basin 37, now incorporated in the SRBA District Court's final unified decree provides that early water rights with their source in Indian Creek Spring are to be "administered separately from all other water rights in Basin 37". This general provision provides significant insulation to the City's Indian Creek Spring water rights in the event of a delivery call by other water right holders diverting water in Basin 37. For this reason, the City should consider opportunities and strategies to maintain or increase spring flows from Indian Creek Spring to maximize access to this water source within the authorized limits of its water rights.

As noted above, water rights from the Big Wood River with priority dates senior to July 1, 1881 have not been curtailed historically. Even if Indian Creek Spring had been administered as a connected stream, water right 37-296A (with its 1880 priority date) would not have been curtailed in the past based on historical water delivery records.

Table 8-5
Priority Dates in the Indian Creek Drainage
(Hailey's Priority Dates Highlighted)

Water Right No.	Priority Date	Water Use	Diversion Rate (cfs)	Diversion Rate (gpm)	Diversion Volume (ac-ft)	Source	Season of Use
37-296A	04/01/1880	municipal	2.62	1,200		Indian Creek Spring	April 15-October 31
37-296B	04/01/1880	irrigation	2.72	1,200		Indian Creek	April 15-October 31
37-296C	04/01/1880	irrigation	4.01	1,800		Indian Creek	April 15-October 31
37-1216	04/01/1884	municipal	0.90	400		Indian Creek Spring	November 1-April 14
37-717A	8/1/1907	municipal	1.72	800		Indian Creek Spring	November 1-April 14
37-717B	8/1/1907	municipal	0.76	300		Indian Creek Spring	year-round
37-19740	6/1/1931	irrigation from storage			367.5	Indian Creek	April 15-October 31
		irrigation/recreation storage					year-round
		stockwater storage					year-round
37-21412	8/22/1972	aesthetic storage			22.5	Indian Creek	year-round
		wildlife storage					
37-7854	7/23/1980	power	3.38	1,500		Indian Creek Spring	year-round
37-8721	4/26/1991	recreation storage			1.6	Indian Creek	year-round
		wildlife storage					
37-8872	5/22/1998	wildlife storage			3.3	Indian Creek	year-round
37-8873	5/22/1998	wildlife storage			0.9	Indian Creek	year-round
		wildlife	1.00	500	724.0	Indian Creek	year-round
37-22624	3/25/2011	aesthetic					
		recreation					

8.3.1.3. Groundwater Rights

The City's groundwater rights authorizing diversions for potable supply have priority dates ranging from 1907 to 2001. Two additional groundwater rights authorizing irrigation of Wood River Middle School and the Cemetery District have priority dates of 1977 and 1961, respectively. The potable rights are summarized in Table 8-1, and the non-potable rights in Table 8-3.

Because of their junior priority dates, the City should consider these groundwater rights as subject to conjunctive administration in the event of a delivery call, in which case the City would be required to (1) curtail diversions to the extent they result in depletions to groundwater supplies or flows in the Big Wood River that cause material injury to senior calling rights; or (2) provide mitigation to offset the depletions causing material injury. Of the various uses of the City's municipal rights, irrigation has the highest consumptive use and greatest potential to impact both the groundwater source and flows in hydraulically connected reaches of the Big Wood River. The consumptive use of most other municipal uses under the City's groundwater rights is relatively small.

8.4. Summary of Recommendations

Table 8-9 summarizes water right recommendations over the 20-year planning period.

Table 8-9
Water Right Recommendations

Suggested Timeframe	Water Right No(s).	Issue	Solution	Task
Water Right Maintenance				
2023		New Well in 2024 to meet IDEQ requirement for redundant supply	Drill a new well (2024)	File a transfer application with IDWR to add a new point of diversion to existing groundwater rights
2032		New Well in 2033 to meet IDEQ requirement for redundant supply	Drill a new well (2033)	File a transfer application with IDWR to add a new point of diversion to existing groundwater rights
Future		Demands exceed existing groundwater water rights	Acquire new water rights for groundwater	Monitor 5-year water facility master plans for increasing demands; apply for new water rights as needed for reasonably anticipated future needs (RAFN)
Tasks Related to Conjunctive Administration				
Ongoing		Limited future water supply for existing uses	Reduce per capita demands - focus on consumptive use (irrigation) reductions	Explore and implement additional conservation measures and incentives, especially those that reduce consumptive use
Ongoing		Conjunctive administration may limit consumptive uses	Determine the extent of consumptive vs non-consumptive uses	Maintain record of diversion data from SCADA system to establish the City's actual water use over time
Ongoing		Conjunctive administration may limit consumptive uses	Continue to move parks and other large irrigation parcels off of the potable supply	Develop plans to keep parks green during shorter irrigation seasons by planting drought-tolerant grasses and native plants, installing more efficient irrigation systems, etc.
2015		Limited future water supply for additional development	Require Developers to provide comprehensive water plan and implementation schedule at time of City processing	Review and enhance City policies and ordinances to strengthen City's position in processing annexation requests; require Developers to bring water rights to the table when requesting annexation
2015	all Indian Creek Spring water rights	Indian Creek Spring water rights exceed current spring flow collection and are needed for their senior-priority date	Increase flow collection from Indian Creek Spring	Continue to investigate methods to increase spring flow collection; implement chosen alternative(s)
Future		Regional solutions may develop to meet conjunctive administration requirements	Monitor and cooperate with the creation of proposed mitigation plans	Meet with similarly-positioned stake holders in the area (such as other municipalities) to create a regional solution.
Future		Limited future water supply for irrigation use	Possible use of treated wastewater effluent for irrigation supply	Consider installation of facilities to treat and deliver wastewater for irrigation use

9. Capital Improvement, Maintenance and Water Right Plan

This section considers capital improvements, ongoing maintenance and replacement budgeting, and water right recommendations for the 20-year planning period.

9.1. Capital Improvement Program

The Capital Improvement Program (CIP) items were developed through spreadsheet analysis of source and supply facilities, and by analyzing the distribution system using the hydraulic model with different demand scenarios. A workshop was held with City personnel where the priority of improvements was ranked (Appendix D). The final CIP list was compiled based on City rankings and need. The CIP is broken into near-term (next five years), long-term (next 20 years), and non-capital improvements. Table 9-1 shows the recommended Capital Improvement Program. Details for each proposed capital improvement are included in Appendix D.

The timing of some of the improvements is dependent on growth and the manner in which other recommended improvements are completed. The City needs to re-assess each improvement prior to implementation.

9.1.1. Funding Options

Potential funding mechanisms for the needed capital improvements include rates, development charges, local improvement districts, bonds, and external funds such as state or federal loans and grants.

Hailey has historically funded most improvements through rates (with a few loan/grant projects), and typically includes specific needed improvements for the coming year in the annual rate calculation. Rates could also be set with a contribution to a general "capital improvement fund" designated.

9.2. Asset Management, Maintenance and Replacement Program

Every municipal provider needs to invest in ongoing water system maintenance, rehabilitation, and replacement activities. Figure 9-1 shows key asset management components. Managing the utilities' assets optimally results in maintaining the desired level of service at the lowest life-cycle cost. Part of asset management is budgeting to replace infrastructure over time so that it does not outlive its service life. The Infrastructure Maintenance and Replacement Program in Table 9-2 is presented for the City's consideration. The City does not currently budget substantial amounts for maintenance and replacement, and may choose to ramp up funding over time. The suggested budget is a guideline, and it would be expected that funds shift between line items as needs each year change.

Figure 9-1
Flowchart: The Five Core Questions of Asset Management
(Source: *EPA Asset management: A best Practices Guide*)

9.3. Water Right Recommendations

Recommendations for actions related to water rights over the planning period are provided in Table 9-3.

Table 9-1
Capital Improvement Program

Improvement	Description	Cost Estimate	Comments	Year
NEAR TERM CAPITAL IMPROVEMENTS - NEXT 5 YEARS				
1	Investigate the Potential for Additional Supply from the River Street Well. Install larger pump in River Street Well.	$ 95,000	Install a water level measurement device in the well. Analyze flow and pumping level data to determine if additional supply could be obtained from this well with a new pump. We estimate that a 150 hp pump and new electrical equipment will be installed.	2015
2	Extend Hatches at Quigley Tank	$ 24,000	Fabricate extenders for the two existing access hatches at Quigley Tank so they are a minimum of 24 inches above existing grade.	2015-2016
3	Add Standby Power Generator (mobile) at Woodside Facility	$ 99,000	Power well pump (40 hp) and large booster pump (100 hp). 200 kW generator. Permanent generator priced, mobile would be expected to cost less.	2015 - 2019
4	Add Chlorination to Third Avenue Well	$ 88,000	Construct sodium hypochlorite storage and feed system in a new building.	2016
5a	Investigate Potential for Additional Supply from Indian Creek Spring	$ 55,000	Depending upon camera inspection could include tree removal, root removal, rehabilitation of existing laterals, construction of new laterals, sump pumping, or shallow wells.	2015 - 2019
5b	Implement Selected Improvement(s) at Indian Creek Spring	$5,000 - $300,000	Selected improvements could range from root removal to installation of shallow wells. The range of anticipated costs is shown here.	2015 - 2019
6	Investigate the Potential for Additional Supply from the Northridge Facility. Implement selected improvement(s) at Northridge Facility	$ 30,000	Investigate improvements at the Northridge facility that would allow the full 2,100 gpm water right amount to be diverted. The improvements could take many forms depending on the outcome of the investigation. For this estimate, we have assumed that adding a VFD to one of the existing 50 hp well pumps and changing the controls set-up for the booster pumps will allow for a constant 2,100 gpm to be supplied from this facility.	2015 - 2019
7	Silver Star Pressure Reduced Zone	$ 193,000	Consider creation of another pressure zone, or consolidate with north or south Woodside to keep static pressures less than 100 psi.	2015 - 2019
LONG TERM CAPITAL IMPROVEMENTS - NEXT 20 YEARS				
8	Replace existing pipeline from Indian Creek Spring to Turbine Tank	$ 1,676,000	Replace the aged pipeline from Inidan Creek Springs to Turbine Tank with a new 12-inch diameter pipeline. Approximately 2.3 miles in length.	2020-2034
9	Investigate ways to improve connectivity to Quigley Tank. Implement improvements	$ 483,000	Quigley Tank is currently filled by selective operation of Woodside Well. Adding a tank fill booster pump station at the base of Quigley Canyon would improve the ability to fill the tank from any source in the system. Alternatively, some piping configuration changes , paricularly around the Third Avenue Well, may assist with filling the tank. Pump station option shown (most expensive), land costs, generator not included in pricing.	2020 - 2034
10	Design, Permit, and Construct New Well	$ 732,000	Drill new well, install pump, and construct well house. Minimum 1.8 MGD capacity assumed. No costs for well lot included. No generator included.	2024
11	Add Standby Power Generator (mobile) at Third Avenue Facility	$ 76,000	Pricing is for a 150 kW generator at Third Avenue. Permanent generator priced, mobile would be expected to cost less.	2031
12	Construct New Well	$ 732,000	To maintain firm system capacity above maximum day demand. Minimum 1.8 MGD capacity assumed. No costs for well lot included. No generator included.	2033
NON-CAPITAL IMPROVEMENTS				
13	Establish Fire Flow Policy	$ 3,500	Work with Fire Department to set maximum fire flow demands for larger structures and establish water storage requirements	2015
14	Arsenic Testing with Lower Detection Limit	--	Current arsenic test results indicate arsenic <5 ug/l. There is a possibility the Maximum Contaminant Level (MCL) will be lowered from 10 to 5 ug/l by EPA in the future. Check Hailey's sources with testing down to a 1 ug/l detection limit to determine if arsenic levels are substantially below 5 ug/l.	2015 - 2019
15	Develop and Implement Conservation Plan	--	Complete conservation plan and implement. Determine how rebates/incentives will be funded.	2015 - 2019

All costs shown in 2014 dollars. A 20% contingency is included in each estimated project cost.

Table 9-2
Infrastructure Maintenance and Replacement Program

Facility	Annual Target Budget	Comments
Well Facilities	$ 100,000	Replace/calibrate existing flow meters, rehab well facilities, routine maintenance, properly abandon unused wells (such as the small one at the Woodside facility), pipe and valve repair/replacement, pump replacement.
Indian Creek Springs	$ 10,000	Routine maintenance - clean roots from collector lines, tree removal, replacement or upgrade of needed equipment.
Storage Tanks	$ 5,000	Inspection, concrete repair, needed upgrades to accessories such as ladders and hatches.
Pipelines	$ 345,000	Assume a 75-year replacement cycle, which would result in replacing 1.3% of the pipelines in the system every year.
Fire Hydrants	$ 35,000	Total number of hydrants in system unknown. Estimate as replacing 10 hydrants per year.
Service Meters	$ 77,000	3,313 service meters in system. All meters new in 2003 - 2006. Assume 30-year life. Replace 3.3% per year.
SCADA System	$ 10,000	Ongoing control system upgrades at well and distribution facilities.
MAJOR REPAIR AND REPLACEMENT ACTIVITIES PLANNED IN 20-YEAR PLANNING PERIOD		
Replace Production Flow Meters	$ 60,000	Replace flow meters at the turbine inlet, turbine tank outlet, Northridge booster pumps, Woodside booster pumps, Third Avenue Well, River Street Well with new magnetic flow meters. May require some pipe re-work.
PLANNING/TESTING ACTIVITIES		
Pothole and Test Existing Distribution Piping	$ 10,000	Test five pipe locations per year in older sections of distribution system. Requested by City insurance company in 2013.
Continue to build records of existing assets	$ -	Continue to build records that document what the City owns, location, condition, useful life, and value. Consider asset management software.

Table 9-3
Water Right Recommendations

Suggested Timeframe	Water Right No(s).	Issue	Solution	Task
Water Right Maintenance				
2023		New Well in 2024 to meet IDEQ requirement for redundant supply	Drill a new well (2024)	File a transfer application with IDWR to add a new point of diversion to existing groundwater rights
2032		New Well in 2033 to meet IDEQ requirement for redundant supply	Drill a new well (2033)	File a transfer application with IDWR to add a new point of diversion to existing groundwater rights
Future		Demands exceed existing groundwater water rights	Acquire new water rights for groundwater	Monitor 5-year water facility master plans for increasing demands; apply for new water rights as needed for reasonably anticipated future needs (RAFN)
Tasks Related to Conjunctive Administration				
Ongoing		Limited future water supply for existing uses	Reduce per capita demands - focus on consumptive use (irrigation) reductions	Explore and implement additional conservation measures and incentives, especially those that reduce consumptive use
Ongoing		Conjunctive administration may limit consumptive uses	Determine the extent of consumptive vs non-consumptive uses	Maintain record of diversion data from SCADA system to establish the City's actual water use over time
Ongoing		Conjunctive administration may limit consumptive uses	Continue to move parks and other large irrigation parcels off of the potable supply	Develop plans to keep parks green during shorter irrigation seasons by planting drought-tolerant grasses and native plants, installing more efficient irrigation systems, etc.
2015		Limited future water supply for additional development	Require Developers to provide comprehensive water plan and implementation schedule at time of City processing	Review and enhance City policies and ordinances to strengthen City's position in processing annexation requests; require Developers to bring water rights to the table when requesting annexation
2015	all Indian Creek Spring water rights	Indian Creek Spring water rights exceed current spring flow collection and are needed for their senior-priority date	Increase flow collection from Indian Creek Spring	Continue to investigate methods to increase spring flow collection; implement chosen alternative(s)
Future		Regional solutions may develop to meet conjunctive administration requirements	Monitor and cooperate with the creation of proposed mitigation plans	Meet with similarly-positioned stake holders in the area (such as other municipalities) to create a regional solution.
Future		Limited future water supply for irrigation use	Possible use of treated wastewater effluent for irrigation supply	Consider installation of facilities to treat and deliver wastewater for irrigation use

Water System Master Plan

Appendix A

Existing Facilities

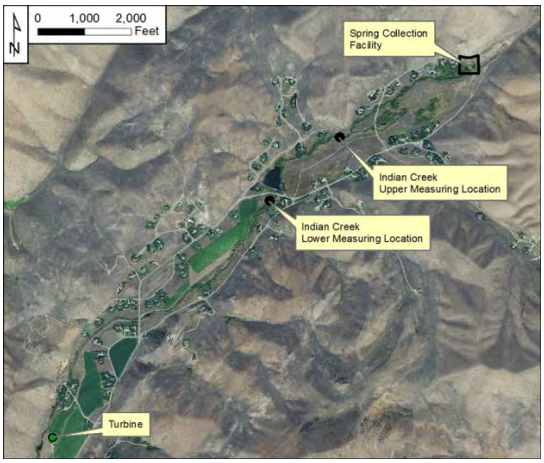
SPF WATER ENGINEERING

Indian Creek Springs

Location:	Indian Creek Road		
Latitude:	43 °	34 '	43.49 "
Longitude:	114 °	16 '	50.41 "
Ground Elevation:	5833 ft	(approx)	

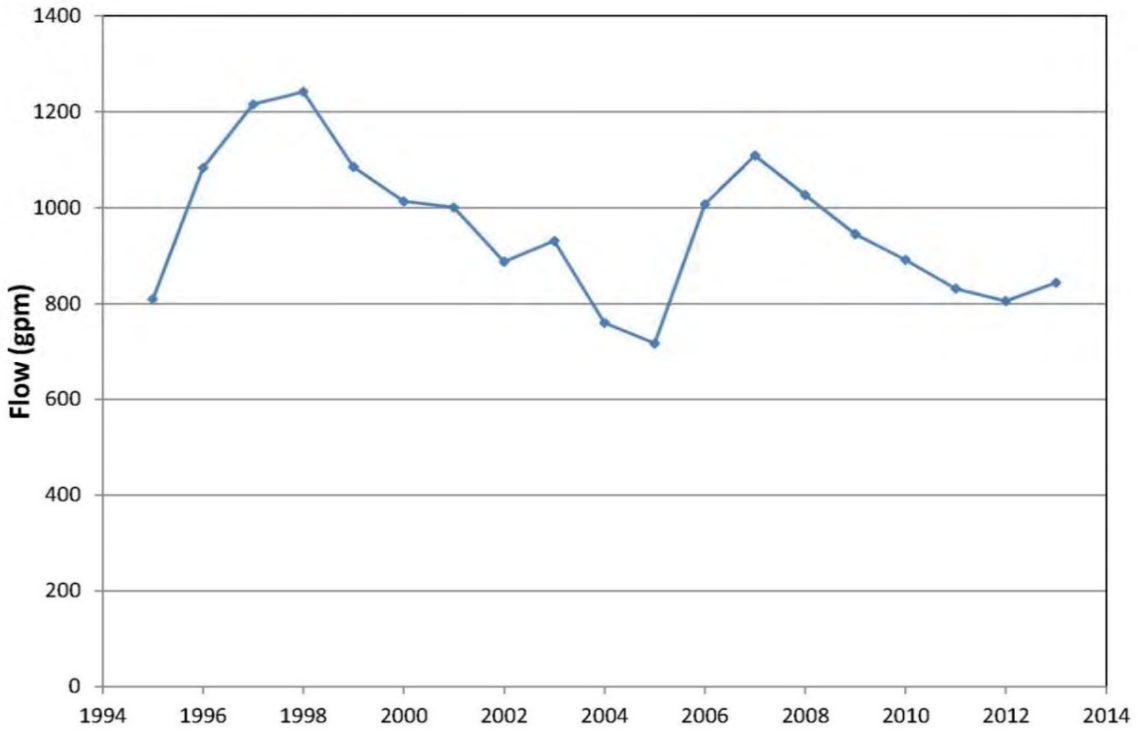
Equipment at Spring Site:	Collection System Hydroranger (level measurement for flow calculation) Weir Chlorination System 2.3 mile, 12" diameter pipeline to Turbine

2013 Average Spring Flow:	845 gpm	
Water Right Limit, any scenario:	1,200 gpm	2.62 cfs
Water Right Limit, if minimum streamflows are met in accordance with Indian Creek Ranch Owner's Association (ICROA) Agreement :	1,500 gpm	3.38 cfs

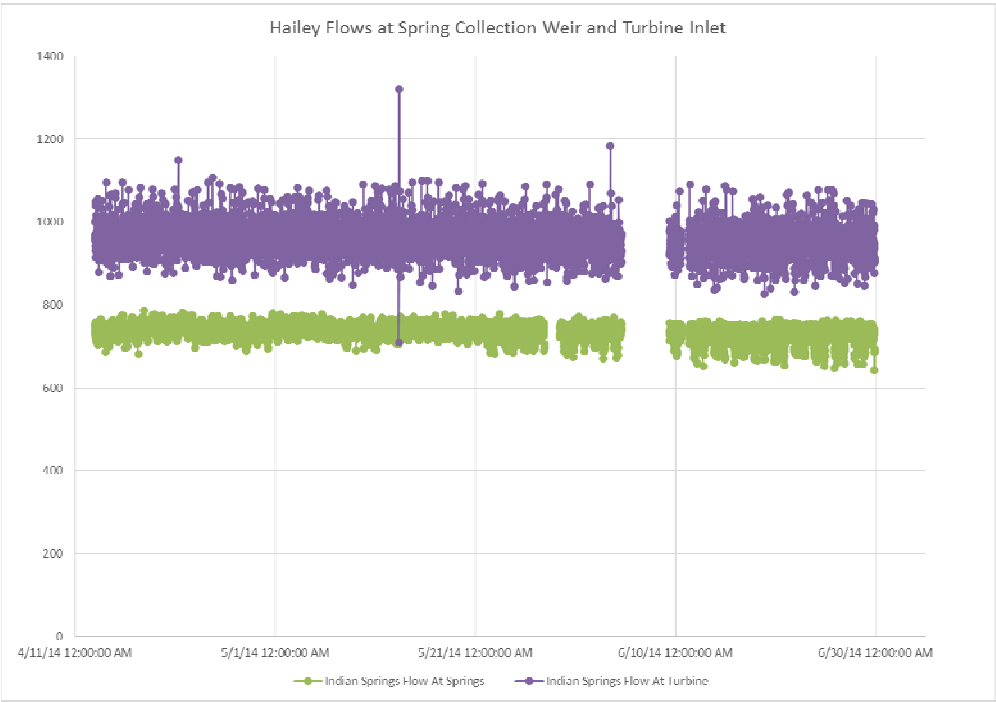


Indian Creek Springs

Indian Creek Springs



Indian Creek Springs Annual Average production 1995 - 2013, Flow Measured at Turbine Inlet



Indian Creek Springs April to June 2014 Production, Measured at Spring Collection Weir and Turbine Inlet

Northridge Facility

	Location:	Cranbrook Dr. near McKercher Blvd.			
	Latitude:	43 °	31 '	47.62	
	Longitude:	114 °	19 '	17.84	
	Ground Elevation:	5347 ft	(approx)		
	Constructed:	1995 - 1997			
Well 1:	**Depth:**	199 ft			
	Diameter:	16 in			
Well 2:	**Depth:**	190 ft			
	Diameter:	16" to 159.5', 12.75" from 155' to 190'			
Well 3:	**Depth:**	194 ft			
	Diameter:	12 in			
Well Pump 1:	**hp:**	50			
	Model:	National Pump H10HC, 5-stage, 1800 rpm, submersible			
	Nominal Flow:	1030 gpm	From 2014 April to June Data - 90th percentile		
	VFD?:	No			
Well Pump 2:	**hp:**	50			
	Model:	National Pump H10HC, 5-stage, 1800 rpm, submersible			
	Nominal Flow:	950	From 2014 April to June Data - 90th percentile		
	VFD?:	No			
Well Pump 3:	**hp:**	30			
	Model:	National Pump, S8HC2B-31, 2 stage, 3500 rpm, submersible			
	Nominal Flow:	600 gpm	From 2014 April to June Data - 90th percentile		
	VFD?:	No			
	hp:	75			
East Booster Pump:	**Model:**	National Pump, E12HC, 2-stage, 1800 rpm, vertical turbine			
	Nominal Flow:	950 gpm	(from SCADA)		
	VFD?:	Yes			
	hp:	75			
West Booster Pump:	**Model:**	National Pump, E12HC, 2-stage, 1800 rpm, vertical turbine			
	Nominal Flow:	950 gpm	(from SCADA)		
	VFD?:	No			
	90th Percentile Flow Rate:	1880 gpm	From July 2008 data		
	Water Right Limit:	2100 gpm			
	Chlorination System?	Yes			
	Chlorine Contact Chamber?:	Yes	30 min. contact time		

Northridge Facility

A PLAN VIEW OF
ELEVATION DATUM POINTS FOR NORTHRIDGE BOOSTER STATION
ON CRANBROOK DRIVE
PREPARED FOR CITY OF HAILEY WATERWORKS

ALPINE ENTERPRISES INC.
SURVEYING, MAPPING & NATURAL HAZARDS CONSULTING
P.O. BOX 2037, KETCHUM, IDAHO, 83340; PH. 208-727-1988 FAX 208-727-1987 EMAIL: alpine7@mindspring.com

NO SCALE U:\LandProjects2004\1022 HAILEY WATERWORKS\dwg\1022_SITE.dwg 10/20/2006 11:53:32 AM MDT

Northridge Facility

Northridge Facility

Northridge Facility

Northridge Well 1

Northridge

Form 238-7
3/95

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT 68130

Use Typewriter or Ballpoint Pen

Office Use Only
Inspected by ______
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 37-96-S-0104-000
Other IDWR No. 37-08837

2. OWNER:
Name City of Hailey
Address PO Box 945
City Hailey State ID Zip 83333

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp. 2 North ☒ or South ☐
Rge. 18 East ☒ or West ☐
Sec. 4 SE 1/4 SW 1/4 ____ 1/4
Gov't Lot ____ County Blaine
Lat: : : Long: : :
Address of Well Site ______ City ______
(Give at least name of road + Distance to Road or Landmark)
Lt. ____ Blk. ____ Sub. Name ______

4. USE:
☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ______

5. TYPE OF WORK check all that apply (Replacement etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other ______

6. DRILL METHOD
☒ Air Rotary ☒ Cable ☐ Mud Rotary ☐ Other ______

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
Bentonite	[illegible]	[illegible]	50 bags	over bore

Was drive shoe used? ☒Y ☐N Shoe Depth(s) 175 1/2'
Was drive shoe seal tested? ☒Y ☐N How? Pressure

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12"	+2 1/2	175 1/2	.250	Casing	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe ______ Length of Tailpipe ______

9. PERFORATIONS/SCREENS
☒ Perforations Method Knife
☐ Screens Screen Type ______

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
100	172	5/8x3	400	6"	Steel	☒	☒
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
13' 1" ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: ______

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time

Water Temp. ______ Bottom hole temp. ______
Water Quality test or comments: ______
Depth first Water Encountered ______

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
16"	0	20	Dirt, Cobble Stones, [illegible]		✓
12"	20	42	Clay, sand, gravel	✓	
12"	42	75	sandy gravel	✓	
12"	75	120	sandy gravel - streaks of clay	✓	
12"	120	171	sandy gravel	✓	
12"	171	175	brown clay	✓	
12"	175	198	hard mountain Rock	✓	
12"	198	201	loose brown Rock	✓	
	201	199	Caved in to 199'		

RECEIVED
JUL 07 1997
Department of Water Resources
Southern Region

JUL 29 1997

RECEIVED
AUG 26 1997
Department of Water Resources

Completed Depth 199' (Measurable)
Date: Started 06/20/97 Completed 06/25/97

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Vollmer-[illegible] Drilling Firm No. 383
Firm Official [signature] Date 06/26/97
and
Supervisor or Operator [signature] Date 07/01/97
(Signature of Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Northridge Facility

Northridge Well 2

Form 238-
7/94

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

64017

Northridge

Use Typewriter or Ball Point Pen

1. DRILLING PERMIT NO. 37- 95- S 0070 - 000
Other IDWR No. T-4508 37-02698, 37-2699, 37-07305

2. OWNER:
Name EVB HAILEY
Address 9530 PICO BLVD.
City LOS ANGELES State CA Zip 90035

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Twp. 2 North ☐ X or South ☐
Rge. 19 East ☐ X or West ☐
Sec. 4, 1/4 NE 1/4 SW 1/4
Gov't Lot ____ County BLAINE

Address of Well Site CENENNIAL BLVD.
700' N OF BUTTERCUP City HAILEY
(Give cross street name of road + Distance to Road or Landmark)

Lt. ____ Blk. ____ Sub. Name NORTHRIDGE

4. PROPOSED USE:
☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK
☐ New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment

6. DRILL METHOD
☐ Mud Rotary ☐ Air Rotary ☐ Cable ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK Material	From	To	AMOUNT Sacks or Pounds	METHOD
CEMENT	0	20	80 SKS	OVERBORE

Was drive shoe used? ☐ Y ☐ N Shoe Depth(s) ____
Was drive shoe seal tested? Y ☐ N ☐ How? ____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
16	+1	199.5	.375	STEEL	☐	☐	☒	☐
12.75	-155	-190	.375	STEEL	☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☐ Perforations Method MILLS KNIFE
☐ Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
40	-110	.5	400			☐	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
25 ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: ____

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time
1566 w/ air	106'	130'	20HR
825		41'	.5HR

Water Temp. 48 Bottom hole temp. ____
Water Quality test or comments: ____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
20	0	6	SURFACE DIRT		X
	6	14	BOULDERS & GRAVEL		X
	14	20	GRAVEL SAND & CLAY		X
16	20	38	GRAVEL SAND & CLAY		X
	38	61	GRAVEL & SAND	X	
	61	66	CEMENTED GRAVEL		X
	66	81	SMALL GRAVEL & SAND	X	
	81	89	GRAVEL & CLAY		X
	89	105	GRAVEL & CLAY		X
	105	110	COURSE GRAVEL & CLAY		X
	110	120	GRAVEL & CLAY		X
	120	140	CLAY GRAVEL & SAND		X
	140	155	CLAY GRAVEL & SAND		X
	155	160	CLAY GRAVEL & SAND		X
	160	175	CEMENTED CONGLOMERATE		X
	175	183	CEMENTED CONGLOMERATE		X
	183	186	HARD SAME AS PREV.		X
	186	190	VERY HARD		X

RECEIVED
NOV 2 1 1995
Department of Water Resources
Southern Region
MAR 07 1996

Completed Depth 190' (Measurable)
Date: Started 08/10/95 Completed 10/19/95

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name WALKER WATER SYSTEMS INC. Firm No. 15
Firm Official Paul Walk Date 11/14/95
and
Supervisor or Operator ____ Date 11/14/95
(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Northridge Facility

Northridge Well 3

Northridge

Form 238-7 W.R.

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

68129

Office Use Only
Inspected by ____
Twp ____ Rge ____ Sec ____
____ 1/4 ____ 1/4 ____ 1/4
Lat: : : Long: : :

1. DRILLING PERMIT NO. 37-96-S-0105-000
Other IDWR No. 37-08839

2. OWNER:
Name City of Hailey
Address P.O. Box 945
City Hailey State ID Zip 83333

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

N / W / E / S

Twp. 2 North ☒ or South ☐
Rge. 18 East ☒ or West ☐
Sec 4 SE 1/4 SW 1/4 ____ 1/4
Gov't Lot ____ County Blaine County
Lat: : : Long: : :
Address of Well Site ____
(Give at least name of road + Distance to Road or Landmark) City ____
Lt. ____ Blk. ____ Sub. Name ____

4. USE:
☐ Domestic ☒ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other ____

5. TYPE OF WORK check all that apply (Replacement etc.)
☒ New Well ☐ Modify ☐ Abandonment ☐ Other ____

6. DRILL METHOD
☒ Air Rotary ☒ Cable ☐ Mud Rotary ☐ Other ____

7. SEALING PROCEDURES

SEAL/FILTER PACK			AMOUNT	METHOD
Material	From	To	Sacks or Pounds	
Bentonite	0	100'	15 bags	over bore

Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 161 1/2'
Was drive shoe seal tested? ☒ Y ☐ N How? Pressure

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
26"	+2'6"	161'6"	.250	Steel	☒	☐	☒	☐
					☐	☐	☐	☐
					☐	☐	☐	☐

Length of Headpipe ____ Length of Tailpipe ____

9. PERFORATIONS/SCREENS
☒ Perforations Method Knife
☐ Screens Screen Type ____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
100'	160'	90x3	400	6"	Steel	☒	☐
						☐	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:
13'3" ft. below ground Artesian pressure ____ lb.
Depth flow encountered ____ ft. Describe access port or control devices: ____

11. WELL TESTS:
☐ Pump ☐ Bailer ☐ Air ☐ Flowing Artesian

Yield gal./min.	Drawdown	Pumping Level	Time

Water Temp. ____ Bottom hole temp. ____
Water Quality test or comments: ____
Depth first Water Encountered ____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	Water Y	Water N
16"	0	20	Dirt & Gravel		✓
12"	20	30	Sandy Gravel		✓
12"	30	45	Clay, Sand, Gravel	✓	
12"	45	90	Sandy Gravel	✓	
12"	90	124	Sand, gravel, little clay	✓	
12"	124	132	gravel sand	✓	
12"	132	155	Clay, gravel	✓	
12"	155	161	sand, gravel	✓	
12"	161	194	Hard mountain Rock	✓	
12"	194	205	Broken Rock	✓	
12	205	194	Cased in to 194'		

RECEIVED
JUL 07 1997
Department of Water Resources
Southern Region

RECEIVED JUL 29 1997

AUG 26 1997
Department of Water Resources

Completed Depth 194 (Measurable)
Date: Started 06/16/97 Completed 06/19/97

13. DRILLER'S CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Firm Name Volumer Well Drilling Firm No. 383
Firm Official and Date 06/26/97
Supervisor or Operator Date 07/01/97
(Sign also if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

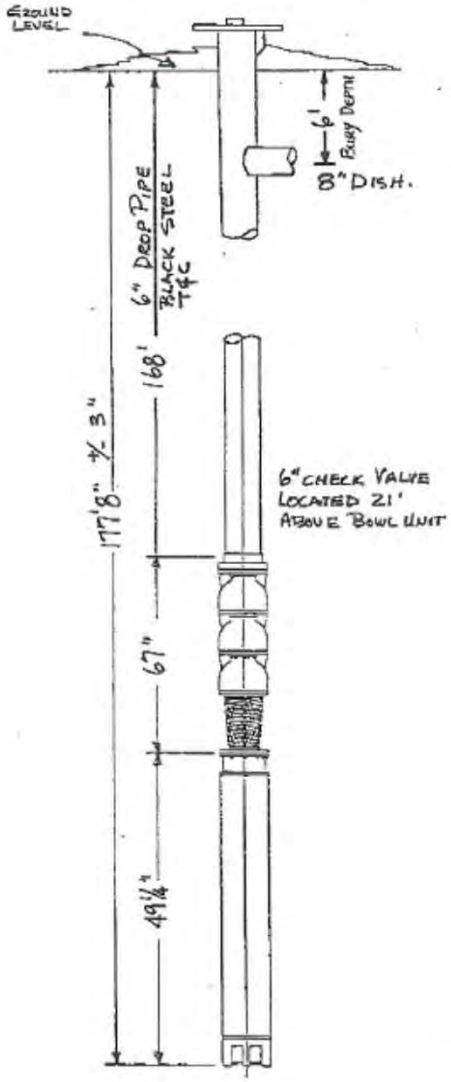
Northridge Facility

Northridge Well 1 and 2 Pump

Oct. 14. 2008 2:12PM PUMP TECH No. 3648 P. 4

SUBMERSIBLE PUMP W/PITLESS ADAPTER

Northridge well (from Pumptech)



DATE MARCH 15, 1997
CUSTOMER CONNELLY CONST.
JOB NAME CITY OF HAILEY 50 H.P WELL

MOTOR

H.P. 50 MFGR. HITACHI
R.P.M. 1800 SIZE 10"
PHASE/CYCLE/VOLTS 3/60/460

DISCHARGE ELBOW

SIZE 8"
MATERIAL STEEL

COLUMN ASSEMBLY

PIPE SIZE/LENGTH 6"/21'
PIPE WALL SCH. 40

CABLE

SIZE #4 AWG - FLAT 3 CON. W/GRD.
MATERIAL COPPER
LENGTH 175'

BOWL ASSEMBLY

MODEL H 10 H C
NO. OF STAGES 5
G.P.M. 800 T.D.H. 170'
MATERIAL:
BOWL CAST IRON IMPELLER BRONZE
SHAFT 416SS BEARING BRONZE
COLLET C-1045 BOLTS GR. 5 STEEL
BOWL W.R. MATERIAL N/A
IMPELLER W.R. MATERIAL N/A

MOTOR ADAPTER

TYPE FLANGED
SIZE 10"

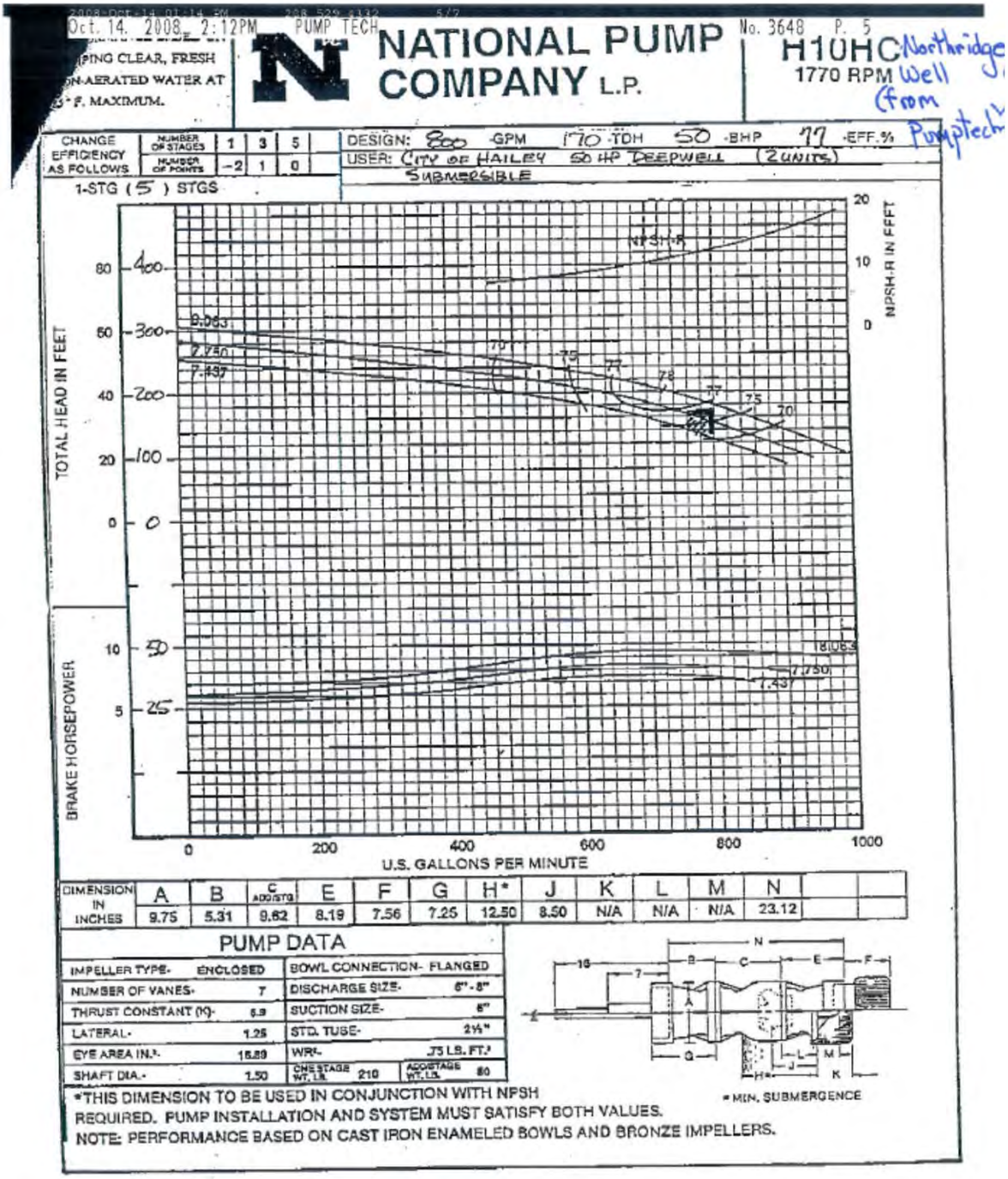
SHROUD

MATERIAL
SIZE

COMMENTS: 2 UNITS

Northridge Facility

Northridge Well 1 and 2 Pump



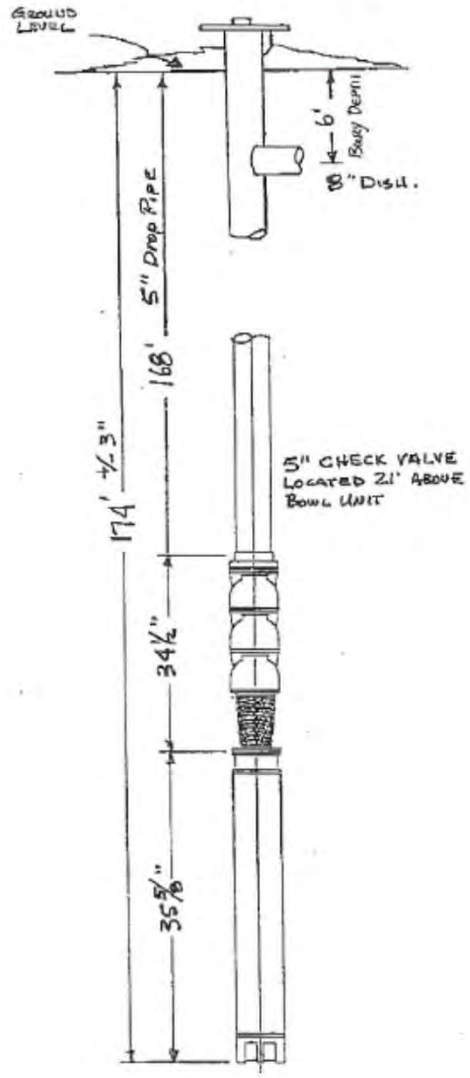
Northridge Facility

Northridge Well 3 Pump

Oct. 14. 2008 2:12PM PUMP TECH No. 3648 P. 1

SUBMERSIBLE PUMP W/PITLESS ADAPTER

Attn: Kathy Northridge well Pump (from Pumptech)



DATE MARCH 15, 1997
CUSTOMER CONNLEY CONST.
JOB NAME CITY OF HAILEY 30HP WELL

MOTOR

H.P. 30 MFGR. FRANKLIN
R.P.M. 3500 SIZE 6
PHASE/CYCLE/VOLTS 3/60/460

DISCHARGE ELBOW

SIZE 8"
MATERIAL STEEL

COLUMN ASSEMBLY

PIPE SIZE/LENGTH 5" /21'
PIPE WALL SHC. 40

CABLE

SIZE #8 AWG – FLAT 3CON. W/GRD.
MATERIAL COPPER
LENGTH 175'

BOWL ASSEMBLY

MODEL 8HC2B-30
NO. OF STAGES 2
G.P.M. 500 T.D.H. 170'
MATERIAL:
BOWL CAST IRON IMPELLER BRONZE
SHAFT 416SS BEARING BRONZE
COLLET C-1045 BOLTS GR. 5 STEEL
BOWL W.R. MATERIAL N/A
IMPELLER W.R. MATERIAL N/A

MOTOR ADAPTER

TYPE FLANGED
SIZE 6"

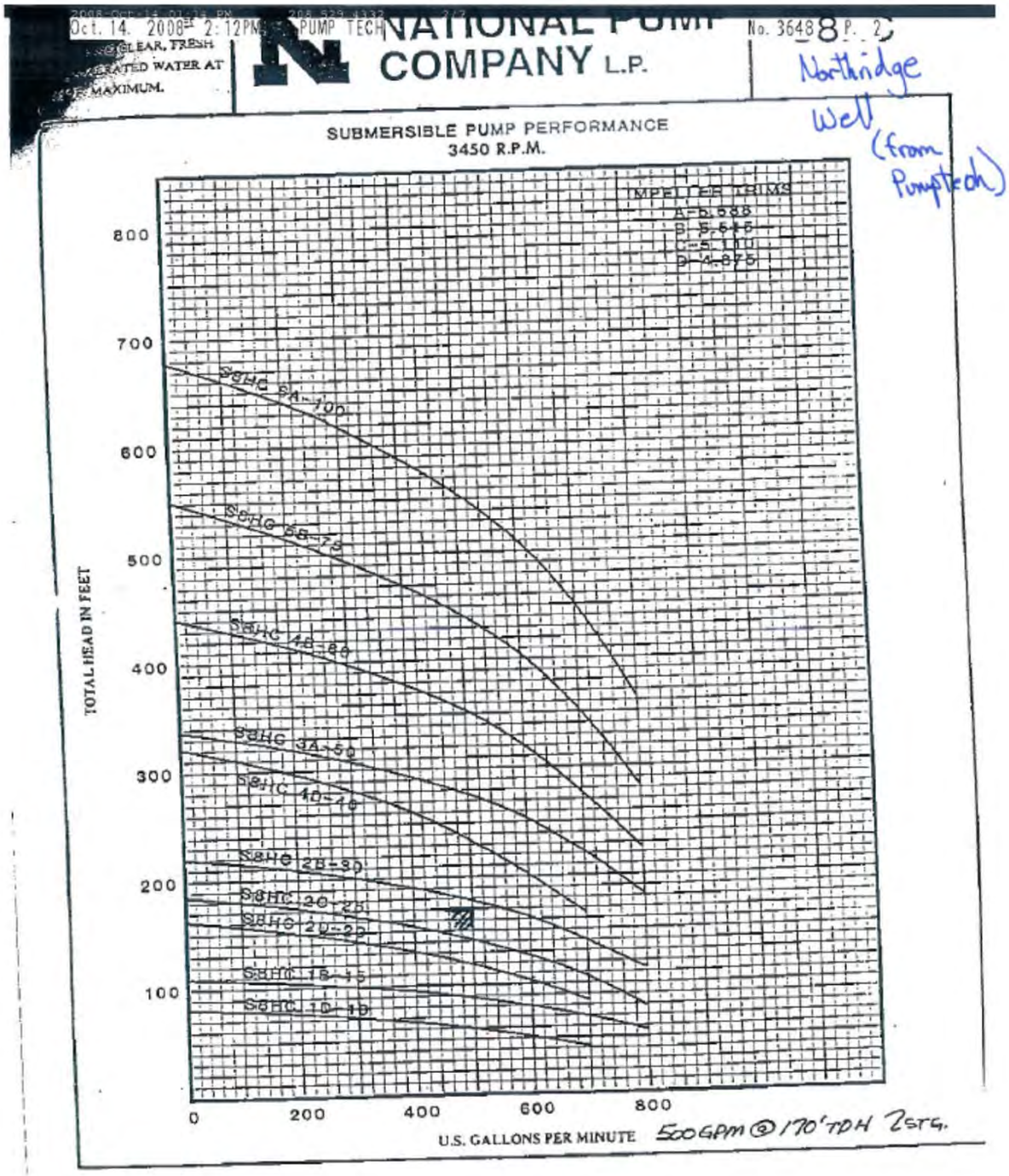
~~SHROUD~~

MATERIAL
SIZE

COMMENTS:

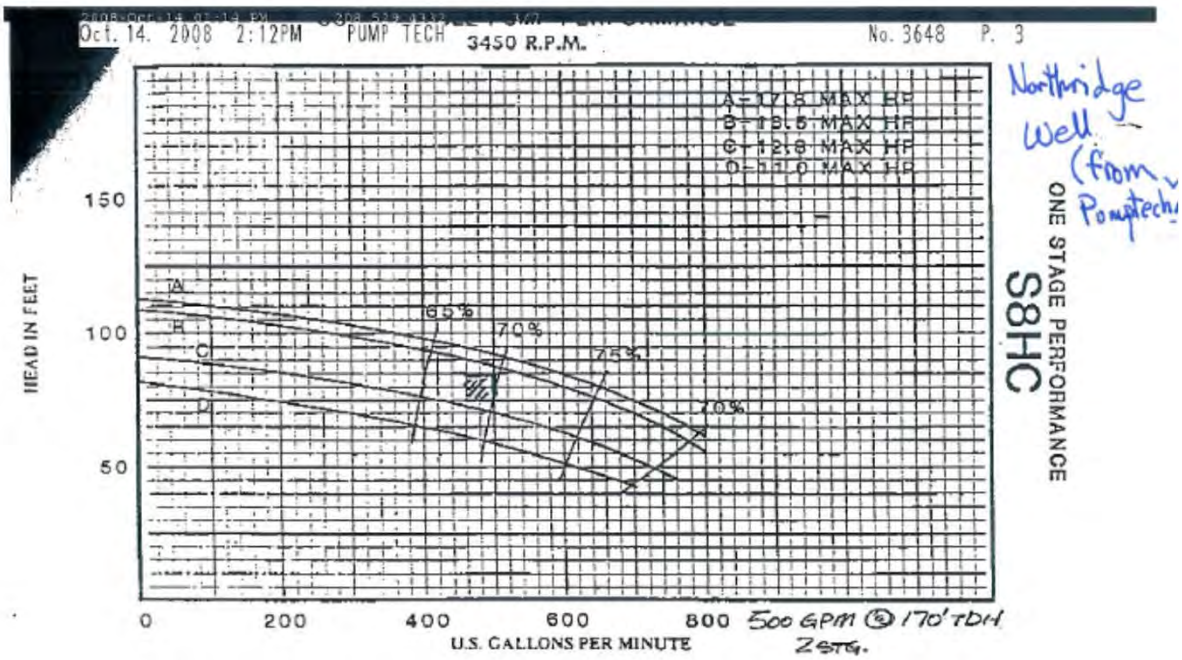
Northridge Facility

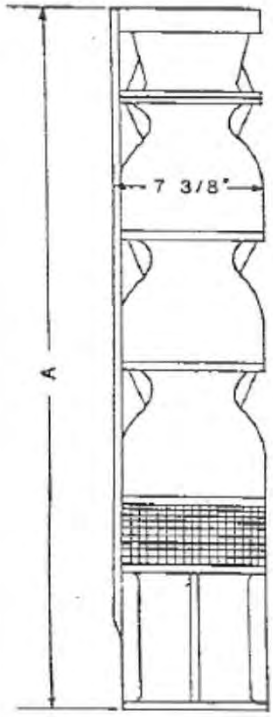
Northridge Well 3 Pump



Northridge Facility

Northridge Well 3 Pump





DIMENSIONS & SPECIFICATIONS

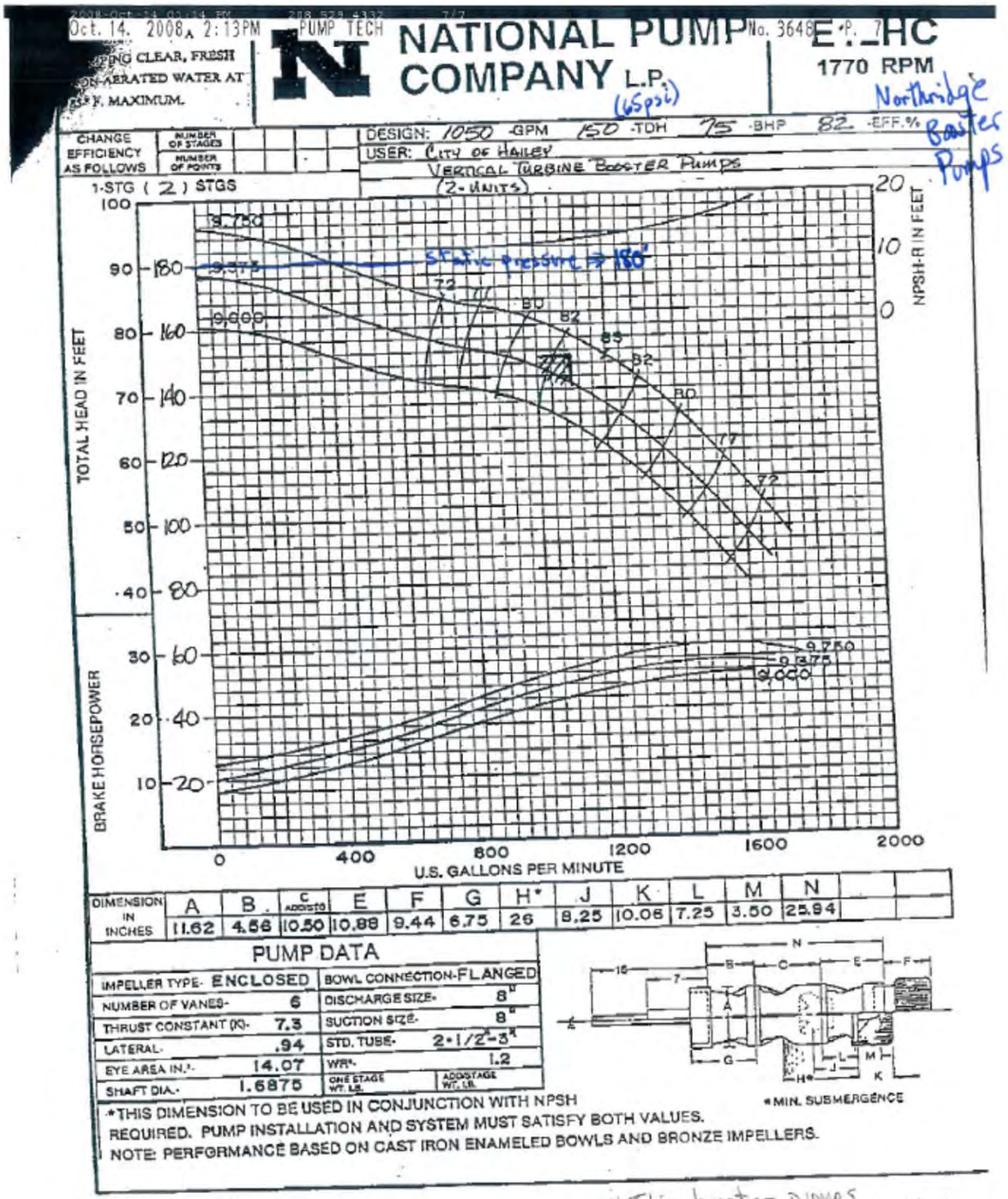
Model Number	Stages	HP	"A" Length Inches	Approx. Shipping Wgt. lbs.
S8HC 1D-10	1	10	27.75	115
S8HC 1B-15	1	15	27.75	115
S8HC 2D-20	2	20	34.50	150
S8HC 2C-25	2	25	34.50	150
S8HC 2B-30	2	30	34.50	150
S8HC 4D-40	4	40	48.00	220
S8HC 3A-50	3	50	41.25	185
S8HC 4B-60	4	60	48.00	220
S8HC 5B-75	5	75	54.75	255
S8HC 6A-100	6	100	61.50	290

MATERIALS OF CONSTRUCTION

DESCRIPTION	MATERIAL	DESCRIPTION	MATERIAL
BOWL	CAST IRON	THRUST. ASSY.	BRONZE
IMPELLER	BRONZE	BOLTS	GRADE 5 STEEL
SHAFT	STAINLESS STEEL	SCREEN	STAINLESS STEEL
BEARING	BRONZE	CABLE GUARD	STAINLESS STEEL

Northridge Facility

Northridge Booster Pumps



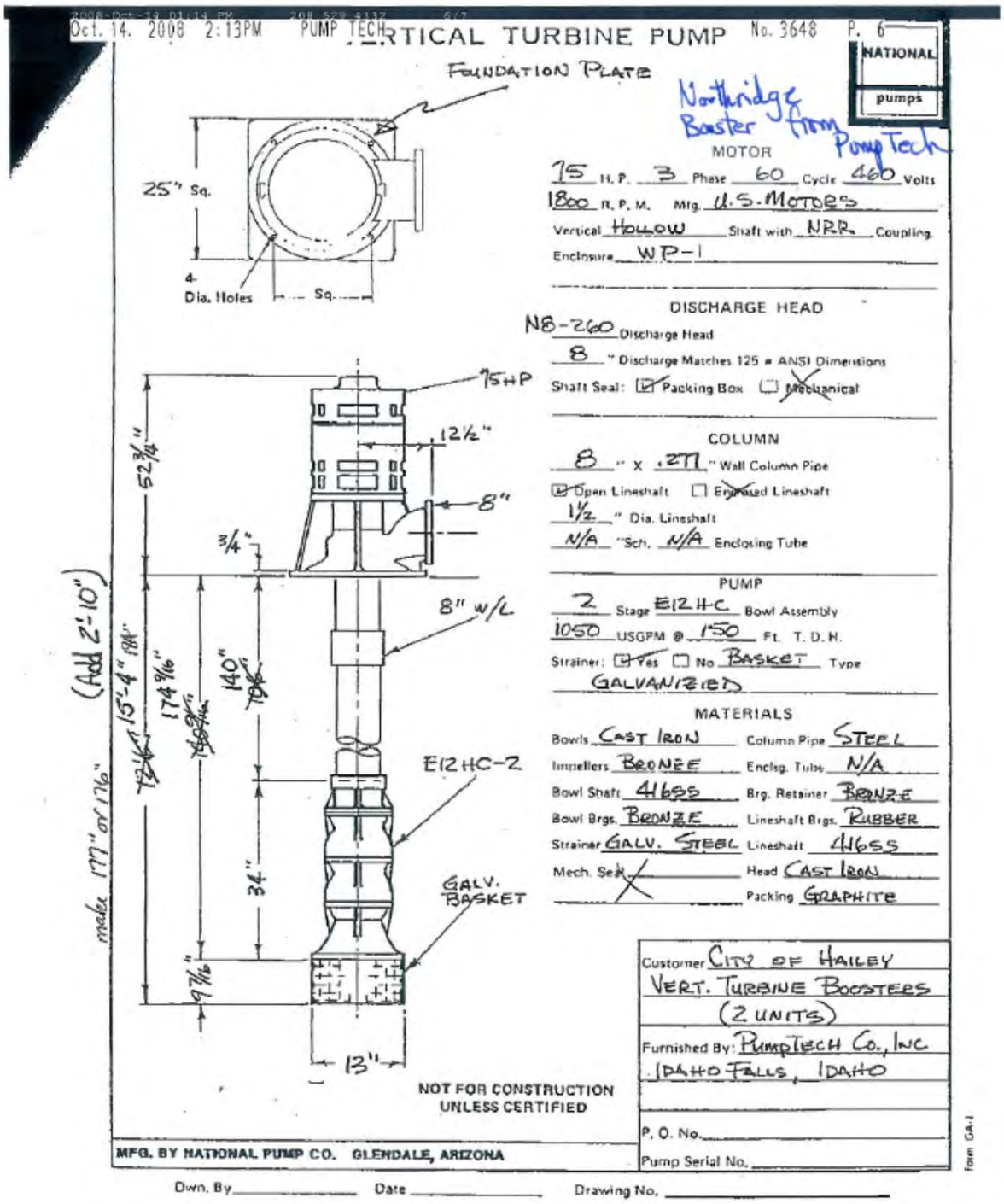
DIMENSION IN INCHES	A	B	C ADD'L STG	E	F	G	H*	J	K	L	M	N
	11.62	4.56	10.50	10.88	9.44	6.75	26	8.25	10.06	7.25	3.50	25.94

FF = 5347.50'
Static to Quigley = 5530.30' - 5347.50' = 182.80'
Static to Turbine = 5526.25' - 5347.50' = 178.75'

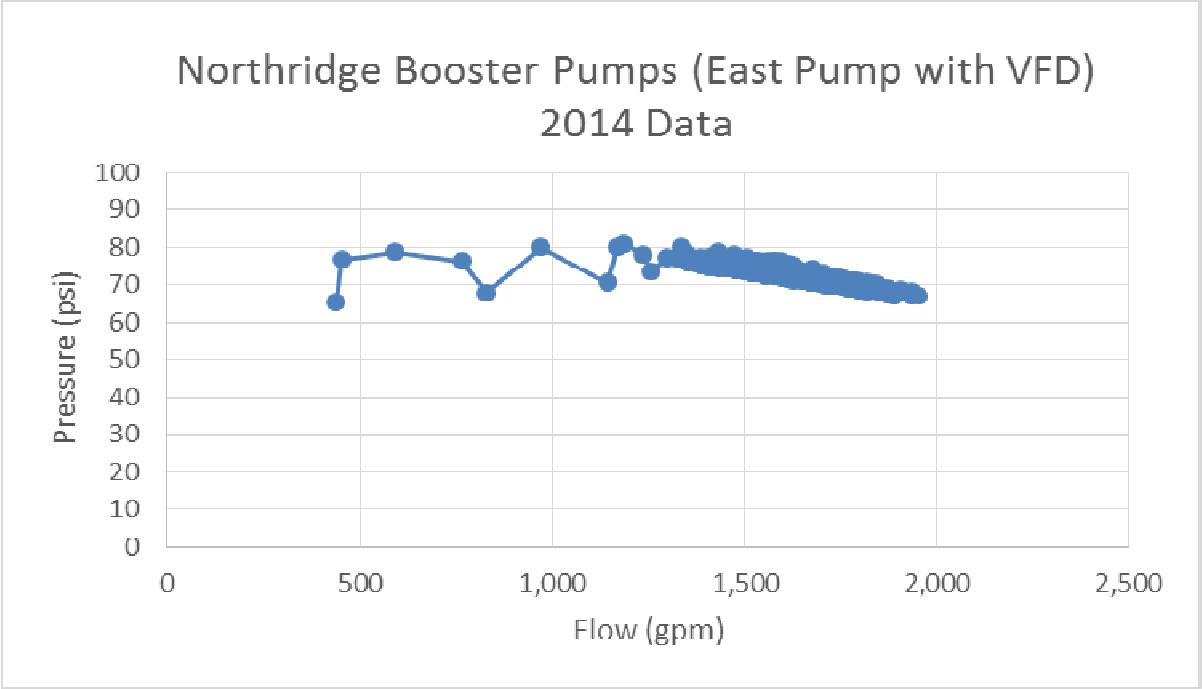
* This booster pumps out of a chlorine contact basin. Assume water surface is approximately at floor level.

Northridge Facility

Northridge Booster Pumps



Northridge Facility



River Street Well

Location:	N. River St. and Silver St.			
Latitude:	43 °	31 '	18.96 "	
Longitude:	114 °	19 '	9.42 "	
Ground Elevation:	5328 ft (approx)			
Constructed:	1962			
Well: Depth:	150 ft			
Diameter:	16 in			
Well Pump: hp:	75			
Model:	Vertiline 12RM, 4-stage, 1800 rpm, vertical turbine			
VFD?:	No			
Chlorination System?	Yes			
Chlorine Contact Chamber?:	No			
90th Percentile Flow Rate:	1070 gpm			

A PLAN VIEW OF
ELEVATION DATUM POINTS FOR RIVER STREET WELL HOUSE
ON RIVER STREET
PREPARED FOR CITY OF HAILEY WATERWORKS

ALPINE ENTERPRISES INC.
SURVEYING, MAPPING & NATURAL HAZARDS CONSULTING
P.O. BOX 2037, KETCHUM, IDAHO, 83340; PH. 208-727-1988 FAX 208-727-1987 EMAIL: alpine7@mindspring.com

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River Street Well

River Street Well

River Street Well

Well Log Form 1
1/59 2 M

RECEIVED
APR 2 1962
Department of Reclamation

WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

Permit No. _____ Well No. _____ County Blaine

Owner Hailey Municipal Water Supply

Address Hailey, Idaho

Driller George J. Roessler

Address Shoshone, Idaho

Well location Corner of Silver & River St. SW of Blk 55 ¼ ¼ Sec 9, T. 2 N/S, R. 18 E/W

Size of drilled hole 16"

Total depth of well 150 ft.

Locate well in section

NW¼	NE¼
SW¼	SE¼

Give depth to standing water from the ground 20 ft Water temp. 58 °Fahr.

On "Pumping Test" delivery was 2000 g.p.m. or _____ c.f.s. Drawdown was 60 feet.

Size of pump and motor used to make test 12" bowls, 8" column, Deisel Motor

Length of time of test 6 hours _____ minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____ (TYPE AND SIZE OF VALVE, ETC.)

Water will be used for City use Weight of casing per lineal foot 52.36

Thickness of casing 5/16" Casing material steel (STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing 16" x 152" (CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER; CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
16"	2 ft. above gr.	150'	152'	

welded

Number and size of perforations 2400 ½ x 3 located ~~[illegible]~~ 147 ft. feet to 50 ft. feet from ground

Date of commencement of well 1-27-62 Date of completion of well 3-20-62

S. 9 2N 18E

2

River Street Well

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ans. Yes or No
		If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my supervision and the above information is true and correct to the best of my knowledge and belief.

Signed Roessler Well Drilling

By George J Roessler

License No. 119

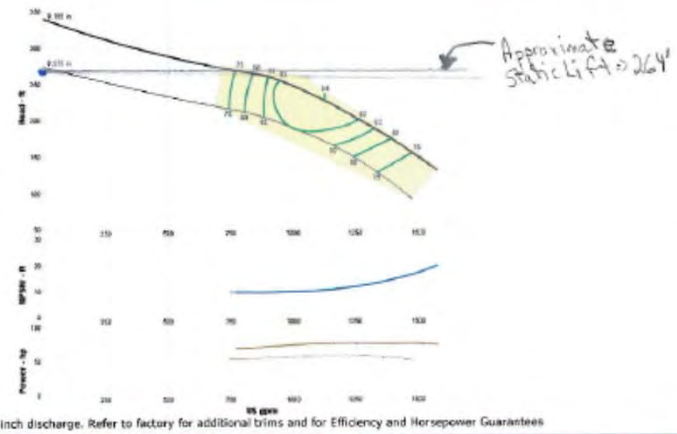
Dated 3-21, 1962

Vertiline
12RM
4-stage
75 hp
1800 rpm
1000 gpm @ 240'

Layne/Verti-Line
Pentair Water

My Profile | Catalogs | Manual Selection | Design Point Search | Selected Pump

Pump Curve | Design Notes | Cost Analysis | Printed Reports | Documents



8 or 10 inch discharge. Refer to factory for additional trims and for Efficiency and Horsepower Guarantees

Request for Quote

Submit your selection to Layne Verti-Line.

Pump

Type	Vertical Turbine
Size	12RM (4 stage)
Speed	1770 rpm
Diameter	9.188 in

Redraw | Reset

Display Options

- Manufacturer settings
- Custom

Multiple Pumps

Number of pumps 1

- Parallel
- Series

Redraw

Multiple Speeds (rpm)

900 rpm - 1800 rpm

Redraw

Flow	Head	Eff	BEP	NPSHr	Power	Motor	Frame	Min flow	Sphere	Bowl size
1125 US gpm	226 ft	84 %	84 %	10.4 ft	76.6 hp	100 hp	405T	---	0.75 in	11.4 in

Powered by PUMP-FLO

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River Street Well Pump
FF = 5327.40'

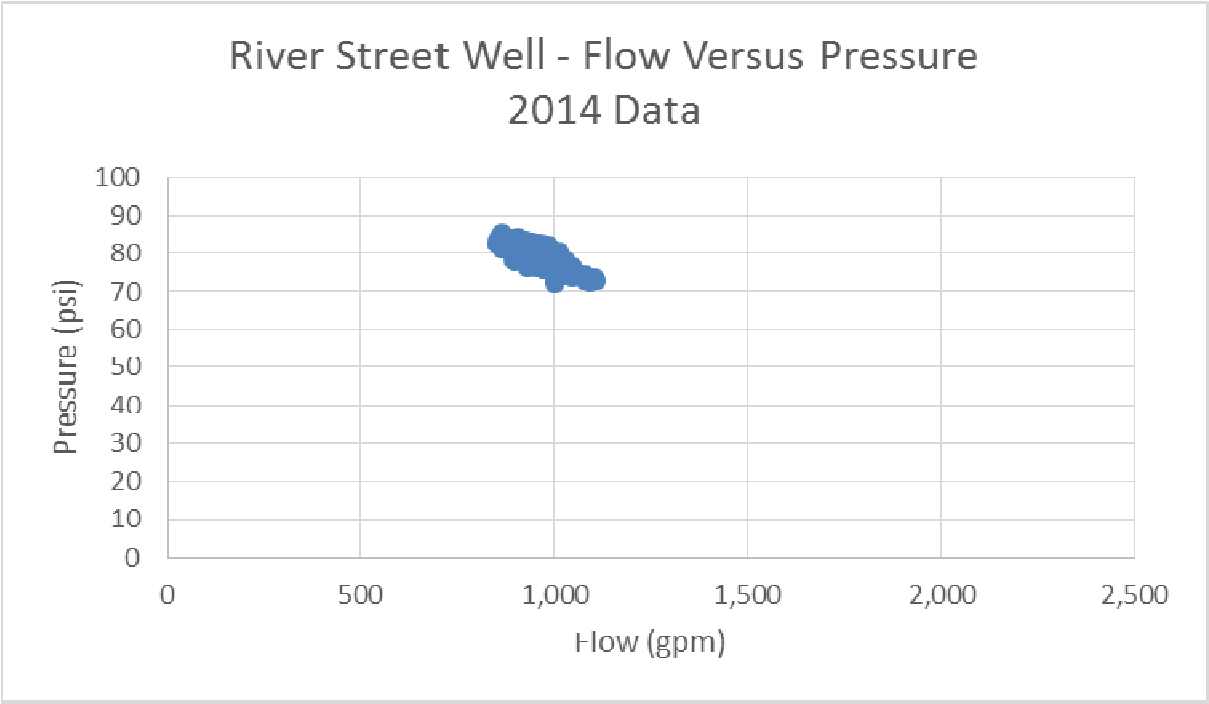
Quigley Tank OF = 5530.30' static = 5530.30' - 5327.40' = 202.9'
Turbine Tank OF = 5526.25' static = 5526.25' - 5327.40' = 198.9'

*Note: Pump Curve includes lifting water from below ground surface. Depth to water estimated at 64-feet (Pumping level).

CITY of HAILEY EST. 1881

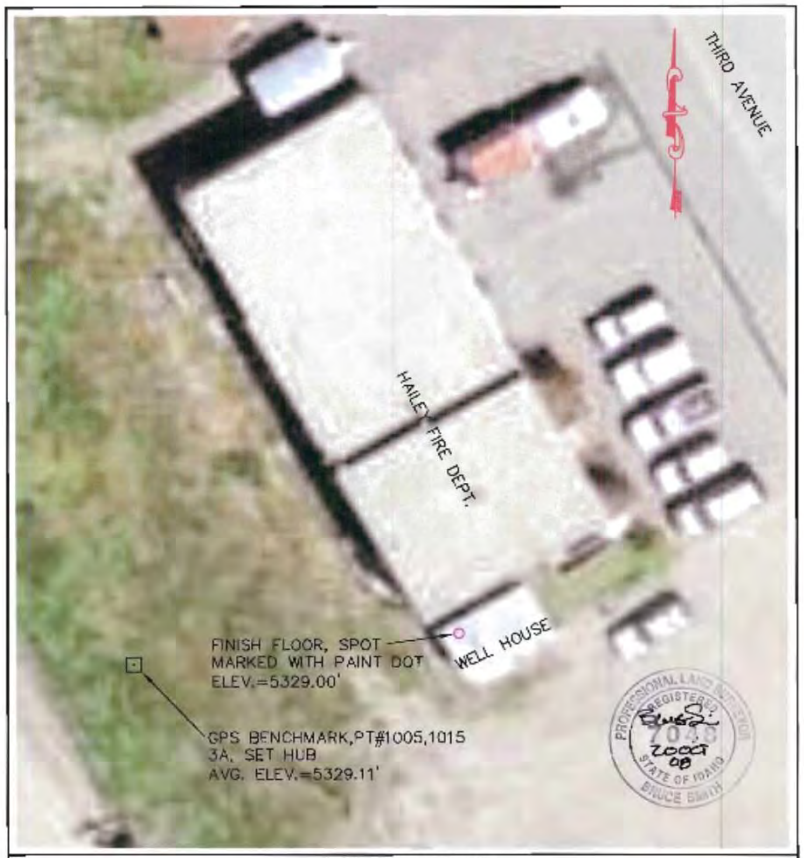
River Street Well

River Street Well



Third Avenue Well

Location:		S. Third Ave. and Maple St.			
Latitude:		43 °	30 '	55.45 "	
Longitude:		114 °	18 '	28.22 "	
Ground Elevation:		5329 ft	(approx)		
Constructed:		1965	New pump bowls 2010		
Well:	**Depth:**	198 ft			
	Diameter:	20 in			
Well Pump:	**hp:**	125			
	Model:	12RH, 4-stage			
	VFD?:	No			
Chlorination System?		No			
Chlorine Contact Chamber?:		No			
90th Percentile Flow Rate:		1,730 gpm		From 2014 April to June data	



A PLAN VIEW OF
ELEVATION DATUM POINTS FOR THIRD AVE. WELL HOUSE
ON THIRD AVE, BY HAILEY FIRE DEPT.
PREPARED FOR CITY OF HAILEY WATERWORKS

ALPINE ENTERPRISES INC.
SURVEYING, MAPPING & NATURAL HAZARDS CONSULTING
P.O. BOX 2037, KETCHUM, IDAHO, 83340; PH. 208-727-1988 FAX 208-727-1987 EMAIL: alpine7@mindspring.com

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Third Avenue Well

Third Avenue Well

WELL LOG UNAVAILABLE

Third Avenue Well

Performance
1800 RPM Performance Curves

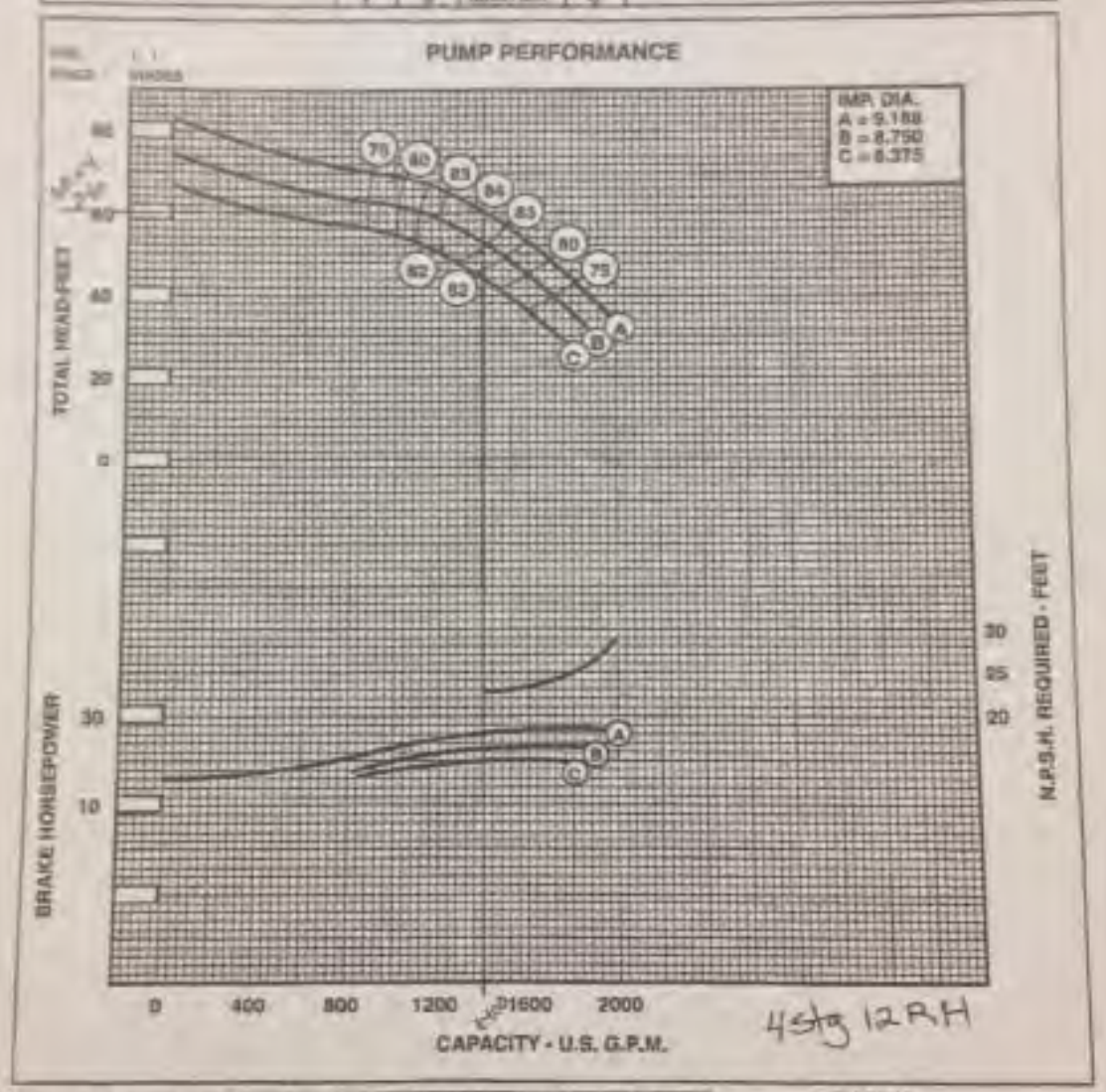
SECTION 300

Fairbanks Morse
Pumps Water

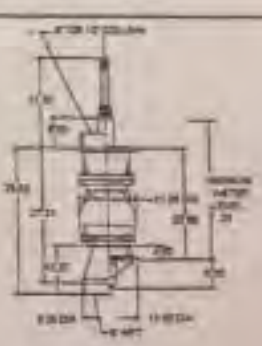
No. Stages	Kg Change	MATERIAL	Kg Change
1	-4	IMP. - C.I.	-1
2	-1	IMP. - BRZ	-1
3	3	BOWL - BRZ	-2
4	8	BOWL - C.I.	-2

12.1 12 RH 1770 R.P.M.

SINGLE STAGE LAB PERFORMANCE WITH STANDARD MATERIALS. EFFICIENCY SHOWN FOR 3 OR MORE STAGES. HORSE POWER SHOWN FOR ONE STAGE BASED ON LATEST EFFICIENCY CORRECTIONS. SHOULD BE MADE FOR STAGES AND MATERIAL.



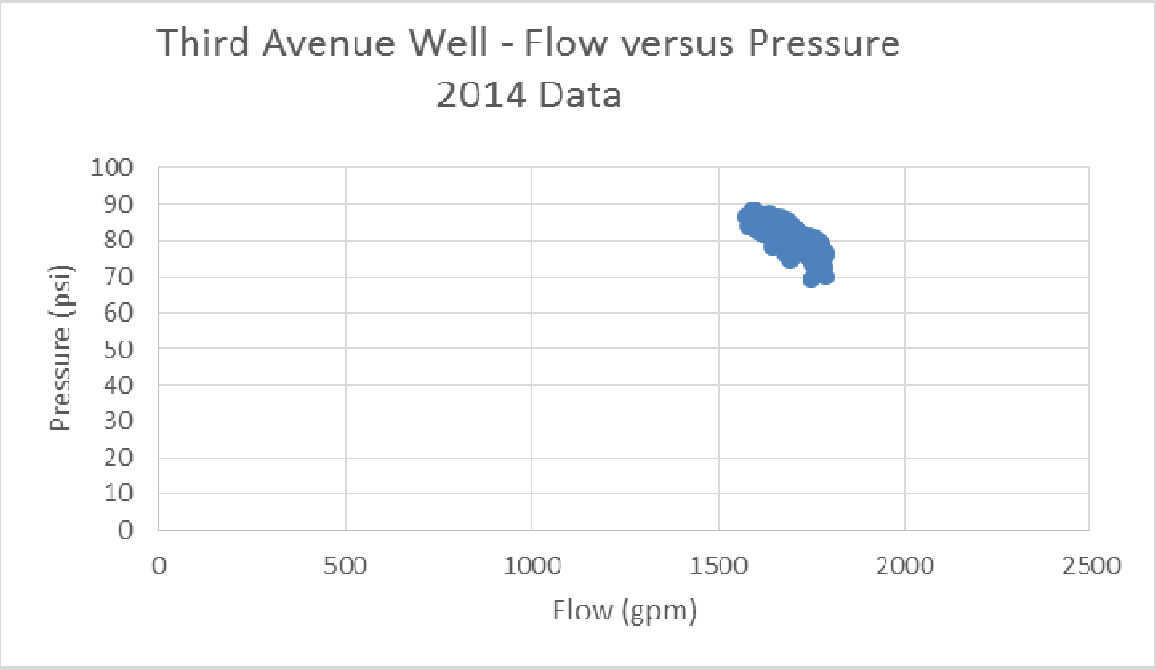
Maximum Operating Speed	1800	Maximum Safety Size - Inches	0.75
Pump Shaft Diameter – Inches	1.938	Thrust Factor - K_t	6.40
Bowl Weight, 1st Stage – Lbs.	410	WR^2	1.90
Bowl Weight, Sq. Add. Stage-Lbs.	148	Running Position (above seat) in	5.625
Allowable Shaft Stretch – Inches	0.375	Submergence- Inches	24
Maximum Working Pressure – PSI	400	Nom. Bowl Ring Clearance-In Dia.	0.014
Maximum Hydro Pressure – PSI	800	Max Wear Ring Clearance-In Dia.	0.023
Impeller Eye Area – Sq. In.	25.90	Max Bowl O.D. – Inches	11.38
Bolts Weight 1st stage-(K.)	59.00	Bolt Bal O.D. – Inches	13.00
Add 10" per additional stage		Maximum Number of Stages	10
Discharge – Inches	8 10	Suction – Inches	8



Hailey Third Avenue Well Pump - 2010

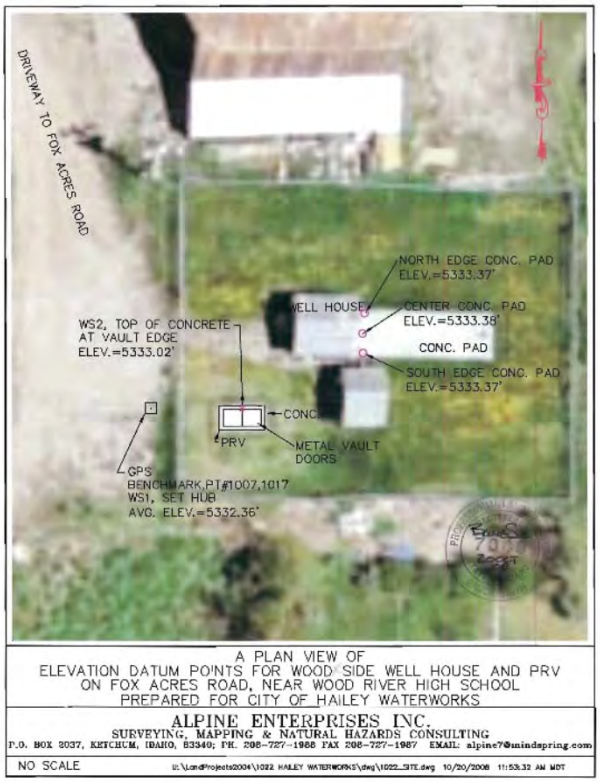
Fairbanks Morse Pump

Third Avenue Well



Woodside Well Facility

Location:	Near Wolverine Dr and Fox Acres Rd			
Latitude:	43 °		30 '	54.4 "
Longitude:	114 °		17 '	45.88 "
Ground Elevation:	5,333 ft		(approx)	
Constructed:	1974 (approx)			
Well:	**Depth**	Unknown		
	Diameter	Unknown		
Well Pump:	**hp:**	40		
	Model:	Unknown		
	VFD?:	No		
Large Booster Pump	**hp:**	100		
	Model:	Vertiline 12RL, 5-Stage, 1770 RPM, vertical turbine		
	VFD?:	Yes		
Small Booster Pump	**hp:**	7.5		
	Model:	Unknown		
	VFD?:	No		
Chlorination System?		Yes		
Chlorine Contact Chamber?:		Yes	30 min. contact time	
2013 Peak Day Flow Rate:		1270 gpm		



Woodside Well Facility

Woodside Well Facility

Woodside Small Well (no longer in use)

USE TYPEWRITER OR BALL POINT PEN

State of Idaho
Department of Water Administration

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

RECEIVED Department of Water Administration

Woodside Well (There appears to originally have been a small and a large well at Woodside. This is the small well.)

1. WELL OWNER

Name McCulloch Properties Inc.

Address Hailey Idaho.

Owner's Permit No.

2. NATURE OF WORK

☒ New well ☐ Deepened ☐ Replacement

☐ Abandoned (describe method of abandoning)

3. PROPOSED USE

☐ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type)

☒ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection

4. METHOD DRILLED

☒ Cable ☐ Rotary ☐ Dug ☐ Other

5. WELL CONSTRUCTION

Diameter of hole 6 3/8 inches Total depth 93 feet

Casing schedule: ☒ Steel ☐ Concrete

Thickness	Diameter	From	To
.277 inches	6 3/8 inches	+ 1½ feet	93 feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet
inches	inches	feet	feet

Was a packer or seal used? ☐ Yes ☒ No

Perforated? ☒ Yes ☐ No

How perforated? ☐ Factory ☒ Knife ☐ Torch

Size of perforation inches by inches

Number		From	To
100	perforations	65 feet	90 feet
	perforations	feet	feet
	perforations	feet	feet

Well screen installed? ☐ Yes ☒ No

Manufacturer's name

Type Model No.

Diameter Slot size Set from feet to feet

Diameter Slot size Set from feet to feet

Gravel packed? ☐ Yes ☐ No Size of gravel 3/8 gravel plug - 93'/104'

Placed from 93 feet to 104 feet

Surface seal depth 20 Material used in seal ☒ Cement grout ☐ Puddling clay ☐ Well cuttings

Sealing procedure used ☐ Slurry pit ☒ Temporary surface casing ☐ Overbore to seal depth

6. LOCATION OF WELL

Sketch map location must agree with written location.

N W E S

Subdivision Name Woodside

Lot No. Block No.

County Blaine Parcel CC PLAT 21

SW ¼ SE ¼ Sec. 10 T. 2 N/S, R. 18 E/W

7. WATER LEVEL

Static water level 61 feet below land surface

Flowing? ☐ Yes ☒ No G.P.M. flow

Temperature °F. Quality

Artesian closed-in pressure p.s.i.

Controlled by ☐ Valve ☐ Cap ☐ Plug

8. WELL TEST DATA

☐ Pump ☒ Bailer ☐ Other

Discharge G.P.M.	Draw Down	Hours Pumped
50	0	2

9. LITHOLOGIC LOG 033638

Hole Diam.	Depth From	Depth To	Material	Water Yes	Water No
6 3/8	0	20	Hard pan & Boulders		X
6 3/8	20	65	Hard pan, Rock Chips		X
6 3/8	65	81	gravel, Medium, Clay	X	
6 3/8	81	93	gravel, Clay, Sand	X	
6 3/8	93	104	Sand	X	

10. Work started Nov 29 finished Dec 4

11. DRILLERS CERTIFICATION

Firm Name C. W. Roessler Firm No. 19

Address Box 514-A Ketchum Idaho Date 1/31/74

Signed by (Firm Official) Carl W. Roessler

and (Operator) Carl W. Roessler

MICROFILMED

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE COPY TO THE DEPARTMENT

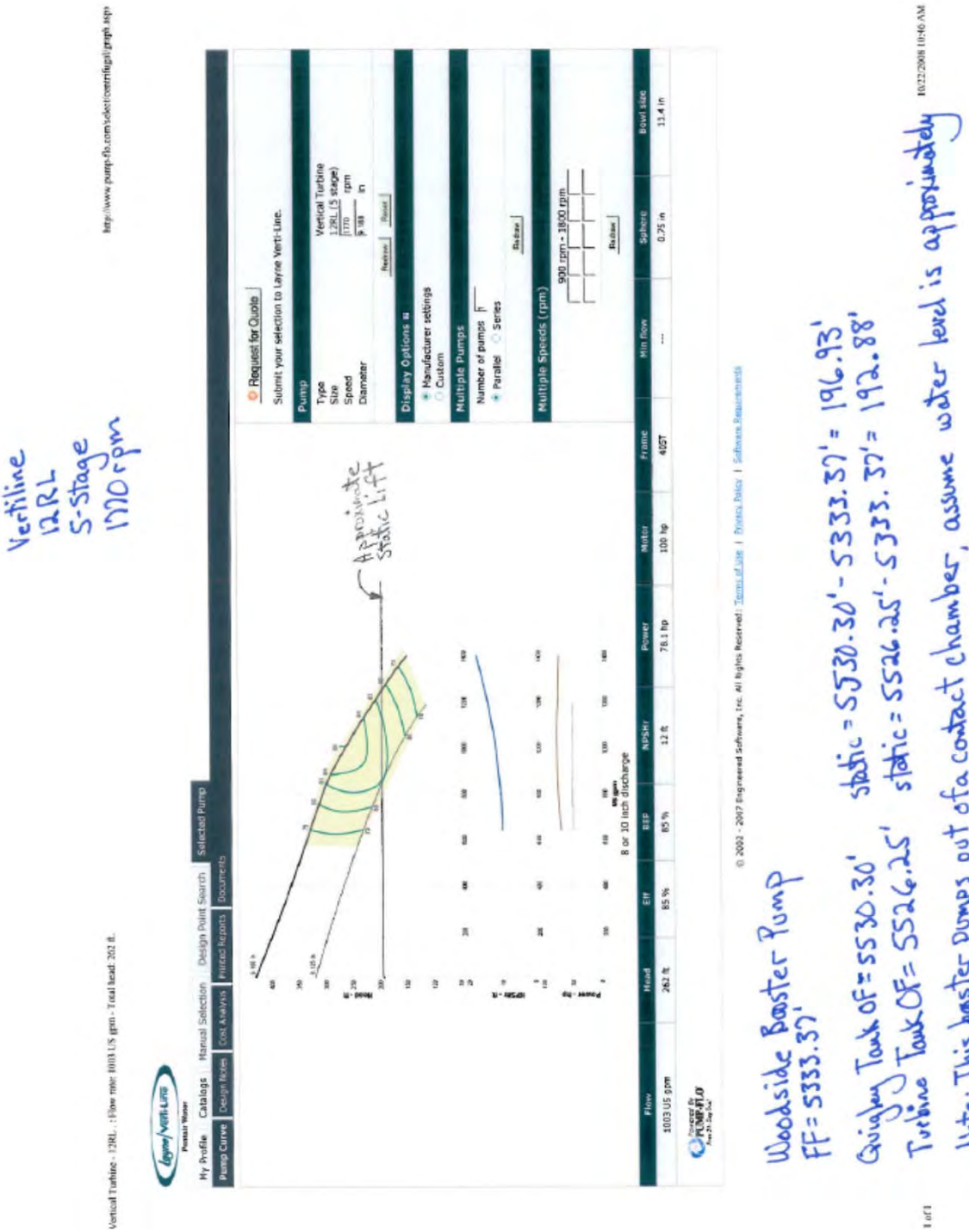
Woodside Well Facility

Woodside Well Log (currently in use)

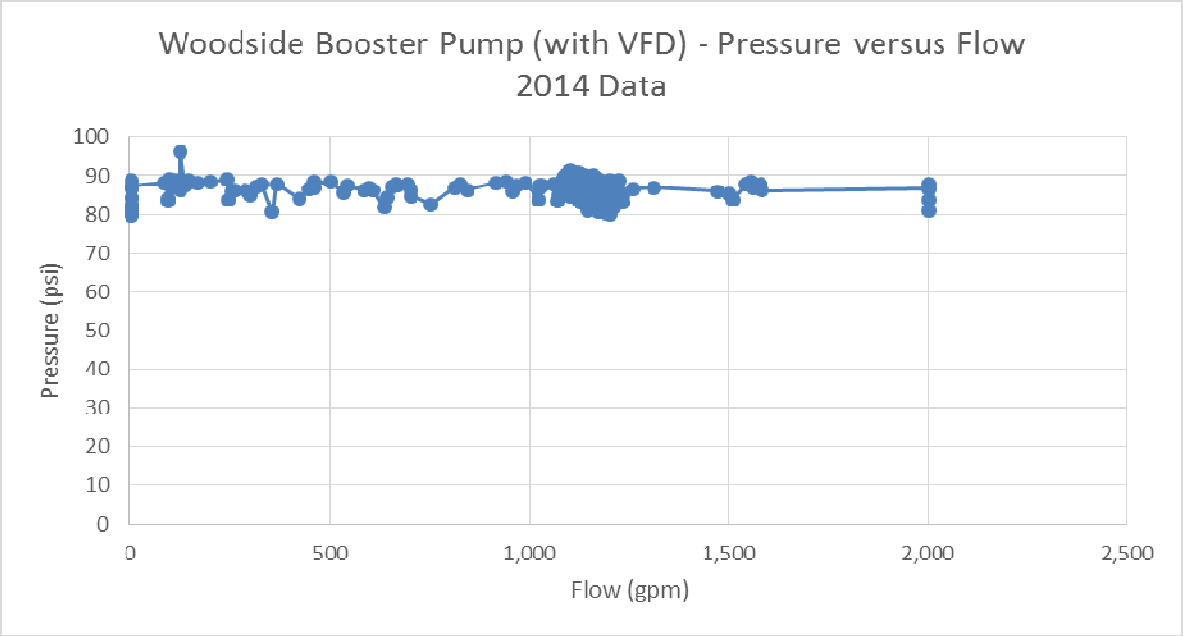
Well Log Unavailable

Woodside Well Facility

Woodside 100 hp Booster Pump Curve (with VFD)



Woodside Well Facility



Turbine Tank

Location:	End of Treaty Ln near Indian Cr Rd				**Reservoir Volume (gal):**	
Latitude:	43 °	33 '	22.97 "		Nominal:	1,000,000
Longitude:	114 °	18 '	51.13 "		Gal/ft	84,597
Constructed:	1984				Dead Storage (4" at bottom)	28,000
Overflow Elevation (NAVD88):	5526.25 ft				Total Available Volume, floor to overflow	981,325
Invert Elevation* (NAVD88):	5514.65 ft					

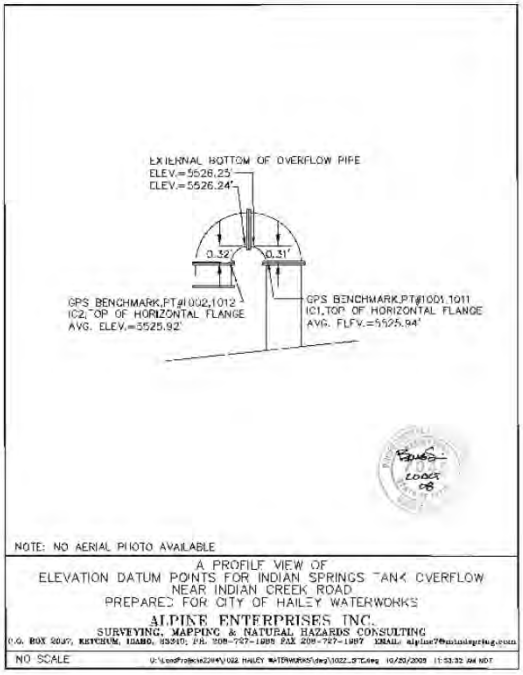
*Calculated from Plans

Avail. Sidewater Depth: 11.6 ft

Reservoir Type: Cast-in-Place Concrete

Shape: Round, 120' inside diameter, 12' wall height, roof supported by columns.

Associated Facilities: Turbine (power generation)
Gas Chlorination



Turbine Tank

Quigley Tank

Location: S.E. of Central Quigley Canyon

Latitude: 43 ° 31 ' 14.33 "

Longitude: 114 ° 16 ' 57.76 "

Constructed: 2004

Overflow Elevation (NAVD88)**:** 5530.3 ft

Invert Elevation* (NAVD88)**:** 5507.9 ft

*Calculated from Plans

Reservoir Type: Cast-in-Place Concrete, underground

Shape: Rectangular, sloping bottom, stairs and columns on interior

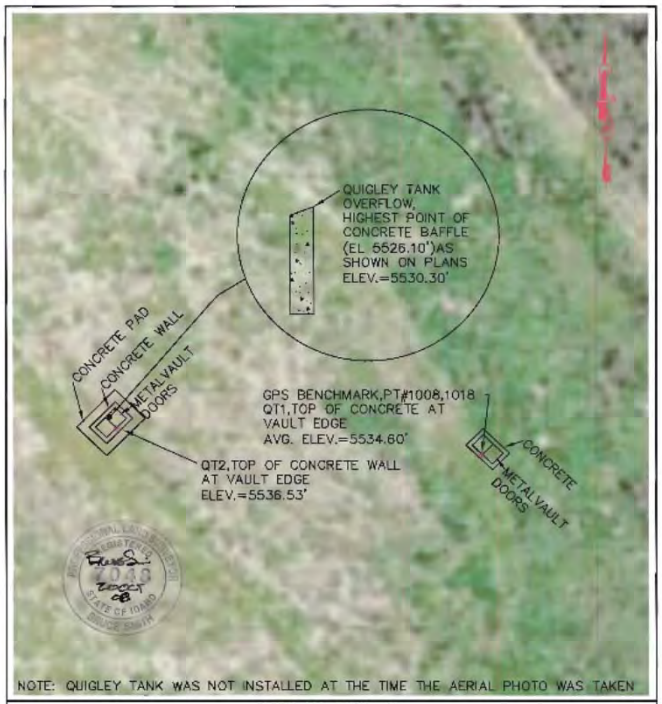
Associated Facilities: Gas Chlorination, Electrical and Controls Room

Notes/Comments:

Reservoir Rating Curve:

Depth (ft)	Water Level (ft)	Volume (gal)
0.0	22.4	2,200,400
1.0	21.4	2,083,314
2.0	20.4	1,966,229
3.0	19.4	1,849,143
4.0	18.4	1,732,058
5.0	17.4	1,614,972
6.0	16.4	1,497,887
7.0	15.4	1,380,802
8.0	14.4	1,263,643
9.0	13.4	1,146,768
10.0	12.4	1,029,894
11.0	11.4	913,019
12.0	10.4	796,145
13.0	9.4	679,270
14.0	8.4	562,395
15.0	7.4	445,521
15.1	7.3	433,833
16.0	6.4	335,620
17.0	5.4	243,458
18.0	4.4	167,656
19.0	3.4	108,403
20.0	2.4	67,147
21.0	1.4	30,962
22.0	0.4	6,976
22.4	0	340

*Dead storage is 6" on the bottom, or approximatley 1,040 gallons



A PLAN VIEW OF
ELEVATION DATUM POINTS FOR QUIGLEY TANK
ON ACCESS ROAD BEYOND FOX ACRES ROAD IN QUIGLEY CANYON
PREPARED FOR CITY OF HAILEY WATERWORKS

ALPINE ENTERPRISES INC.
SURVEYING, MAPPING & NATURAL HAZARDS CONSULTING
P.O. BOX 2037, KETCHUM, IDAHO, 83340; PH. 208-727-1988 FAX 208-727-1987 EMAIL: alpine7@mindspring.com

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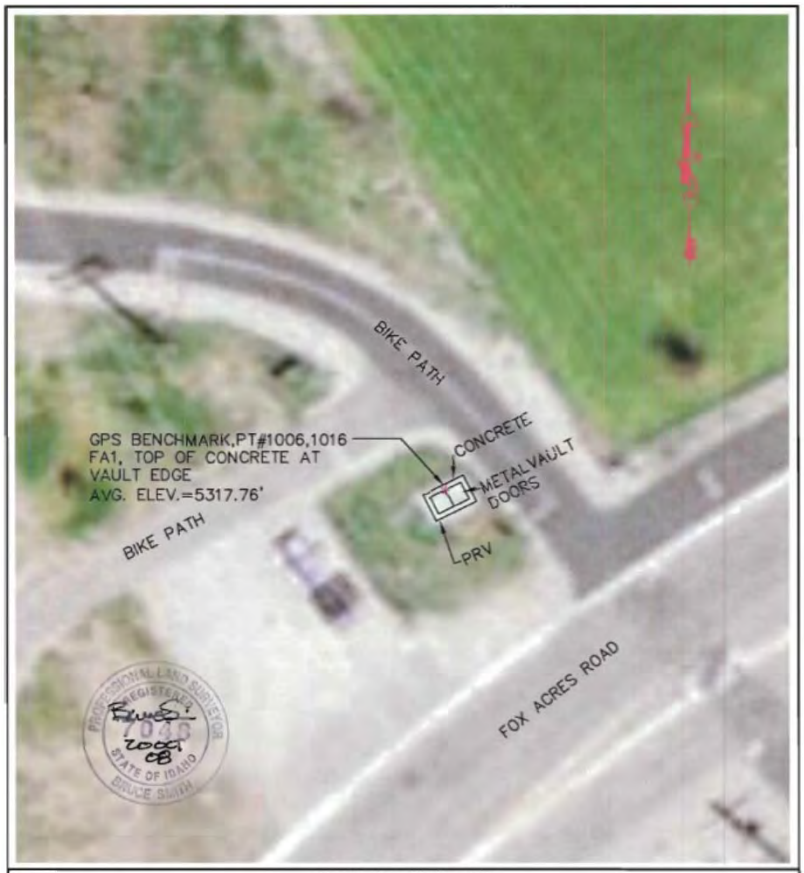
Aerial View

Quigley Tank

Fox Acres PRV

Location:	520 Fox Acres Road				
Latitude:	43	°	30	'	47.69 "
Longitude:	114	°	18	'	8.05 "
Ground Elevation (NAVD88):	5317.76	ft	(approx)		
Equipment Elevation (NAVD88):	5311.76	ft	(approx)		
Supplies:	North Woodside Pressure Zone, Nominal 5,488 ft HGL				
Constructed:	2000				
Manufacturer:	GC Systems				
Model:	Cla-Val				
Equipment Type:	Pressure Reducing Valve				
Configuration:	Parallel				
Large PRV:	Diameter:	8	in		
Small PRV:	Diameter:	3	in		



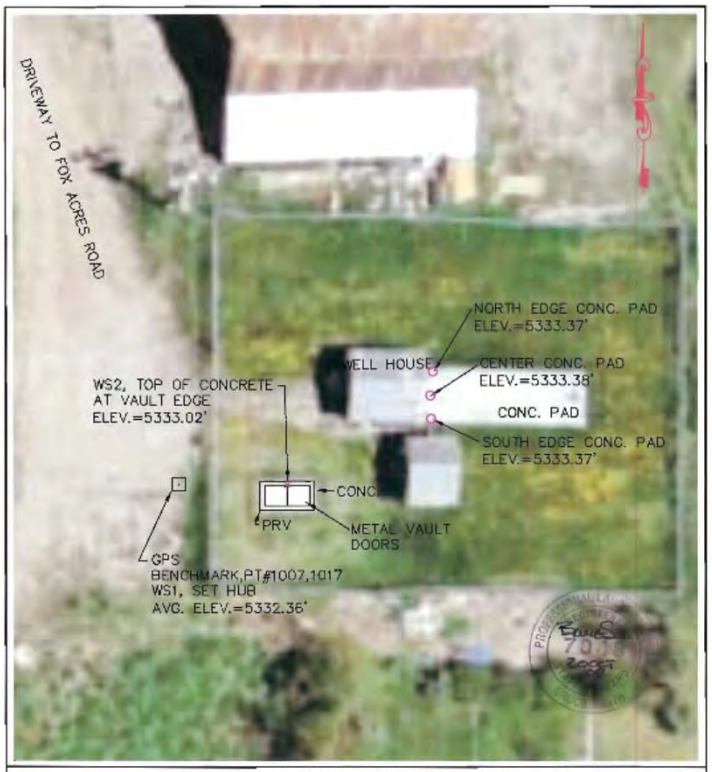
A PLAN VIEW OF
ELEVATION DATUM POINTS FOR FOX ACRES PRV
ON FOX ACRES ROAD
PREPARED FOR CITY OF HAILEY WATERWORKS

ALPINE ENTERPRISES INC.
SURVEYING, MAPPING & NATURAL HAZARDS CONSULTING
P.O. BOX 2037, KETCHUM, IDAHO, 83340; PH. 208-727-1988 FAX 208-727-1987 EMAIL: alpine7@mindspring.com

NO SCALE U:\LandProjects2004\1022 HAILEY WATERWORKS\dwg\1022_SITE.dwg 10/20/2008 11:53:32 AM MDT

Woodside PRV

Location:	Near Wolverine Dr and Fox Acres Rd		
Latitude:	43 °	30 '	47.69 "
Longitude:	114 °	18 '	8.05 "
Ground Elevation (NAVD88):	5333 ft	(approx)	
Equipment Elevation (NAVD88):	5327 ft	(approx)	
Supplies:	North Woodside Pressure Zone, Nominal 5,488 ft HGL		
Constructed:	2000		
Manufacturer:	GC Systems		
Model:	Cla-Val		
Equipment Type:	Pressure Reducing Valve		
Configuration:	Parallel		
Large PRV:	Diameter:	8 in	
Small PRV:	Diameter:	3 in	



A PLAN VIEW OF
ELEVATION DATUM POINTS FOR WOOD SIDE WELL HOUSE AND PRV
ON FOX ACRES ROAD, NEAR WOOD RIVER HIGH SCHOOL
PREPARED FOR CITY OF HAILEY WATERWORKS

ALPINE ENTERPRISES INC.
SURVEYING, MAPPING & NATURAL HAZARDS CONSULTING
P.O. BOX 2037, KETCHUM, IDAHO, 83340; PH. 208-727-1988 FAX 208-727-1987 EMAIL: alpine7@mindspring.com

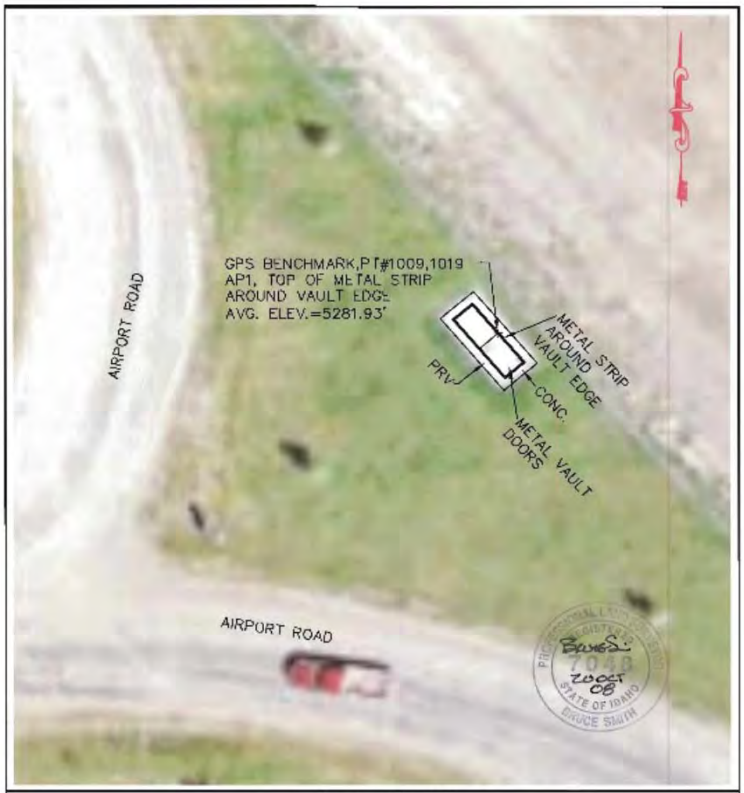
NO SCALE U:\LandProjects2004\1022 HAILEY WATERWORKS\dwg\1022_SITE.dwg 10/20/2008 11:53:32 AM MDT

Airport PRV

Location: Near Wolverine Dr and Fox Acres Rd
Latitude: 43 ° 30 ' 11.4 "
Longitude: 114 ° 17 ' 57.32 "
Ground Elevation (NAVD88)**:** 5281 ft (approx)
Equipment Elevation (NAVD88)**:** 5275 ft (approx)
Supplies: South Woodside Pressure Zone, Nominal 5,435 ft HGL
Constructed: 2000
Manufacturer: GC Systems
Model: Cla-Val
Equipment Type: Pressure Reducing Valve
Configuration: Parallel

Large PRV: Diameter: 8 in

Small PRV: Diameter: 3 in



A PLAN VIEW OF
ELEVATION DATUM POINTS AIRPORT ROAD PRV
ON AIRPORT ROAD
PREPARED FOR CITY OF HAILEY WATERWORKS

ALPINE ENTERPRISES INC.
SURVEYING, MAPPING & NATURAL HAZARDS CONSULTING
P.O. BOX 2037, KETCHUM, IDAHO, 83340; PH. 208-727-1988 FAX 208-727-1987 EMAIL: alpinev7@mindspring.com

NO SCALE U:\Land\rojects2004\1022 HAILEY WATERWORKS\dwg\1022_SITE.dwg 10/20/2008 11:53:32 AM MDT

Buttercup Regulator (not in service)

Location:	Buttercup Rd north of Indian Cr. Rd				
Latitude:	43	°	34	'	43.49 "
Longitude:	114	°	16	'	50.41 "
Ground Elevation:	5420 ft (approx)				

Notes: The Buttercup regulator has a pressure reducing valve (cla-val) that used to reduce pressure from the Turbine Tank into town. The insides of the cla-val were removed in approximately 2010. The shell of the valve is still on the piping.

A PLAN VIEW OF
ELEVATION DATUM POINTS FOR THE OLD PRESSURE REGULATING
STATION (THE REGULATOR) ON BUTTERCUP ROAD
PREPARED FOR CITY OF HAILEY WATERWORKS

ALPINE ENTERPRISES INC.
SURVEYING, MAPPING & NATURAL HAZARDS CONSULTING
P.O. BOX 2097, KETCHUM, IDAHO, 83340; PH. 208-727-1988 FAX 208-727-1987 EMAIL: alpinn7@mindspring.com

NO SCALE

Last Sanitary Survey

STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

650 Addison Avenue West, Suite 110 • Twin Falls, Idaho 83301 • (208) 736-2190
www.deq.idaho.gov

C.L. "Butch" Otter, Governor
Curt Fransen, Director

August 1, 2013

AUG 05 2013
BY:

Cole Balis
City of Hailey
115 South Main St. Suite H
Hailey, Idaho 83333

Subject: Enhanced Sanitary Survey conducted on July 23, 2013 – PWS# ID5070022

Dear Mr. Balis:

A copy of the Enhanced Sanitary Survey form, the photo log and photos for Public Water System PWS# ID5070022 are enclosed with this mailing for your records. A list of the significant deficiencies and/or recommended improvements for your system is also enclosed.

Please consult with your regulating agency regarding the significant deficiencies identified in this written notification. Upon agreement between the public water system and the regulating agency, please provide a written corrective action plan to the regulating agency that addresses all significant deficiencies. This consultation with the regulating agency shall be completed within 30 days of receiving this written notification. This request is pursuant to IDAPA 58.01.08.323 for groundwater systems and IDAPA 58.01.08.302 for surface water systems.

For all new water systems or modifications to existing water systems, an engineering report shall be submitted to the Department of Environmental Quality (DEQ) for review and approval prior to or concurrent with the submittal of plans and specifications as required in subsection 503.03, pursuant to IDAPA 58.01.08.503.

Prior to construction of new public water supply systems or modifications of existing public water supply systems, plans and specifications must be submitted to the DEQ for review, and approved, pursuant to IDAPA 58.01.08.504.

Thank you for your time and cooperation in the completion of this survey. If you have any questions, please contact Michael Brown at the IDEQ Twin Falls Regional Office at (208) 736-2190 or email at michael.brown@deq.idaho.gov.

Sincerely,

Michael Brown
Regional Drinking Water Program Coordinator

MB:jj

Enclosures (3)

Enhanced Sanitary Survey
Preliminary Inspection Findings Form

Facility Name: Hailey Water & Sewer PWS #: 5070022

Inspection Date: 7-23-13 Time Closing Conference Begins: 11:00 am Time Closing Conference Ends: 2:50 pm

Inspector: Michael Brown Phone #: 736-2190
(Print Name)

Inspector: _____
(Signature)

Facility Representative: Cole Balis E-mail: cole.balis@[illegible]
(Print Name)

Title: Water Manager Facility Representative: _____
(Signature)

Note: *Your signature indicates you have received this document and does not imply agreement with the violations noted.*

Significant Deficiencies Noted at the Time of the Inspection:
In accordance with IDAPA 58.01.08.008.02., the health hazards identified below must be mitigated as required by the Department and terminated within a time schedule established by the Department.

		Correction Time Frame
1.	No Cross Connection Control Plan	☐ 24 hours ☑ 7 days ☐ Corrective action plan within 30 days
2.	Non NSF Piping in Chlorinators	☐ 24 hours ☐ 7 days ☑ Corrective action plan within 30 days
3.	No screens on Press Vac	☐ 24 hours ☑ 7 days ☐ Corrective action plan within 30 days
4.		☐ 24 hours ☐ 7days ☐ Corrective action plan within 30 days
5.		☐ 24 hours ☐ 7 days ☐ Corrective action plan within 30 days
6.		☐ 24 hours ☐ 7 days ☐ Corrective action plan within 30 days

Potential Violations Pending Further Review:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Free Technical Assistance: Yes ☒ No ☐

- ☒ Financial: a) rate reviews b) budgeting c) finding loans and grants d) capital improvement planning
- ☒ Training: a) operator b) board/council c) asset management d) developing policies and procedures
- ☒ Technical Assistance: a) leak detection b) line location c) distribution d) treatment e) other
- ☐ System Operation: a) best practices guidance b) emergency response c) vulnerability assessment
- ☐ Source Water Protection: a) planning b) implementation

Contact Name: _____ phone #: _____

Original stays with inspector for scanning and registration into TRIM. Copy stays with Public Water System Owner/Operator.

August 1, 2013
City of Hailey
PWS#5070022

RE: Enhanced Sanitary Survey conducted on July 23, 2013

You will find a list of the significant deficiencies, deficiencies and recommended improvements for your system summarized below. In order to address all significant deficiencies, follow steps 1, 2 & 3.

Step 1:
After reviewing the significant deficiencies listed below, please call our office to identify a corrective action plan for each significant deficiency within 30 days of receiving this written notification. During that call, please be prepared to provide a "Planned Completion Date" for each item.

Step 2:
Complete the planned action(s) by the agreed upon date.

Step 3:
Enter an "Actual Completion Date", Initials, identify the "Corrective action taken", and sign that each corrective action has been corrected by the agreed upon date and that the corrective action meets the requirements pursuant to IDAPA 58.01.08. Please send a copy of the corrective action taken to the regulating agency.

Significant Deficiencies

Distribution:

Replace all non-NSF piping in Chlorinators

Planned Completion Date: Jan-17-2014

Actual Completion Date: 12/30/13, *Initials* CB.

Corrective action taken:

Cross Connection Control Plan

Planned Completion Date: Feb-14, 2014

Actual Completion Date: ~~12/30/14~~, *Initials* CB.

Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.

Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Pumping:

Screening on air release valves
Planned Completion Date: 7/30/13,

Actual Completion Date: 8/13/13, *Initials* CB.
Corrective action taken:

We put screens on all air release valves at Woodside, 3rd Ave, River St., and Northridge pumphouses.

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Managerial:

Abandon unused wells at Woodside and 411 Mckercher.
Planned Completion Date: 8/1/14,

Actual Completion Date: _____, *Initials* CB.
Corrective action taken:

I certify, to the best of my knowledge that all significant deficiencies have been corrected by the agreed upon date and that the corrective action meet the requirements pursuant to IDAPA 58.01.08.

Signature: Cory Bates **Date:** 10/17/13

August 1, 2013
City of Hailey
PWS#5070022

RE: Enhanced Sanitary Survey conducted on July 23, 2013

You will find a list of the significant deficiencies, deficiencies and recommended improvements for your system summarized below. In order to address all significant deficiencies, follow steps 1, 2 & 3.

Step 1:
After reviewing the significant deficiencies listed below, please call our office to identify a corrective action plan for each significant deficiency within 30 days of receiving this written notification. During that call, please be prepared to provide a "Planned Completion Date" for each item.

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Enter an "Actual Completion Date", Initials, identify the "Corrective action taken", and sign that each corrective action has been corrected by the agreed upon date and that the corrective action meets the requirements pursuant to IDAPA 58.01.08. Please send a copy of the corrective action taken to the regulating agency.

Significant Deficiencies

Distribution:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Pumping:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

Managerial:

Planned Completion Date: _____,

Actual Completion Date: _____, *Initials*_____.
Corrective action taken:

I certify, to the best of my knowledge that all significant deficiencies have been corrected by the agreed upon date and that the corrective action meet the requirements pursuant to IDAPA 58.01.08.

Signature: _____ **Date:** _____

Significant Deficiencies

General Information:

#4: Modifications: (Note: If modifications have been made since the last sanitary survey, check with a DEQ engineer to ensure compliance.)

- The system may not have received plan and specification approval pursuant to IDAPA 58.01.08.504.
- The modifications of the PWS are not in conformance with the facility and design standards pursuant to IDAPA 58.01.08.500 through 552.
- A Preliminary Engineering Report has not been submitted to DEQ in accordance with IDAPA 58.01.08.503.

For all new water systems or material modifications to existing water systems, a preliminary engineering report shall be submitted to the Department for review and approval, or other reviewing authority in the case of water main extensions, prior to the submittal of plans and specifications as required in Subsection 504.03. Preliminary engineering reports are not required for minor or routine distribution system projects designed under a facility plan.

Groundwater Source:

#4: (***Deficiency***) 3rd Street Well is not on a separate lot, as required by IDAPA 58.01.08.512., but meets all of the minimum setback requirements pursuant to IDAPA 58.01.08.900.01. The setback requirements from the well will be reevaluated every time an ESS is conducted. **(No action required at this time)**

Distribution:

#15: Construction materials that are coming in contact with drinking water at the Woodside Chlorinator do not comply with applicable AWWA standards and/or are not certified by an accredited ANSI certification body to meet ANSI/NSF Standard 53, or 61, as required by IDAPA 58.01.08.501.01. (see photos # 2,4,6,7,10,12,14,15)

#15: Construction materials that are coming in contact with drinking water at the Quigley Canyon Chlorinator do not comply with applicable AWWA standards and/or are not certified by an accredited ANSI certification body to meet ANSI/NSF Standard 53, or 61, as required by IDAPA 58.01.08.501.01. (see photos # 2,4)

#15: Construction materials that are coming in contact with drinking water at the 3rd Street Chlorinator do not comply with applicable AWWA standards and/or are not certified by an accredited ANSI certification body to meet ANSI/NSF Standard 53, or 61, as required by IDAPA 58.01.08.501.01. (see photos # 6 &7)

#15: Construction materials that are coming in contact with drinking water at the River Street Chlorinator do not comply with applicable AWWA standards and/or are not certified by an accredited ANSI certification body to meet ANSI/NSF Standard 53, or 61, as required by IDAPA 58.01.08.501.01. (see photos #10)

#15: Construction materials that are coming in contact with drinking water at the Riverside Chlorinator do not comply with applicable AWWA standards and/or are not certified by an accredited ANSI certification body to meet ANSI/NSF Standard 53, or 61, as required by IDAPA 58.01.08.501.01. (see photos #14 &15)

#16: The system is not adequately protected from freezing, as required by IDAPA 58.01.08.542.02.f.

#17: There is no cross connection control program for the PWS, as required by IDAPA 58.01.08.552.06.

Pumping:

#7: The air release-vacuum relief valve at Wooodside is not placed with exhaust/relief piping terminating in a down-turned position at least 18 inches above the floor and covered with a 24 mesh corrosion resistant screen, as required by IDAPA 58.01.08.511.02.d. (see photos #1&3)

#7: The air release-vacuum relief valve at 3rd Street is not placed with exhaust/relief piping terminating in a down-turned position at least 18 inches above the floor and covered with a 24 mesh corrosion resistant screen, as required by IDAPA 58.01.08.511.02.d. (see photo#9)

#7: The air release-vacuum relief valve at River Street is not placed with exhaust/relief piping terminating in a down-turned position at least 18 inches above the floor and covered with a 24 mesh corrosion resistant screen, as required by IDAPA 58.01.08.511.02.d. (see photos #11)

#7: The air release-vacuum relief valves at Northridge are not placed with exhaust/relief piping terminating in a down-turned position at least 18 inches above the floor and covered with a 24 mesh corrosion resistant screen, as required by IDAPA 58.01.08.511.02.d. (see photos #12)

#10: (***Deficiency***) - There is no auxiliary power on-site for pump, as required by IDAPA 58.01.08.501.07. According to the operator, the power outages experienced by the system are of minimal frequency and duration and the free-flow from Indian Springs, auxiliary power will not be required. The need for auxiliary power on-site will be reevaluated every time an ESS is conducted. **(No action required at this time)**

Managerial:

#32: The Public Water System has water supply wells at Woodside and 411 McKercher that are no longer being used that need to be abandoned, as required by IDAPA 58.01.08.510.09. Any water supply well that will no longer be used must be abandoned by sealing the borehole carefully to prevent pollution of the ground water, eliminate any physical hazard, conserve aquifer yield, maintain confined head conditions in artesian wells, and prevent mixing of waters from different aquifers. The objective of proper well abandonment procedures is to restore, as far as possible, the original hydrogeologic conditions. The services of a licensed well driller are required. Instructions for abandoning various types of wells may be obtained from the Idaho Department of Water Resources. Rules of the Idaho Water Resources Board are available at www.adm.idaho.gov/adminrules/rules/idapa37/37index.htm

Idaho Department of Water Resources
Idaho Water Center
322 E. Front St.
P.O. Box 83720
Boise, Idaho 83720-0098
Telephone (208) 287-4800.

This system will be in substantial compliance with regulations if the significant deficiencies of this survey are corrected. Thank you for your time and cooperation in the completion of this survey. If you have any questions, please contact Michael Brown at the IDEQ Twin Falls Regional Office at (208)-736-2190 or email at michael.brown@deq.idaho.gov

Sincerely,

Michael Brown
Regional Drinking Water Program Coordinator
Idaho Department of Environmental Quality

State of Idaho Public Water System Enhanced Sanitary Survey

WATER SYSTEM INVENTORY INFORMATION

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

Name of Public Water System: **City of Hailey**

# of Groundwater Sources: 7

# of Storage Facilities: 4

#of Surface Water Sources: 0

Total Storage (gal): 5.5 Million

Date of Last Survey: 07/08/2008

Health District: ☑ N/A

DEQ Region: ☐ N/A TFRO

County: Blaine

Number of Service Connections: 3292

Residential Population: 7960

Status: ☑ Approved ☐ Disapproved

Water Purchased From: ☑ N/A PWS #: Name:

Water Sold To: ☑ N/A PWS : Name

Owner Type: Local Gov't

Legal Entity: Gov't Agency

Water System Classification: ☑ Community Water System ☐ Nontransient Noncommunity ☐ Transient Noncommunity - NC

Combined Sources? ☑ Yes ☐ No If yes, ☑ Well Field ☑ Manifold/Spring Box Sources Combined:

System Classification: Distribution: Distribution II Treatment: ☑ N/A

Seasonal Operation Dates: ☑ N/A Date Open: Date Closed

Responsible Charge Operator (DO): ☐ No DO ☐ N/A - Identify Operator for GW-NC PWS

☑ Mr. ☐ Ms. Marvin C Balis

Properly Licensed? ☑ Yes ☐ No ☐ N/A-GW-NC

License Type: DWD2 ☐ N/A

License Number: DWD2-16420

Mailing Address: 115 S. Main St. Suite H

City, State, Zip Code: Hailey, ID 83333

Telephone Day: (208) 578-2211 Cell: (208) 720-1245

E-mail:

Fax:

Legal Owner's Name: ☑ Mr. ☐ Ms. City of Hailey

Mailing Address: 115 S. Main St. Suite H

City, State, Zip Code: Hailey, ID 83333

Telephone Day: (208) 788-4221 Night Fax:

E-mail:

Substitute Responsible Charge Operator (OP): ☐ No OP ☐ N/A for GW-NC PWS

☑ Mr. ☐ Ms. Kelly West

Properly Licensed? ☑ Yes ☐ No ☐ N/A-GW-NC

License Type: DWD3 ☐ N/A

License Number: DWD3-18299

Mailing Address: 115 S. Main St. Suite H

City, State, Zip Code: Hailey, ID 83333

Telephone Day: (208) 578-2211 Night:

E-mail:

Fax:

Individuals present during inspection:

Name	Title
Kelly West	Designated operator
Marvin C Balis	operator
Michael Brown	TFRO

Physical location of the PWS (Township, Range, Section):

Samples taken at the time of survey by inspector? ☐ Yes ☑ No

If yes, what:

Survey performed by:

Name: Michael Brown

Title: Regional Drinking Water Coordinator

Phone #: (208) 736-2190

Agency: ☑ IDEQ ☐ Health Dept. ☐ Other

yes	no	n/a	unk	note	General Information
☑	☐	☐	☐	☐	1. Have previously required Significant Deficiencies & Deficiencies been addressed?
☑	☐	☐	☐	☑	2. Have modifications been made to the PWS since the last ESS?
☑	☐	☐	☐	☐	3. If yes, are the modifications considered to be significant?
☐	☑	☐	☐	☐	4. If yes, were plans and specs submitted to and approved by DEQ?
☐	☑	☐	☐	☐	5. Are there any known issues or problems with equipment or operation of the PWS that could negatively effect the quality of the water produced? (*If yes, comment*)

Comments:

#2 Chlorinator at Quigly Canyon has been modified

Sanitary Survey Index

Modules used:	#
☑ General Information	1
☑ Groundwater Source	7
☑ Storage	4
☐ Hydropneumatic Tanks	
☑ Distribution	1
☑ Pumping	1
☑ Financial Capacity	1
☑ Managerial Capacity	1
☑ Treatment Application	5
☑ Disinfection	5
☐ Notes	
☑ Photo Log	1
Total Modules	27

GROUNDWATER SOURCE - PG.1

A separate sources form must be filled out for **each** groundwater source in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

Tag #: [redacted] E0007819

Common Name of Source: North Ridge A Well

Source: [redacted]
☑ Well → ☐ Manifold
☐ Spring → ☐ Spring Box

Is this Source Treated? ☑ Yes ☐ No

Treatment Objective: ☐ N/A

Physical Location: [redacted] 100 Centennial Dr.

Disinfection Treatment Types: ☐ N/A
(Identify Treatment Train in Comments)

Is there a well log for the groundwater source? ☑ Yes ☐ No ☐ N/A ☐ Unk

Pump Capacity (GPM)	Casing Size (In)	Date Drilled:	Well Depth (Ft)	Casing Depth (Ft)	Grout Depth(Ft)	Static Water Depth (Ft)
☐ Unk	☐ Unk	☐ Unk	☐ Unk	☐ Unk	☐ Unk	☐ Unk
1000	14	☐ N/A ☐ Unk	220	188	80	16 ☐ N/A

Is the Casing Screened?	Screen Depth (Ft):	Is the Casing Perforated?	Perforation Depth (Ft):
☐ Yes ☑ No ☐ Unk ☐ N/A	From: To:	☐ Yes ☑ No ☐ Unk ☐ N/A	From: To: ☐ Unk

Latitude (Decimal): 43.513715

Longitude (Decimal): 114.31152

All Sources

1. This source is:
   ☐ Active ☐ Proposed
   ☐ Inactive ☐ Emergency (<60 days per year)

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	2. Has there been a Source Water Assessment conducted for the source? Date: **12/1/2000**
☑	☐	☐	☐	☐	3. Has a final GWUDI determination been done for this source? Date: **10/15/1999**

☐ N/A 4-36 if source is a spring

WELL INFORMATION

yes	no	n/a	unk	note	
☑	☐		☐	☐	4. Is the well on a separate lot that is large enough to provide a minimum distance of 50 feet between the well and the nearest property line? (applicable if constructed after 11/1/77)
☐ Significant	☐ Deficiency				

Are the following minimum distances from the PWS well being met?

☑	☐		☐	☐	5. - Gravity sewer line.....50 Ft.
☑	☐		☐	☐	6. - Pressure sewer line.....100 Ft.
☑	☐		☐	☐	7. - Individual home septic tank.....100 Ft.
☑	☐		☐	☐	8. - Individual home disposal field.....100 Ft.
☑	☐		☐	☐	9. - Individual home seepage pit.....100 Ft.
☑	☐		☐	☐	10. - Privies.....100 Ft.
☑	☐		☐	☐	11. - Livestock.....50 Ft.
☑	☐		☐	☐	12. - Canals, streams, ditches, lakes, ponds and tanks used to store nonpotable substances.....50 Ft.
☐	☑		☐	☐	13. Are pesticides, herbicides, fertilizers, portable containers of petroleum products, or other toxic or hazardous materials stored on the well lot?
☐	☑		☐	☐	14. Are pesticides, herbicides, or fertilizers applied to the well lot?
☐	☑		☐	☐	15. Is the well in a pit? If yes, Date constructed:
☐	☐	☑	☐	☐	16. Was the well that is located in a pit installed after 11/5/64?
☐	☐	☑	☐	☐	17. If pit was installed prior to 11/5/64 – Has DEQ granted an exception and does the pit have water tight construction of pit walls and floor, a floor drain and an acceptable pit cover?

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	18 Is the well protected from unauthorized entry? *(Recommended)*
☑	☐	☐	☐	☐	19. Does the casing extend a minimum of 18 inches above the final ground surface and/ or 12 inches above the pump house floor?
☐ Significant	☐ Deficiency				
☑	☐	☐	☐	☐	20. Is the well vented with the open end of the vent screened and terminated downward at least 18 inches above the final ground surface?
☑	☐		☐	☐	21. Is the well provided with a sanitary cap that prevents surface water entry?
☑	☐		☐	☐	22. Is the well cased and sealed in such a manner that surface water cannot enter the well?

COMMENTS:
(Please indicate question number)

GROUNDWATER SOURCES - PG. 2

Common Name	SURVEY DATE		PWS #
North Ridge A Well	7/23/20013	(mm/dd/yyyy)	5070022

yes	no	n/a	unk	note	WELL INFORMATION (cont.)
☑	☐	☐	☐	☐	23. Is there a smooth nosed sample tap provided on the well discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☑	☐	☐	☐	☐	24. Is an instantaneous and totalizing flow meter equipped with nonvolatile memory installed on the pump distribution line of the well and is it maintained and working properly? **400779000** gallons ☐ Unnecessary
☑	☐	☐	☐	☐	25. Is a pressure gauge provided at all installations and is it maintained and working properly? **78** psi.
☑	☐	☐	☐	☐	26. Can the well be pumped to waste at the design capacity of the well via an approved air gap at a location prior to the first service connection?

yes	no	n/a	unk	note	PUMP HOUSE *(Any structure containing important water system components)*
☐	☑	☐	☐	☐	27. Is the source located in a pump house?
☑	☐	☐	☐	☐	28. Is the pump house kept clean and in good repair? *(Floor cracks?)*
☑	☐	☐	☐	☐	29. Is the pump house protected from unauthorized personnel?
☑	☐	☐	☐	☐	30. Does the pump house have adequate lighting throughout? *(Recommended)*
☑	☐	☐	☐	☐	31. Are all non-sample taps installed in the pump house equipped with an appropriate backflow prevention device?
☑	☐	☐	☐	☐	32. Is adequate ventilation provided in the pump house for dissipation of excess heat and moisture from the equipment? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	33. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment to prevent freezing? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	34. Is the pump house protected from flooding, have adequate drainage, is the floor surface at least six (6) inches above the final ground surface, and is the ground surface graded so as to lead surface water away from the pump house?
☐	☑	☐	☐	☐	35. Is the sump for pump house floor drains closer than 30 feet from the well?
☐	☑	☐	☐	☐	36. Is the floor drain connected to sewer, storm drains, chlorination room drains, or any other source of contamination?

yes	no	n/a	unk	note	SPRING INFORMATION
☐	☐	☑	☐	☐	37. Is the entire area within a one hundred (100) foot radius of the spring box fenced to prevent trespassing of livestock and void of buildings, dwellings and sources of contamination?
☐	☐	☑	☐	☐	38. Is surface water diverted from the 100 foot protection zone around the spring?
☐	☐	☑	☐	☐	39. Is the spring housed in a permanent structure and protected from contamination including the entry of surface water, animals and dust?
☐	☐	☑	☐	☐	40. Is there a smooth nosed sample tap provided on the spring discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☐	☐	☑	☐	☐	41. Is a flow meter or other flow measuring device provided?

yes	no	n/a	unk	note	SPRING BOX INFORMATION *(Not all existing springs have a spring box)*
☐	☐	☑	☐	☐	42. Is the spring box equipped with a screened overflow?
☐	☐	☑	☐	☐	43. Is the supply intake located above the floor of the collection chamber?
☐	☐	☑	☐	☐	44. Is the spring box protected from contamination including the entry of surface water, animals, and dust?
☐	☐	☑	☐	☐	45. Is the access port fitted with a solid water tight cover which overlaps a framed opening and extended down around the frame at least 2 inches?
☐	☐	☑	☐	☐	46. Is the access port a framed opening that is at least 4 inches high with a locking device?
☐	☐	☑	☐	☐	47. Is the access port elevated at least twenty-four (24) inches above the top of the box or ground level, whichever is higher?

COMMENTS:
(Please indicate question number)

GROUNDWATER SOURCE - PG.1

A separate sources form must be filled out for **each** groundwater source in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

Tag #: [redacted] E0007820

Common Name of Source: North Ridge B Well

Source: [redacted]
- [x] Well → [ ] Manifold
- [ ] Spring → [ ] Spring Box

Is this Source Treated? [x] Yes [ ] No

Treatment Objective: [ ] N/A

Disinfection

Treatment Types: [ ] N/A

(Identify Treatment Train in Comments)

Physical Location: [redacted]
100 Centennial Dr.

Is there a well log for the groundwater source? [x] Yes [ ] No [ ] N/A [ ] Unk

Pump Capacity (GPM)	Casing Size (In)	Date Drilled:	Well Depth (Ft)	Casing Depth (Ft)	Grout Depth(Ft)	Static Water Depth (Ft)
[ ] Unk	[ ] Unk	[ ] Unk	[ ] Unk	[ ] Unk	[ ] Unk	[ ] Unk
400	14	[ ] N/A [ ] Unk				[ ] N/A

Is the Casing Screened?	Screen Depth (Ft):	Is the Casing Perforated?	Perforation Depth (Ft):
[ ] Yes [x] No [ ] Unk [ ] N/A	From: To:	[ ] Yes [x] No [ ] Unk [ ] N/A	From: [ ] Unk To:

Latitude (Decimal): 43.530078

Longitude (Decimal): 114.322731

All Sources

1. This source is:
   - [ ] Active [ ] Proposed
   - [ ] Inactive [ ] Emergency (<60 days per year)

yes	no	n/a	unk	note	
[x]	[ ]	[ ]	[ ]	[ ]	2. Has there been a Source Water Assessment conducted for the source? Date: **12/1/2000**
[x]	[ ]	[ ]	[ ]	[ ]	3. Has a final GWUDI determination been done for this source? Date: **10/15/1999**

[ ] N/A 4-36 if source is a spring

WELL INFORMATION

yes	no	n/a	unk	note	
[x]	[ ]		[ ]	[ ]	4. Is the well on a separate lot that is large enough to provide a minimum distance of 50 feet between the well and the nearest property line? (applicable if constructed after 11/1/77)
[ ] Significant	[ ] Deficiency				
					Are the following minimum distances from the PWS well being met?
[x]	[ ]		[ ]	[ ]	5. - Gravity sewer line.....50 Ft.
[x]	[ ]		[ ]	[ ]	6. - Pressure sewer line.....100 Ft.
[x]	[ ]		[ ]	[ ]	7. - Individual home septic tank.....100 Ft.
[x]	[ ]		[ ]	[ ]	8. - Individual home disposal field.....100 Ft.
[x]	[ ]		[ ]	[ ]	9. - Individual home seepage pit.....100 Ft.
[x]	[ ]		[ ]	[ ]	10. - Privies.....100 Ft.
[x]	[ ]		[ ]	[ ]	11. - Livestock.....50 Ft.
[x]	[ ]		[ ]	[ ]	12. - Canals, streams, ditches, lakes, ponds and tanks used to store nonpotable substances.....50 Ft.
[ ]	[x]		[ ]	[ ]	13. Are pesticides, herbicides, fertilizers, portable containers of petroleum products, or other toxic or hazardous materials stored on the well lot?
[ ]	[x]		[ ]	[ ]	14. Are pesticides, herbicides, or fertilizers applied to the well lot?
[ ]	[x]		[ ]	[ ]	15. Is the well in a pit? If yes, Date constructed:
[ ]	[ ]	[x]	[ ]	[ ]	16. Was the well that is located in a pit installed after 11/5/64?
[ ]	[ ]	[x]	[ ]	[ ]	17. If pit was installed prior to 11/5/64 – Has DEQ granted an exception and does the pit have water tight construction of pit walls and floor, a floor drain and an acceptable pit cover?

yes	no	n/a	unk	note	
[x]	[ ]	[ ]	[ ]	[ ]	18 Is the well protected from unauthorized entry? *(Recommended)*
[x]	[ ]	[ ]	[ ]	[ ]	19. Does the casing extend a minimum of 18 inches above the final ground surface and/ or 12 inches above the pump house floor?
[ ] Significant	[ ] Deficiency				
[x]	[ ]	[ ]	[ ]	[ ]	20. Is the well vented with the open end of the vent screened and terminated downward at least 18 inches above the final ground surface?
[x]	[ ]		[ ]	[ ]	21. Is the well provided with a sanitary cap that prevents surface water entry?
[x]	[ ]		[ ]	[ ]	22. Is the well cased and sealed in such a manner that surface water cannot enter the well?

COMMENTS:
(Please indicate question number)

GROUNDWATER SOURCES - PG. 2	Common Name	SURVEY DATE	PWS #
	North Ridge B Well	7/23/20013 (mm/dd/yyyy)	5070022

COMMENTS:
(Please indicate question number)

yes	no	n/a	unk	note	WELL INFORMATION (cont.)
☑	☐	☐	☐	☐	23. Is there a smooth nosed sample tap provided on the well discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☑	☐	☐	☐	☐ ☐ Unnecessary	24. Is an instantaneous and totalizing flow meter equipped with nonvolatile memory installed on the pump distribution line of the well and is it maintained and working properly? 400779000 gallons
☑	☐	☐	☐	☐	25. Is a pressure gauge provided at all installations and is it maintained and working properly? 78 psi.
☑	☐	☐	☐	☐	26. Can the well be pumped to waste at the design capacity of the well via an approved air gap at a location prior to the first service connection?

yes	no	n/a	unk	note	PUMP HOUSE *(Any structure containing important water system components)*
☐	☑	☐	☐	☐	27. Is the source located in a pump house?
☑	☐	☐	☐	☐	28. Is the pump house kept clean and in good repair? *(Floor cracks?)*
☑	☐	☐	☐	☐	29. Is the pump house protected from unauthorized personnel?
☑	☐	☐	☐	☐	30. Does the pump house have adequate lighting throughout? *(Recommended)*
☑	☐	☐	☐	☐	31. Are all non-sample taps installed in the pump house equipped with an appropriate backflow prevention device?
☑	☐	☐	☐	☐ ☐ Significant ☐ Deficiency	32. Is adequate ventilation provided in the pump house for dissipation of excess heat and moisture from the equipment?
☑	☐	☐	☐	☐ ☐ Significant ☐ Deficiency	33. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment to prevent freezing?
☑	☐	☐	☐	☐	34. Is the pump house protected from flooding, have adequate drainage, is the floor surface at least six (6) inches above the final ground surface, and is the ground surface graded so as to lead surface water away from the pump house?
☐	☑	☐	☐	☐	35. Is the sump for pump house floor drains closer than 30 feet from the well?
☐	☑	☐	☐	☐	36. Is the floor drain connected to sewer, storm drains, chlorination room drains, or any other source of contamination?

yes	no	n/a	unk	note	SPRING INFORMATION
☐	☐	☑	☐	☐	37. Is the entire area within a one hundred (100) foot radius of the spring box fenced to prevent trespassing of livestock and void of buildings, dwellings and sources of contamination?
☐	☐	☑	☐	☐	38. Is surface water diverted from the 100 foot protection zone around the spring?
☐	☐	☑	☐	☐	39. Is the spring housed in a permanent structure and protected from contamination including the entry of surface water, animals and dust?
☐	☐	☑	☐	☐	40. Is there a smooth nosed sample tap provided on the spring discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☐	☐	☑	☐	☐	41. Is a flow meter or other flow measuring device provided?

yes	no	n/a	unk	note	SPRING BOX INFORMATION *(Not all existing springs have a spring box)*
☐	☐	☑	☐	☐	42. Is the spring box equipped with a screened overflow?
☐	☐	☑	☐	☐	43. Is the supply intake located above the floor of the collection chamber?
☐	☐	☑	☐	☐	44. Is the spring box protected from contamination including the entry of surface water, animals, and dust?
☐	☐	☑	☐	☐	45. Is the access port fitted with a solid water tight cover which overlaps a framed opening and extended down around the frame at least 2 inches?
☐	☐	☑	☐	☐	46. Is the access port a framed opening that is at least 4 inches high with a locking device?
☐	☐	☑	☐	☐	47. Is the access port elevated at least twenty-four (24) inches above the top of the box or ground level, whichever is higher?

GROUNDWATER SOURCE - PG.1

A separate sources form must be filled out for **each** groundwater source in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

Tag #: [redacted] E0007821	Common Name of Source: North Ridge C Well	Source: [redacted] ☑ Well → ☐ Manifold ☐ Spring → ☐ Spring Box	Is this Source Treated? ☐ Yes ☐ No
Physical Location: [redacted] 100 Centennial Dr.			Treatment Objective: ☐ N/A
			Disinfection Treatment Types: ☐ N/A (Identify Treatment Train in Comments)

Is there a well log for the groundwater source? ☑ Yes ☐ No ☐ N/A ☐ Unk

Pump Capacity (GPM)	Casing Size (In)	Date Drilled:	Well Depth (Ft)	Casing Depth (Ft)	Grout Depth(Ft)	Static Water Depth (Ft)
☐ Unk 500	☐ Unk 8	☐ Unk ☐ N/A ☐ Unk	☐ Unk 200	☐ Unk 200	☐ Unk 90	☐ Unk 16 ☐ N/A

Is the Casing Screened?	Screen Depth (Ft):	Is the Casing Perforated?	Perforation Depth (Ft):
☐ Yes ☑ No ☐ Unk ☐ N/A	From: To:	☐ Yes ☑ No ☐ Unk ☐ N/A	From: ☐ Unk To:

Latitude (Decimal): 43.530744

Longitude (Decimal): 114.321214

All Sources

1. This source is: ☑ Active ☐ Proposed ☐ Inactive ☐ Emergency (<60 days per year)

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	2. Has there been a Source Water Assessment conducted for the source? Date: 12/1/2000
☑	☐	☐	☐	☐	3. Has a final GWUDI determination been done for this source? Date: 10/15/1999

☐ N/A 4-36 if source is a spring

WELL INFORMATION

yes	no	n/a	unk	note	
☑	☐		☐	☐	4. Is the well on a separate lot that is large enough to provide a minimum distance of 50 feet between the well and the nearest property line? (applicable if constructed after 11/1/77) ☐ Significant ☐ Deficiency

Are the following minimum distances from the PWS well being met?

☑	☐		☐	☐	5. - Gravity sewer line.....50 Ft.
☑	☐		☐	☐	6. - Pressure sewer line.....100 Ft.
☑	☐		☐	☐	7. - Individual home septic tank.....100 Ft.
☑	☐		☐	☐	8. - Individual home disposal field.....100 Ft.
☑	☐		☐	☐	9. - Individual home seepage pit.....100 Ft.
☑	☐		☐	☐	10. - Privies.....100 Ft.
☑	☐		☐	☐	11. - Livestock.....50 Ft.
☑	☐		☐	☐	12. - Canals, streams, ditches, lakes, ponds and tanks used to store nonpotable substances.....50 Ft.
☐	☑		☐	☐	13. Are pesticides, herbicides, fertilizers, portable containers of petroleum products, or other toxic or hazardous materials stored on the well lot?
☐	☑		☐	☐	14. Are pesticides, herbicides, or fertilizers applied to the well lot?
☐	☑		☐	☐	15. Is the well in a pit? If yes, Date constructed:
☐	☐	☑	☐	☐	16. Was the well that is located in a pit installed after 11/5/64?
☐	☐	☑	☐	☐	17. If pit was installed prior to 11/5/64 – Has DEQ granted an exception and does the pit have water tight construction of pit walls and floor, a floor drain and an acceptable pit cover?

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	18 Is the well protected from unauthorized entry? *(Recommended)*
☑	☐	☐	☐	☐	19. Does the casing extend a minimum of 18 inches above the final ground surface and/ or 12 inches above the pump house floor? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	20. Is the well vented with the open end of the vent screened and terminated downward at least 18 inches above the final ground surface?
☑	☐		☐	☐	21. Is the well provided with a sanitary cap that prevents surface water entry?
☑	☐		☐	☐	22. Is the well cased and sealed in such a manner that surface water cannot enter the well?

COMMENTS:
(Please indicate question number)

GROUNDWATER SOURCES - PG. 2	Common Name	SURVEY DATE		PWS #
	North Ridge C Well	7/23/20013	(mm/dd/yyyy)	5070022

yes	no	n/a	unk	note	WELL INFORMATION (cont.)
☑	☐	☐	☐	☐	23. Is there a smooth nosed sample tap provided on the well discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☑	☐	☐	☐	☐	24. Is an instantaneous and totalizing flow meter equipped with nonvolatile memory installed on the pump distribution line of the well and is it maintained and working properly? **101468000** gallons ☐ Unnecessary
☑	☐	☐	☐	☐	25. Is a pressure gauge provided at all installations and is it maintained and working properly? **78** psi.
☑	☐	☐	☐	☐	26. Can the well be pumped to waste at the design capacity of the well via an approved air gap at a location prior to the first service connection?

yes	no	n/a	unk	note	PUMP HOUSE *(Any structure containing important water system components)*
☐	☑	☐	☐	☐	27. Is the source located in a pump house?
☑	☐	☐	☐	☐	28. Is the pump house kept clean and in good repair? *(Floor cracks?)*
☑	☐	☐	☐	☐	29. Is the pump house protected from unauthorized personnel?
☑	☐	☐	☐	☐	30. Does the pump house have adequate lighting throughout? *(Recommended)*
☑	☐	☐	☐	☐	31. Are all non-sample taps installed in the pump house equipped with an appropriate backflow prevention device?
☑	☐	☐	☐	☐	32. Is adequate ventilation provided in the pump house for dissipation of excess heat and moisture from the equipment? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	33. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment to prevent freezing? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	34. Is the pump house protected from flooding, have adequate drainage, is the floor surface at least six (6) inches above the final ground surface, and is the ground surface graded so as to lead surface water away from the pump house?
☐	☑	☐	☐	☐	35. Is the sump for pump house floor drains closer than 30 feet from the well?
☐	☑	☐	☐	☐	36. Is the floor drain connected to sewer, storm drains, chlorination room drains, or any other source of contamination?

yes	no	n/a	unk	note	SPRING INFORMATION
☐	☐	☑	☐	☐	37. Is the entire area within a one hundred (100) foot radius of the spring box fenced to prevent trespassing of livestock and void of buildings, dwellings and sources of contamination?
☐	☐	☑	☐	☐	38. Is surface water diverted from the 100 foot protection zone around the spring?
☐	☐	☑	☐	☐	39. Is the spring housed in a permanent structure and protected from contamination including the entry of surface water, animals and dust?
☐	☐	☑	☐	☐	40. Is there a smooth nosed sample tap provided on the spring discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☐	☐	☑	☐	☐	41. Is a flow meter or other flow measuring device provided?

yes	no	n/a	unk	note	SPRING BOX INFORMATION *(Not all existing springs have a spring box)*
☐	☐	☑	☐	☐	42. Is the spring box equipped with a screened overflow?
☐	☐	☑	☐	☐	43. Is the supply intake located above the floor of the collection chamber?
☐	☐	☑	☐	☐	44. Is the spring box protected from contamination including the entry of surface water, animals, and dust?
☐	☐	☑	☐	☐	45. Is the access port fitted with a solid water tight cover which overlaps a framed opening and extended down around the frame at least 2 inches?
☐	☐	☑	☐	☐	46. Is the access port a framed opening that is at least 4 inches high with a locking device?
☐	☐	☑	☐	☐	47. Is the access port elevated at least twenty-four (24) inches above the top of the box or ground level, whichever is higher?

COMMENTS:
(Please indicate question number)

GROUNDWATER SOURCES - PG. 2

Common Name	SURVEY DATE		PWS #
River St. Well	7/23/20013	(mm/dd/yyyy)	5070022

yes	no	n/a	unk	note	WELL INFORMATION (cont.)
☑	☐	☐	☐	☐	23. Is there a smooth nosed sample tap provided on the well discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☑	☐	☐	☐	☐	24. Is an instantaneous and totalizing flow meter equipped with nonvolatile memory installed on the pump distribution line of the well and is it maintained and working properly? **92579580** gallons ☐ Unnecessary
☑	☐	☐	☐	☐	25. Is a pressure gauge provided at all installations and is it maintained and working properly? **81** psi.
☑	☐	☐	☐	☐	26. Can the well be pumped to waste at the design capacity of the well via an approved air gap at a location prior to the first service connection?

yes	no	n/a	unk	note	PUMP HOUSE *(Any structure containing important water system components)*
☑	☐	☐	☐	☐	27. Is the source located in a pump house?
☑	☐	☐	☐	☐	28. Is the pump house kept clean and in good repair? *(Floor cracks?)*
☑	☐	☐	☐	☐	29. Is the pump house protected from unauthorized personnel?
☑	☐	☐	☐	☐	30. Does the pump house have adequate lighting throughout? *(Recommended)*
☑	☐	☐	☐	☐	31. Are all non-sample taps installed in the pump house equipped with an appropriate backflow prevention device?
☑	☐	☐	☐	☐	32. Is adequate ventilation provided in the pump house for dissipation of excess heat and moisture from the equipment? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	33. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment to prevent freezing? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	34. Is the pump house protected from flooding, have adequate drainage, is the floor surface at least six (6) inches above the final ground surface, and is the ground surface graded so as to lead surface water away from the pump house?
☐	☐	☐	☐	☐	35. Is the sump for pump house floor drains closer than 30 feet from the well?
☐	☐	☐	☐	☐	36. Is the floor drain connected to sewer, storm drains, chlorination room drains, or any other source of contamination?

yes	no	n/a	unk	note	SPRING INFORMATION
☐	☐	☑	☐	☐	37. Is the entire area within a one hundred (100) foot radius of the spring box fenced to prevent trespassing of livestock and void of buildings, dwellings and sources of contamination?
☐	☐	☑	☐	☐	38. Is surface water diverted from the 100 foot protection zone around the spring?
☐	☐	☑	☐	☐	39. Is the spring housed in a permanent structure and protected from contamination including the entry of surface water, animals and dust?
☐	☐	☑	☐	☐	40. Is there a smooth nosed sample tap provided on the spring discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☐	☐	☑	☐	☐	41. Is a flow meter or other flow measuring device provided?

yes	no	n/a	unk	note	SPRING BOX INFORMATION *(Not all existing springs have a spring box)*
☐	☐	☑	☐	☐	42. Is the spring box equipped with a screened overflow?
☐	☐	☑	☐	☐	43. Is the supply intake located above the floor of the collection chamber?
☐	☐	☑	☐	☐	44. Is the spring box protected from contamination including the entry of surface water, animals, and dust?
☐	☐	☑	☐	☐	45. Is the access port fitted with a solid water tight cover which overlaps a framed opening and extended down around the frame at least 2 inches?
☐	☐	☑	☐	☐	46. Is the access port a framed opening that is at least 4 inches high with a locking device?
☐	☐	☑	☐	☐	47. Is the access port elevated at least twenty-four (24) inches above the top of the box or ground level, whichever is higher?

COMMENTS:
(Please indicate question number)

GROUNDWATER SOURCE - PG.1

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

A separate sources form must be filled out for **each** groundwater source in the PWS.

Tag #: [redacted] A0004265	Common Name of Source: Woodside Well	Source: [redacted] ☑ Well → ☐ Manifold ☐ Spring → ☐ Spring Box	Is this Source Treated? ☑ Yes ☐ No
Physical Location: [redacted] Woodside (North of city)			Treatment Objective: ☐ N/A
			Disinfection Treatment Types: ☐ N/A *(Identify Treatment Train in Comments)*

Is there a well log for the groundwater source? ☑ Yes ☐ No ☐ N/A ☐ Unk

Pump Capacity (GPM)	Casing Size (In)	Date Drilled:	Well Depth (Ft)	Casing Depth (Ft)	Grout Depth(Ft)	Static Water Depth (Ft)
☐ Unk 1000	☐ Unk 8	☐ Unk ☐ N/A ☐ Unk	☐ Unk 200	☐ Unk 100	☐ Unk 80	☐ Unk ☐ N/A

Is the Casing Screened?	Screen Depth (Ft):	Is the Casing Perforated?	Perforation Depth (Ft):
☐ Yes ☑ No ☐ Unk ☐ N/A	From: To:	☐ Yes ☐ No ☐ Unk ☐ N/A	From: ☐ Unk To:

Latitude (Decimal): 43.513715

Longitude (Decimal): 114.31152

All Sources

1. This source is: ☑ Active ☐ Proposed ☐ Inactive ☐ Emergency (<60 days per year)

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	2. Has there been a Source Water Assessment conducted for the source? Date: 12/1/2000
☑	☐	☐	☐	☐	3. Has a final GWUDI determination been done for this source? Date: 6/7/1995

☐ N/A 4-36 if source is a spring

WELL INFORMATION

yes	no	n/a	unk	note	
☑	☐		☐	☐	4. Is the well on a separate lot that is large enough to provide a minimum distance of 50 feet between the well and the nearest property line? (applicable if constructed after 11/1/77) ☐ Significant ☐ Deficiency

Are the following minimum distances from the PWS well being met?

☑	☐		☐	☐	5. - Gravity sewer line.....50 Ft.
☑	☐		☐	☐	6. - Pressure sewer line.....100 Ft.
☑	☐		☐	☐	7. - Individual home septic tank.....100 Ft.
☑	☐		☐	☐	8. - Individual home disposal field.....100 Ft.
☑	☐		☐	☐	9. - Individual home seepage pit.....100 Ft.
☑	☐		☐	☐	10. - Privies.....100 Ft.
☑	☐		☐	☐	11. - Livestock.....50 Ft.
☑	☐		☐	☐	12. - Canals, streams, ditches, lakes, ponds and tanks used to store nonpotable substances.....50 Ft.
☐	☑		☐	☐	13. Are pesticides, herbicides, fertilizers, portable containers of petroleum products, or other toxic or hazardous materials stored on the well lot?
☐	☑		☐	☐	14. Are pesticides, herbicides, or fertilizers applied to the well lot?
☐	☑		☐	☐	15. Is the well in a pit? If yes, Date constructed:
☐	☐	☑	☐	☐	16. Was the well that is located in a pit installed after 11/5/64?
☐	☐	☑	☐	☐	17. If pit was installed prior to 11/5/64 – Has DEQ granted an exception and does the pit have water tight construction of pit walls and floor, a floor drain and an acceptable pit cover?

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	18 Is the well protected from unauthorized entry? *(Recommended)*
☑	☐	☐	☐	☐	19. Does the casing extend a minimum of 18 inches above the final ground surface and/ or 12 inches above the pump house floor? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	20. Is the well vented with the open end of the vent screened and terminated downward at least 18 inches above the final ground surface?
☑	☐		☐	☐	21. Is the well provided with a sanitary cap that prevents surface water entry?
☑	☐		☐	☐	22. Is the well cased and sealed in such a manner that surface water cannot enter the well?

COMMENTS:
(Please indicate question number)

GROUNDWATER SOURCES - PG. 2	Common Name	SURVEY DATE		PWS #
	Woodside Well	7/23/20013	(mm/dd/yyyy)	5070022

COMMENTS:
(Please indicate question number)

WELL INFORMATION (cont.)

yes	no	n/a	unk	note		
☑	☐	☐	☐	☐		23. Is there a smooth nosed sample tap provided on the well discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☑	☐	☐	☐	☐	☐ Unnecessary	24. Is an instantaneous and totalizing flow meter equipped with nonvolatile memory installed on the pump distribution line of the well and is it maintained and working properly? **898385000** gallons
☑	☐	☐	☐	☐		25. Is a pressure gauge provided at all installations and is it maintained and working properly? **83** psi.
☑	☐	☐	☐	☐		26. Can the well be pumped to waste at the design capacity of the well via an approved air gap at a location prior to the first service connection?

PUMP HOUSE *(Any structure containing important water system components)*

yes	no	n/a	unk	note		
☐	☑	☐	☐	☐		27. Is the source located in a pump house?
☑	☐	☐	☐	☐		28. Is the pump house kept clean and in good repair? *(Floor cracks?)*
☑	☐	☐	☐	☐		29. Is the pump house protected from unauthorized personnel?
☑	☐	☐	☐	☐		30. Does the pump house have adequate lighting throughout? *(Recommended)*
☑	☐	☐	☐	☐		31. Are all non-sample taps installed in the pump house equipped with an appropriate backflow prevention device?
☑	☐	☐	☐	☐	☐ Significant ☐ Deficiency	32. Is adequate ventilation provided in the pump house for dissipation of excess heat and moisture from the equipment?
☑	☐	☐	☐	☐	☐ Significant ☐ Deficiency	33. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment to prevent freezing?
☑	☐	☐	☐	☐		34. Is the pump house protected from flooding, have adequate drainage, is the floor surface at least six (6) inches above the final ground surface, and is the ground surface graded so as to lead surface water away from the pump house?
☐	☑	☐	☐	☐		35. Is the sump for pump house floor drains closer than 30 feet from the well?
☐	☑	☐	☐	☐		36. Is the floor drain connected to sewer, storm drains, chlorination room drains, or any other source of contamination?

SPRING INFORMATION

yes	no	n/a	unk	note		
☐	☐	☑	☐	☐		37. Is the entire area within a one hundred (100) foot radius of the spring box fenced to prevent trespassing of livestock and void of buildings, dwellings and sources of contamination?
☐	☐	☑	☐	☐		38. Is surface water diverted from the 100 foot protection zone around the spring?
☐	☐	☑	☐	☐		39. Is the spring housed in a permanent structure and protected from contamination including the entry of surface water, animals and dust?
☐	☐	☑	☐	☐		40. Is there a smooth nosed sample tap provided on the spring discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☐	☐	☑	☐	☐		41. Is a flow meter or other flow measuring device provided?

SPRING BOX INFORMATION *(Not all existing springs have a spring box)*

yes	no	n/a	unk	note		
☐	☐	☑	☐	☐		42. Is the spring box equipped with a screened overflow?
☐	☐	☑	☐	☐		43. Is the supply intake located above the floor of the collection chamber?
☐	☐	☑	☐	☐		44. Is the spring box protected from contamination including the entry of surface water, animals, and dust?
☐	☐	☑	☐	☐		45. Is the access port fitted with a solid water tight cover which overlaps a framed opening and extended down around the frame at least 2 inches?
☐	☐	☑	☐	☐		46. Is the access port a framed opening that is at least 4 inches high with a locking device?
☐	☐	☑	☐	☐		47. Is the access port elevated at least twenty-four (24) inches above the top of the box or ground level, whichever is higher?

GROUNDWATER SOURCE - PG.1

A separate sources form must be filled out for **each** groundwater source in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

Tag #: [redacted] E0006995

Common Name of Source: Indian Springs

Source: [redacted]
- ☐ Well → ☐ Manifold
- ☑ Spring → ☑ Spring Box

Is this Source Treated? ☐ Yes ☐ No

Treatment Objective: ☐ N/A

Disinfection

Treatment Types: ☐ N/A

(Identify Treatment Train in Comments)

Physical Location: [redacted]
7 Miles East of Hailey

Is there a well log for the groundwater source? ☐ Yes ☐ No ☑ N/A ☐ Unk

Pump Capacity (GPM)	Casing Size (In)	Date Drilled:	Well Depth (Ft)	Casing Depth (Ft)	Grout Depth(Ft)	Static Water Depth (Ft)
☐ Unk 1300	☐ Unk	☐ Unk ☐ N/A ☐ Unk	☐ Unk	☐ Unk	☐ Unk	☑ Unk ☐ N/A

Is the Casing Screened?	Screen Depth (Ft):	Is the Casing Perforated?	Perforation Depth (Ft):
☐ Yes ☐ No ☐ Unk ☑ N/A	From: To:	☐ Yes ☐ No ☐ Unk ☑ N/A	From: ☐ Unk To:

Latitude (Decimal): 43.521892

Longitude (Decimal): 114.319139

All Sources

1. This source is:
   - ☑ Active ☐ Proposed
   - ☐ Inactive ☐ Emergency (<60 days per year)

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	2. Has there been a Source Water Assessment conducted for the source? Date: 12/1/2000
☐	☐	☑	☐	☐	3. Has a final GWUDI determination been done for this source? Date: 10/18/1995

☐ N/A 4-36 if source is a spring

WELL INFORMATION

yes	no	n/a	unk	note	
☑	☐		☐	☐	4. Is the well on a separate lot that is large enough to provide a minimum distance of 50 feet between the well and the nearest property line? (applicable if constructed after 11/1/77)
☐ Significant	☐ Deficiency				

Are the following minimum distances from the PWS well being met?

☑	☐		☐	☐	5. - Gravity sewer line.....50 Ft.
☑	☐		☐	☐	6. - Pressure sewer line.....100 Ft.
☑	☐		☐	☐	7. - Individual home septic tank.....100 Ft.
☑	☐		☐	☐	8. - Individual home disposal field.....100 Ft.
☑	☐		☐	☐	9. - Individual home seepage pit.....100 Ft.
☑	☐		☐	☐	10. - Privies.....100 Ft.
☑	☐		☐	☐	11. - Livestock.....50 Ft.
☑	☐		☐	☐	12. - Canals, streams, ditches, lakes, ponds and tanks used to store nonpotable substances.....50 Ft.
☐	☑		☐	☐	13. Are pesticides, herbicides, fertilizers, portable containers of petroleum products, or other toxic or hazardous materials stored on the well lot?
☐	☑		☐	☐	14. Are pesticides, herbicides, or fertilizers applied to the well lot?
☐	☑		☐	☐	15. Is the well in a pit? If yes, Date constructed:
☐	☐	☑	☐	☐	16. Was the well that is located in a pit installed after 11/5/64?
☐	☐	☑	☐	☐	17. If pit was installed prior to 11/5/64 – Has DEQ granted an exception and does the pit have water tight construction of pit walls and floor, a floor drain and an acceptable pit cover?

yes	no	n/a	unk	note	
☐	☐	☑	☐	☐	18 Is the well protected from unauthorized entry? *(Recommended)*
☐	☐	☑	☐	☐	19. Does the casing extend a minimum of 18 inches above the final ground surface and/ or 12 inches above the pump house floor?
☐ Significant	☐ Deficiency				
☐	☐	☑	☐	☐	20. Is the well vented with the open end of the vent screened and terminated downward at least 18 inches above the final ground surface?
☑	☐		☐	☐	21. Is the well provided with a sanitary cap that prevents surface water entry?
☑	☐		☐	☐	22. Is the well cased and sealed in such a manner that surface water cannot enter the well?

COMMENTS:
(Please indicate question number)

#4: Please control a minimum 50 foot distance around the well from parking.

GROUNDWATER SOURCES - PG. 2	Common Name: Indian Springs	SURVEY DATE: 7/23/20013 (mm/dd/yyyy)	PWS #: 5070022

yes	no	n/a	unk	note	WELL INFORMATION (cont.)
☐	☐	☑	☐	☐	23. Is there a smooth nosed sample tap provided on the well discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☑	☐	☐	☐	☐	24. Is an instantaneous and totalizing flow meter equipped with nonvolatile memory installed on the pump distribution line of the well and is it maintained and working properly? [ ] gallons ☐ Unnecessary
☐	☐	☑	☐	☐	25. Is a pressure gauge provided at all installations and is it maintained and working properly? [ ] psi.
☐	☐	☑	☐	☐	26. Can the well be pumped to waste at the design capacity of the well via an approved air gap at a location prior to the first service connection?

yes	no	n/a	unk	note	PUMP HOUSE *(Any structure containing important water system components)*
☑	☐	☐	☐	☐	27. Is the source located in a pump house?
☑	☐	☐	☐	☐	28. Is the pump house kept clean and in good repair? *(Floor cracks?)*
☑	☐	☐	☐	☐	29. Is the pump house protected from unauthorized personnel?
☑	☐	☐	☐	☐	30. Does the pump house have adequate lighting throughout? *(Recommended)*
☐	☐	☑	☐	☐	31. Are all non-sample taps installed in the pump house equipped with an appropriate backflow prevention device?
☑	☐	☐	☐	☐	32. Is adequate ventilation provided in the pump house for dissipation of excess heat and moisture from the equipment? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	33. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment to prevent freezing? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	34. Is the pump house protected from flooding, have adequate drainage, is the floor surface at least six (6) inches above the final ground surface, and is the ground surface graded so as to lead surface water away from the pump house?
☐	☑	☐	☐	☐	35. Is the sump for pump house floor drains closer than 30 feet from the well?
☐	☑	☐	☐	☐	36. Is the floor drain connected to sewer, storm drains, chlorination room drains, or any other source of contamination?

yes	no	n/a	unk	note	SPRING INFORMATION
☑	☐	☐	☐	☐	37. Is the entire area within a one hundred (100) foot radius of the spring box fenced to prevent trespassing of livestock and void of buildings, dwellings and sources of contamination?
☑	☐	☐	☐	☐	38. Is surface water diverted from the 100 foot protection zone around the spring?
☑	☐	☐	☐	☐	39. Is the spring housed in a permanent structure and protected from contamination including the entry of surface water, animals and dust?
☑	☐	☐	☐	☐	40. Is there a smooth nosed sample tap provided on the spring discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)
☑	☐	☐	☐	☐	41. Is a flow meter or other flow measuring device provided?

yes	no	n/a	unk	note	SPRING BOX INFORMATION *(Not all existing springs have a spring box)*
☑	☐	☐	☐	☐	42. Is the spring box equipped with a screened overflow?
☑	☐	☐	☐	☐	43. Is the supply intake located above the floor of the collection chamber?
☑	☐	☐	☐	☐	44. Is the spring box protected from contamination including the entry of surface water, animals, and dust?
☑	☐	☐	☐	☐	45. Is the access port fitted with a solid water tight cover which overlaps a framed opening and extended down around the frame at least 2 inches?
☑	☐	☐	☐	☐	46. Is the access port a framed opening that is at least 4 inches high with a locking device?
☑	☐	☐	☐	☐	47. Is the access port elevated at least twenty-four (24) inches above the top of the box or ground level, whichever is higher?

COMMENTS:
(Please indicate question number)

GROUNDWATER SOURCE - PG.1

A separate sources form must be filled out for **each** groundwater source in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

Tag #: [redacted] A0004267

Common Name of Source: 3rd Ave. Well

Source: [redacted]
☑ Well → ☐ Manifold
☐ Spring → ☐ Spring Box

Is this Source Treated? ☐ Yes ☐ No

Treatment Objective: ☐ N/A

Disinfection Treatment Types: ☐ N/A
(Identify Treatment Train in Comments)

Physical Location: [redacted]
3rd. Ave. (South of Hailey Fire Dept.)

Is there a well log for the groundwater source? ☑ Yes ☐ No ☐ N/A ☐ Unk

Pump Capacity (GPM)	Casing Size (In)	Date Drilled:	Well Depth (Ft)	Casing Depth (Ft)	Grout Depth(Ft)	Static Water Depth (Ft)
☐ Unk	☐ Unk	☐ Unk	☐ Unk	☐ Unk	☐ Unk	☑ Unk
1500	12	☐ N/A ☐ Unk	200	100	100	☐ N/A

Is the Casing Screened?	Screen Depth (Ft):	Is the Casing Perforated?	Perforation Depth (Ft):
☐ Yes ☑ No ☐ Unk ☐ N/A	From: To:	☐ Yes ☐ No ☑ Unk ☐ N/A	From: To: ☐ Unk

Latitude (Decimal): 43.515336

Longitude (Decimal): 114.307756

All Sources

1. This source is:
   ☑ Active ☐ Proposed
   ☐ Inactive ☐ Emergency (<60 days per year)

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	2. Has there been a Source Water Assessment conducted for the source? Date: 12/1/2000
☑	☐	☐	☐	☐	3. Has a final GWUDI determination been done for this source? Date: 6/7/1995

☐ N/A 4-36 if source is a spring

WELL INFORMATION

yes	no	n/a	unk	note	
☐	☑		☐	☑	4. Is the well on a separate lot that is large enough to provide a minimum distance of 50 feet between the well and the nearest property line? (applicable if constructed after 11/1/77)
☐ Significant	☐ Deficiency				

Are the following minimum distances from the PWS well being met?

☑	☐		☐	☐	5. - Gravity sewer line.....50 Ft.
☑	☐		☐	☐	6. - Pressure sewer line.....100 Ft.
☑	☐		☐	☐	7. - Individual home septic tank.....100 Ft.
☑	☐		☐	☐	8. - Individual home disposal field.....100 Ft.
☑	☐		☐	☐	9. - Individual home seepage pit.....100 Ft.
☑	☐		☐	☐	10. - Privies.....100 Ft.
☑	☐		☐	☐	11. - Livestock.....50 Ft.
☑	☐		☐	☐	12. - Canals, streams, ditches, lakes, ponds and tanks used to store nonpotable substances.....50 Ft.
☐	☑		☐	☐	13. Are pesticides, herbicides, fertilizers, portable containers of petroleum products, or other toxic or hazardous materials stored on the well lot?
☐	☑		☐	☐	14. Are pesticides, herbicides, or fertilizers applied to the well lot?
☐	☑		☐	☐	15. Is the well in a pit? If yes, Date constructed:
☐	☐	☑	☐	☐	16. Was the well that is located in a pit installed after 11/5/64?
☐	☐	☑	☐	☐	17. If pit was installed prior to 11/5/64 – Has DEQ granted an exception and does the pit have water tight construction of pit walls and floor, a floor drain and an acceptable pit cover?

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	18 Is the well protected from unauthorized entry? *(Recommended)*
☑	☐	☐	☐	☐	19. Does the casing extend a minimum of 18 inches above the final ground surface and/ or 12 inches above the pump house floor?
☐ Significant	☐ Deficiency				
☑	☐	☐	☐	☐	20. Is the well vented with the open end of the vent screened and terminated downward at least 18 inches above the final ground surface?
☑	☐		☐	☐	21. Is the well provided with a sanitary cap that prevents surface water entry?
☑	☐		☐	☐	22. Is the well cased and sealed in such a manner that surface water cannot enter the well?

COMMENTS:
(Please indicate question number)

#4: Please control a minimum 50 foot distance around the well from parking.

GROUNDWATER SOURCES - PG. 2

Common Name	SURVEY DATE		PWS #
3rd Ave. Well	7/23/20013	(mm/dd/yyyy)	5070022

yes	no	n/a	unk	note		
					WELL INFORMATION (cont.)	
☑	☐	☐	☐	☐	23. Is there a smooth nosed sample tap provided on the well discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)	
☑	☐	☐	☐	☐	24. Is an instantaneous and totalizing flow meter equipped with nonvolatile memory installed on the pump distribution line of the well and is it maintained and working properly? 7571527000 gallons	☐ Unnecessary
☑	☐	☐	☐	☐	25. Is a pressure gauge provided at all installations and is it maintained and working properly? 81 psi.	
☑	☐	☐	☐	☐	26. Can the well be pumped to waste at the design capacity of the well via an approved air gap at a location prior to the first service connection?	
yes	no	n/a	unk	note	**PUMP HOUSE** *(Any structure containing important water system components)*	
☑	☐	☐	☐	☐	27. Is the source located in a pump house?	
☑	☐	☐	☐	☐	28. Is the pump house kept clean and in good repair? *(Floor cracks?)*	
☑	☐	☐	☐	☐	29. Is the pump house protected from unauthorized personnel?	
☑	☐	☐	☐	☐	30. Does the pump house have adequate lighting throughout? *(Recommended)*	
☑	☐	☐	☐	☐	31. Are all non-sample taps installed in the pump house equipped with an appropriate backflow prevention device?	
☑	☐	☐	☐	☐	32. Is adequate ventilation provided in the pump house for dissipation of excess heat and moisture from the equipment?	☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	33. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment to prevent freezing?	☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	34. Is the pump house protected from flooding, have adequate drainage, is the floor surface at least six (6) inches above the final ground surface, and is the ground surface graded so as to lead surface water away from the pump house?	
☐	☑	☐	☐	☐	35. Is the sump for pump house floor drains closer than 30 feet from the well?	
☐	☑	☐	☐	☐	36. Is the floor drain connected to sewer, storm drains, chlorination room drains, or any other source of contamination?	
yes	no	n/a	unk	note	**SPRING INFORMATION**	
☐	☐	☑	☐	☐	37. Is the entire area within a one hundred (100) foot radius of the spring box fenced to prevent trespassing of livestock and void of buildings, dwellings and sources of contamination?	
☐	☐	☑	☐	☐	38. Is surface water diverted from the 100 foot protection zone around the spring?	
☐	☐	☑	☐	☐	39. Is the spring housed in a permanent structure and protected from contamination including the entry of surface water, animals and dust?	
☐	☐	☑	☐	☐	40. Is there a smooth nosed sample tap provided on the spring discharge pipe prior to treatment? (Threaded tap is approved with backflow preventer)	
☐	☐	☑	☐	☐	41. Is a flow meter or other flow measuring device provided?	
yes	no	n/a	unk	note	**SPRING BOX INFORMATION** *(Not all existing springs have a spring box)*	
☐	☐	☑	☐	☐	42. Is the spring box equipped with a screened overflow?	
☐	☐	☑	☐	☐	43. Is the supply intake located above the floor of the collection chamber?	
☐	☐	☑	☐	☐	44. Is the spring box protected from contamination including the entry of surface water, animals, and dust?	
☐	☐	☑	☐	☐	45. Is the access port fitted with a solid water tight cover which overlaps a framed opening and extended down around the frame at least 2 inches?	
☐	☐	☑	☐	☐	46. Is the access port a framed opening that is at least 4 inches high with a locking device?	
☐	☐	☑	☐	☐	47. Is the access port elevated at least twenty-four (24) inches above the top of the box or ground level, whichever is higher?	

COMMENTS:
(Please indicate question number)

STORAGE

A separate storage form must be filled out for **each** storage unit in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy) | PWS #: 5070022

Storage Structure Name: Northridge Storage	Storage Structure ID #:	COMMENTS: (Please indicate question number)
Physical Location: Northridge Wells A,B,C	Date in service: ☐ Unk 1996	#4 overflow equiped with a duck bill check valve
	Volume (gal): ☐ Unk 2,100,000	

Storage Type:	Construction: ☐ Elevated	Type of material:	
☑ Reservoir/Tank	☐ Above Ground	☐ Plastic	☐ Wood
☐ Standpipe	☐ Partially Below Ground	☐ Fiberglass	☐ Metal
	☑ Below Ground	☑ Concrete	☐ Naturally Contained

Total Days Supply (This structure):	Date Last: Inspected:	Cleaned:
1 ☐ Unk	☐ Unk Fall 2012	☐ Unk Fall 2012

How is the water level measured? ☐ Unk
Scada

yes	no	n/a	unk	note	ALL STORAGE STRUCTURES
☑	☐	☐	☐	☐	1. Is the storage structure safely accessible to the inspector?
☐	☑	☐	☐	☐	2. Is the PWS storage tank located within 500 feet of any municipal or Industrial wastewater treatment plant or any land which is spray irrigated with wastewater or used for sludge disposal?
☐	☑	☐	☐	☐	3. Are any of the storage structure drains directly connected to a sewer or storm drain?
☑	☐	☐	☐	☐	4. Is an overflow provided that discharges to daylight in a way that will preclude the possibility of backflow to the reservoir and, where practical, provided with an expanded metal screen installed within the pipe that will exclude rodents and deter vandalism?
☑	☐	☐	☐	☐	5. Are overflows brought down to an elevation between 12 and 24 inches above the ground surface? *(2X the diameter of the discharge pipe above a basin rim)*
☑	☐	☐	☐	☐	6. Do overflows discharge over a drainage inlet structure or splash plate?(storm or sanitary)
☑	☐	☐	☐	☐	7. Is the storage structure secure from unauthorized access?
☑	☐	☐	☐	☐	8. Does the storage reservoir have a watertight roof or cover and is it sloped to facilitate drainage?
☑	☐	☐	☐	☐	9. Is the storage water protected from contamination?
☑	☐	☐	☐	☐	10. Is the storage structure structurally sound?
☐	☑	☐	☐	☐	11. Could vegetation in the area potentially impact the storage structure?*(Recommended)*
☑	☐	☐	☐	☐	12. Is the storage structure designed so that it can be isolated from the distribution system without necessitating loss of pressure in the distribution system?
☐	☑	☐	☐	☐	13. Is leakage evident at time of inspection?
☐	☑	☐	☐	☐	14. Is the storage structure interior coating or liner peeling or cracked?
☐	☐	☐	☐	☐	15. Is the storage structure used to store finished water?
☑	☐	☐	☐	☐	16. Are access manhole openings for the storage structure 4 inches or greater above the surface of the roof, with a cover 2 inches overlapping, water tight, hinged and locked?
☑	☐	☐	☐	☐	17. Are all vents extended 12 inches above the roof and constructed to exclude potential sources of contamination? *(The overflow pipe shall not be considered a vent)*

yes	no	n/a	unk	note	ABOVE GROUND STORAGE
☐	☐	☑	☐	☐	18. Do all vents open downward and are they fitted with a 4 mesh non-corrodible screen?

yes	no	n/a	unk	note	GROUND-LEVEL, PARTIALLY BURIED, or BELOW-GROUND STORAGE
☑	☐	☐	☐	☐	19. Does the overflow for the storage structure have a vertical section of pipe at least 2 pipe diameters in length?
☑	☐	☐	☐	☐	20. Is the overflow for the storage structure provided with either a 24 mesh non-corrodible screen installed within the pipe when practical, or an expanded metal screen installed within the pipe plus a weighted flapper or check?
☑	☐	☐	☐	☐	21. Is the area surrounding the storage structure graded in a manner that will prevent surface water from standing within 50 feet of it?
☑	☐	☐	☐	☐	22. Are all vents for the storage structure open downward with the opening at least 24 inches above the roof or the ground level and covered with 24 mesh non-corrodible screen to exclude potential contamination?

yes	no	n/a	unk	note	PARTIALLY BURIED OR BELOW-GROUND STORAGE
☑	☐	☐	☐	☐	23. Are "ALL" manholes elevated 24 inches above the surface of the roof or the ground level, which ever is higher?
☑	☐	☐	☐	☐	24. Is there a minimum distance of 50 feet between the storage structure and any non-potable main, standing water, or other possible source of contamination?

STORAGE

A separate storage form must be filled out for **each** storage unit in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy) | PWS #: 5070022

Storage Structure Name: Indian Springs Reservoir	Storage Structure ID #:
Physical Location: 1/2 Mile "downstream" from Indian Springs source	Date in service: ☐ Unk 1980
	Volume (gal): ☐ Unk 1,000,000

COMMENTS: (Please indicate question number)

Storage Type: ☑ Reservoir/Tank ☐ Standpipe

Construction: ☐ Elevated ☐ Above Ground ☐ Partially Below Ground ☑ Below Ground

Type of material: ☐ Plastic ☐ Wood ☐ Fiberglass ☐ Metal ☑ Concrete ☐ Naturally Contained

Total Days Supply (This structure): 2 ☐ Unk | Date Last: Inspected: ☐ Unk Fall 2012 | Cleaned: ☐ Unk Fall 2012

How is the water level measured? ☐ Unk Scada

ALL STORAGE STRUCTURES

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	1. Is the storage structure safely accessible to the inspector?
☐	☑	☐	☐	☐	2. Is the PWS storage tank located within 500 feet of any municipal or Industrial wastewater treatment plant or any land which is spray irrigated with wastewater or used for sludge disposal?
☐	☑	☐	☐	☐	3. Are any of the storage structure drains directly connected to a sewer or storm drain?
☑	☐	☐	☐	☐	4. Is an overflow provided that discharges to daylight in a way that will preclude the possibility of backflow to the reservoir and, where practical, provided with an expanded metal screen installed within the pipe that will exclude rodents and deter vandalism?
☑	☐	☐	☐	☐	5. Are overflows brought down to an elevation between 12 and 24 inches above the ground surface? *(2X the diameter of the discharge pipe above a basin rim)*
☑	☐	☐	☐	☐	6. Do overflows discharge over a drainage inlet structure or splash plate?(storm or sanitary)
☑	☐	☐	☐	☐	7. Is the storage structure secure from unauthorized access?
☑	☐	☐	☐	☐	8. Does the storage reservoir have a watertight roof or cover and is it sloped to facilitate drainage?
☑	☐	☐	☐	☐	9. Is the storage water protected from contamination?
☑	☐	☐	☐	☐	10. Is the storage structure structurally sound?
☐	☑	☐	☐	☐	11. Could vegetation in the area potentially impact the storage structure?*(Recommended)*
☑	☐	☐	☐	☐	12. Is the storage structure designed so that it can be isolated from the distribution system without necessitating loss of pressure in the distribution system?
☐	☑	☐	☐	☐	13. Is leakage evident at time of inspection?
☐	☑	☐	☐	☐	14. Is the storage structure interior coating or liner peeling or cracked?
☑	☐	☐	☐	☐	15. Is the storage structure used to store finished water?
☑	☐	☐	☐	☐	16. Are access manhole openings for the storage structure 4 inches or greater above the surface of the roof, with a cover 2 inches overlapping, water tight, hinged and locked?
☑	☐	☐	☐	☐	17. Are all vents extended 12 inches above the roof and constructed to exclude potential sources of contamination? *(The overflow pipe shall not be considered a vent)*

ABOVE GROUND STORAGE

yes	no	n/a	unk	note	
☐	☐	☑	☐	☐	18. Do all vents open downward and are they fitted with a 4 mesh non-corrodible screen?

GROUND-LEVEL, PARTIALLY BURIED, or BELOW-GROUND STORAGE

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	19. Does the overflow for the storage structure have a vertical section of pipe at least 2 pipe diameters in length?
☑	☐	☐	☐	☐	20. Is the overflow for the storage structure provided with either a 24 mesh non-corrodible screen installed within the pipe when practical, or an expanded metal screen installed within the pipe plus a weighted flapper or check?
☑	☐	☐	☐	☐	21. Is the area surrounding the storage structure graded in a manner that will prevent surface water from standing within 50 feet of it?
☑	☐	☐	☐	☐	22. Are all vents for the storage structure open downward with the opening at least 24 inches above the roof or the ground level and covered with 24 mesh non-corrodible screen to exclude potential contamination?

PARTIALLY BURIED OR BELOW-GROUND STORAGE

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	23. Are "ALL" manholes elevated 24 inches above the surface of the roof or the ground level, which ever is higher?
☑	☐	☐	☐	☐	24. Is there a minimum distance of 50 feet between the storage structure and any non-potable main, standing water, or other possible source of contamination?

STORAGE

A separate storage form must be filled out for **each** storage unit in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy) | PWS #: 5070022

Storage Structure Name: [redacted] Quigley Canyon	Storage Structure ID #: [redacted]	COMMENTS: (Please indicate question number)
Physical Location: [redacted] Quigley Canyon	Date in service: ☐ Unk [redacted] 2007	#4 overflow equiped with a duck bill check valve
	Volume (gal): ☐ Unk [redacted] 2 Million	

Storage Type:	Construction: ☐ Elevated	Type of material:	
☑ Reservoir/Tank	☐ Above Ground	☐ Plastic	☐ Wood
☐ Standpipe	☑ Partially Below Ground	☐ Fiberglass	☐ Metal
	☐ Below Ground	☑ Concrete	☐ Naturally Contained

Total Days Supply (This structure): ☐ Unk	Date Last: [redacted]	Inspected: ☐ Unk Fall 2012	Cleaned: ☐ Unk Fall 2012

How is the water level measured? ☐ Unk [redacted] Scada

yes	no	n/a	unk	note	ALL STORAGE STRUCTURES
☑	☐	☐	☐	☐	1. Is the storage structure safely accessible to the inspector?
☐	☑	☐	☐	☐	2. Is the PWS storage tank located within 500 feet of any municipal or Industrial wastewater treatment plant or any land which is spray irrigated with wastewater or used for sludge disposal?
☐	☑	☐	☐	☐	3. Are any of the storage structure drains directly connected to a sewer or storm drain?
☑	☐	☐	☐	☑	4. Is an overflow provided that discharges to daylight in a way that will preclude the possibility of backflow to the reservoir and, where practical, provided with an expanded metal screen installed within the pipe that will exclude rodents and deter vandalism?
☑	☐	☐	☐	☐	5. Are overflows brought down to an elevation between 12 and 24 inches above the ground surface? *(2X the diameter of the discharge pipe above a basin rim)*
☑	☐	☐	☐	☐	6. Do overflows discharge over a drainage inlet structure or splash plate?(storm or sanitary)
☑	☐	☐	☐	☐	7. Is the storage structure secure from unauthorized access?
☑	☐	☐	☐	☐	8. Does the storage reservoir have a watertight roof or cover and is it sloped to facilitate drainage?
☑	☐	☐	☐	☐	9. Is the storage water protected from contamination?
☑	☐	☐	☐	☐	10. Is the storage structure structurally sound?
☐	☑	☐	☐	☐	11. Could vegetation in the area potentially impact the storage structure?*(Recommended)*
☑	☐	☐	☐	☐	12. Is the storage structure designed so that it can be isolated from the distribution system without necessitating loss of pressure in the distribution system?
☐	☑	☐	☐	☐	13. Is leakage evident at time of inspection?
☐	☑	☐	☐	☐	14. Is the storage structure interior coating or liner peeling or cracked?
☐	☐	☐	☐	☐	15. Is the storage structure used to store finished water?
☑	☐	☐	☐	☐	16. Are access manhole openings for the storage structure 4 inches or greater above the surface of the roof, with a cover 2 inches overlapping, water tight, hinged and locked?
☑	☐	☐	☐	☐	17. Are all vents extended 12 inches above the roof and constructed to exclude potential sources of contamination? *(The overflow pipe shall not be considered a vent)*

yes	no	n/a	unk	note	ABOVE GROUND STORAGE
☐	☐	☑	☐	☐	18. Do all vents open downward and are they fitted with a 4 mesh non-corrodible screen?

yes	no	n/a	unk	note	GROUND-LEVEL, PARTIALLY BURIED, or BELOW-GROUND STORAGE
☑	☐	☐	☐	☐	19. Does the overflow for the storage structure have a vertical section of pipe at least 2 pipe diameters in length?
☑	☐	☐	☐	☐	20. Is the overflow for the storage structure provided with either a 24 mesh non-corrodible screen installed within the pipe when practical, or an expanded metal screen installed within the pipe plus a weighted flapper or check?
☑	☐	☐	☐	☐	21. Is the area surrounding the storage structure graded in a manner that will prevent surface water from standing within 50 feet of it?
☑	☐	☐	☐	☐	22. Are all vents for the storage structure open downward with the opening at least 24 inches above the roof or the ground level and covered with 24 mesh non-corrodible screen to exclude potential contamination?

yes	no	n/a	unk	note	PARTIALLY BURIED OR BELOW-GROUND STORAGE
☑	☐	☐	☐	☐	23. Are "ALL" manholes elevated 24 inches above the surface of the roof or the ground level, which ever is higher?
☑	☐	☐	☐	☐	24. Is there a minimum distance of 50 feet between the storage structure and any non-potable main, standing water, or other possible source of contamination?

STORAGE

A separate storage form must be filled out for **each** storage unit in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy) | PWS #: 5070022

Storage Structure Name: Woodside Reservoir	Storage Structure ID #:	COMMENTS: (Please indicate question number)
Physical Location: Woodside Well	Date in service: ☐ Unk 1974	
	Volume (gal): ☐ Unk 350,000	

Storage Type:	Construction: ☐ Elevated	Type of material:	
☑ Reservoir/Tank	☐ Above Ground	☐ Plastic	☐ Wood
☐ Standpipe	☐ Partially Below Ground	☐ Fiberglass	☐ Metal
	☑ Below Ground	☑ Concrete	☐ Naturally Contained

Total Days Supply (This structure): ☐ Unk	Date Last: Inspected: ☐ Unk Fall 2012	Cleaned: ☐ Unk Fall 2012

How is the water level measured? ☐ Unk
Scada

yes	no	n/a	unk	note	ALL STORAGE STRUCTURES
☑	☐	☐	☐	☐	1. Is the storage structure safely accessible to the inspector?
☐	☑	☐	☐	☐	2. Is the PWS storage tank located within 500 feet of any municipal or Industrial wastewater treatment plant or any land which is spray irrigated with wastewater or used for sludge disposal?
☐	☑	☐	☐	☐	3. Are any of the storage structure drains directly connected to a sewer or storm drain?
☑	☐	☐	☐	☐	4. Is an overflow provided that discharges to daylight in a way that will preclude the possibility of backflow to the reservoir and, where practical, provided with an expanded metal screen installed within the pipe that will exclude rodents and deter vandalism?
☑	☐	☐	☐	☐	5. Are overflows brought down to an elevation between 12 and 24 inches above the ground surface? *(2X the diameter of the discharge pipe above a basin rim)*
☑	☐	☐	☐	☐	6. Do overflows discharge over a drainage inlet structure or splash plate?(storm or sanitary)
☑	☐	☐	☐	☐	7. Is the storage structure secure from unauthorized access?
☑	☐	☐	☐	☐	8. Does the storage reservoir have a watertight roof or cover and is it sloped to facilitate drainage?
☑	☐	☐	☐	☐	9. Is the storage water protected from contamination?
☑	☐	☐	☐	☐	10. Is the storage structure structurally sound?
☐	☑	☐	☐	☐	11. Could vegetation in the area potentially impact the storage structure? *(Recommended)*
☑	☐	☐	☐	☐	12. Is the storage structure designed so that it can be isolated from the distribution system without necessitating loss of pressure in the distribution system?
☐	☑	☐	☐	☐	13. Is leakage evident at time of inspection?
☐	☑	☐	☐	☐	14. Is the storage structure interior coating or liner peeling or cracked?
☐	☐	☐	☐	☐	15. Is the storage structure used to store finished water?
☑	☐	☐	☐	☐	16. Are access manhole openings for the storage structure 4 inches or greater above the surface of the roof, with a cover 2 inches overlapping, water tight, hinged and locked?
☑	☐	☐	☐	☐	17. Are all vents extended 12 inches above the roof and constructed to exclude potential sources of contamination? *(The overflow pipe shall not be considered a vent)*

yes	no	n/a	unk	note	ABOVE GROUND STORAGE
☐	☐	☑	☐	☐	18. Do all vents open downward and are they fitted with a 4 mesh non-corrodible screen?

yes	no	n/a	unk	note	GROUND-LEVEL, PARTIALLY BURIED, or BELOW-GROUND STORAGE
☑	☐	☐	☐	☐	19. Does the overflow for the storage structure have a vertical section of pipe at least 2 pipe diameters in length?
☑	☐	☐	☐	☐	20. Is the overflow for the storage structure provided with either a 24 mesh non-corrodible screen installed within the pipe when practical, or an expanded metal screen installed within the pipe plus a weighted flapper or check?
☑	☐	☐	☐	☐	21. Is the area surrounding the storage structure graded in a manner that will prevent surface water from standing within 50 feet of it?
☑	☐	☐	☐	☐	22. Are all vents for the storage structure open downward with the opening at least 24 inches above the roof or the ground level and covered with 24 mesh non-corrodible screen to exclude potential contamination?

yes	no	n/a	unk	note	PARTIALLY BURIED OR BELOW-GROUND STORAGE
☑	☐	☐	☐	☐	23. Are "ALL" manholes elevated 24 inches above the surface of the roof or the ground level, which ever is higher?
☑	☐	☐	☐	☐	24. Is there a minimum distance of 50 feet between the storage structure and any non-potable main, standing water, or other possible source of contamination?

DISTRIBUTION

One form for **all** distribution systems in the PWS.

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

What are water lines made of:

Material(s): ☐ Unk

☑ Steel ☐ HDPE (black) ☑ Asbestos/Cement

☑ PVC ☑ Ductile Iron ☐ Copper

☐ Other:

Size(s): ☐ Unk

PVC and Ductile Iron, 4" through 16" (Mains) and Ductile Iron, 4" through 16" (Distribution) and Steel, 12" (Distribution) at Indian Springs Storage

How many services are metered?

3292 out of **3292**

Number of Fire Hydrants:

638

COMMENTS:
(Please indicate the question number)

#10: Odd/Even watering restrictions and Daytime water restrictions.

#15 Non NSF approved rubber hose used on chlorine lines in pump houses (see photos # 2,4,6,7,10,12,14,15) #16 PWS has had some freezing of mains

#17 Ordinance does not meet the five elements as required by IDAPA 58.01.08.552.06. and there is no cross connection control program

yes	no	n/a	unk	note	DISTRIBUTION
☐	☑	☐	☐	☐	1. Have there been any interruptions in service during the past year? (including pressure loss)
☐	☐	☑	☐	☐	2. If a loss of pressure occurred (>20 psi), did the PWS provide public notice and disinfect the system? *(Reminder)*
☑	☐	☐	☐	☐	3. Is the PWS able to maintain a minimum pressure of twenty (20) psi throughout the distribution system (including fire flow), or forty (40) psi for PWSs constructed after 7/1/1985 (excluding fire flow), during maximum hourly demand conditions?
☐	☑	☐	☐	☐	4. Was the pressure observed at a service connection?
					5. If yes: ____ psi. Location: ____ Time: ____ ☐ A.M. ☐ P.M.
yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	6. Do all water mains that provide fire flow have a diameter of at least 6 inches?
☑	☐	☐	☐	☐	7. Are valves exercised regularly? *(Recommended)* If yes, how often? **Bi Annually**
☑	☐	☐	☐	☐	8. Is there a leak detection program? *(Recommended)*
☐	☑	☐	☐	☐	9. Is 15% or more of the water unaccounted for?
☑	☐	☐	☐	☑	10. Is a water conservation program in effect? *(Recommended)*
☑	☐	☐	☐	☐	11. Is an adequate map of the distribution system maintained? *(Recommended)*
☑	☐	☐	☐	☐	12. Does the system flush all main lines annually? *(Recommended)*
☑	☐	☐	☐	☐	13. Are all dead end water mains equipped with a means to flush?
☑	☐	☐	☐	☐	14. If yes, are the deadends flushed at least semiannually?
☑	☐	☐	☐	☑	15. Are there any distribution materials used that should not be in contact with the drinking water? *If yes, explain in comments section.*
☐	☑	☐	☐	☑	16. Is the system adequately protected from freezing?
☐	☑	☐	☐	☑	17. Is there a cross connection control program? *(Community PWSs Only)*
☑	☐	☐	☐	☐	18. Is the operator trained in cross connection control? *(Recommended)*
☐	☑	☐	☐	☐	19. Is the operator aware of any cross connections or were any cross connections observed during the course of the survey?
☐	☐	☑	☐	☐	20. If a separate non-potable irrigation system is provided for the consumer, are all mains, hydrants, and appurtenances easily identified as non-potable? (Purple Tape or other) *(Recommended)*

yes	no	n/a	unk	note	**Air/Vacuum Relief Valves** - *Placed at high points in water mains.*
☑	☐	☐	☐	☐	21. Are all automatic air relief valves equipped with a means of backflow protection?

PUMPING - PG. 1

One form for **all** Pumps.

SURVEY DATE 7/23/20013 (mm/dd/yyyy)

PWS # 5070022

PUMPS, PUMPHOUSES, AND CONTROLS

Pump ID#:	Physical Location:	Type of Pump:	Brand:	Model:	Horsepower:	Purpose:
	Woodside	Vertical Turbine	GE	5k6226xh25a7	7.5	Booster
	Woodside	Vertical Turbine	US Electrical Motors	629a	40	Distribution
	Woodside	Vertical Turbine	GE	5k6267xh1a	100	Booster
	Northridge A	Submersible	Hitachi	H10HC	50	Distribution
	Northridge B	Submersible	Hitachi	H10HC	50	Distribution
	Northridge C	Submersible	Franklin	58HC2B-30	30	Distribution
	Northridge	Vertical Turbine	US Electrical Motors	A04A036R171R-1	75	Booster
	Northridge	Vertical Turbine	US Electrical Motors	A04A036R171R-2	75	Booster
	Northridge	Centrifugal	US Electrical Motors	F108	2	Chlorine Metering
	3rd Ave.	Vertical Turbine	GE	5k405dp6005a	125	Distribution
	River St.	Vertical Turbine	GE	5k6255xm501b	75	Distribution
	Indian Springs	Vertical Turbine	GE	5K5565JL2185	75	Power Generation

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	1. Are all pumps capable of providing the maximum pumping demand of the system?
☐	☑	☐	☐	☐	2. Does the pump(s) cycle excessively? *(Recommended)*
☑	☐	☐	☐	☐	3. Are all pumps provided with readily available spare parts and tools?
☑	☐	☐	☐	☐	4. Is a water pressure relief valve installed where the pump is directly connected to the distribution system?
☑	☐	☐	☐	☐	5. Is a standard pressure gauge installed on the discharge line?

(Please indicate the question number)

#7 release-vacuum relief valves exhaust/relief piping is not covered with a 24 mesh corrosion resistant screen (see photos # 1,3,9,11,12)

WELL PUMPS

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	6. Is there an accessible check valve installed in the discharge line of each well between the pump and the shut-off valve?
☐	☑	☐	☐	☐	7. If the system has a vertical turbine motor driven pump(s), is an air release-vacuum relief valve located upstream from the check valve, with exhaust/relief piping terminating in a down-turned position at least 18 inches above the floor and covered with a 24 mesh corrosion resistant screen?
☐	☐	☑	☐	☐	8. If the pump(s) is "oil lubricated", is the oil NSF approved and suitable for human consumption?

WATER PUMPS *(not well pumps)*

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	9. Is an accessible check valve on the discharge side between the pump and the shut-off valve?

AUXILIARY POWER

yes	no	n/a	unk	note	
☐	☑	☐	☐	☐	10. Is there auxiliary power on-site?
☐ Significant	☑				
☐	☐	☑	☐	☐	11. Is auxiliary power tested? *(Recommended)*
☐	☐	☑	☐	☐	12. If a diesel or gasoline fueled engine is used on the well lot; is the fuel tank and connecting piping double walled?
☐	☐	☑	☐	☐	13. Is the fuel tank above ground?
☐	☐	☑	☐	☐	14. Is a certified operator present during the filling of the fuel tank?
					If the engine is in the well house
☐	☐	☑	☐	☐	15. Is the engine exhaust directly discharged outside the well house?
☐	☐	☑	☐	☐	16. Is a spill containment structure surrounding all fuel tanks adequate? *(Secondary containment - 110% fuel tank volume)*
					Community Systems Only
☐	☐	☑	☐	☐	17. (*Community Systems built after 4/15/07 only*) Is on-site power or standby storage provided so water can be treated and supplied to pressurize the entire distribution system during a power outage for a minimum of 8 hours?
☐	☐	☑	☐	☐	18. (*Community Systems built after 4/15/07 only*) If standby power is provided, Is there a minimum of 8 hours of fuel stored and located on site?

PUMPING - PG. 2

SURVEY DATE 7/23/20013 (mm/dd/yyyy)

PWS # 5070022

COMMENTS:
(Please indicate the question number)

BOOSTER PUMPS

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	19. Is an instantaneous and totalizing flow meter installed where the booster pump is directly connected to the distribution system? ☐ Unnecessary
☑	☐	☐	☐	☐	20. Are all in-line booster pumps supplied with an automatic cutoff that activates when intake pressure is less than or equal to 5 psi?
☑	☐	☐	☐	☐	21. Is the booster pump located on a suction line that is directly connected to any storage reservoir?
☑	☐	☐	☐	☐	22. If yes, are all booster pumps protected by an automatic cutoff to prevent pump damage and avoid excessive reservoir drawdown?

PUMP HOUSE *(Only pump houses that don't contain a Groundwater Source)*

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	23. Is the pump house kept clean and in good repair? *(Floor cracks?)*
☑	☐	☐	☐	☐	24. Is the pump house protected from unauthorized personnel?
☑	☐	☐	☐	☐	25. Does the pump house have adequate lighting throughout? *(Recommended)*
☑	☐	☐	☐	☐	26. Are all non-sample taps installed in the pump house equipped with an appropriate backflow prevention device?
☑	☐	☐	☐	☐	27. Is adequate ventilation provided in the pump house for dissipation of excess heat and moisture from the equipment? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	28. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment *(prevent moisture buildup and/or freezing)*? ☐ Significant ☐ Deficiency
☑	☐	☐	☐	☐	29. Is the pump house protected from flooding, have adequate drainage, is the floor surface at least six (6) inches above the final ground surface, and is the ground surface graded so as to lead surface water away from the pump house?
☐	☑	☐	☐	☐	30. Is the sump for pump house floor drains closer than 30 feet from the well?
☐	☑	☐	☐	☐	31. Is the floor drain connected to sewer, storm drains, chlorination room drains, or any other source of contamination?

FINANCIAL CAPACITY

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

yes	no	n/a	unk	note	FINANCIAL CAPACITY
☑	☐	☐	☐	☐	1. Is the PWS current with the payment of drinking water fees?
☑	☐	☐	☐	☑	2. Does the PWS charge a drinking water fee to the user? If yes, what is the fee: $ **$8.32 base**
☑	☐	☐	☐	☐	3. Is the PWS in the business of selling water?
					#3 Note: - If no, identify why in the comments section and mark "N/A" on questions 4 - 19.
☑	☐	☐	☐	☐	4. Does the PWS provide and use an annual budget? *(Recommended)*
☑	☐	☐	☐	☐	5. If applicable, is the PWS fund separate from the waste water/sewer utility fund? *(Recommended)*
☑	☐	☐	☐	☐	6. Do water system revenues exceed expenditures? *(Recommended)*
☑	☐	☐	☐	☐	7. Are controls established to prevent expenditures from exceeding revenues?
☑	☐	☐	☐	☐	8. Has an independent financial audit been completed? *(Recommended)*
☑	☐	☐	☐	☐	9. If yes, is a copy of the most recent balance sheet for the water system available? *(Recommended)*
☑	☐	☐	☐	☐	10. Does the water system include a cash budget within its annual budget for cash flow? *(Recommended)*
☑	☐	☐	☐	☐	11. Does the water system management review the user fee, user charge, or rate system at least annually? *(Recommended)*
					12. When was the last user fee, user charge, or rate system adjustment? **9/25/2012** *mm/dd/yyyy*
☑	☐	☐	☐	☐	13. Does the water system management review financial reports at least monthly? *(Recommended)*
☑	☐	☐	☐	☐	14. Does the PWS provide and use a capital budget? *(Recommended)*
☑	☐	☐	☐	☐	15. Has this PWS produced and does it currently utilize a capital improvements plan? *(Recommended)*
					16. If yes, when was the capital improvements budget produced? **jun3 2012** *mm/dd/yyyy*
☑	☐	☐	☐	☐	17. Has the capital improvement budget been updated in the last 18 months? *(Recommended)*
☐	☐	☐	☑	☐	18. Does the water system budget provide funding for depreciation of existing plant in service and/or for the funding of reserves for system replacement?
☐	☐	☐	☑	☑	19. Are there sufficient funds for training personnel?

COMMENTS:
(Please indicate the question number)

#2 see attached water rates
#19 PWS went over training budget in May

MANAGERIAL CAPACITY

SURVEY DATE: 7/23/20013 (mm/dd/yyyy)

PWS #: 5070022

yes	no	n/a	unk	note	MANAGERIAL CAPACITY
☑	☐	☐	☐	☐	1. Is a properly licensed operator available at all times? (N/A for GW-NC PWS)
☐	☐	☐	☐	☐	2. Is there a Drinking Water Source Protection Plan developed for this system? Date:
☑	☐	☐	☐	☐	3. Does this PWS have a governing body or board of directors?

If no, please indicate:

- ☐ Sole Proprietorship
- ☐ Partnership
- ☐ Limited Liability Corp.
- ☐ Other:

4. How often does the board meet? ☐ N/A

☐ weekly ☐ semi-annually ☐ never
☐ monthly ☐ annually ☐ unknown
☑ bimonthly ☐ as necessary ☐ other:

Are the following records maintained onsite or located near by?

yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	5. - Bacteriological Analysis - **5 years retention.**
☑	☐	☐	☐	☐	6. - Chemical Analysis - **10 years retention.**
☑	☐	☐	☐	☐	7. - Records of actions taken to correct violations - **3 years retention.**
☑	☐	☐	☐	☐	8. - Copies of reports, summaries or communication related to sanitary surveys - **10 years retention.**
☑	☐	☐	☐	☐	9. - Reports concerning variances or exemptions - **5 years retention.**
☑	☐	☐	☐	☐	10. - Copies of public notices issued - **3 years retention.**
☐	☐	☑	☐	☐	11. - Daily free chlorine residuals *(required disinfection)* - **1 year retention.**
☑	☐	☐	☐	☐	12. Are routine maintenance schedules established? *(Recommended)*
☑	☐	☐	☐	☐	13. Is an operation and maintenance manual(s) provided for the PWS and does it include; daily operating instructions, operator safety procedures, location of valves and other key system features, parts list and parts order form, and information for contacting the water system operator?
☑	☐	☐	☐	☐	14. Is there a clear plan of organization and control among the people responsible for management and operations of the water system? *(Recommended)*

Are any samples of the following parameters past due?

yes	no	n/a	unk	note	
☐	☑	☐	☐	☐	15. Coliform
☐	☑	☐	☐	☐	16. Nitrates
☐	☑	☐	☐	☐	17. Nitrites
☐	☑	☐	☐	☐	18. Lead and Copper
☐	☑	☐	☐	☐	19. IOCs
☐	☑	☐	☐	☐	20. VOCs
☐	☑	☐	☐	☐	21. SOCs
☐	☑	☐	☐	☐	22. Disinfection Byproducts
☐	☑	☐	☐	☐	23. Radionuclide
☑	☐	☐	☐	☐	24. Is a written total coliform rule (TCR) sample site plan available for review?
☑	☐	☐	☐	☐	25. Does the (TCR) sample site plan meet the minimum requirements?
☑	☐	☐	☐	☐	26. Does the system have a sufficient supply of approved sampling bottles properly stored? *(Recommended)*
☑	☐	☐	☐	☐	27. Does the PWS provide stairways, ladders and handrails where needed?
☑	☐	☐	☐	☐	28. Are treads of non-slip material provided where needed?
☐	☑	☐	☐	☐	29. Is a health concern produced from inadequately protected electrical wiring?
☑	☐	☐	☐	☐	30. Are all confined space entry requirements considered? *(Recommended)*
☐	☑	☐	☐	☐	31. Are there any unused subsurface water storage tanks that need to be abandoned?
☑	☐	☐	☐	☐	32. Are there any water supply wells that are no longer being used that need to be abandoned?

COMMENTS:
(Please indicate the question number)

TREATMENT APPLICATION & CONTROL

A separate form must be filled out for **each** Treatment Application in the PWS.

Survey Date	PWS #
7/23/20013 (mm/dd/yyyy)	5070022

Purpose of Treatment:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Disinfection	Indian Springs	1980	2mgd

Identify **one** process in the treatment train for inspection: ☐ N/A

☐ Sedimentation Basin ☐ Filtration ☐ Blending ☐ Oxidation ☐ Ion Exchange ☐ Aeration ☐ Reverse Osmosis ☐ Sequestration by Polyphosphates
☐ Detention Basin ☐ Chemical Coagulation ☐ Softening ☑ Disinfection (Complete Disinfection Mod.) ☐ Sequestration by Sodium Silicates

Sources Treated by Facility: (Tag #)	Equipment Manufacturer:	Model #:
Indian Springs	Capital Controls	1362

Chemical Trade Name:	Chemical Manufacturer:	NSF/ANSI certified?
Gas Chlorine	Sierra Chemical	☑ Yes ☐ No ☐ N/A ☐ Unk ☐ Yes ☐ No ☐ N/A ☐ Unk ☐ Yes ☐ No ☐ N/A ☐ Unk

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	WASTE HANDLING and DISPOSAL
☐	☐	☑	☐	☐	1. Are provisions made for proper disposal of water treatment plant waste such as sanitary, laboratory, clarification sludge, softening sludge, iron sludge, filter backwash water, brines and treatment media?
		☐		☐	2. If yes, how are wastes being disposed of? (Identify in comments)
yes	no	n/a	unk	note	**SAMPLE TAPS**
☑	☐	☐	☐	☐	3. Are smooth-nosed sampling taps provided prior to and after each form of treatment?
		☐ N/A 4-23			**CHEMICAL APPLICATION** If no chemical applied, questions 4-23 are n/a
yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	4. Are spare parts available for all chemical feeders to replace parts which are subject to frequent wear and damage?
		☐			5. Are the feeders manually or automatically controlled? ☐ Manual ☑ Automatic
☑	☐	☐	☐	☐	6. For chemical application control systems, is the chemical feeder controlled by a flow sensing device so that injection of the chemicals will not continue when the flow of water stops?
☑	☐	☐	☐	☐	7. Is a means to measure water flow provided in order to determine chemical feed rates?
☑	☐	☐	☐	☐	8. Are provisions made for measuring the quantities of chemicals used?
☑	☐	☐	☐	☐	9. Is cross-connection control provided on the service water lines that discharge to the solution tanks?
☑	☐	☐	☐	☐	10. Is cross-connection control provided so that liquid chemical solutions cannot be siphoned through solution feeders into the water supply?
☑	☐	☐	☐	☐	11. Is the chemical feed equipment readily accessible for servicing, repair, and observation of operation?
☑	☐	☐	☐	☐	12. Is space provided for convenient/efficient storage and handling of chemicals? *(Recommende*
☐	☑	☐	☐	☐	13. Are chemicals that are incompatible stored or handled together?
☐	☐	☑	☐	☐	14. Are chemical solution tanks kept covered?
☐	☐	☑	☐	☐	15. Are chemical solution tank overflow pipes, when provided, turned downward with the end screened? *(Recommended)*
☐	☐	☑	☐	☐	16. Do chemical solution tank overflow pipes, when provided, have free fall discharge? *(Recommended)*
☑	☐	☐	☐	☐	17. Where more than one (1) chemical is stored or handled, are tanks and pipelines clearly labeled to identify the chemical they contain?
☑	☐	☐	☐	☐	18. Are floor surfaces smooth and impervious, slip-proof and well drained? *(Recommended)*
☑	☐	☐	☐	☐	19. Are vents from feeders, storage facilities and equipment exhaust discharged to the outside atmosphere above grade and remote from air intakes?
☑	☐	☐	☐	☐	20. Are chemical shipping containers fully labeled to include chemical name, purity, concentration, supplier name and address, and evidence of ANSI/NSF certification?
☐	☐	☑	☐	☐	21. Are acids and caustics kept in closed corrosion-resistant shipping containers or storage units?
☑	☐	☐	☐	☐	22. Are at least one pair of rubber gloves, a dust respirator of a type certified by NIOSH for toxic dusts, an apron or other protective clothing and goggles or face mask provided for each operator as required by the reviewing authority?
☐	☐	☑	☐	☐	23. Is a deluge shower and/or eyewashing device installed where strong acids and alkalis are used or stored?

TREATMENT APPLICATION & CONTROL

A separate form must be filled out for **each** Treatment Application in the PWS.

Survey Date	PWS #
7/23/20013 (mm/dd/yyyy)	5070022

Purpose of Treatment:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Disinfection	Northridge	1996	1.5mgd

Identify **one** process in the treatment train for inspection: ☐ N/A

☐ Sedimentation Basin ☐ Filtration ☐ Blending ☐ Oxidation ☐ Ion Exchange ☐ Aeration ☐ Reverse Osmosis ☐ Sequestration by Polyphosphates
☐ Detention Basin ☐ Chemical Coagulation ☐ Softening ☑ Disinfection (Complete Disinfection Mod.) ☐ Sequestration by Sodium Silicates

Sources Treated by Facility: (Tag #)	Equipment Manufacturer:	Model #:
Northridge Well A, B, C	Capital Controls	1362

Chemical Trade Name:	Chemical Manufacturer:	NSF/ANSI certified?
Gas Chlorine	Sierra Chemical	☑ Yes ☐ No ☐ N/A ☐ Unk
		☐ Yes ☐ No ☐ N/A ☐ Unk
		☐ Yes ☐ No ☐ N/A ☐ Unk

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	
					WASTE HANDLING and DISPOSAL
☐	☐	☑	☐	☐	1. Are provisions made for proper disposal of water treatment plant waste such as sanitary, laboratory, clarification sludge, softening sludge, iron sludge, filter backwash water, brines and treatment media?
		☐		☐	2. If yes, how are wastes being disposed of? (Identify in comments)
yes	no	n/a	unk	note	**SAMPLE TAPS**
☑	☐	☐	☐	☐	3. Are smooth-nosed sampling taps provided prior to and after each form of treatment?
		☐ N/A 4-23			**CHEMICAL APPLICATION** If no chemical applied, questions 4-23 are n/a
yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	4. Are spare parts available for all chemical feeders to replace parts which are subject to frequent wear and damage?
		☐			5. Are the feeders manually or automatically controlled? ☐ Manual ☑ Automatic
☑	☐	☐	☐	☐	6. For chemical application control systems, is the chemical feeder controlled by a flow sensing device so that injection of the chemicals will not continue when the flow of water stops?
☑	☐	☐	☐	☐	7. Is a means to measure water flow provided in order to determine chemical feed rates?
☑	☐	☐	☐	☐	8. Are provisions made for measuring the quantities of chemicals used?
☑	☐	☐	☐	☐	9. Is cross-connection control provided on the service water lines that discharge to the solution tanks?
☑	☐	☐	☐	☐	10. Is cross-connection control provided so that liquid chemical solutions cannot be siphoned through solution feeders into the water supply?
☑	☐	☐	☐	☐	11. Is the chemical feed equipment readily accessible for servicing, repair, and observation of operation?
☑	☐	☐	☐	☐	12. Is space provided for convenient/efficient storage and handling of chemicals? *(Recommende*
☐	☑	☐	☐	☐	13. Are chemicals that are incompatible stored or handled together?
☐	☐	☑	☐	☐	14. Are chemical solution tanks kept covered?
☐	☐	☑	☐	☐	15. Are chemical solution tank overflow pipes, when provided, turned downward with the end screened? *(Recommended)*
☐	☐	☑	☐	☐	16. Do chemical solution tank overflow pipes, when provided, have free fall discharge? *(Recommended)*
☑	☐	☐	☐	☐	17. Where more than one (1) chemical is stored or handled, are tanks and pipelines clearly labeled to identify the chemical they contain?
☑	☐	☐	☐	☐	18. Are floor surfaces smooth and impervious, slip-proof and well drained? *(Recommended)*
☑	☐	☐	☐	☐	19. Are vents from feeders, storage facilities and equipment exhaust discharged to the outside atmosphere above grade and remote from air intakes?
☑	☐	☐	☐	☐	20. Are chemical shipping containers fully labeled to include chemical name, purity, concentration, supplier name and address, and evidence of ANSI/NSF certification?
☐	☐	☑	☐	☐	21. Are acids and caustics kept in closed corrosion-resistant shipping containers or storage units?
☑	☐	☐	☐	☐	22. Are at least one pair of rubber gloves, a dust respirator of a type certified by NIOSH for toxic dusts, an apron or other protective clothing and goggles or face mask provided for each operator as required by the reviewing authority?
☐	☐	☑	☐	☐	23. Is a deluge shower and/or eyewashing device installed where strong acids and alkalis are used or stored?

TREATMENT APPLICATION & CONTROL

A separate form must be filled out for **each** Treatment Application in the PWS.

Survey Date		PWS #
7/23/20013	(mm/dd/yyyy)	5070022

Purpose of Treatment:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Disinfection	River St. Well	1970	1.5mgd

Identify **one** process in the treatment train for inspection: ☐ N/A

☐ Sedimentation Basin ☐ Filtration ☐ Blending ☐ Oxidation ☐ Ion Exchange ☐ Aeration ☐ Reverse Osmosis ☐ Sequestration by Polyphosphates
☐ Detention Basin ☐ Chemical Coagulation ☐ Softening ☑ Disinfection (Complete Disinfection Mod.) ☐ Sequestration by Sodium Silicates

Sources Treated by Facility: (Tag #)	Equipment Manufacturer:	Model #:
River St. Well	Capital Controls	1362

Chemical Trade Name:	Chemical Manufacturer:	NSF/ANSI certified?
Gas Chlorine	Sierra Chemical	☑ Yes ☐ No ☐ N/A ☐ Unk
		☐ Yes ☐ No ☐ N/A ☐ Unk
		☐ Yes ☐ No ☐ N/A ☐ Unk

yes	no	n/a	unk	note	WASTE HANDLING and DISPOSAL	Comments: (Please indicate the question number)
☐	☐	☑	☐	☐	1. Are provisions made for proper disposal of water treatment plant waste such as sanitary, laboratory, clarification sludge, softening sludge, iron sludge, filter backwash water, brines and treatment media?	
		☐		☐	2. If yes, how are wastes being disposed of? (Identify in comments)	
yes	no	n/a	unk	note	**SAMPLE TAPS**	
☑	☐	☐	☐	☐	3. Are smooth-nosed sampling taps provided prior to and after each form of treatment?	
		☐	N/A 4-23		**CHEMICAL APPLICATION** If no chemical applied, questions 4-23 are n/a	
yes	no	n/a	unk	note		
☑	☐	☐	☐	☐	4. Are spare parts available for all chemical feeders to replace parts which are subject to frequent wear and damage?	
		☐			5. Are the feeders manually or automatically controlled? ☐ Manual ☑ Automatic	
☑	☐	☐	☐	☐	6. For chemical application control systems, is the chemical feeder controlled by a flow sensing device so that injection of the chemicals will not continue when the flow of water stops?	
☑	☐	☐	☐	☐	7. Is a means to measure water flow provided in order to determine chemical feed rates?	
☑	☐	☐	☐	☐	8. Are provisions made for measuring the quantities of chemicals used?	
☑	☐	☐	☐	☐	9. Is cross-connection control provided on the service water lines that discharge to the solution tanks?	
☑	☐	☐	☐	☐	10. Is cross-connection control provided so that liquid chemical solutions cannot be siphoned through solution feeders into the water supply?	
☑	☐	☐	☐	☐	11. Is the chemical feed equipment readily accessible for servicing, repair, and observation of operation?	
☑	☐	☐	☐	☐	12. Is space provided for convenient/efficient storage and handling of chemicals? *(Recommende*	
☐	☑	☐	☐	☐	13. Are chemicals that are incompatible stored or handled together?	
☐	☐	☑	☐	☐	14. Are chemical solution tanks kept covered?	
☐	☐	☑	☐	☐	15. Are chemical solution tank overflow pipes, when provided, turned downward with the end screened? *(Recommended)*	
☐	☐	☑	☐	☐	16. Do chemical solution tank overflow pipes, when provided, have free fall discharge? *(Recommended)*	
☑	☐	☐	☐	☐	17. Where more than one (1) chemical is stored or handled, are tanks and pipelines clearly labeled to identify the chemical they contain?	
☑	☐	☐	☐	☐	18. Are floor surfaces smooth and impervious, slip-proof and well drained? *(Recommended)*	
☑	☐	☐	☐	☐	19. Are vents from feeders, storage facilities and equipment exhaust discharged to the outside atmosphere above grade and remote from air intakes?	
☑	☐	☐	☐	☐	20. Are chemical shipping containers fully labeled to include chemical name, purity, concentration, supplier name and address, and evidence of ANSI/NSF certification?	
☐	☐	☑	☐	☐	21. Are acids and caustics kept in closed corrosion-resistant shipping containers or storage units?	
☑	☐	☐	☐	☐	22. Are at least one pair of rubber gloves, a dust respirator of a type certified by NIOSH for toxic dusts, an apron or other protective clothing and goggles or face mask provided for each operator as required by the reviewing authority?	
☐	☐	☑	☐	☐	23. Is a deluge shower and/or eyewashing device installed where strong acids and alkalis are used or stored?	

TREATMENT APPLICATION & CONTROL

A separate form must be filled out for **each** Treatment Application in the PWS.

Survey Date	PWS #
7/23/20013 (mm/dd/yyyy)	5070022

Purpose of Treatment:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Disinfection	Woodside Well	1974	1.5mgd

Identify **one** process in the treatment train for inspection: ☐ N/A

☐ Sedimentation Basin ☐ Filtration ☐ Blending ☐ Oxidation ☐ Ion Exchange ☐ Aeration ☐ Reverse Osmosis ☐ Sequestration by Polyphosphates
☐ Detention Basin ☐ Chemical Coagulation ☐ Softening ☑ Disinfection (Complete Disinfection Mod.) ☐ Sequestration by Sodium Silicates

Sources Treated by Facility: (Tag #)	Equipment Manufacturer:	Model #:
Woodside Well	Capital Controls	1362

Chemical Trade Name:	Chemical Manufacturer:	NSF/ANSI certified?
Gas Chlorine	Sierra Chemical	☑ Yes ☐ No ☐ N/A ☐ Unk
		☐ Yes ☐ No ☐ N/A ☐ Unk
		☐ Yes ☐ No ☐ N/A ☐ Unk

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	
					WASTE HANDLING and DISPOSAL
☐	☐	☑	☐	☐	1. Are provisions made for proper disposal of water treatment plant waste such as sanitary, laboratory, clarification sludge, softening sludge, iron sludge, filter backwash water, brines and treatment media?
		☐		☐	2. If yes, how are wastes being disposed of? (Identify in comments)
					SAMPLE TAPS
☑	☐	☐	☐	☐	3. Are smooth-nosed sampling taps provided prior to and after each form of treatment?
		☐ N/A 4-23			**CHEMICAL APPLICATION** If no chemical applied, questions 4-23 are n/a
☑	☐	☐	☐	☐	4. Are spare parts available for all chemical feeders to replace parts which are subject to frequent wear and damage?
		☐			5. Are the feeders manually or automatically controlled? ☐ Manual ☑ Automatic
☑	☐	☐	☐	☐	6. For chemical application control systems, is the chemical feeder controlled by a flow sensing device so that injection of the chemicals will not continue when the flow of water stops?
☑	☐	☐	☐	☐	7. Is a means to measure water flow provided in order to determine chemical feed rates?
☑	☐	☐	☐	☐	8. Are provisions made for measuring the quantities of chemicals used?
☑	☐	☐	☐	☐	9. Is cross-connection control provided on the service water lines that discharge to the solution tanks?
☑	☐	☐	☐	☐	10. Is cross-connection control provided so that liquid chemical solutions cannot be siphoned through solution feeders into the water supply?
☑	☐	☐	☐	☐	11. Is the chemical feed equipment readily accessible for servicing, repair, and observation of operation?
☑	☐	☐	☐	☐	12. Is space provided for convenient/efficient storage and handling of chemicals? *(Recommende*
☐	☑	☐	☐	☐	13. Are chemicals that are incompatible stored or handled together?
☐	☐	☑	☐	☐	14. Are chemical solution tanks kept covered?
☐	☐	☑	☐	☐	15. Are chemical solution tank overflow pipes, when provided, turned downward with the end screened? *(Recommended)*
☐	☐	☑	☐	☐	16. Do chemical solution tank overflow pipes, when provided, have free fall discharge? *(Recommended)*
☑	☐	☐	☐	☐	17. Where more than one (1) chemical is stored or handled, are tanks and pipelines clearly labeled to identify the chemical they contain?
☑	☐	☐	☐	☐	18. Are floor surfaces smooth and impervious, slip-proof and well drained? *(Recommended)*
☑	☐	☐	☐	☐	19. Are vents from feeders, storage facilities and equipment exhaust discharged to the outside atmosphere above grade and remote from air intakes?
☑	☐	☐	☐	☐	20. Are chemical shipping containers fully labeled to include chemical name, purity, concentration, supplier name and address, and evidence of ANSI/NSF certification?
☐	☐	☑	☐	☐	21. Are acids and caustics kept in closed corrosion-resistant shipping containers or storage units?
☑	☐	☐	☐	☐	22. Are at least one pair of rubber gloves, a dust respirator of a type certified by NIOSH for toxic dusts, an apron or other protective clothing and goggles or face mask provided for each operator as required by the reviewing authority?
☐	☐	☑	☐	☐	23. Is a deluge shower and/or eyewashing device installed where strong acids and alkalis are used or stored?

TREATMENT APPLICATION & CONTROL

Survey Date: 7/23/20013 (mm/dd/yyyy) | PWS #: 5070022

A separate form must be filled out for **each** Treatment Application in the PWS.

Purpose of Treatment:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Disinfection	Quigley Canyon Storage	2007	

Identify **one** process in the treatment train for inspection: ☐ N/A

☐ Sedimentation Basin ☐ Filtration ☐ Blending ☐ Oxidation ☐ Ion Exchange ☐ Aeration ☐ Reverse Osmosis ☐ Sequestration by Polyphosphates
☐ Detention Basin ☐ Chemical Coagulation ☐ Softening ☑ Disinfection (Complete Disinfection Mod.) ☐ Sequestration by Sodium Silicates

Sources Treated by Facility: (Tag #)	Equipment Manufacturer:	Model #:
Woodside 3rd. Ave.	Severn Trent	NXT3000 MicroChem 2

Chemical Trade Name:	Chemical Manufacturer:	NSF/ANSI certified?
Gas Chlorine	Sierra Chemical	☑ Yes ☐ No ☐ N/A ☐ Unk ☐ Yes ☐ No ☐ N/A ☐ Unk ☐ Yes ☐ No ☐ N/A ☐ Unk

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	WASTE HANDLING and DISPOSAL
☐	☐	☑	☐	☐	1. Are provisions made for proper disposal of water treatment plant waste such as sanitary, laboratory, clarification sludge, softening sludge, iron sludge, filter backwash water, brines and treatment media?
		☐		☐	2. If yes, how are wastes being disposed of? (Identify in comments)
yes	no	n/a	unk	note	**SAMPLE TAPS**
☑	☐	☐	☐	☐	3. Are smooth-nosed sampling taps provided prior to and after each form of treatment?
		☐ N/A 4-23			**CHEMICAL APPLICATION** If no chemical applied, questions 4-23 are n/a
yes	no	n/a	unk	note	
☑	☐	☐	☐	☐	4. Are spare parts available for all chemical feeders to replace parts which are subject to frequent wear and damage?
		☐			5. Are the feeders manually or automatically controlled? ☐ Manual ☑ Automatic
☑	☐	☐	☐	☐	6. For chemical application control systems, is the chemical feeder controlled by a flow sensing device so that injection of the chemicals will not continue when the flow of water stops?
☑	☐	☐	☐	☐	7. Is a means to measure water flow provided in order to determine chemical feed rates?
☑	☐	☐	☐	☐	8. Are provisions made for measuring the quantities of chemicals used?
☑	☐	☐	☐	☐	9. Is cross-connection control provided on the service water lines that discharge to the solution tanks?
☑	☐	☐	☐	☐	10. Is cross-connection control provided so that liquid chemical solutions cannot be siphoned through solution feeders into the water supply?
☑	☐	☐	☐	☐	11. Is the chemical feed equipment readily accessible for servicing, repair, and observation of operation?
☑	☐	☐	☐	☐	12. Is space provided for convenient/efficient storage and handling of chemicals? *(Recommende*
☐	☑	☐	☐	☐	13. Are chemicals that are incompatible stored or handled together?
☐	☐	☑	☐	☐	14. Are chemical solution tanks kept covered?
☐	☐	☑	☐	☐	15. Are chemical solution tank overflow pipes, when provided, turned downward with the end screened? *(Recommended)*
☐	☐	☑	☐	☐	16. Do chemical solution tank overflow pipes, when provided, have free fall discharge? *(Recommended)*
☑	☐	☐	☐	☐	17. Where more than one (1) chemical is stored or handled, are tanks and pipelines clearly labeled to identify the chemical they contain?
☑	☐	☐	☐	☐	18. Are floor surfaces smooth and impervious, slip-proof and well drained? *(Recommended)*
☑	☐	☐	☐	☐	19. Are vents from feeders, storage facilities and equipment exhaust discharged to the outside atmosphere above grade and remote from air intakes?
☑	☐	☐	☐	☐	20. Are chemical shipping containers fully labeled to include chemical name, purity, concentration, supplier name and address, and evidence of ANSI/NSF certification?
☐	☐	☑	☐	☐	21. Are acids and caustics kept in closed corrosion-resistant shipping containers or storage units?
☑	☐	☐	☐	☐	22. Are at least one pair of rubber gloves, a dust respirator of a type certified by NIOSH for toxic dusts, an apron or other protective clothing and goggles or face mask provided for each operator as required by the reviewing authority?
☐	☐	☑	☐	☐	23. Is a deluge shower and/or eyewashing device installed where strong acids and alkalis are used or stored?

DISINFECTION - PG. 1 - Systems Using Only Groundwater

A separate form must be filled out for **each** disinfection unit in the PWS.

Survey Date	1/0/1900	PWS #
7/23/20013	(mm/dd/yyyy)	5070022

Treatment Facility Name:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Indian Springs	Indian Springs	1980	2mgd

Select all disinfection types used:

☑ Gas cl2 ☐ UV Light ☐ Sodium Hypochlorite ☐ Calcium Hypochlorite ☐ Miox ☐ Ozone ☐ Chlorine Dioxide ☐ Other

yes	no	n/a	unk	note	DISINFECTION
☑	☐	☐	☐	☐	1. Is disinfection used on a voluntary basis to prevent bacterial contamination of the distribution system?
☐	☑	☐	☐	☐	2. Any interruptions in disinfection in the past year? If yes, comment.
☐	☑	☐	☐	☐	3. Have any changes been made to this treatment facility since the last ESS?
☐	☐	☑	☐	☐	4. If yes, were plans and specs submitted to DEQ? Date approved:
☑	☐	☐	☐	☐	5. Does the system have a means of measuring the residual disinfectant concentrations of free chlorine, combined chlorine (chloramines), and/or chlorine dioxide?
☑	☐	☐	☐	☐	6. Is a smooth nosed sample tap provided before and after treatment?
☑	☐	☐	☐	☐	7. Is a chlorine residual being recorded when all compliance total coliform samples are being taken?

yes	no	n/a	unk	note	VOLUNTARY DISINFECTION
☑	☐	☐	☐	☐	8. Is a measurable free chlorine residual maintained throughout the distribution system? *(Recommended)*
☑	☐	☐	☐	☐	9. Is the free chlorine residual being measured daily? *(Recommended)*
☑	☐	☐	☐	☐	10. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☑	☐	☐	☐	☐	11. Is the analysis for free chlorine residual being made at a frequency that is sufficient to detect variations in chlorine demand or changes in water flow?

yes	no	n/a	unk	note	REQUIRED DISINFECTION
☐	☐	☑	☐	☐	12. Is the free chlorine residual being measured daily at a location prior to the first service connection?
☐	☐	☑	☐	☐	13. Is the daily free chlorine residual being recorded and kept on file for a minimum of 1 year?
☐	☐	☑	☐	☐	14. Is a detectable chlorine residual maintained throughout the distribution system?
☐	☐	☑	☐	☐	15. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☐	☐	☑	☐	☐	16. Where chlorination is required for protection of the supply, is there standby equipment of sufficient capacity available to replace the largest unit?
☐	☐	☑	☐	☐	17. If primary disinfection is accomplished using ozone or some other chemical that does not provide a residual disinfectant, is chlorine added to provide a residual disinfectant?

Comments:
(Please indicate the question number)

DISINFECTION - PG. 2	Treatment Facility Location: Indian Springs	Survey Date 7/23/20013 (mm/dd/yyyy)	PWS # 5070022

GAS DISINFECTION ONLY - Fill out any time Gas Chlorination is connected to the PWS.

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	PROTECTIVE EQUIPMENT
☑	☐	☐	☐	☐	18. Is respiratory protection equipment, meeting the requirements of NIOSH available where chlorine gas is handled, and is it stored at a convenient location, but not inside any room where chlorine is used or stored?
☑	☐	☐	☐	☐	19. Does the respiratory protection equipment consist of compressed air, that has at least a 30 minute capacity, and is compatible with or exactly the same as units used by the fire department responsible for the plant?

yes	no	n/a	unk	note	CHLORINE LEAK DETECTION
☑	☐	☐	☐	☐	20. Is a bottle of ammonium hydroxide (56 percent ammonia solution) available for chlorine leak detection?
☐	☐	☑	☐	☐	21. Where ton containers are used, is a leak repair kit approved by the Chlorine Institute provided?
☑	☐	☐	☐	☐	22. Is chlorine gas leak detection equipment provided?
☑	☐	☐	☐	☐	23. Where a leak detector is provided, is it equipped with both an audible alarm and a warning light?

yes	no	n/a	unk	note	CHLORINE ROOM
☑	☐	☐	☐	☐	24. Is a separate room provided for gas chlorination equipment?
☐	☑	☐	☐	☐	25. Do pressurized chlorine feed lines carry chlorine gas beyond the chlorinator room?
☑	☐	☐	☐	☐	26. Is the chlorine room provided with a shatter resistant inspection window installed in an interior wall?
☐ Significant	☐ Deficiency				
☑	☐	☐	☐	☐	27. Is the chlorine room constructed in such a manner that all openings between the chlorine room and the remainder of the plant are sealed?
☑	☐	☐	☐	☐	28. Are the chlorine room doors equipped with panic hardware, assuring ready means of exit and opening outward only to the building exterior?
☑	☐	☐	☐	☐	29. Where chlorine gas is used, does each room have a ventilating fan.
☑	☐	☐	☐	☐	30. Does the ventilating fan take suction near the floor and discharge away from any air inlets?
☑	☐	☐	☐	☐	31. Are all air inlets through louvers near the ceiling?
☑	☐	☐	☐	☐	32. Are there separate switches for the fan and lights located outside of the chlorine room and at the inspection window?
☑	☐	☐	☐	☐	33. Are outside switches protected from vandalism?

yes	no	n/a	unk	note	CHLORINE GAS CYLINDERS
☑	☐	☐	☐	☐	34. Are chlorinator rooms heated to 60 °F, and protected from excessive heat?
☑	☐	☐	☐	☐	35. Are full and empty cylinders of chlorine gas isolated from operating areas?
☑	☐	☐	☐	☐	36. Are full and empty cylinders of chlorine gas restrained in position to prevent upset?
☑	☐	☐	☐	☐	37. Are full and empty cylinders of chlorine gas stored in rooms separate from ammonia storage?
☑	☐	☐	☐	☐	38. Are full and empty cylinders of chlorine gas stored in areas that are not in the direct sunlight or exposed to excessive heat?
☑	☐	☐	☐	☐	39. Is a reasonably precise weight scale provided for weighing cylinders, at all plants utilizing chlorine gas?
☑	☐	☐	☐	☐	40. Is there an automatic switch-over of chlorine cylinders provided, where necessary, to assure continuous disinfection? *(Recommended)*

DISINFECTION - PG. 1 - Systems Using Only Groundwater

A separate form must be filled out for **each** disinfection unit in the PWS.

Survey Date	1/0/1900	PWS #
7/23/20013	(mm/dd/yyyy)	5070022

Treatment Facility Name:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
River St.	River St.	1970	1.5mgd

Select all disinfection types used:

☑ Gas cl2 ☐ UV Light ☐ Sodium Hypochlorite ☐ Calcium Hypochlorite ☐ Miox ☐ Ozone ☐ Chlorine Dioxide ☐ Other

yes	no	n/a	unk	note	DISINFECTION
☑	☐	☐	☐	☐	1. Is disinfection used on a voluntary basis to prevent bacterial contamination of the distribution system?
☐	☑	☐	☐	☐	2. Any interruptions in disinfection in the past year? If yes, comment.
☐	☑	☐	☐	☐	3. Have any changes been made to this treatment facility since the last ESS?
☐	☐	☑	☐	☐	4. If yes, were plans and specs submitted to DEQ? Date approved:
☑	☐	☐	☐	☐	5. Does the system have a means of measuring the residual disinfectant concentrations of free chlorine, combined chlorine (chloramines), and/or chlorine dioxide?
☑	☐	☐	☐	☐	6. Is a smooth nosed sample tap provided before and after treatment?
☑	☐	☐	☐	☐	7. Is a chlorine residual being recorded when all compliance total coliform samples are being taken?

yes	no	n/a	unk	note	VOLUNTARY DISINFECTION
☑	☐	☐	☐	☐	8. Is a measurable free chlorine residual maintained throughout the distribution system? *(Recommended)*
☑	☐	☐	☐	☐	9. Is the free chlorine residual being measured daily? *(Recommended)*
☑	☐	☐	☐	☐	10. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☑	☐	☐	☐	☐	11. Is the analysis for free chlorine residual being made at a frequency that is sufficient to detect variations in chlorine demand or changes in water flow?

yes	no	n/a	unk	note	REQUIRED DISINFECTION
☐	☐	☑	☐	☐	12. Is the free chlorine residual being measured daily at a location prior to the first service connection?
☐	☐	☑	☐	☐	13. Is the daily free chlorine residual being recorded and kept on file for a minimum of 1 year?
☐	☐	☑	☐	☐	14. Is a detectable chlorine residual maintained throughout the distribution system?
☐	☐	☑	☐	☐	15. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☐	☐	☑	☐	☐	16. Where chlorination is required for protection of the supply, is there standby equipment of sufficient capacity available to replace the largest unit?
☐	☐	☑	☐	☐	17. If primary disinfection is accomplished using ozone or some other chemical that does not provide a residual disinfectant, is chlorine added to provide a residual disinfectant?

Comments:
(Please indicate the question number)

DISINFECTION - PG. 2

Treatment Facility Location:	Survey Date	PWS #
River St.	7/23/20013 (mm/dd/yyyy)	5070022

GAS DISINFECTION ONLY - Fill out any time Gas Chlorination is connected to the PWS.

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	PROTECTIVE EQUIPMENT
☑	☐	☐	☐	☐	18. Is respiratory protection equipment, meeting the requirements of NIOSH available where chlorine gas is handled, and is it stored at a convenient location, but not inside any room where chlorine is used or stored?
☑	☐	☐	☐	☐	19. Does the respiratory protection equipment consist of compressed air, that has at least a 30 minute capacity, and is compatible with or exactly the same as units used by the fire department responsible for the plant?

yes	no	n/a	unk	note	CHLORINE LEAK DETECTION
☑	☐	☐	☐	☐	20. Is a bottle of ammonium hydroxide (56 percent ammonia solution) available for chlorine leak detection?
☐	☐	☑	☐	☐	21. Where ton containers are used, is a leak repair kit approved by the Chlorine Institute provided?
☑	☐	☐	☐	☐	22. Is chlorine gas leak detection equipment provided?
☑	☐	☐	☐	☐	23. Where a leak detector is provided, is it equipped with both an audible alarm and a warning light?

yes	no	n/a	unk	note	CHLORINE ROOM
☑	☐	☐	☐	☐	24. Is a separate room provided for gas chlorination equipment?
☐	☑	☐	☐	☐	25. Do pressurized chlorine feed lines carry chlorine gas beyond the chlorinator room?
☑	☐	☐	☐	☐	26. Is the chlorine room provided with a shatter resistant inspection window installed in an interior wall?
☐ Significant	☐ Deficiency				
☑	☐	☐	☐	☐	27. Is the chlorine room constructed in such a manner that all openings between the chlorine room and the remainder of the plant are sealed?
☑	☐	☐	☐	☐	28. Are the chlorine room doors equipped with panic hardware, assuring ready means of exit and opening outward only to the building exterior?
☑	☐	☐	☐	☐	29. Where chlorine gas is used, does each room have a ventilating fan.
☑	☐	☐	☐	☐	30. Does the ventilating fan take suction near the floor and discharge away from any air inlets?
☑	☐	☐	☐	☐	31. Are all air inlets through louvers near the ceiling?
☑	☐	☐	☐	☐	32. Are there separate switches for the fan and lights located outside of the chlorine room and at the inspection window?
☑	☐	☐	☐	☐	33. Are outside switches protected from vandalism?

yes	no	n/a	unk	note	CHLORINE GAS CYLINDERS
☑	☐	☐	☐	☐	34. Are chlorinator rooms heated to 60 °F, and protected from excessive heat?
☑	☐	☐	☐	☐	35. Are full and empty cylinders of chlorine gas isolated from operating areas?
☑	☐	☐	☐	☐	36. Are full and empty cylinders of chlorine gas restrained in position to prevent upset?
☑	☐	☐	☐	☐	37. Are full and empty cylinders of chlorine gas stored in rooms separate from ammonia storage?
☑	☐	☐	☐	☐	38. Are full and empty cylinders of chlorine gas stored in areas that are not in the direct sunlight or exposed to excessive heat?
☑	☐	☐	☐	☐	39. Is a reasonably precise weight scale provided for weighing cylinders, at all plants utilizing chlorine gas?
☑	☐	☐	☐	☐	40. Is there an automatic switch-over of chlorine cylinders provided, where necessary, to assure continuous disinfection? *(Recommended)*

DISINFECTION - PG. 1 - Systems Using Only Groundwater

A separate form must be filled out for **each** disinfection unit in the PWS.

Survey Date	1/0/1900	PWS #
7/23/20013	(mm/dd/yyyy)	5070022

Treatment Facility Name:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Woodside	Woodside	1974	1.5mgd

Select all disinfection types used:

☑ Gas cl2 ☐ UV Light ☐ Sodium Hypochlorite ☐ Calcium Hypochlorite ☐ Miox ☐ Ozone ☐ Chlorine Dioxide ☐ Other

Comments:
(Please indicate the question number)

yes	no	n/a	unk	note	DISINFECTION
☑	☐	☐	☐	☐	1. Is disinfection used on a voluntary basis to prevent bacterial contamination of the distribution system?
☐	☑	☐	☐	☐	2. Any interruptions in disinfection in the past year? If yes, comment.
☐	☑	☐	☐	☐	3. Have any changes been made to this treatment facility since the last ESS?
☐	☐	☑	☐	☐	4. If yes, were plans and specs submitted to DEQ? Date approved:
☑	☐	☐	☐	☐	5. Does the system have a means of measuring the residual disinfectant concentrations of free chlorine, combined chlorine (chloramines), and/or chlorine dioxide?
☑	☐	☐	☐	☐	6. Is a smooth nosed sample tap provided before and after treatment?
☑	☐	☐	☐	☐	7. Is a chlorine residual being recorded when all compliance total coliform samples are being taken?

yes	no	n/a	unk	note	VOLUNTARY DISINFECTION
☑	☐	☐	☐	☐	8. Is a measurable free chlorine residual maintained throughout the distribution system? *(Recommended)*
☑	☐	☐	☐	☐	9. Is the free chlorine residual being measured daily? *(Recommended)*
☑	☐	☐	☐	☐	10. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☑	☐	☐	☐	☐	11. Is the analysis for free chlorine residual being made at a frequency that is sufficient to detect variations in chlorine demand or changes in water flow?

yes	no	n/a	unk	note	REQUIRED DISINFECTION
☐	☐	☑	☐	☐	12. Is the free chlorine residual being measured daily at a location prior to the first service connection?
☐	☐	☑	☐	☐	13. Is the daily free chlorine residual being recorded and kept on file for a minimum of 1 year?
☐	☐	☑	☐	☐	14. Is a detectable chlorine residual maintained throughout the distribution system?
☐	☐	☑	☐	☐	15. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☐	☐	☑	☐	☐	16. Where chlorination is required for protection of the supply, is there standby equipment of sufficient capacity available to replace the largest unit?
☐	☐	☑	☐	☐	17. If primary disinfection is accomplished using ozone or some other chemical that does not provide a residual disinfectant, is chlorine added to provide a residual disinfectant?

DISINFECTION - PG. 2	Treatment Facility Location: Woodside	Survey Date 7/23/20013 (mm/dd/yyyy)	PWS # 5070022

GAS DISINFECTION ONLY - Fill out any time Gas Chlorination is connected to the PWS.

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	PROTECTIVE EQUIPMENT
☑	☐	☐	☐	☐	18. Is respiratory protection equipment, meeting the requirements of NIOSH available where chlorine gas is handled, and is it stored at a convenient location, but not inside any room where chlorine is used or stored?
☑	☐	☐	☐	☐	19. Does the respiratory protection equipment consist of compressed air, that has at least a 30 minute capacity, and is compatible with or exactly the same as units used by the fire department responsible for the plant?

yes	no	n/a	unk	note	CHLORINE LEAK DETECTION
☑	☐	☐	☐	☐	20. Is a bottle of ammonium hydroxide (56 percent ammonia solution) available for chlorine leak detection?
☐	☐	☑	☐	☐	21. Where ton containers are used, is a leak repair kit approved by the Chlorine Institute provided?
☑	☐	☐	☐	☐	22. Is chlorine gas leak detection equipment provided?
☑	☐	☐	☐	☐	23. Where a leak detector is provided, is it equipped with both an audible alarm and a warning light?

yes	no	n/a	unk	note	CHLORINE ROOM
☑	☐	☐	☐	☐	24. Is a separate room provided for gas chlorination equipment?
☐	☑	☐	☐	☐	25. Do pressurized chlorine feed lines carry chlorine gas beyond the chlorinator room?
☑	☐	☐	☐	☐	26. Is the chlorine room provided with a shatter resistant inspection window installed in an interior wall?
☐ Significant	☐ Deficiency				
☑	☐	☐	☐	☐	27. Is the chlorine room constructed in such a manner that all openings between the chlorine room and the remainder of the plant are sealed?
☑	☐	☐	☐	☐	28. Are the chlorine room doors equipped with panic hardware, assuring ready means of exit and opening outward only to the building exterior?
☑	☐	☐	☐	☐	29. Where chlorine gas is used, does each room have a ventilating fan.
☑	☐	☐	☐	☐	30. Does the ventilating fan take suction near the floor and discharge away from any air inlets?
☑	☐	☐	☐	☐	31. Are all air inlets through louvers near the ceiling?
☑	☐	☐	☐	☐	32. Are there separate switches for the fan and lights located outside of the chlorine room and at the inspection window?
☑	☐	☐	☐	☐	33. Are outside switches protected from vandalism?

yes	no	n/a	unk	note	CHLORINE GAS CYLINDERS
☑	☐	☐	☐	☐	34. Are chlorinator rooms heated to 60 °F, and protected from excessive heat?
☑	☐	☐	☐	☐	35. Are full and empty cylinders of chlorine gas isolated from operating areas?
☑	☐	☐	☐	☐	36. Are full and empty cylinders of chlorine gas restrained in position to prevent upset?
☑	☐	☐	☐	☐	37. Are full and empty cylinders of chlorine gas stored in rooms separate from ammonia storage?
☑	☐	☐	☐	☐	38. Are full and empty cylinders of chlorine gas stored in areas that are not in the direct sunlight or exposed to excessive heat?
☑	☐	☐	☐	☐	39. Is a reasonably precise weight scale provided for weighing cylinders, at all plants utilizing chlorine gas?
☑	☐	☐	☐	☐	40. Is there an automatic switch-over of chlorine cylinders provided, where necessary, to assure continuous disinfection? *(Recommended)*

DISINFECTION - PG. 1 - Systems Using Only Groundwater

A separate form must be filled out for **each** disinfection unit in the PWS.

Survey Date	1/0/1900	PWS #
7/23/20013	(mm/dd/yyyy)	5070022

Treatment Facility Name:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Quigley Canyon	Quigley Canyon	2007	

Select all disinfection types used:

☑ Gas cl2 ☐ UV Light ☐ Sodium Hypochlorite ☐ Calcium Hypochlorite ☐ Miox ☐ Ozone ☐ Chlorine Dioxide ☐ Other

yes	no	n/a	unk	note	DISINFECTION
☑	☐	☐	☐	☐	1. Is disinfection used on a voluntary basis to prevent bacterial contamination of the distribution system?
☐	☑	☐	☐	☐	2. Any interruptions in disinfection in the past year? If yes, comment.
☐	☑	☐	☐	☐	3. Have any changes been made to this treatment facility since the last ESS?
☐	☐	☑	☐	☐	4. If yes, were plans and specs submitted to DEQ? Date approved:
☑	☐	☐	☐	☐	5. Does the system have a means of measuring the residual disinfectant concentrations of free chlorine, combined chlorine (chloramines), and/or chlorine dioxide?
☑	☐	☐	☐	☐	6. Is a smooth nosed sample tap provided before and after treatment?
☑	☐	☐	☐	☐	7. Is a chlorine residual being recorded when all compliance total coliform samples are being taken?

yes	no	n/a	unk	note	VOLUNTARY DISINFECTION
☑	☐	☐	☐	☐	8. Is a measurable free chlorine residual maintained throughout the distribution system? *(Recommended)*
☑	☐	☐	☐	☐	9. Is the free chlorine residual being measured daily? *(Recommended)*
☑	☐	☐	☐	☐	10. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☑	☐	☐	☐	☐	11. Is the analysis for free chlorine residual being made at a frequency that is sufficient to detect variations in chlorine demand or changes in water flow?

yes	no	n/a	unk	note	REQUIRED DISINFECTION
☐	☐	☑	☐	☐	12. Is the free chlorine residual being measured daily at a location prior to the first service connection?
☐	☐	☑	☐	☐	13. Is the daily free chlorine residual being recorded and kept on file for a minimum of 1 year?
☐	☐	☑	☐	☐	14. Is a detectable chlorine residual maintained throughout the distribution system?
☐	☐	☑	☐	☐	15. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☐	☐	☑	☐	☐	16. Where chlorination is required for protection of the supply, is there standby equipment of sufficient capacity available to replace the largest unit?
☐	☐	☑	☐	☐	17. If primary disinfection is accomplished using ozone or some other chemical that does not provide a residual disinfectant, is chlorine added to provide a residual disinfectant?

Comments:
(Please indicate the question number)

Treatment Facility Location:	Survey Date		PWS #
Quigley Canyon	7/23/20013	(mm/dd/yyyy)	5070022

GAS DISINFECTION ONLY - Fill out any time Gas Chlorination is connected to the PWS.

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	PROTECTIVE EQUIPMENT
☑	☐	☐	☐	☐	18. Is respiratory protection equipment, meeting the requirements of NIOSH available where chlorine gas is handled, and is it stored at a convenient location, but not inside any room where chlorine is used or stored?
☑	☐	☐	☐	☐	19. Does the respiratory protection equipment consist of compressed air, that has at least a 30 minute capacity, and is compatible with or exactly the same as units used by the fire department responsible for the plant?

yes	no	n/a	unk	note	CHLORINE LEAK DETECTION
☑	☐	☐	☐	☐	20. Is a bottle of ammonium hydroxide (56 percent ammonia solution) available for chlorine leak detection?
☐	☐	☑	☐	☐	21. Where ton containers are used, is a leak repair kit approved by the Chlorine Institute provided?
☑	☐	☐	☐	☐	22. Is chlorine gas leak detection equipment provided?
☑	☐	☐	☐	☐	23. Where a leak detector is provided, is it equipped with both an audible alarm and a warning light?

yes	no	n/a	unk	note	CHLORINE ROOM
☑	☐	☐	☐	☐	24. Is a separate room provided for gas chlorination equipment?
☐	☑	☐	☐	☐	25. Do pressurized chlorine feed lines carry chlorine gas beyond the chlorinator room?
☑	☐	☐	☐	☐	26. Is the chlorine room provided with a shatter resistant inspection window installed in an interior wall?
☐ Significant		☐ Deficiency			
☑	☐	☐	☐	☐	27. Is the chlorine room constructed in such a manner that all openings between the chlorine room and the remainder of the plant are sealed?
☑	☐	☐	☐	☐	28. Are the chlorine room doors equipped with panic hardware, assuring ready means of exit and opening outward only to the building exterior?
☑	☐	☐	☐	☐	29. Where chlorine gas is used, does each room have a ventilating fan.
☑	☐	☐	☐	☐	30. Does the ventilating fan take suction near the floor and discharge away from any air inlets?
☑	☐	☐	☐	☐	31. Are all air inlets through louvers near the ceiling?
☑	☐	☐	☐	☐	32. Are there separate switches for the fan and lights located outside of the chlorine room and at the inspection window?
☑	☐	☐	☐	☐	33. Are outside switches protected from vandalism?

yes	no	n/a	unk	note	CHLORINE GAS CYLINDERS
☑	☐	☐	☐	☐	34. Are chlorinator rooms heated to 60 °F, and protected from excessive heat?
☑	☐	☐	☐	☐	35. Are full and empty cylinders of chlorine gas isolated from operating areas?
☑	☐	☐	☐	☐	36. Are full and empty cylinders of chlorine gas restrained in position to prevent upset?
☑	☐	☐	☐	☐	37. Are full and empty cylinders of chlorine gas stored in rooms separate from ammonia storage?
☑	☐	☐	☐	☐	38. Are full and empty cylinders of chlorine gas stored in areas that are not in the direct sunlight or exposed to excessive heat?
☑	☐	☐	☐	☐	39. Is a reasonably precise weight scale provided for weighing cylinders, at all plants utilizing chlorine gas?
☑	☐	☐	☐	☐	40. Is there an automatic switch-over of chlorine cylinders provided, where necessary, to assure continuous disinfection? *(Recommended)*

DISINFECTION - PG. 1 - Systems Using Only Groundwater

A separate form must be filled out for **each** disinfection unit in the PWS.

Survey Date	1/0/1900	PWS #
7/23/20013	(mm/dd/yyyy)	5070022

Treatment Facility Name:	Treatment Facility Location:	Date Online: ☐ Unk	Treated Water (GPD): ☐ Unk
Northridge	Northridge		

Select all disinfection types used:

☑ Gas cl2 ☐ UV Light ☐ Sodium Hypochlorite ☐ Calcium Hypochlorite ☐ Miox ☐ Ozone ☐ Chlorine Dioxide ☐ Other

Comments:
(Please indicate the question number)

yes	no	n/a	unk	note	DISINFECTION
☑	☐	☐	☐	☐	1. Is disinfection used on a voluntary basis to prevent bacterial contamination of the distribution system?
☐	☑	☐	☐	☐	2. Any interruptions in disinfection in the past year? If yes, comment.
☐	☑	☐	☐	☐	3. Have any changes been made to this treatment facility since the last ESS?
☐	☐	☑	☐	☐	4. If yes, were plans and specs submitted to DEQ? Date approved:
☑	☐	☐	☐	☐	5. Does the system have a means of measuring the residual disinfectant concentrations of free chlorine, combined chlorine (chloramines), and/or chlorine dioxide?
☑	☐	☐	☐	☐	6. Is a smooth nosed sample tap provided before and after treatment?
☑	☐	☐	☐	☐	7. Is a chlorine residual being recorded when all compliance total coliform samples are being taken?

yes	no	n/a	unk	note	VOLUNTARY DISINFECTION
☑	☐	☐	☐	☐	8. Is a measurable free chlorine residual maintained throughout the distribution system? *(Recommended)*
☑	☐	☐	☐	☐	9. Is the free chlorine residual being measured daily? *(Recommended)*
☑	☐	☐	☐	☐	10. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☑	☐	☐	☐	☐	11. Is the analysis for free chlorine residual being made at a frequency that is sufficient to detect variations in chlorine demand or changes in water flow?

yes	no	n/a	unk	note	REQUIRED DISINFECTION
☐	☐	☑	☐	☐	12. Is the free chlorine residual being measured daily at a location prior to the first service connection?
☐	☐	☑	☐	☐	13. Is the daily free chlorine residual being recorded and kept on file for a minimum of 1 year?
☐	☐	☑	☐	☐	14. Is a detectable chlorine residual maintained throughout the distribution system?
☐	☐	☑	☐	☐	15. Is an automatic proportioning chlorinator being used where the rate of flow is not reasonably constant?
☐	☐	☑	☐	☐	16. Where chlorination is required for protection of the supply, is there standby equipment of sufficient capacity available to replace the largest unit?
☐	☐	☑	☐	☐	17. If primary disinfection is accomplished using ozone or some other chemical that does not provide a residual disinfectant, is chlorine added to provide a residual disinfectant?

DISINFECTION - PG. 2	Treatment Facility Location: Northridge	Survey Date 7/23/20013 (mm/dd/yyyy)	PWS # 5070022

GAS DISINFECTION ONLY - Fill out any time Gas Chlorination is connected to the PWS.

Comments: (Please indicate the question number)

yes	no	n/a	unk	note	PROTECTIVE EQUIPMENT
☑	☐	☐	☐	☐	18. Is respiratory protection equipment, meeting the requirements of NIOSH available where chlorine gas is handled, and is it stored at a convenient location, but not inside any room where chlorine is used or stored?
☑	☐	☐	☐	☐	19. Does the respiratory protection equipment consist of compressed air, that has at least a 30 minute capacity, and is compatible with or exactly the same as units used by the fire department responsible for the plant?

yes	no	n/a	unk	note	CHLORINE LEAK DETECTION
☑	☐	☐	☐	☐	20. Is a bottle of ammonium hydroxide (56 percent ammonia solution) available for chlorine leak detection?
☐	☐	☑	☐	☐	21. Where ton containers are used, is a leak repair kit approved by the Chlorine Institute provided?
☑	☐	☐	☐	☐	22. Is chlorine gas leak detection equipment provided?
☑	☐	☐	☐	☐	23. Where a leak detector is provided, is it equipped with both an audible alarm and a warning light?

yes	no	n/a	unk	note	CHLORINE ROOM
☑	☐	☐	☐	☐	24. Is a separate room provided for gas chlorination equipment?
☐	☑	☐	☐	☐	25. Do pressurized chlorine feed lines carry chlorine gas beyond the chlorinator room?
☑	☐	☐	☐	☐	26. Is the chlorine room provided with a shatter resistant inspection window installed in an interior wall?
☐ Significant	☐ Deficiency				
☑	☐	☐	☐	☐	27. Is the chlorine room constructed in such a manner that all openings between the chlorine room and the remainder of the plant are sealed?
☑	☐	☐	☐	☐	28. Are the chlorine room doors equipped with panic hardware, assuring ready means of exit and opening outward only to the building exterior?
☑	☐	☐	☐	☐	29. Where chlorine gas is used, does each room have a ventilating fan.
☑	☐	☐	☐	☐	30. Does the ventilating fan take suction near the floor and discharge away from any air inlets?
☑	☐	☐	☐	☐	31. Are all air inlets through louvers near the ceiling?
☑	☐	☐	☐	☐	32. Are there separate switches for the fan and lights located outside of the chlorine room and at the inspection window?
☑	☐	☐	☐	☐	33. Are outside switches protected from vandalism?

yes	no	n/a	unk	note	CHLORINE GAS CYLINDERS
☑	☐	☐	☐	☐	34. Are chlorinator rooms heated to 60 °F, and protected from excessive heat?
☑	☐	☐	☐	☐	35. Are full and empty cylinders of chlorine gas isolated from operating areas?
☑	☐	☐	☐	☐	36. Are full and empty cylinders of chlorine gas restrained in position to prevent upset?
☑	☐	☐	☐	☐	37. Are full and empty cylinders of chlorine gas stored in rooms separate from ammonia storage?
☑	☐	☐	☐	☐	38. Are full and empty cylinders of chlorine gas stored in areas that are not in the direct sunlight or exposed to excessive heat?
☑	☐	☐	☐	☐	39. Is a reasonably precise weight scale provided for weighing cylinders, at all plants utilizing chlorine gas?
☑	☐	☐	☐	☐	40. Is there an automatic switch-over of chlorine cylinders provided, where necessary, to assure continuous disinfection? *(Recommended)*

State of Idaho
Department of Environmental Quality
Photo Log

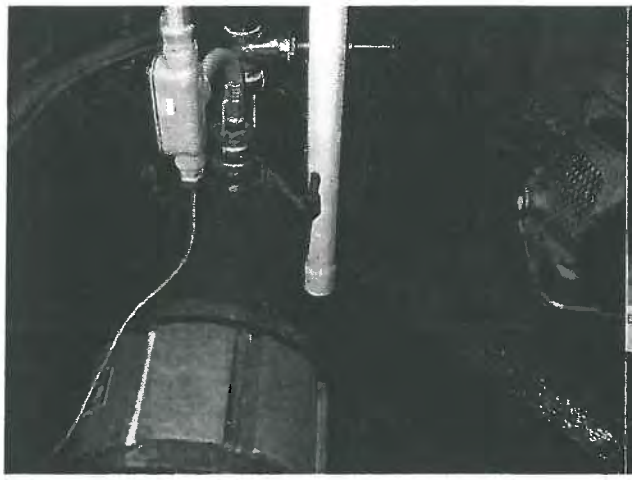
Name of Facility:		Inspection Date	PWS#
City Of Hailey		7/23/20013 (mm/dd/yyyy)	5070022
Camera Type: ☑ Digital ☐ 35mm ☐ Other:	Camera Brand: Olympus	Camera Model: FE-47	Camera ID#: U9XA50464

Photo:	Date:	By: (initials)	Direction: (N,S,E,W, etc.)	File Name:	Description:
1	7/23/2013	MB		City of Hailey	Woodside Press/Vac Plumbing
2	7/23/2013	MB		City of Hailey	Woodside Un-Approved Chlorinator Tubing
3	7/23/2013	MB		City of Hailey	Woodside Press/Vac Plumbing
4	7/23/2013	MB		City of Hailey	Woodside Un-Approved Chlorinator Tubing
5	7/23/2013	MB		City of Hailey	Abandoned well at Woodside
6	7/23/2013	MB		City of Hailey	Un-Approved plumbing at Quigley Canyon
7	7/23/2013	MB		City of Hailey	Un-Approved chemical tank Quigley Canyon
8	7/23/2013	MB		City of Hailey	Chlorinator Control Quigley Canyon
9	7/23/2013	MB		City of Hailey	3rd Street Press/Vac Plumbing
10	7/23/2013	MB		City of Hailey	Riverstreet Un-Approved Chlorinator Tubing
11	7/23/2013	MB		City of Hailey	Riverstreet Press/Vac Plumbing
12	7/23/2013	MB		City of Hailey	Northridge Press/Vac Plumbing & Un-Approved Chlorinator Tubing
13	7/23/2013	MB		City of Hailey	Abandoned Well 411 McKercher
14	7/23/2013	MB		City of Hailey	Riverside Un-Approved Tubing
15	7/23/2013	MB		City of Hailey	Riverside Un-Approved Chlorinator Tubing

The photographers signature below signifies that the images identified on this photo log have not been tampered with and are representative of what was seen in the field.

Photographer(s) Signature(s): Date: 8/1/2013

Page _____ Of _____



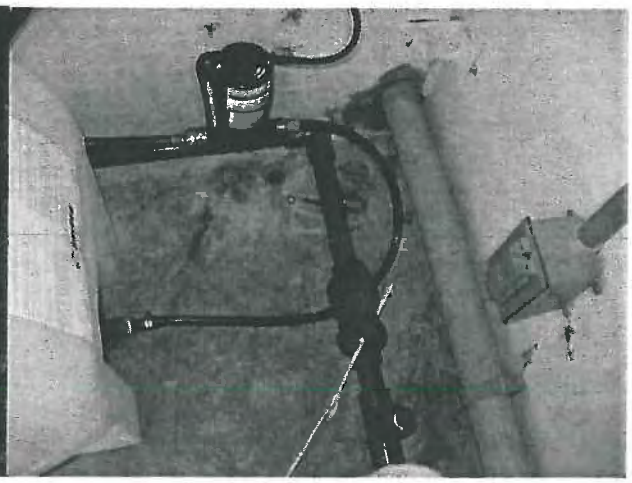
#1 Woodside Press/Vac Plumbing

#2 Woodside Un-Approved Chlorinator Tubing

#3 Woodside Press/Vac Plumbing

#4 Woodside Un-Approved Chlorinator Tubing

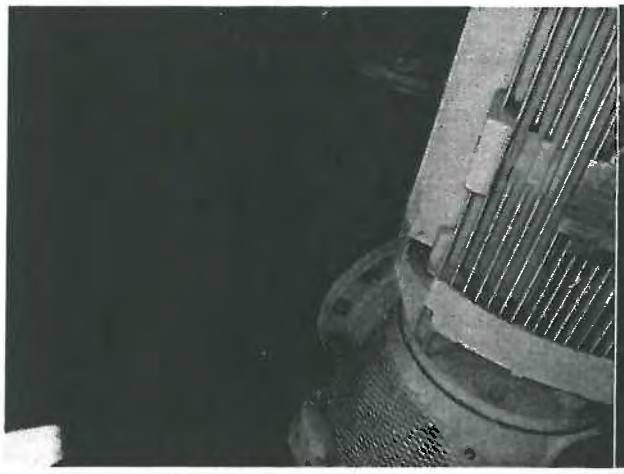
#5 Abandoned well at Woodside



#6 Un-Approved plumbing at Quigley Canyon

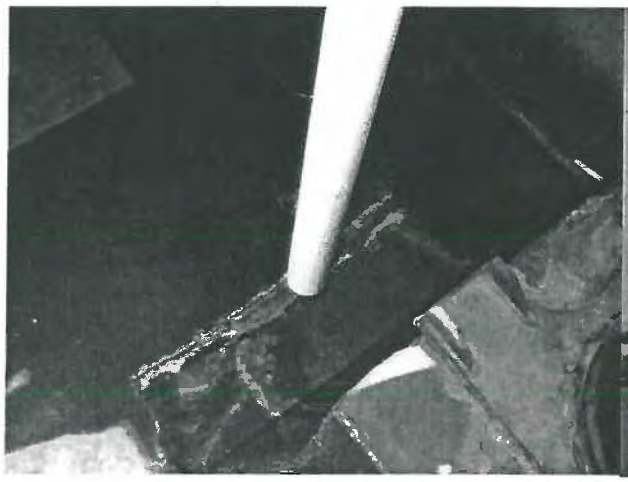
#7 Un-Approved chemical tank Quigley Canyon

#8 Chlorinator Control Quigley Canyon

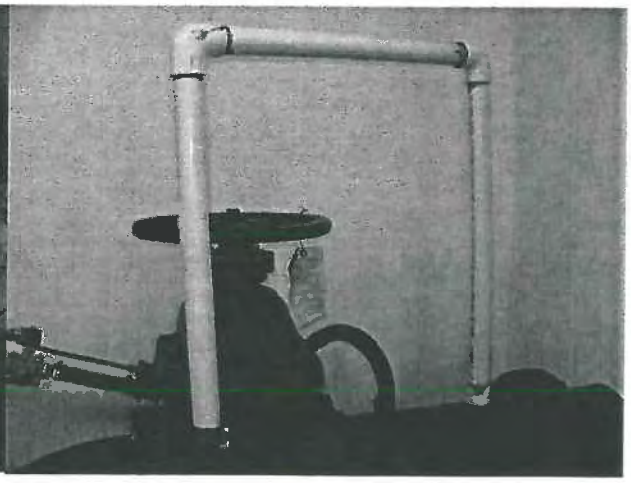


#9 3rd Street Press/Vac Plumbing

#10 Riverstreet Un-Approved Chlorinator Tubing



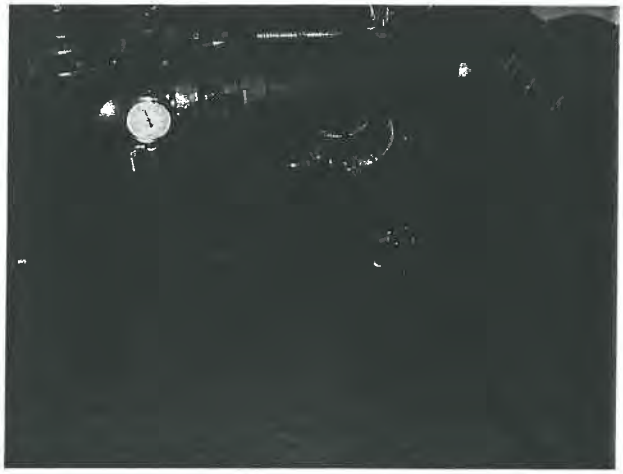
#11 Riverstreet Press/Vac Plumbing



#12 Northridge Press/Vac Plumbing & Un-Approved Chlorinator Tubing

#13 Abandoned Well 411 McKercher

#14 Riverside Un-Approved Tubing



#15 Riverside Un-Approved Chlorinator Tubing

Water Quality Data

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
INDIAN SPRINGS	1,1,1-TRICHLOROETHANE	0		24-Aug-09	VOC
INDIAN SPRINGS	1,1,1-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	1,1,1-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	1,1,1-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	1,1,1-TRICHLOROETHANE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	1,1,2-TRICHLOROETHANE	0		24-Aug-09	VOC
INDIAN SPRINGS	1,1,2-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	1,1,2-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	1,1,2-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	1,1,2-TRICHLOROETHANE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	1,1-DICHLOROETHYLENE	0		24-Aug-09	VOC
INDIAN SPRINGS	1,1-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	1,1-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	1,1-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	1,1-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	1,2,4-TRICHLOROBENZENE	0		24-Aug-09	VOC
INDIAN SPRINGS	1,2,4-TRICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	1,2,4-TRICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	1,2,4-TRICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	1,2,4-TRICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	1,2-DICHLOROETHANE	0		24-Aug-09	VOC
INDIAN SPRINGS	1,2-DICHLOROETHANE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	1,2-DICHLOROETHANE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	1,2-DICHLOROETHANE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	1,2-DICHLOROETHANE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	1,2-DICHLOROPROPANE	0		24-Aug-09	VOC
INDIAN SPRINGS	1,2-DICHLOROPROPANE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	1,2-DICHLOROPROPANE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	1,2-DICHLOROPROPANE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	1,2-DICHLOROPROPANE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	2,4,5-TP	0	UG/L	14-Aug-00	SOC
INDIAN SPRINGS	2,4-D	0	UG/L	14-Aug-00	SOC
INDIAN SPRINGS	ANTIMONY, TOTAL	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	ANTIMONY, TOTAL	0	MG/L	14-Aug-00	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
INDIAN SPRINGS	ANTIMONY, TOTAL	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	ARSENIC	0		24-Aug-09	IOC
INDIAN SPRINGS	ARSENIC	0	MG/L	19-Jul-07	IOC
INDIAN SPRINGS	ARSENIC	0	MG/L	23-Aug-06	IOC
INDIAN SPRINGS	ARSENIC	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	ARSENIC	0	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	ARSENIC	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	BARIUM	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	BARIUM	0.05	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	BARIUM	0.044	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	BENZENE	0		24-Aug-09	VOC
INDIAN SPRINGS	BENZENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	BENZENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	BENZENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	BENZENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	BERYLLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	BERYLLIUM, TOTAL	0	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	BERYLLIUM, TOTAL	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	CADMIUM	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	CADMIUM	0	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	CADMIUM	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	CARBON TETRACHLORIDE	0		24-Aug-09	VOC
INDIAN SPRINGS	CARBON TETRACHLORIDE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	CARBON TETRACHLORIDE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	CARBON TETRACHLORIDE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	CARBON TETRACHLORIDE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	CHLOROBENZENE	0		24-Aug-09	VOC
INDIAN SPRINGS	CHLOROBENZENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	CHLOROBENZENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	CHLOROBENZENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	CHLOROBENZENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	CHROMIUM	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	CHROMIUM	0.007	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	CHROMIUM	0	MG/L	22-Dec-97	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
INDIAN SPRINGS	CIS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
INDIAN SPRINGS	CIS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	CIS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	CIS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	CIS-1,2-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	DALAPON	0	UG/L	14-Aug-00	SOC
INDIAN SPRINGS	DI(2-ETHYLHEXYL) PHTHALATE		UG/L	20-Jul-98	SOC
INDIAN SPRINGS	DICHLOROMETHANE	0		24-Aug-09	VOC
INDIAN SPRINGS	DICHLOROMETHANE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	DICHLOROMETHANE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	DICHLOROMETHANE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	DICHLOROMETHANE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	DINOSEB	0	UG/L	14-Aug-00	SOC
INDIAN SPRINGS	ETHYLBENZENE	0		24-Aug-09	VOC
INDIAN SPRINGS	ETHYLBENZENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	ETHYLBENZENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	ETHYLBENZENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	ETHYLBENZENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	FLUORIDE	0.94	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	FLUORIDE	0	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	FLUORIDE	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	FLUORIDE	0.07	MG/L	19-Oct-94	IOC
INDIAN SPRINGS	MERCURY	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	MERCURY	0	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	MERCURY	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	NICKEL	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	NICKEL	0	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	NICKEL	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	NITRATE	0.38	MG/L	11-Aug-14	IOC
INDIAN SPRINGS	NITRATE	0.36	MG/L	09-Sep-13	IOC
INDIAN SPRINGS	NITRATE	0.39	MG/L	27-Aug-12	IOC
INDIAN SPRINGS	NITRATE	0.4	MG/L	19-Jul-11	IOC
INDIAN SPRINGS	NITRATE	0.37	MG/L	09-Aug-10	IOC
INDIAN SPRINGS	NITRATE	0.4	MG/L	24-Aug-09	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
INDIAN SPRINGS	NITRATE	0.45	MG/L	25-Aug-08	IOC
INDIAN SPRINGS	NITRATE	0.82	MG/L	19-Jul-07	IOC
INDIAN SPRINGS	NITRATE	0.33	MG/L	23-Aug-06	IOC
INDIAN SPRINGS	NITRATE	0.37	MG/L	30-Sep-05	IOC
INDIAN SPRINGS	NITRATE	0.34	MG/L	22-Dec-04	IOC
INDIAN SPRINGS	NITRATE	0.44	MG/L	08-Oct-03	IOC
INDIAN SPRINGS	NITRATE	0.32	MG/L	19-Aug-02	IOC
INDIAN SPRINGS	NITRATE	0.31	MG/L	12-Dec-01	IOC
INDIAN SPRINGS	NITRATE	0.26	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	NITRITE	0		09-Sep-13	IOC
INDIAN SPRINGS	O-DICHLOROBENZENE	0		24-Aug-09	VOC
INDIAN SPRINGS	O-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	O-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	O-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	O-DICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	P-DICHLOROBENZENE	0		24-Aug-09	VOC
INDIAN SPRINGS	P-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	P-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	P-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	P-DICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	PICLORAM	0	UG/L	14-Aug-00	SOC
INDIAN SPRINGS	SELENIUM	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	SELENIUM	0	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	SELENIUM	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	SODIUM	4.2	MG/L	09-Sep-13	IOC
INDIAN SPRINGS	SODIUM	4.12	MG/L	24-Aug-09	IOC
INDIAN SPRINGS	SODIUM	6.54	MG/L	30-Sep-05	IOC
INDIAN SPRINGS	SODIUM	3.79	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	SODIUM	3	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	SODIUM	4	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	STYRENE	0		24-Aug-09	VOC
INDIAN SPRINGS	STYRENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	STYRENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	STYRENE	0	UG/L	26-Jan-00	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
INDIAN SPRINGS	STYRENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	TETRACHLOROETHYLENE	0		24-Aug-09	VOC
INDIAN SPRINGS	TETRACHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	TETRACHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	TETRACHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	TETRACHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	THALLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
INDIAN SPRINGS	THALLIUM, TOTAL	0	MG/L	14-Aug-00	IOC
INDIAN SPRINGS	THALLIUM, TOTAL	0	MG/L	22-Dec-97	IOC
INDIAN SPRINGS	TOLUENE	0		24-Aug-09	VOC
INDIAN SPRINGS	TOLUENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	TOLUENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	TOLUENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	TOLUENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	TRANS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
INDIAN SPRINGS	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	TRICHLOROETHYLENE	0		24-Aug-09	VOC
INDIAN SPRINGS	TRICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	TRICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	TRICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	TRICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	VINYL CHLORIDE	0		24-Aug-09	VOC
INDIAN SPRINGS	VINYL CHLORIDE	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	VINYL CHLORIDE	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	VINYL CHLORIDE	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	VINYL CHLORIDE	0	UG/L	20-Jul-98	VOC
INDIAN SPRINGS	XYLENES, TOTAL	0		24-Aug-09	VOC
INDIAN SPRINGS	XYLENES, TOTAL	0	MG/L	30-Sep-05	VOC
INDIAN SPRINGS	XYLENES, TOTAL	0	MG/L	20-Aug-02	VOC
INDIAN SPRINGS	XYLENES, TOTAL	0	UG/L	26-Jan-00	VOC
INDIAN SPRINGS	XYLENES, TOTAL	0	UG/L	20-Jul-98	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,1-TRICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1,2-TRICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,1-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2,4-TRICHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0		24-Aug-09	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	1,2-DICHLOROPROPANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	2,4,5-TP	0	UG/L	15-Aug-00	SOC
NORTH RIDGE WELLFIELD (A,B&C)	2,4,5-TP	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	2,4,5-TP	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	2,4,5-TP	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	2,4-D	0	UG/L	15-Aug-00	SOC
NORTH RIDGE WELLFIELD (A,B&C)	2,4-D	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	2,4-D	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	2,4-D	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	ANTIMONY, TOTAL	0	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ANTIMONY, TOTAL	0	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ANTIMONY, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ANTIMONY, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ANTIMONY, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0		24-Aug-09	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	19-Jul-07	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	19-Jul-07	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	23-Aug-06	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	23-Aug-06	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	23-Aug-06	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	20-Aug-02	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ARSENIC	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	ATRAZINE	0	MG/L	30-Sep-05	SOC
NORTH RIDGE WELLFIELD (A,B&C)	ATRAZINE	0	MG/L	20-Aug-02	SOC
NORTH RIDGE WELLFIELD (A,B&C)	BARIUM	0	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BARIUM	0.05	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BARIUM	0.053	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BARIUM	0.054	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BARIUM	0.054	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	BERYLLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BERYLLIUM, TOTAL	0	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BERYLLIUM, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BERYLLIUM, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	BERYLLIUM, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CADMIUM	0	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CADMIUM	0	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CADMIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CADMIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CADMIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0	UG/L	17-Feb-98	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CARBON TETRACHLORIDE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CHROMIUM	0	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CHROMIUM	0.007	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CHROMIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CHROMIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CHROMIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	CIS-1,2-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DALAPON	0	UG/L	15-Aug-00	SOC
NORTH RIDGE WELLFIELD (A,B&C)	DALAPON	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	DALAPON	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	DALAPON	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	DI(2-ETHYLHEXYL) PHTHALATE		UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	DI(2-ETHYLHEXYL) PHTHALATE		UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	DI(2-ETHYLHEXYL) PHTHALATE		UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0	UG/L	26-Jan-00	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DICHLOROMETHANE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	DINOSEB	0	UG/L	15-Aug-00	SOC
NORTH RIDGE WELLFIELD (A,B&C)	DINOSEB	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	DINOSEB	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	DINOSEB	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	ETHYLBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	FLUORIDE	0.23	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	FLUORIDE	0.2	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	FLUORIDE	0.6	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	FLUORIDE	0.5	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	FLUORIDE	0.5	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	MERCURY	0	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	MERCURY	0	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	MERCURY	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	MERCURY	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	MERCURY	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NICKEL	0	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NICKEL	0	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NICKEL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NICKEL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NICKEL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.69	MG/L	11-Aug-14	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.62	MG/L	09-Sep-13	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.69	MG/L	27-Aug-12	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.69	MG/L	19-Jul-11	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.67	MG/L	09-Aug-10	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.64	MG/L	24-Aug-09	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.71	MG/L	25-Aug-08	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	1.14	MG/L	19-Jul-07	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	1.06	MG/L	19-Jul-07	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.56	MG/L	23-Aug-06	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.6	MG/L	23-Aug-06	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.6	MG/L	23-Aug-06	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.61	MG/L	30-Sep-05	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.56	MG/L	22-Dec-04	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.58	MG/L	08-Oct-03	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.54	MG/L	08-Oct-03	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.58	MG/L	08-Oct-03	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.57	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.49	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.21	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.47	MG/L	12-Dec-01	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.44	MG/L	12-Dec-01	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.13	MG/L	12-Dec-01	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRATE	0.48	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	NITRITE	0		09-Sep-13	IOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	O-DICHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0	UG/L	17-Feb-98	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	P-DICHLOROBENZENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	PICLORAM	0	UG/L	15-Aug-00	SOC
NORTH RIDGE WELLFIELD (A,B&C)	PICLORAM	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	PICLORAM	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	PICLORAM	0	UG/L	17-Feb-98	DBP
NORTH RIDGE WELLFIELD (A,B&C)	SELENIUM	0	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SELENIUM	0	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SELENIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SELENIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SELENIUM	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SODIUM	15	MG/L	09-Sep-13	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SODIUM	4.2	MG/L	24-Aug-09	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SODIUM	5.7	MG/L	30-Sep-05	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SODIUM	3.51	MG/L	20-Aug-02	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SODIUM	3	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SODIUM	3.55	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SODIUM	3.46	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	SODIUM	3.61	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	STYRENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TETRACHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	THALLIUM, TOTAL	0	MG/L	20-Aug-02	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	THALLIUM, TOTAL	0	MG/L	15-Aug-00	IOC
NORTH RIDGE WELLFIELD (A,B&C)	THALLIUM, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	THALLIUM, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	THALLIUM, TOTAL	0	MG/L	17-Feb-98	IOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TOLUENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	TRICHLOROETHYLENE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0	UG/L	26-Jan-00	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	VINYL CHLORIDE	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0		24-Aug-09	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0	MG/L	30-Sep-05	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0	MG/L	20-Aug-02	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0	UG/L	26-Jan-00	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0	UG/L	17-Feb-98	VOC
NORTH RIDGE WELLFIELD (A,B&C)	XYLENES, TOTAL	0	UG/L	17-Feb-98	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
RIVER ST WELL	1,1,1-TRICHLOROETHANE	0		24-Aug-09	VOC
RIVER ST WELL	1,1,1-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	1,1,1-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	1,1,1-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	1,1,1-TRICHLOROETHANE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	1,1,2-TRICHLOROETHANE	0		24-Aug-09	VOC
RIVER ST WELL	1,1,2-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	1,1,2-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	1,1,2-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	1,1,2-TRICHLOROETHANE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	1,1-DICHLOROETHYLENE	0		24-Aug-09	VOC
RIVER ST WELL	1,1-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	1,1-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	1,1-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	1,1-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	1,2,4-TRICHLOROBENZENE	0		24-Aug-09	VOC
RIVER ST WELL	1,2,4-TRICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	1,2,4-TRICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	1,2,4-TRICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	1,2,4-TRICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	1,2-DICHLOROETHANE	0		24-Aug-09	VOC
RIVER ST WELL	1,2-DICHLOROETHANE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	1,2-DICHLOROETHANE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	1,2-DICHLOROETHANE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	1,2-DICHLOROETHANE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	1,2-DICHLOROPROPANE	0		24-Aug-09	VOC
RIVER ST WELL	1,2-DICHLOROPROPANE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	1,2-DICHLOROPROPANE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	1,2-DICHLOROPROPANE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	1,2-DICHLOROPROPANE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	2,4,5-TP	0	UG/L	14-Aug-00	SOC
RIVER ST WELL	2,4-D	0	UG/L	14-Aug-00	SOC
RIVER ST WELL	ANTIMONY, TOTAL	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	ANTIMONY, TOTAL	0	MG/L	14-Aug-00	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
RIVER ST WELL	ANTIMONY, TOTAL	0	MG/L	22-Dec-97	IOC
RIVER ST WELL	ARSENIC	0		24-Aug-09	IOC
RIVER ST WELL	ARSENIC	0	MG/L	19-Jul-07	IOC
RIVER ST WELL	ARSENIC	0	MG/L	23-Aug-06	IOC
RIVER ST WELL	ARSENIC	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	ARSENIC	0	MG/L	14-Aug-00	IOC
RIVER ST WELL	ARSENIC	0	MG/L	22-Dec-97	IOC
RIVER ST WELL	BARIUM	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	BARIUM	0.05	MG/L	14-Aug-00	IOC
RIVER ST WELL	BARIUM	0.051	MG/L	22-Dec-97	IOC
RIVER ST WELL	BENZENE	0		24-Aug-09	VOC
RIVER ST WELL	BENZENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	BENZENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	BENZENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	BENZENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	BERYLLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	BERYLLIUM, TOTAL	0	MG/L	14-Aug-00	IOC
RIVER ST WELL	BERYLLIUM, TOTAL	0	MG/L	22-Dec-97	IOC
RIVER ST WELL	CADMIUM	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	CADMIUM	0	MG/L	14-Aug-00	IOC
RIVER ST WELL	CADMIUM	0	MG/L	22-Dec-97	IOC
RIVER ST WELL	CARBON TETRACHLORIDE	0		24-Aug-09	VOC
RIVER ST WELL	CARBON TETRACHLORIDE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	CARBON TETRACHLORIDE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	CARBON TETRACHLORIDE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	CARBON TETRACHLORIDE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	CHLOROBENZENE	0		24-Aug-09	VOC
RIVER ST WELL	CHLOROBENZENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	CHLOROBENZENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	CHLOROBENZENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	CHLOROBENZENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	CHROMIUM	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	CHROMIUM	0.008	MG/L	14-Aug-00	IOC
RIVER ST WELL	CHROMIUM	0	MG/L	22-Dec-97	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
RIVER ST WELL	CIS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
RIVER ST WELL	CIS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	CIS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	CIS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	CIS-1,2-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	DALAPON	0	UG/L	14-Aug-00	SOC
RIVER ST WELL	DI(2-ETHYLHEXYL) PHTHALATE	2.8	UG/L	20-Jul-98	SOC
RIVER ST WELL	DICHLOROMETHANE	0		24-Aug-09	VOC
RIVER ST WELL	DICHLOROMETHANE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	DICHLOROMETHANE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	DICHLOROMETHANE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	DICHLOROMETHANE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	DINOSEB	0	UG/L	14-Aug-00	SOC
RIVER ST WELL	ETHYLBENZENE	0		24-Aug-09	VOC
RIVER ST WELL	ETHYLBENZENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	ETHYLBENZENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	ETHYLBENZENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	ETHYLBENZENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	FLUORIDE	0.3	MG/L	20-Aug-02	IOC
RIVER ST WELL	FLUORIDE	0.4	MG/L	14-Aug-00	IOC
RIVER ST WELL	FLUORIDE	0.21	MG/L	22-Dec-97	IOC
RIVER ST WELL	FLUORIDE	0.23	MG/L	19-Oct-94	IOC
RIVER ST WELL	MERCURY	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	MERCURY	0	MG/L	14-Aug-00	IOC
RIVER ST WELL	MERCURY	0	MG/L	22-Dec-97	IOC
RIVER ST WELL	NICKEL	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	NICKEL	0	MG/L	14-Aug-00	IOC
RIVER ST WELL	NICKEL	0	MG/L	22-Dec-97	IOC
RIVER ST WELL	NITRATE	0.33	MG/L	11-Aug-14	IOC
RIVER ST WELL	NITRATE	0		09-Sep-13	IOC
RIVER ST WELL	NITRATE	0.4	MG/L	27-Aug-12	IOC
RIVER ST WELL	NITRATE	0.64	MG/L	19-Jul-11	IOC
RIVER ST WELL	NITRATE	0.49	MG/L	09-Aug-10	IOC
RIVER ST WELL	NITRATE	0.31	MG/L	24-Aug-09	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
RIVER ST WELL	NITRATE	0.43	MG/L	25-Aug-08	IOC
RIVER ST WELL	NITRATE	0.69	MG/L	19-Jul-07	IOC
RIVER ST WELL	NITRATE	0.51	MG/L	23-Aug-06	IOC
RIVER ST WELL	NITRATE	0.3	MG/L	30-Sep-05	IOC
RIVER ST WELL	NITRATE	0.27	MG/L	22-Dec-04	IOC
RIVER ST WELL	NITRATE	0.31	MG/L	08-Oct-03	IOC
RIVER ST WELL	NITRATE	0.41	MG/L	13-Aug-02	IOC
RIVER ST WELL	NITRATE	0.3	MG/L	12-Dec-01	IOC
RIVER ST WELL	NITRATE	1.19	MG/L	14-Aug-00	IOC
RIVER ST WELL	NITRITE	0		09-Sep-13	IOC
RIVER ST WELL	O-DICHLOROBENZENE	0		24-Aug-09	VOC
RIVER ST WELL	O-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	O-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	O-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	O-DICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	P-DICHLOROBENZENE	0		24-Aug-09	VOC
RIVER ST WELL	P-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	P-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	P-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	P-DICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	PICLORAM	0	UG/L	14-Aug-00	SOC
RIVER ST WELL	SELENIUM	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	SELENIUM	0	MG/L	14-Aug-00	IOC
RIVER ST WELL	SELENIUM	0	MG/L	22-Dec-97	IOC
RIVER ST WELL	SODIUM	5.7	MG/L	09-Sep-13	IOC
RIVER ST WELL	SODIUM	5.82	MG/L	24-Aug-09	IOC
RIVER ST WELL	SODIUM	8.01	MG/L	30-Sep-05	IOC
RIVER ST WELL	SODIUM	5.27	MG/L	20-Aug-02	IOC
RIVER ST WELL	SODIUM	4	MG/L	14-Aug-00	IOC
RIVER ST WELL	SODIUM	4.8	MG/L	22-Dec-97	IOC
RIVER ST WELL	STYRENE	0		24-Aug-09	VOC
RIVER ST WELL	STYRENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	STYRENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	STYRENE	0	UG/L	26-Jan-00	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
RIVER ST WELL	STYRENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	TETRACHLOROETHYLENE	0		24-Aug-09	VOC
RIVER ST WELL	TETRACHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	TETRACHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	TETRACHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	TETRACHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	THALLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
RIVER ST WELL	THALLIUM, TOTAL	0	MG/L	14-Aug-00	IOC
RIVER ST WELL	THALLIUM, TOTAL	0	MG/L	22-Dec-97	IOC
RIVER ST WELL	TOLUENE	0		24-Aug-09	VOC
RIVER ST WELL	TOLUENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	TOLUENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	TOLUENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	TOLUENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	TRANS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
RIVER ST WELL	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	TRICHLOROETHYLENE	0		24-Aug-09	VOC
RIVER ST WELL	TRICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	TRICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	TRICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	TRICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	VINYL CHLORIDE	0		24-Aug-09	VOC
RIVER ST WELL	VINYL CHLORIDE	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	VINYL CHLORIDE	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	VINYL CHLORIDE	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	VINYL CHLORIDE	0	UG/L	20-Jul-98	VOC
RIVER ST WELL	XYLENES, TOTAL	0		24-Aug-09	VOC
RIVER ST WELL	XYLENES, TOTAL	0	MG/L	30-Sep-05	VOC
RIVER ST WELL	XYLENES, TOTAL	0	MG/L	20-Aug-02	VOC
RIVER ST WELL	XYLENES, TOTAL	0	UG/L	26-Jan-00	VOC
RIVER ST WELL	XYLENES, TOTAL	0	UG/L	20-Jul-98	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
3RD AVE WELL	1,1,1-TRICHLOROETHANE	0		24-Aug-09	VOC
3RD AVE WELL	1,1,1-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	1,1,1-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	1,1,1-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	1,1,1-TRICHLOROETHANE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	1,1,2-TRICHLOROETHANE	0		24-Aug-09	VOC
3RD AVE WELL	1,1,2-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	1,1,2-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	1,1,2-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	1,1,2-TRICHLOROETHANE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	1,1-DICHLOROETHYLENE	0		24-Aug-09	VOC
3RD AVE WELL	1,1-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	1,1-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	1,1-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	1,1-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	1,2,4-TRICHLOROBENZENE	0		24-Aug-09	VOC
3RD AVE WELL	1,2,4-TRICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	1,2,4-TRICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	1,2,4-TRICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	1,2,4-TRICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	1,2-DICHLOROETHANE	0		24-Aug-09	VOC
3RD AVE WELL	1,2-DICHLOROETHANE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	1,2-DICHLOROETHANE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	1,2-DICHLOROETHANE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	1,2-DICHLOROETHANE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	1,2-DICHLOROPROPANE	0		24-Aug-09	VOC
3RD AVE WELL	1,2-DICHLOROPROPANE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	1,2-DICHLOROPROPANE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	1,2-DICHLOROPROPANE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	1,2-DICHLOROPROPANE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	2,4,5-TP	0	UG/L	15-Aug-00	SOC
3RD AVE WELL	2,4-D	0	UG/L	15-Aug-00	SOC
3RD AVE WELL	ANTIMONY, TOTAL	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	ANTIMONY, TOTAL	0	MG/L	15-Aug-00	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
3RD AVE WELL	ANTIMONY, TOTAL	0	MG/L	22-Dec-97	IOC
3RD AVE WELL	ARSENIC	0		24-Aug-09	IOC
3RD AVE WELL	ARSENIC	0	MG/L	19-Jul-07	IOC
3RD AVE WELL	ARSENIC	0	MG/L	23-Aug-06	IOC
3RD AVE WELL	ARSENIC	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	ARSENIC	0	MG/L	15-Aug-00	IOC
3RD AVE WELL	ARSENIC	0	MG/L	22-Dec-97	IOC
3RD AVE WELL	BARIUM	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	BARIUM	0.05	MG/L	15-Aug-00	IOC
3RD AVE WELL	BARIUM	0.051	MG/L	22-Dec-97	IOC
3RD AVE WELL	BENZENE	0		24-Aug-09	VOC
3RD AVE WELL	BENZENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	BENZENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	BENZENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	BENZENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	BERYLLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	BERYLLIUM, TOTAL	0	MG/L	15-Aug-00	IOC
3RD AVE WELL	BERYLLIUM, TOTAL	0	MG/L	22-Dec-97	IOC
3RD AVE WELL	CADMIUM	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	CADMIUM	0	MG/L	15-Aug-00	IOC
3RD AVE WELL	CADMIUM	0	MG/L	22-Dec-97	IOC
3RD AVE WELL	CARBON TETRACHLORIDE	0		24-Aug-09	VOC
3RD AVE WELL	CARBON TETRACHLORIDE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	CARBON TETRACHLORIDE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	CARBON TETRACHLORIDE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	CARBON TETRACHLORIDE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	CHLOROBENZENE	0		24-Aug-09	VOC
3RD AVE WELL	CHLOROBENZENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	CHLOROBENZENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	CHLOROBENZENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	CHLOROBENZENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	CHROMIUM	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	CHROMIUM	0.008	MG/L	15-Aug-00	IOC
3RD AVE WELL	CHROMIUM	0	MG/L	22-Dec-97	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
3RD AVE WELL	CIS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
3RD AVE WELL	CIS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	CIS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	CIS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	CIS-1,2-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	DALAPON	0	UG/L	15-Aug-00	SOC
3RD AVE WELL	DI(2-ETHYLHEXYL) PHTHALATE		UG/L	20-Jul-98	SOC
3RD AVE WELL	DICHLOROMETHANE	0		24-Aug-09	VOC
3RD AVE WELL	DICHLOROMETHANE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	DICHLOROMETHANE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	DICHLOROMETHANE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	DICHLOROMETHANE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	DINOSEB	0	UG/L	15-Aug-00	SOC
3RD AVE WELL	ETHYLBENZENE	0		24-Aug-09	VOC
3RD AVE WELL	ETHYLBENZENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	ETHYLBENZENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	ETHYLBENZENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	ETHYLBENZENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	FLUORIDE	0.3	MG/L	09-Sep-13	IOC
3RD AVE WELL	FLUORIDE	0.26	MG/L	20-Aug-02	IOC
3RD AVE WELL	FLUORIDE	0.3	MG/L	15-Aug-00	IOC
3RD AVE WELL	FLUORIDE	0.16	MG/L	22-Dec-97	IOC
3RD AVE WELL	FLUORIDE	0.24	MG/L	19-Oct-94	IOC
3RD AVE WELL	MERCURY	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	MERCURY	0	MG/L	15-Aug-00	IOC
3RD AVE WELL	MERCURY	0	MG/L	22-Dec-97	IOC
3RD AVE WELL	NICKEL	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	NICKEL	0	MG/L	15-Aug-00	IOC
3RD AVE WELL	NICKEL	0	MG/L	22-Dec-97	IOC
3RD AVE WELL	NITRATE	1.17	MG/L	11-Aug-14	IOC
3RD AVE WELL	NITRATE	0.85	MG/L	09-Sep-13	IOC
3RD AVE WELL	NITRATE	1.33	MG/L	27-Aug-12	IOC
3RD AVE WELL	NITRATE	1.34	MG/L	19-Jul-11	IOC
3RD AVE WELL	NITRATE	1.92	MG/L	09-Aug-10	IOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
3RD AVE WELL	NITRATE	1.29	MG/L	24-Aug-09	IOC
3RD AVE WELL	NITRATE	1.49	MG/L	25-Aug-08	IOC
3RD AVE WELL	NITRATE	1.71	MG/L	19-Jul-07	IOC
3RD AVE WELL	NITRATE	2.27	MG/L	23-Aug-06	IOC
3RD AVE WELL	NITRATE	1.3	MG/L	30-Sep-05	IOC
3RD AVE WELL	NITRATE	0.86	MG/L	22-Dec-04	IOC
3RD AVE WELL	NITRATE	1.46	MG/L	08-Oct-03	IOC
3RD AVE WELL	NITRATE	1.1	MG/L	20-Aug-02	IOC
3RD AVE WELL	NITRATE	0.7	MG/L	12-Dec-01	IOC
3RD AVE WELL	NITRATE	1.14	MG/L	15-Aug-00	IOC
3RD AVE WELL	NITRITE	0		09-Sep-13	IOC
3RD AVE WELL	O-DICHLOROBENZENE	0		24-Aug-09	VOC
3RD AVE WELL	O-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	O-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	O-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	O-DICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	P-DICHLOROBENZENE	0		24-Aug-09	VOC
3RD AVE WELL	P-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	P-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	P-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	P-DICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	PICLORAM	0	UG/L	15-Aug-00	SOC
3RD AVE WELL	SELENIUM	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	SELENIUM	0	MG/L	15-Aug-00	IOC
3RD AVE WELL	SELENIUM	0	MG/L	22-Dec-97	IOC
3RD AVE WELL	SODIUM	5.9	MG/L	09-Sep-13	IOC
3RD AVE WELL	SODIUM	5.81	MG/L	24-Aug-09	IOC
3RD AVE WELL	SODIUM	8.26	MG/L	30-Sep-05	IOC
3RD AVE WELL	SODIUM	5.36	MG/L	20-Aug-02	IOC
3RD AVE WELL	SODIUM	4	MG/L	15-Aug-00	IOC
3RD AVE WELL	SODIUM	5.6	MG/L	22-Dec-97	IOC
3RD AVE WELL	STYRENE	0		24-Aug-09	VOC
3RD AVE WELL	STYRENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	STYRENE	0	MG/L	20-Aug-02	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
3RD AVE WELL	STYRENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	STYRENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	TETRACHLOROETHYLENE	0		24-Aug-09	VOC
3RD AVE WELL	TETRACHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	TETRACHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	TETRACHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	TETRACHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	THALLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
3RD AVE WELL	THALLIUM, TOTAL	0	MG/L	15-Aug-00	IOC
3RD AVE WELL	THALLIUM, TOTAL	0	MG/L	22-Dec-97	IOC
3RD AVE WELL	TOLUENE	0		24-Aug-09	VOC
3RD AVE WELL	TOLUENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	TOLUENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	TOLUENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	TOLUENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	TRANS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
3RD AVE WELL	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	TRICHLOROETHYLENE	0		24-Aug-09	VOC
3RD AVE WELL	TRICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	TRICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	TRICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	TRICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	VINYL CHLORIDE	0		24-Aug-09	VOC
3RD AVE WELL	VINYL CHLORIDE	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	VINYL CHLORIDE	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	VINYL CHLORIDE	0	UG/L	26-Jan-00	VOC
3RD AVE WELL	VINYL CHLORIDE	0	UG/L	20-Jul-98	VOC
3RD AVE WELL	XYLENES, TOTAL	0		24-Aug-09	VOC
3RD AVE WELL	XYLENES, TOTAL	0	MG/L	30-Sep-05	VOC
3RD AVE WELL	XYLENES, TOTAL	0	MG/L	20-Aug-02	VOC
3RD AVE WELL	XYLENES, TOTAL	0	UG/L	26-Jan-00	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
3RD AVE WELL	XYLENES, TOTAL	0	UG/L	20-Jul-98	VOC

*Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
WOODSIDE WELL	1,1,1-TRICHLOROETHANE	0		24-Aug-09	VOC
WOODSIDE WELL	1,1,1-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	1,1,1-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	1,1,1-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	1,1,1-TRICHLOROETHANE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	1,1,2-TRICHLOROETHANE	0		24-Aug-09	VOC
WOODSIDE WELL	1,1,2-TRICHLOROETHANE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	1,1,2-TRICHLOROETHANE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	1,1,2-TRICHLOROETHANE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	1,1,2-TRICHLOROETHANE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	1,1-DICHLOROETHYLENE	0		24-Aug-09	VOC
WOODSIDE WELL	1,1-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	1,1-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	1,1-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	1,1-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	1,2,4-TRICHLOROBENZENE	0		24-Aug-09	VOC
WOODSIDE WELL	1,2,4-TRICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	1,2,4-TRICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	1,2,4-TRICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	1,2,4-TRICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	1,2-DICHLOROETHANE	0		24-Aug-09	VOC
WOODSIDE WELL	1,2-DICHLOROETHANE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	1,2-DICHLOROETHANE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	1,2-DICHLOROETHANE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	1,2-DICHLOROETHANE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	1,2-DICHLOROPROPANE	0		24-Aug-09	VOC
WOODSIDE WELL	1,2-DICHLOROPROPANE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	1,2-DICHLOROPROPANE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	1,2-DICHLOROPROPANE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	1,2-DICHLOROPROPANE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	2,4,5-TP	0	UG/L	14-Aug-00	SOC
WOODSIDE WELL	2,4-D	0	UG/L	14-Aug-00	SOC
WOODSIDE WELL	ANTIMONY, TOTAL	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	ANTIMONY, TOTAL	0	MG/L	14-Aug-00	IOC

* Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
WOODSIDE WELL	ANTIMONY, TOTAL	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	ARSENIC	0		24-Aug-09	IOC
WOODSIDE WELL	ARSENIC	0	MG/L	19-Jul-07	IOC
WOODSIDE WELL	ARSENIC	0	MG/L	23-Aug-06	IOC
WOODSIDE WELL	ARSENIC	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	ARSENIC	0	MG/L	14-Aug-00	IOC
WOODSIDE WELL	ARSENIC	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	BARIUM	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	BARIUM	0.06	MG/L	14-Aug-00	IOC
WOODSIDE WELL	BARIUM	0.046	MG/L	22-Dec-97	IOC
WOODSIDE WELL	BENZENE	0		24-Aug-09	VOC
WOODSIDE WELL	BENZENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	BENZENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	BENZENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	BENZENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	BERYLLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	BERYLLIUM, TOTAL	0	MG/L	14-Aug-00	IOC
WOODSIDE WELL	BERYLLIUM, TOTAL	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	CADMIUM	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	CADMIUM	0	MG/L	14-Aug-00	IOC
WOODSIDE WELL	CADMIUM	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	CARBON TETRACHLORIDE	0		24-Aug-09	VOC
WOODSIDE WELL	CARBON TETRACHLORIDE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	CARBON TETRACHLORIDE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	CARBON TETRACHLORIDE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	CARBON TETRACHLORIDE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	CHLOROBENZENE	0		24-Aug-09	VOC
WOODSIDE WELL	CHLOROBENZENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	CHLOROBENZENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	CHLOROBENZENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	CHLOROBENZENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	CHROMIUM	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	CHROMIUM	0.008	MG/L	14-Aug-00	IOC
WOODSIDE WELL	CHROMIUM	0.001	MG/L	22-Dec-97	IOC

* Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
WOODSIDE WELL	CIS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
WOODSIDE WELL	CIS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	CIS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	CIS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	CIS-1,2-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	DALAPON	0	UG/L	14-Aug-00	SOC
WOODSIDE WELL	DI(2-ETHYLHEXYL) PHTHALATE		UG/L	20-Jul-98	SOC
WOODSIDE WELL	DICHLOROMETHANE	0		24-Aug-09	VOC
WOODSIDE WELL	DICHLOROMETHANE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	DICHLOROMETHANE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	DICHLOROMETHANE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	DICHLOROMETHANE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	DINOSEB	0	UG/L	14-Aug-00	SOC
WOODSIDE WELL	ETHYLBENZENE	0		24-Aug-09	VOC
WOODSIDE WELL	ETHYLBENZENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	ETHYLBENZENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	ETHYLBENZENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	ETHYLBENZENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	FLUORIDE	0		09-Sep-13	IOC
WOODSIDE WELL	FLUORIDE	0.18	MG/L	20-Aug-02	IOC
WOODSIDE WELL	FLUORIDE	0.1	MG/L	14-Aug-00	IOC
WOODSIDE WELL	FLUORIDE	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	FLUORIDE	0.17	MG/L	19-Oct-94	IOC
WOODSIDE WELL	MERCURY	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	MERCURY	0	MG/L	14-Aug-00	IOC
WOODSIDE WELL	MERCURY	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	NICKEL	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	NICKEL	0	MG/L	14-Aug-00	IOC
WOODSIDE WELL	NICKEL	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	NITRATE	1.17	MG/L	11-Aug-14	IOC
WOODSIDE WELL	NITRATE	1.13	MG/L	09-Sep-13	IOC
WOODSIDE WELL	NITRATE	1.26	MG/L	27-Aug-12	IOC
WOODSIDE WELL	NITRATE	1.19	MG/L	19-Jul-11	IOC
WOODSIDE WELL	NITRATE	1.14	MG/L	09-Aug-10	IOC

* Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
WOODSIDE WELL	NITRATE	1.13	MG/L	24-Aug-09	IOC
WOODSIDE WELL	NITRATE	1.21	MG/L	25-Aug-08	IOC
WOODSIDE WELL	NITRATE	1.84	MG/L	19-Jul-07	IOC
WOODSIDE WELL	NITRATE	1.39	MG/L	23-Aug-06	IOC
WOODSIDE WELL	NITRATE	0.87	MG/L	30-Sep-05	IOC
WOODSIDE WELL	NITRATE	1.1	MG/L	22-Dec-04	IOC
WOODSIDE WELL	NITRATE	1.28	MG/L	08-Oct-03	IOC
WOODSIDE WELL	NITRATE	1.13	MG/L	20-Aug-02	IOC
WOODSIDE WELL	NITRATE	1.01	MG/L	12-Dec-01	IOC
WOODSIDE WELL	NITRATE	1.27	MG/L	15-Aug-00	IOC
WOODSIDE WELL	NITRITE	0		09-Sep-13	IOC
WOODSIDE WELL	O-DICHLOROBENZENE	0		24-Aug-09	VOC
WOODSIDE WELL	O-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	O-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	O-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	O-DICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	P-DICHLOROBENZENE	0		24-Aug-09	VOC
WOODSIDE WELL	P-DICHLOROBENZENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	P-DICHLOROBENZENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	P-DICHLOROBENZENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	P-DICHLOROBENZENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	PICLORAM	0	UG/L	14-Aug-00	SOC
WOODSIDE WELL	SELENIUM	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	SELENIUM	0	MG/L	14-Aug-00	IOC
WOODSIDE WELL	SELENIUM	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	SODIUM	4.5	MG/L	09-Sep-13	IOC
WOODSIDE WELL	SODIUM	5.97	MG/L	24-Aug-09	IOC
WOODSIDE WELL	SODIUM	6.85	MG/L	30-Sep-05	IOC
WOODSIDE WELL	SODIUM	4.44	MG/L	20-Aug-02	IOC
WOODSIDE WELL	SODIUM	4	MG/L	14-Aug-00	IOC
WOODSIDE WELL	SODIUM	4	MG/L	22-Dec-97	IOC
WOODSIDE WELL	STYRENE	0		24-Aug-09	VOC
WOODSIDE WELL	STYRENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	STYRENE	0	MG/L	20-Aug-02	VOC

* Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
WOODSIDE WELL	STYRENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	STYRENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	TETRACHLOROETHYLENE	0		24-Aug-09	VOC
WOODSIDE WELL	TETRACHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	TETRACHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	TETRACHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	TETRACHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	THALLIUM, TOTAL	0	MG/L	20-Aug-02	IOC
WOODSIDE WELL	THALLIUM, TOTAL	0	MG/L	14-Aug-00	IOC
WOODSIDE WELL	THALLIUM, TOTAL	0	MG/L	22-Dec-97	IOC
WOODSIDE WELL	TOLUENE	0		24-Aug-09	VOC
WOODSIDE WELL	TOLUENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	TOLUENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	TOLUENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	TOLUENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	TRANS-1,2-DICHLOROETHYLENE	0		24-Aug-09	VOC
WOODSIDE WELL	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	TRANS-1,2-DICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	TRANS-1,2-DICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	TRICHLOROETHYLENE	0		24-Aug-09	VOC
WOODSIDE WELL	TRICHLOROETHYLENE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	TRICHLOROETHYLENE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	TRICHLOROETHYLENE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	TRICHLOROETHYLENE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	VINYL CHLORIDE	0		24-Aug-09	VOC
WOODSIDE WELL	VINYL CHLORIDE	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	VINYL CHLORIDE	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	VINYL CHLORIDE	0	UG/L	26-Jan-00	VOC
WOODSIDE WELL	VINYL CHLORIDE	0	UG/L	20-Jul-98	VOC
WOODSIDE WELL	XYLENES, TOTAL	0		24-Aug-09	VOC
WOODSIDE WELL	XYLENES, TOTAL	0	MG/L	30-Sep-05	VOC
WOODSIDE WELL	XYLENES, TOTAL	0	MG/L	20-Aug-02	VOC
WOODSIDE WELL	XYLENES, TOTAL	0	UG/L	26-Jan-00	VOC

* Data from IDEQ Water Quality Database

Facility Name	Analyte	Result	UOM	Date	CLASS CODE
WOODSIDE WELL	XYLENES, TOTAL	0	UG/L	20-Jul-98	VOC

* Data from IDEQ Water Quality Database

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 742981
DATE LAB REC'D SAMPLE: 7/19/2007	DATE REPORTED BY LAB: 7/31/2007
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2007**	COLLECTION TIME: **2:25:00 PM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **3RD AVE**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **PAUL FISCHER**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	7/26/07	RB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium		N/a	0.5	3111B		
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8				Lead	<0.005			3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary J. Fenwick 8/6/07
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 742971
DATE LAB REC'D SAMPLE: 7/19/2007	DATE REPORTED BY LAB: 7/31/2007
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2007**	COLLECTION TIME: **2:15:00 PM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **WOODSIDE**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **PAUL FISCHER**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	7/26/07	RB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium		N/a	0.5	3111B		
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8				Lead	<0.005			3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary T. Fenwick 8/6/07
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 742991
DATE LAB REC'D SAMPLE: 7/19/2007	DATE REPORTED BY LAB: 7/31/2007
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2007**	COLLECTION TIME: **3:16:00 PM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **RIVER ST PUMP**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **PAUL FISCHER**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	7/26/07	RB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium		N/a	0.5	3111B		
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8				Lead	<0.005			3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary G. Fenwick 8/6/07
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 743011
DATE LAB REC'D SAMPLE: 7/19/2007	DATE REPORTED BY LAB: 7/31/2007
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2007**	COLLECTION TIME: **3:27:00 PM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **NORTHRIDGE B**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **PAUL FISCHER**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	7/26/07	RB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium		N/a	0.5	3111B		
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8				Lead	<0.005			3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary T Tenwick 8/6/07
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 743001
DATE LAB REC'D SAMPLE: 7/19/2007	DATE REPORTED BY LAB: 7/31/2007
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2007**	COLLECTION TIME: **3:25:00 PM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **NORTHRIDGE A**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **PAUL FISCHER**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	**Contaminant**	**Result***	**MCL***	**PQL***	**Method**	**Analysis Date**	**Analyst**	**FRDS**	**Contaminant**	**Result***	**MCL***	**PQL***	**Method**	**Analysis Date**	**Analyst**
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	7/26/07	RB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium		N/a	0.5	3111B		
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8				Lead	<0.005			3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary E. Fenwick 8/6/07
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 743021
DATE LAB REC'D SAMPLE: 7/19/2007	DATE REPORTED BY LAB: 7/31/2007
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2007**	COLLECTION TIME: **3:38:00 PM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **INDIAN CREEK SPRINGS**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **PAUL FISCHER**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

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PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	7/26/07	RB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium		N/a	0.5	3111B		
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8				Lead	<0.005			3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary E. Emerick 8/6/07
Signature of Laboratory Supervisor Date

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: 949271
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/23/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/24/2009	COLLECTION TIME: 10:20:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: 5070022	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: WOOD SIDE PUMP	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS, INC.
210 Addison Ave., P.O. Box 1867
Twin Falls, ID 83301
(208) 733-4250

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PUBLIC DRINKING WATERSYSTEM VOLATILE ORGANIC CHEMICAL (VOC) ANALYSIS REPORT:

METHOD: 524.2 | ANALYSIS DATE: 08/28/09 | ANALYST: GF

FRDS	Contaminant Name	Result*	MCL*	MDL*	FRDS	Contaminant Name	Result*	MCL*	MDL*
2378	1,2,4-Trichlorobenzene	ND	70.0	0.50	2979	trans-1,2-Dichloroethylene	ND	100.0	0.50
2380	cis-1,2-Dichloroethylene	ND	70.0	0.50	2980	1,2-Dichloroethane	ND	5.0	0.50
2950	Trihalomethanes – Total	ND	100.0	0.50	2981	1,1,1-Trichloroethane	ND	200.0	0.50
2941	Chloroform	To be reported on new DBP form	[redacted]		2982	Carbon Tetrachloride	ND	5.0	0.50
2942	Bromoform				2983	1,2-Dichloropropane	ND	5.0	0.50
2943	Bromodichloromethane				2984	Trichloroethylene	ND	5.0	0.50
2944	Dibromochloromethane				2985	1,1,2-Trichloroethane	ND	200.0	0.50
2955	Xylenes – Total	ND	10000	0.50	2987	Tetrachloroethylene	ND	5.0	0.50
2964	Dichloromethane	ND	5.0	0.50	2989	Monochlorobenzene	ND	100.0	0.50
2968	o-Dichlorobenzene	ND	600.0	0.50	2990	Benzene	ND	5.0	0.50
2969	p-Dichlorobenzene	ND	75.0	0.50	2991	Toluene	ND	1000.0	0.50
2976	Vinyl chloride	ND	2.0	0.50	2992	Ethylbenzene	ND	700.0	0.50
2977	1,1-Dichloroethylene	ND	7.0	0.50	2996	Styrene	ND	100.0	0.50

*Reported in µg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit

(Reserved for comments/notations)

Gary J. Fenwick 9/25/09

Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 949401
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/4/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/24/2009**	COLLECTION TIME: **10:20:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **WOODSIDE PUMP**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	9/2/09	JB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium	**5.97**	N/a	0.5	200.7	9/1/09	JB
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015		3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary J. Fenwick 9/8/09
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: 949251
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/24/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/24/2009	COLLECTION TIME: 10:00:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine ☐ RP-repeat ☐ SP-special ☐ OTHER:_____	
PWS#: 5070022	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: RIVER STREET	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS, INC.
210 Addison Ave., P.O. Box 1867
Twin Falls, ID 83301
(208) 733-4250

PUBLIC DRINKING WATERSYSTEM VOLATILE ORGANIC CHEMICAL (VOC) ANALYSIS REPORT:

METHOD: 524.2 | ANALYSIS DATE: 08/28/09 | ANALYST: GF

FRDS	Contaminant Name	Result*	MCL*	MDL*	FRDS	Contaminant Name	Result*	MCL*	MDL*
2378	1,2,4-Trichlorobenzene	ND	70.0	0.50	2979	trans-1,2-Dichloroethylene	ND	100.0	0.50
2380	cis-1,2-Dichloroethylene	ND	70.0	0.50	2980	1,2-Dichloroethane	ND	5.0	0.50
2950	Trihalomethanes – Total	ND	100.0	0.50	2981	1,1,1-Trichloroethane	ND	200.0	0.50
2941	Chloroform	To be reported on new DBP form	[redacted]		2982	Carbon Tetrachloride	ND	5.0	0.50
2942	Bromoform				2983	1,2-Dichloropropane	ND	5.0	0.50
2943	Bromodichloromethane				2984	Trichloroethylene	ND	5.0	0.50
2944	Dibromochloromethane				2985	1,1,2-Trichloroethane	ND	200.0	0.50
2955	Xylenes – Total	ND	10000	0.50	2987	Tetrachloroethylene	ND	5.0	0.50
2964	Dichloromethane	ND	5.0	0.50	2989	Monochlorobenzene	ND	100.0	0.50
2968	o-Dichlorobenzene	ND	600.0	0.50	2990	Benzene	ND	5.0	0.50
2969	p-Dichlorobenzene	ND	75.0	0.50	2991	Toluene	ND	1000.0	0.50
2976	Vinyl chloride	ND	2.0	0.50	2992	Ethylbenzene	ND	700.0	0.50
2977	1,1-Dichloroethylene	ND	7.0	0.50	2996	Styrene	ND	100.0	0.50

*Reported in µg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit

(Reserved for comments/notations)

Gary J. Fenwick 9/25/09

Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 949361
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/4/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/24/2009**	COLLECTION TIME: **10:00:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **RIVER STREET**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	**Contaminant**	**Result***	**MCL***	**PQL***	**Method**	**Analysis Date**	**Analyst**	**FRDS**	**Contaminant**	**Result***	**MCL***	**PQL***	**Method**	**Analysis Date**	**Analyst**
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	9/2/09	JB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium	**5.82**	N/a	0.5	200.7	9/1/09	JB
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015		3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary J. Fenwick 9/8/09
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: 949241
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/23/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/24/2009	COLLECTION TIME: 9:30:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: 5070022	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: NORTH RIDGE	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS, INC.
210 Addison Ave., P.O. Box 1867
Twin Falls, ID 83301
(208) 733-4250

PUBLIC DRINKING WATERSYSTEM VOLATILE ORGANIC CHEMICAL (VOC) ANALYSIS REPORT:

METHOD: 524.2 | ANALYSIS DATE: 08/28/09 | ANALYST: GF

FRDS	Contaminant Name	Result*	MCL*	MDL*
2378	1,2,4-Trichlorobenzene	ND	70.0	0.50
2380	cis-1,2-Dichloroethylene	ND	70.0	0.50
2950	Trihalomethanes – Total	ND	100.0	0.50
2941	Chloroform	To be reported on new DBP form	[redacted]	
2942	Bromoform			
2943	Bromodichloromethane			
2944	Dibromochloromethane			
2955	Xylenes – Total	ND	10000	0.50
2964	Dichloromethane	ND	5.0	0.50
2968	o-Dichlorobenzene	ND	600.0	0.50
2969	p-Dichlorobenzene	ND	75.0	0.50
2976	Vinyl chloride	ND	2.0	0.50
2977	1,1-Dichloroethylene	ND	7.0	0.50

FRDS	Contaminant Name	Result*	MCL*	MDL*
2979	trans-1,2-Dichloroethylene	ND	100.0	0.50
2980	1,2-Dichloroethane	ND	5.0	0.50
2981	1,1,1-Trichloroethane	ND	200.0	0.50
2982	Carbon Tetrachloride	ND	5.0	0.50
2983	1,2-Dichloropropane	ND	5.0	0.50
2984	Trichloroethylene	ND	5.0	0.50
2985	1,1,2-Trichloroethane	ND	200.0	0.50
2987	Tetrachloroethylene	ND	5.0	0.50
2989	Monochlorobenzene	ND	100.0	0.50
2990	Benzene	ND	5.0	0.50
2991	Toluene	ND	1000.0	0.50
2992	Ethylbenzene	ND	700.0	0.50
2996	Styrene	ND	100.0	0.50

*Reported in µg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit

(Reserved for comments/notations)

Gary J. Fenwick 9/25/09

Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 949341
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/4/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/24/2009**	COLLECTION TIME: **9:30:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **NORTH RIDGE**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								Phase V							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	9/2/09	JB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium	**4.20**	N/a	0.5	200.7	9/1/09	JB
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015		3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary T. Fenwick 9/8/09
Signature of Laboratory Supervisor Date

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: 949231
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/23/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/24/2009	COLLECTION TIME: 9:00:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: 5070022	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: INDIAN SPRINGS	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS, INC.
210 Addison Ave., P.O. Box 1867
Twin Falls, ID 83301
(208) 733-4250

PUBLIC DRINKING WATERSYSTEM VOLATILE ORGANIC CHEMICAL (VOC) ANALYSIS REPORT:

METHOD: 524.2 | ANALYSIS DATE: 08/27/09 | ANALYST: GF

FRDS	Contaminant Name	Result*	MCL*	MDL*
2378	1,2,4-Trichlorobenzene	ND	70.0	0.50
2380	cis-1,2-Dichloroethylene	ND	70.0	0.50
2950	Trihalomethanes – Total	ND	100.0	0.50
2941	Chloroform	To be reported on new DBP form	[redacted]	
2942	Bromoform			
2943	Bromodichloromethane			
2944	Dibromochloromethane			
2955	Xylenes – Total	ND	10000	0.50
2964	Dichloromethane	ND	5.0	0.50
2968	o-Dichlorobenzene	ND	600.0	0.50
2969	p-Dichlorobenzene	ND	75.0	0.50
2976	Vinyl chloride	ND	2.0	0.50
2977	1,1-Dichloroethylene	ND	7.0	0.50

FRDS	Contaminant Name	Result*	MCL*	MDL*
2979	trans-1,2-Dichloroethylene	ND	100.0	0.50
2980	1,2-Dichloroethane	ND	5.0	0.50
2981	1,1,1-Trichloroethane	ND	200.0	0.50
2982	Carbon Tetrachloride	ND	5.0	0.50
2983	1,2-Dichloropropane	ND	5.0	0.50
2984	Trichloroethylene	ND	5.0	0.50
2985	1,1,2-Trichloroethane	ND	200.0	0.50
2987	Tetrachloroethylene	ND	5.0	0.50
2989	Monochlorobenzene	ND	100.0	0.50
2990	Benzene	ND	5.0	0.50
2991	Toluene	ND	1000.0	0.50
2992	Ethylbenzene	ND	700.0	0.50
2996	Styrene	ND	100.0	0.50

*Reported in µg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit

(Reserved for comments/notations)

Gary J. Fenwick 9/25/09

Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 949321
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/4/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/24/2009**	COLLECTION TIME: **9:00:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **INDIAN SPRINGS**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	9/2/09	JB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium	**4.12**	N/a	0.5	200.7	9/1/09	JB
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015		3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary J. Fenwick 9/8/09
Signature of Laboratory Supervisor Date

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: 949261
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/23/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/24/2009	COLLECTION TIME: 10:10:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: 5070022	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: 3RD AVE	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS, INC.
210 Addison Ave., P.O. Box 1867
Twin Falls, ID 83301
(208) 733-4250

PUBLIC DRINKING WATERSYSTEM VOLATILE ORGANIC CHEMICAL (VOC) ANALYSIS REPORT:

METHOD: 524.2 | ANALYSIS DATE: 08/28/09 | ANALYST: GF

FRDS	Contaminant Name	Result*	MCL*	MDL*
2378	1,2,4-Trichlorobenzene	ND	70.0	0.50
2380	cis-1,2-Dichloroethylene	ND	70.0	0.50
2950	Trihalomethanes – Total	ND	100.0	0.50
2941	Chloroform	To be reported on new DBP form	[redacted]	
2942	Bromoform			
2943	Bromodichloromethane			
2944	Dibromochloromethane			
2955	Xylenes – Total	ND	10000	0.50
2964	Dichloromethane	ND	5.0	0.50
2968	o-Dichlorobenzene	ND	600.0	0.50
2969	p-Dichlorobenzene	ND	75.0	0.50
2976	Vinyl chloride	ND	2.0	0.50
2977	1,1-Dichloroethylene	ND	7.0	0.50

FRDS	Contaminant Name	Result*	MCL*	MDL*
2979	trans-1,2-Dichloroethylene	ND	100.0	0.50
2980	1,2-Dichloroethane	ND	5.0	0.50
2981	1,1,1-Trichloroethane	ND	200.0	0.50
2982	Carbon Tetrachloride	ND	5.0	0.50
2983	1,2-Dichloropropane	ND	5.0	0.50
2984	Trichloroethylene	ND	5.0	0.50
2985	1,1,2-Trichloroethane	ND	200.0	0.50
2987	Tetrachloroethylene	ND	5.0	0.50
2989	Monochlorobenzene	ND	100.0	0.50
2990	Benzene	ND	5.0	0.50
2991	Toluene	ND	1000.0	0.50
2992	Ethylbenzene	ND	700.0	0.50
2996	Styrene	ND	100.0	0.50

*Reported in µg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit

(Reserved for comments/notations)

Gary J. Fenwick 9/25/09

Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 949381
DATE LAB REC'D SAMPLE: 8/25/2009	DATE REPORTED BY LAB: 9/4/2009
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/24/2009**	COLLECTION TIME: **10:10:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **3RD AVE**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **BOB AND PAUL**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic	**<0.005**	0.010	0.005	200.9	9/2/09	JB
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆		**	1052	Sodium	**5.81**	N/a	0.5	200.7	9/1/09	JB
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.1	200.7			1050	Silver		0.1	0.05	3111B		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.5	3111B			1095	Zinc		5	0.05	3111B		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.1	3111B			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.1	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	3111B			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.2	3111B			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.05	3111B			1997	Langlier Index						
1042	Potassium			0.5	3111B			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015		3113b		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by ANALYTICAL LABS

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO. SUITE H
HAILEY ID 83333-0945

Gary T. Fenwick 9/8/09
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1132811**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **8/10/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2011**	COLLECTION TIME: **8:50:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **WOODSIDE**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	1.19	10	0.30	300.0	7/19/2011	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Brian Wallis 11-3-11
Signature of Laboratory Supervisor **Date**

RECEIVED
BY:

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1132791**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **7/27/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2011**	COLLECTION TIME: **9:10:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **RIVER ST.**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.64	10	0.30	300.0	7/19/2011	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument

Signature of Laboratory Supervisor Date 7-28-11

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1132781**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **7/27/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2011**	COLLECTION TIME: **9:15:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **NORTHRIDGE**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.69	10	0.30	300.0	7/19/2011	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument

Brenda Ellis 7-28-11

Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1132771**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **7/27/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2011**	COLLECTION TIME: **9:25:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **INDIAN CREEK**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.40	10	0.30	300.0	7/19/2011	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument

Brenda Ellis 7-28-11

Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1132761**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **8/18/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 7/19/2011	COLLECTION TIME: 9:55:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ ☒ RT-routine ☐ DU-duplicate OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **1241 WAR EAGLE**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

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PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.0020	0.06	0.001	6251B	07/26/11	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.08	0.0005	524.2	07/28/11	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		0.010				
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**TEST PERFORMED BY ANATEK LABS, INC ID00013

(Reserved for comments/notations)

Brenda Ellis 8-23-11

Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1132731**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **8/18/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 7/19/2011	COLLECTION TIME: 9:40:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☒ RT-routine ☐ DU-duplicate ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **SAWMILL DR.**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.0020	0.06	0.001	6251B	07/26/11	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	0.00548	0.08	0.0005	524.2	07/28/11	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		0.010				
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**TEST PERFORMED BY ANATEK LABS, INC ID00013

(Reserved for comments/notations)

Brenda Ellis 8-23-11

Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1132751**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **8/18/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 7/19/2011	COLLECTION TIME: 10:05:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☒ RT-routine ☐ DU-duplicate ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **1811 MERLIN LOOP**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.0020	0.06	0.001	6251B	07/26/11	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.08	0.0005	524.2	07/28/11	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		0.010				
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**TEST PERFORMED BY ANATEK LABS, INC ID00013

(Reserved for comments/notations)

Brenda Ellis 8-23-11

Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1132741**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **8/18/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 7/19/2011	COLLECTION TIME: 8:30:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **4297 GLENBROOK DR.**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.0020	0.06	0.001	6251B	07/26/11	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.08	0.0005	524.2	07/28/11	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		0.010				
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**TEST PERFORMED BY ANATEK LABS, INC ID00013

(Reserved for comments/notations)

Brenda Ellis 8-23-11

Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1132801**
DATE LAB REC'D SAMPLE: **7/19/2011**	DATE REPORTED BY LAB: **7/27/2011**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **7/19/2011**	COLLECTION TIME: **9:00:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **3RD AVE.**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

RECEIVED AUG - 2 2011 BY:

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	1.34	10	0.30	300.0	7/19/2011	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument

Brenda Ellis 7-28-11

Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1237081**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/7/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/27/2012**	COLLECTION TIME: **9:34:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **WOODSIDE**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	1.26	10	0.30	300.0	8/28/2012	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert W Ellis 09/21/12
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1237061**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/7/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/27/2012**	COLLECTION TIME: **8:15:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **RIVER ST.**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.40	10	0.30	300.0	8/28/2012	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert Eller 09/21/12
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1237051**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/7/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/27/2012**	COLLECTION TIME: **8:00:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **NORTHRIDGE**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.69	10	0.30	300.0	8/28/2012	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert W Ellis 09/21/12
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

MAGIC VALLEY LABS
210 ADDISON AVE / POB 1867
TWIN FALLS ID 83303-1867

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LEAD/COPPER DISTRIBUTION TAP SAMPLES

Public Drinking Water Chemical Analysis Report

Lab Tracking #	SAMPLE LOCATION	Date of Collection	Collection Time	Lead mg/L (frds # 1030)	Copper mg/L (frds # 1022)
1224331	2851 BUTTERFLY DR.	07/10/12	0530	<0.001	0.0626
1224332	651 ELDORADO DR.	07/10/12	0630	<0.001	0.0553
1224333	531 WILLOW ST.	07/10/12	0800	0.00124	0.0736
1224334	630 BONANZA DR.	07/10/12	0600	<0.001	0.189
1224335	861 DEERFIELD DR.	07/10/12	0530	<0.001	0.0741
1224336	1260 ASPEN VALLEY DR.	0/10/12	0510	<0.001	0.0920
1224337	1040 SILVER STAR DR.	07/10/12	0546	0.00178	0.0878
1224338	409 2ND AVE. N	07/10/12	0600	<0.001	0.0505
1224339	112 4TH AVE. N.	07/10/12	0745	0.00104	0.0372
12243310	314 3RD AVE. N.	07/10/12	0500	0.00167	0.0552

ANALYST	ANATEK LABORATORIES, INC
ANALYSIS DATE	07/30/12

Nitric Acid Preservative Used: X Yes ¨ No

Pb MDL: .001 mg/L Cu MDL: 0.05 mg/L

Lab Tracking Number:

ACTION-LEVEL FAILURE SAMPLES (Water Quality Parameters)

Check if Desired	FRDS Number	ANALYTE	Analyst	Analysis Date	Result	Sample Location (or Tag # if source sample)
	1030	Source Lead (mg/L)				
	1022	Source Copper (mg/L)				
	1925	pH (Standard pH units)				
	1996	Temperature (Degrees Celsius)				
	1016	Calcium Hardness (as $CaCO_3$, mg/L)				
	1927	Alkalinity (as $CaCO_3$, mg/L)				
	1930	Total Dissolved Solids (mg/L)				
	1926	Conductivity (mS)				
	1044	Orthophosphate (as PO_4 mg/L)				
	1049	Silica, (As SiO_2 mg/L)				

NOTE:
Public water systems serving less than 100,000 people need collect water quality parameter samples only if the results of the distribution samples in the block above indicate that the 90%ile level of lead is above .015 mg/L or the 90%ile level of copper is above 1.3 mg/L. See the definition on the back of this form if you wish to calculate the 90%ile level for your own information

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

---- = No analysis performed for this contaminant

Lead MCL = 0.015 mg/L

Copper MCL = 1.3 mg/L

Comments:

PWS #	5070022
Date Parameters	
Date Received	07/11/12
Time Collected	
Date Reported by Lab	08/08/12
# of pages in this report	
DEQ USE ONLY:	
90%ile Lead	
90%ile Copper	
# Pb/Cu Samples	
Paperwork Attached?	¨ Yes ¨ No

Robert W Sellers 8-14-12
Lab Supervisor's Signature Date

CITY OF HAILEY
115 MAIN ST. S., STE H
HAILEY, ID 83333

MAGIC VALLEY LABS
210 ADDISON AVE / POB 1867
TWIN FALLS ID 83303-1867

LEAD/COPPER DISTRIBUTION TAP SAMPLES

Public Drinking Water Chemical Analysis Report

Lab Tracking #	SAMPLE LOCATION	Date of Collection	Collection Time	Lead mg/L (frds # 1030)	Copper mg/L (frds # 1022)
1224321	1310 ASPEN VALLEY DR.	07/10/12	0630	<0.001	0.0576
1224322	3040 WOODSIDE BLVD.	07/10/12	0525	<0.001	0.0541
1224323	3020 BEAVER BROOK DR.	07/10/12	0530	0.00153	0.0359
1224324	3050 ~~BERRY CREEK~~ DR. Butterfly Dr.	07/10/12	1600	0.00146	0.0799
1224325	501 4TH AVE. S.	07/11/12	0630	0.00224	0.0274
1224326	230 COTTONWOOD DR.	07/11/12	0600	0.00457	0.0489
1224327	1130 WOLFTONE DR.	07/11/12	0530	0.00115	0.0766
1224328	1060 SILVER STAR DR.	07/11/12	0700	0.00254	0.0629
1224329	920 CHERRY HILL DR.	07/11/12	0830	0.00152	0.0212
12243210	3060 BERRY CREEK DR.	07/11/12	1630	0.00129	0.0837

ANALYST	ANATEK LABORATORIES, INC
ANALYSIS DATE	07/25/12

Nitric Acid Preservative Used: X Yes ¨ No

Pb MDL: .001 mg/L Cu MDL: 0.05 mg/L

Lab Tracking Number:

ACTION-LEVEL FAILURE SAMPLES (Water Quality Parameters)

Check if Desired	FRDS Number	ANALYTE	Analyst	Analysis Date	Result	Sample Location (or Tag # if source sample)
	1030	Source Lead (mg/L)				
	1022	Source Copper (mg/L)				
	1925	pH (Standard pH units)				
	1996	Temperature (Degrees Celsius)				
	1016	Calcium Hardness (as $CaCO_3$, mg/L)				
	1927	Alkalinity (as $CaCO_3$, mg/L)				
	1930	Total Dissolved Solids (mg/L)				
	1926	Conductivity (mS)				
	1044	Orthophosphate (as PO_4 mg/L)				
	1049	Silica, (As SiO_2 mg/L)				

NOTE:
Public water systems serving less than 100,000 people need collect water quality parameter samples only if the results of the distribution samples in the block above indicate that the 90%ile level of lead is above .015 mg/L or the 90%ile level of copper is above 1.3 mg/L. See the definition on the back of this form if you wish to calculate the 90%ile level for your own information.

LAB RESULT REPORTING CODES:

ND = Not detected within sensitivity of instrument

---- = No analysis performed for this contaminant

Lead MCL = 0.015 mg/L

Copper MCL = 1.3 mg/L

Comments:

PWS #	5070022
Date Parameters	
Date Received	07/11/12
Time Collected	
Date Reported by Lab	07/30/12
# of pages in this report	
DEQ USE ONLY:	
90%ile Lead	
90%ile Copper	
# Pb/Cu Samples	
Paperwork Attached?	¨ Yes ¨ No

Robert W Ellis 8-3-12

Lab Supervisor's Signature Date

CITY OF HAILEY
115 MAIN ST. SO STE H
HAILEY, ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1237041**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/7/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/27/2012**	COLLECTION TIME: **8:35:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate ☐ RP-repeat ☐ SP-special ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **INDIAN CREEK**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.39	10	0.30	300.0	8/28/2012	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert W Ellis 09/21/12
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1237031**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/18/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/27/2012	COLLECTION TIME: 8:55:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **1241 WAR EAGLE**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

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SEP 26 2012
BY:_____

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.0020	0.060	0.0020	552.3	09/11/12	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.080	0.0005	524.2	09/11/12	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		10	5.0	300.1		
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**TEST PERFORMED BY EDGE ANALYTICAL LABORATORIES, WA 00097

(Reserved for comments/notations)

Roberta Ellis 09/21/12
Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1237001**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/18/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/27/2012	COLLECTION TIME: 8:38:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☒ RT-routine ☐ DU-duplicate ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **SAWMILL DR.**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.0020	0.060	0.0020	552.3	09/11/12	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	0.0025	0.080	0.0005	524.2	09/11/12	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		10	5.0	300.1		
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**TEST PERFORMED BY EDGE ANALYTICAL LABORATORIES, WA 00097

(Reserved for comments/notations)

Robert W Eller 09/21/12
Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1237021**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/18/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/27/2012	COLLECTION TIME: 9:10:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **1811 MERLIN LP**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.0020	0.060	0.0020	552.3	09/11/12	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.080	0.0005	524.2	09/11/12	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		10	5.0	300.1		
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**TEST PERFORMED BY EDGE ANALYTICAL LABORATORIES, WA 00097

(Reserved for comments/notations)

Roberta Ellis 09/21/12
Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1237011**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/18/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 8/27/2012	COLLECTION TIME: 10:13:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **4297 GLENBROOK DR**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.0020	0.060	0.0020	552.3	09/11/12	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.080	0.0005	524.2	09/11/12	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		10	5.0	300.1		
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**TEST PERFORMED BY EDGE ANALYTICAL LABORATORIES, WA 00097

(Reserved for comments/notations)

Robertta Ellis 09/21/12
Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1237071**
DATE LAB REC'D SAMPLE: **8/27/2012**	DATE REPORTED BY LAB: **9/7/2012**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **8/27/2012**	COLLECTION TIME: **9:19:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ DU-duplicate ☒ RT-routine ☐ RP-repeat ☐ SP-special ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **3RD AVE.**	TAG #/FACILITY ID:
COLLECTOR'S NAME: **COLE & BRANDON**	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	1.33	10	0.30	300.0	8/28/2012	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert W Eller 09/21/12
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 1336061
DATE LAB REC'D SAMPLE: 9/9/2013	DATE REPORTED BY LAB: 10/4/2013
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:45:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **WOODSIDE WELL**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

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PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.01	200.8			1024	Cyanide		0.2	0.04	SM4500CN-E		
1015	Cadmium		0.005	0.001	200.8			1036	Nickel		N/a	0.001	200.8		
1020	Chromium		0.1	0.005	200.8			1074	Antimony		0.006	0.002	200.8		
1035	Mercury		0.002	0.0002	245.1			1075	Beryllium		0.004	0.001	200.8		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.0015	200.8		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic		0.010	0.003	200.8		
1045	Selenium		0.05	0.005	200.8			1025	Fluoride	**<0.30**	4.0	0.30	300.0	09/10/13	JJ
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium	**4.5**	N/a	0.05	200.7	09/13/13	**
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.005	200.7			1050	Silver		0.1	0.001	200.8		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.1	200.7			1095	Zinc		5	0.005	200.8		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.004	200.8			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.01	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	200.8			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.01	200.8			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.001	200.8			**	Langlier Index						
1042	Potassium			0.5	200.7			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015	0.005	200.8		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC OH00923

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

Nolette Ellis 10/08/13
Signature of Laboratory Supervisor Date

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1336111**
DATE LAB REC'D SAMPLE: **9/9/2013**	DATE REPORTED BY LAB: **9/20/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:45:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **WOODSIDE WELL**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	1.13	10	0.30	300.0	9/10/2013	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert W Ellis 09/27/13
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 1336051
DATE LAB REC'D SAMPLE: 9/9/2013	DATE REPORTED BY LAB: 10/4/2013
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:27:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **RIVER ST WELL**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.01	200.8			1024	Cyanide		0.2	0.04	SM4500CN-E		
1015	Cadmium		0.005	0.001	200.8			1036	Nickel		N/a	0.001	200.8		
1020	Chromium		0.1	0.005	200.8			1074	Antimony		0.006	0.002	200.8		
1035	Mercury		0.002	0.0002	245.1			1075	Beryllium		0.004	0.001	200.8		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.0015	200.8		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic		0.010	0.003	200.8		
1045	Selenium		0.05	0.005	200.8			1025	Fluoride		4.0	0.30	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium	**5.7**	N/a	0.05	200.7	09/13/13	**
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.005	200.7			1050	Silver		0.1	0.001	200.8		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.1	200.7			1095	Zinc		5	0.005	200.8		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.004	200.8			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.01	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	200.8			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.01	200.8			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.001	200.8			**	Langlier Index						
1042	Potassium			0.5	200.7			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015	0.005	200.8		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC OH00923

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

Robert W Sellers 10/08/13
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1336101**
DATE LAB REC'D SAMPLE: **9/9/2013**	DATE REPORTED BY LAB: **9/20/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:27:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate ☐ RP-repeat ☐ SP-special ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **RIVER ST WELL**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	<0.30	10	0.30	300.0	9/10/2013	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert W Ellis 09/27/13
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 1336041
DATE LAB REC'D SAMPLE: 9/9/2013	DATE REPORTED BY LAB: 10/4/2013
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:15:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **NORTH RIDGE WELL FIELD**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.01	200.8			1024	Cyanide		0.2	0.04	SM4500CN-E		
1015	Cadmium		0.005	0.001	200.8			1036	Nickel		N/a	0.001	200.8		
1020	Chromium		0.1	0.005	200.8			1074	Antimony		0.006	0.002	200.8		
1035	Mercury		0.002	0.0002	245.1			1075	Beryllium		0.004	0.001	200.8		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.0015	200.8		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic		0.010	0.003	200.8		
1045	Selenium		0.05	0.005	200.8			1025	Fluoride		4.0	0.30	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium	**15**	N/a	0.05	200.7	09/13/13	**
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.005	200.7			1050	Silver		0.1	0.001	200.8		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.1	200.7			1095	Zinc		5	0.005	200.8		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.004	200.8			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.01	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	200.8			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.01	200.8			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.001	200.8			**	Langlier Index						
1042	Potassium			0.5	200.7			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015	0.005	200.8		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC OH00923

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

Robert W Ellis 10/08/13
Signature of Laboratory Supervisor **Date**

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1336091**
DATE LAB REC'D SAMPLE: **9/9/2013**	DATE REPORTED BY LAB: **9/20/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:15:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **NORTH RIDGE WELL FIELD**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.62	10	0.30	300.0	9/10/2013	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert W. Ellis 09/27/13
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID #ID00911	LAB SAMPLE #: 1336011
DATE LAB REC'D SAMPLE: 9/9/2013	DATE REPORTED BY LAB: 10/7/2013
COMPLIANCE SAMPLE ☑ YES ☐ NO	☐ REPLACEMENT SAMPLE
COLLECTION DATE : 9/9/2013	COLLECTION TIME: 9:17:00 AM (24 hour clock)
SAMPLE TYPE: RADS	☐ PRIVATE ☑ PUBLIC
PWS#: 5070022	PWS NAME: HAILEY CITY OF
SAMPLING POINT/LOCATION: NORTH RIDGE WELL FIELD	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS, INC.
210 Addison Ave. PO Box 1867
Twin Falls ID 83301
Phone: 208-733-4250
Fax: 208-734-2539

PUBLIC DRINKING WATER SYSTEM RADIOLOGICAL ANALYSIS REPORT:

FRDS	CONTAMINANT	RESULT µg/L	RESULT pCi/L	MCL	ANALYSIS DATE	ANALYST	METHOD
4002	**Gross Alpha Activity** *(includes radium and uranium)*		<3		09/22/13	*	E900.0
4006	**Uranium, Combined** convert to activity; multiply concentration in µg/L x 0.67 *(required if gross alpha exceeds 15pCi/L)*			30 µg/L		*	E200.8
4000	**Net Alpha** subtract Uranium activity from Gross alpha activity *(includes radium but excludes uranium)*			15 pCi/L			
4020	**Radium-226** *(required if alpha activity is greater than 5pCilL)*					*	E903.0
4030	**Radium-228**					*	E904.0
4010	**Radium, Combined (226 & 228)** add results of Ra-226 and Ra-228			5 pCi/L			
4100	**Gross Beta/Photon Activity** *(required to measure major isotopes if activity exceeds 50pCilL)*			4 mREM		*	E900.0

ND = Not detected within sensitivity of instrument

--- = No analysis performed

Robert Weller 10/08/13

Signature of Laboratory Supervisor **Date**

TEST PERFORMED BY
*Summit Environmental Technologies OH00923

(Reserved for comments/notations)

COMPOSITE SAMPLE DATES:

1ST Quarterly Sample:
2nd Quarterly Sample:
3rd Quarterly Sample:
Enter 4th Quarter or latest sample date beside

Collection Date at top of form

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 1336031
DATE LAB REC'D SAMPLE: 9/9/2013	DATE REPORTED BY LAB: 10/4/2013
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:00:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **INDIAN SPRINGS**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.01	200.8			1024	Cyanide		0.2	0.04	SM4500CN-E		
1015	Cadmium		0.005	0.001	200.8			1036	Nickel		N/a	0.001	200.8		
1020	Chromium		0.1	0.005	200.8			1074	Antimony		0.006	0.002	200.8		
1035	Mercury		0.002	0.0002	245.1			1075	Beryllium		0.004	0.001	200.8		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.0015	200.8		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic		0.010	0.003	200.8		
1045	Selenium		0.05	0.005	200.8			1025	Fluoride		4.0	0.30	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium	**4.2**	N/a	0.05	200.7	09/13/13	**
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.005	200.7			1050	Silver		0.1	0.001	200.8		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.1	200.7			1095	Zinc		5	0.005	200.8		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.004	200.8			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.01	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	200.8			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.01	200.8			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.001	200.8			**	Langlier Index						
1042	Potassium			0.5	200.7			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015	0.005	200.8		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC OH00923

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

Signature of Laboratory Supervisor — Date: 10/08/13

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1336081**
DATE LAB REC'D SAMPLE: **9/9/2013**	DATE REPORTED BY LAB: **9/20/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:00:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate ☐ RP-repeat ☐ SP-special ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **INDIAN SPRINGS**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.36	10	0.30	300.0	9/10/2013	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Robert W Ellis 09/27/13
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID #ID00911	LAB SAMPLE #: 1336001
DATE LAB REC'D SAMPLE: 9/9/2013	DATE REPORTED BY LAB: 10/7/2013
COMPLIANCE SAMPLE ☑ YES ☐ NO	☐ REPLACEMENT SAMPLE
COLLECTION DATE : 9/9/2013	COLLECTION TIME: 8:58:00 AM (24 hour clock)
SAMPLE TYPE: RADS	☐ PRIVATE ☑ PUBLIC
PWS#: 5070022	PWS NAME: HAILEY CITY OF
SAMPLING POINT/LOCATION: INDIAN SPRINGS	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS, INC.
210 Addison Ave. PO Box 1867
Twin Falls ID 83301
Phone: 208-733-4250
Fax: 208-734-2539

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OCT 15 2013
BY:

PUBLIC DRINKING WATER SYSTEM RADIOLOGICAL ANALYSIS REPORT:

FRDS	CONTAMINANT	RESULT µg/L	RESULT pCi/L	MCL	ANALYSIS DATE	ANALYST	METHOD
4002	**Gross Alpha Activity** *(includes radium and uranium)*		<3		09/22/13	*	E900.0
4006	**Uranium, Combined** convert to activity; multiply concentration in µg/L x 0.67 *(required if gross alpha exceeds 15pCi/L)*			30 µg/L		*	E200.8
4000	**Net Alpha** subtract Uranium activity from Gross alpha activity *(includes radium but excludes uranium)*			15 pCi/L			
4020	**Radium-226** *(required if alpha activity is greater than 5pCi/L)*					*	E903.0
4030	**Radium-228**					*	E904.0
4010	**Radium, Combined (226 & 228)** add results of Ra-226 and Ra-228			5 pCi/L			
4100	**Gross Beta/Photon Activity** *(required to measure major isotopes if activity exceeds 50pCi/L)*			4 mREM		*	E900.0

ND = Not detected within sensitivity of instrument

TEST PERFORMED BY
*Summit Environmental Technologies OH00923

--- = No analysis performed

Robert Ellen 10/08/13
Signature of Laboratory Supervisor **Date**

COMPOSITE SAMPLE DATES:

1ST Quarterly Sample:
2nd Quarterly Sample:
3rd Quarterly Sample:
Enter 4th Quarter or latest sample date beside

Collection Date at top of form

(Reserved for comments/notations)

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1335021**
DATE LAB REC'D SAMPLE: **9/4/2013**	DATE REPORTED BY LAB: **9/23/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 9/4/2013	COLLECTION TIME: 9:15:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☒ RT-routine ☐ DU-duplicate ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **1241 WAR EAGLE**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	0.003	0.060	0.001	552.2	09/18/13	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.080	0.0005	524.2	09/06/13	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		10	5.0	300.1		
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**Test performed by Summit Environmental Technologies, Inc OH00923

(Reserved for comments/notations)

Robert Weller 09/27/13
Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1334991**
DATE LAB REC'D SAMPLE: **9/4/2013**	DATE REPORTED BY LAB: **9/23/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 9/4/2013	COLLECTION TIME: 8:53:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **SAWMILL DR**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.001	0.060	0.001	552.2	09/18/13	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	0.0017	0.080	0.0005	524.2	09/06/13	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		10	5.0	300.1		
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**Test performed by Summit Environmental Technologies, Inc OH00923

(Reserved for comments/notations)

Robert W Ellis 09/27/13
Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1335011**
DATE LAB REC'D SAMPLE: **9/4/2013**	DATE REPORTED BY LAB: **9/23/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 9/4/2013	COLLECTION TIME: 9:30:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **1811 MERLIN LOOP**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.001	0.060	0.001	552.2	09/18/13	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.080	0.0005	524.2	09/06/13	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		10	5.0	300.1		
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**Test performed by Summit Environmental Technologies, Inc OH00923

(Reserved for comments/notations)

Robert Ellis 09/27/13
Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: **ID00911**	LAB SAMPLE #: **1335001**
DATE LAB REC'D SAMPLE: **9/4/2013**	DATE REPORTED BY LAB: **9/23/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: 9/4/2013	COLLECTION TIME: 9:47:00 AM (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☒ RT-routine ☐ DU-duplicate ☐ OTHER:_____	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **4297 GLENBROOK DR**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 Addison Ave, PO Box 1867
Twin Falls, ID 83301
208-733-4250

PUBLIC DRINKING WATER SYSTEM DISINFECTION BYPRODUCT (DBP) REPORTING FORM:

FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL/MRDL mg/L	MDL*	Method	Analysis Date	Analyst
Disinfection Residual								***Haloacetic Acids (HAA5)***							
0999	Chlorine (Cl2)		4.0					2456	Total Haloacetic acids	<0.001	0.060	0.001	552.2	09/18/13	**
1006	Chloramine (Cl2)		4.0					2451	Dichloroacetic acid						
1008	Chlorine Dioxide		0.8					2452	Trichloroacetic acid						
Disinfection Byproducts								***Other DBP Analytes***							
2950	Total Trihalomethanes	<0.0005	0.080	0.0005	524.2	09/06/13	**	1009	Chlorite		1.0				
2941	Chloroform							1011	Bromate		10	5.0	300.1		
2942	Bromoform							1927	Alkalinity (CaCO3)						
2943	Bromodichloromethane							2920	TOC (source water)						
2944	Dibromochloromethane														

*Reported in mg/L unless otherwise noted ND = Not detected within sensitivity of instrument --- = No analysis performed MDL = Method detection limit
**Test performed by Summit Environmental Technologies, Inc OH00923

(Reserved for comments/notations)

Roberta Ellis 09/27/13

Signature of Laboratory Supervisor Date

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID #ID00911	LAB SAMPLE #: 1335991
DATE LAB REC'D SAMPLE: 9/9/2013	DATE REPORTED BY LAB: 10/7/2013
COMPLIANCE SAMPLE ☑ YES ☐ NO	☐ REPLACEMENT SAMPLE
COLLECTION DATE : 9/9/2013	COLLECTION TIME: 9:36:00 AM (24 hour clock)
SAMPLE TYPE: RADS	☐ PRIVATE ☑ PUBLIC
PWS#: 5070022	PWS NAME: HAILEY CITY OF
SAMPLING POINT/LOCATION: 3RD AVE WELL	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS, INC.
210 Addison Ave. PO Box 1867
Twin Falls ID 83301
Phone: 208-733-4250
Fax: 208-734-2539

PUBLIC DRINKING WATER SYSTEM RADIOLOGICAL ANALYSIS REPORT:

FRDS	CONTAMINANT	RESULT µg/L	RESULT pCi/L	MCL	ANALYSIS DATE	ANALYST	METHOD
4002	**Gross Alpha Activity** *(includes radium and uranium)*		<3		09/22/13	*	E900.0
4006	**Uranium, Combined** convert to activity; multiply concentration in µg/L x 0.67 *(required if gross alpha exceeds 15pCi/L)*			30 µg/L		*	E200.8
4000	**Net Alpha** subtract Uranium activity from Gross alpha activity *(includes radium but excludes uranium)*			15 pCi/L			
4020	**Radium-226** *(required if alpha activity is greater than 5pCi/L)*					*	E903.0
4030	**Radium-228**					*	E904.0
4010	**Radium, Combined (226 & 228)** add results of Ra-226 and Ra-228			5 pCi/L			
4100	**Gross Beta/Photon Activity** *(required to measure major isotopes if activity exceeds 50pCi/L)*			4 mREM		*	E900.0

ND = Not detected within sensitivity of instrument

--- = No analysis performed

Noelle Ellen 10/08/13

Signature of Laboratory Supervisor **Date**

TEST PERFORMED BY

*Summit Environmental Technologies OH00923

(Reserved for comments/notations)

COMPOSITE SAMPLE DATES:

1ST Quarterly Sample:

2nd Quarterly Sample:

3rd Quarterly Sample:

Enter 4th Quarter or latest sample date beside

Collection Date at top of form

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # 1336021
DATE LAB REC'D SAMPLE: 9/9/2013	DATE REPORTED BY LAB: 10/4/2013
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:30:00 AM** (24 hour clock)
SAMPLE TYPE ☐ CO-confirmation ☒ RT-routine ☐ DU-duplicate	☐ RP-repeat ☐ SP-special ☐ OTHER:_____
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **3RD AVE. WELL**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	CONTACT PHONE #:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.01	200.8			1024	Cyanide		0.2	0.04	SM4500CN-E		
1015	Cadmium		0.005	0.001	200.8			1036	Nickel		N/a	0.001	200.8		
1020	Chromium		0.1	0.005	200.8			1074	Antimony		0.006	0.002	200.8		
1035	Mercury		0.002	0.0002	245.1			1075	Beryllium		0.004	0.001	200.8		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.0015	200.8		
1040	Nitrate		10					Other IOCs							
1041	Nitrite		1.0					1005	Arsenic		0.010	0.003	200.8		
1045	Selenium		0.05	0.005	200.8			1025	Fluoride	**0.30**	4.0	0.30	300.0	09/10/13	JJ
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium	**5.9**	N/a	0.05	200.7	09/13/13	**
Secondary IOCs (optional)															
1002	Aluminum		0.05-0.2	0.005	200.7			1050	Silver		0.1	0.001	200.8		
1003	Ammonia as N			0.05	350.2			1055	Sulfate		250	1	300.0		
1016	Calcium			0.1	200.7			1095	Zinc		5	0.005	200.8		
1017	Chloride		250	0.14	300.0			1905	Color		15c.u.	1	110.2		
1022	Copper		1.0	0.004	200.8			1915	Hardness as CaCO3			5	2340B		
1026†	Conductivity µg/cm			10	120.1			1920	Odor (threshold #)		3	1	140.1		
1027	Hydrogen Sulfide			0.01	8131			1925	pH		6.5-8.5		150.1		
1028	Iron		0.3	0.1	200.8			1927	Alkalinity as CaCO3			5	310.1		
1031	Magnesium			0.01	200.8			1930	Dissolved Solids		500	1	160.1		
1032	Manganese		0.05	0.001	200.8			**	Langlier Index						
1042	Potassium			0.5	200.7			2905	Surfactants			0.1	5540C		
1049	Silica as SiO2			1	200.8			1030	Lead		0.015	0.005	200.8		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed ND = Not detected within sensitivity of instrument
☆EPA 600/4-83-043 **Test performed by SUMMIT ENVIRONMENTAL TECHNOLOGIES, INC OH00923

COMMENTS:

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

Signature of Laboratory Supervisor Date 10/08/13

LAB FEDERAL ID#: ID 00911	LAB SAMPLE # **1336071**
DATE LAB REC'D SAMPLE: **9/9/2013**	DATE REPORTED BY LAB: **9/20/2013**
COMPLIANCE SAMPLE: ☒ YES ☐ NO	REPLACEMENT SAMPLE ☐
COLLECTION DATE: **9/9/2013**	COLLECTION TIME: **9:30:00 AM**
SAMPLE TYPE ☐ CO-confirmation ☐ RP-repeat ☐ SP-special ☐ OTHER:_____ ☒ RT-routine ☐ DU-duplicate	
PWS#: **5070022**	PWS NAME: **HAILEY CITY OF**
SAMPLING POINT/LOCATION: **3RD AVE WELL**	TAG #/FACILITY ID:
COLLECTOR'S NAME:	JURISDICTION:

MAGIC VALLEY LABS
210 ADDISON AVE, PO BOX 1867
TWIN FALLS, ID 83301
(208) 733-4250

RECEIVED
OCT 03 2013
BY:

PUBLIC DRINKING WATER SYSTEM INORGANIC CHEMICAL (IOC) ANALYSIS REPORT

Phase II								*Phase V*							
FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst	FRDS	Contaminant	Result*	MCL*	PQL*	Method	Analysis Date	Analyst
1010	Barium		2	0.5	3111D			1024	Cyanide		0.2				
1015	Cadmium		0.005	0.0005	3113B			1036	Nickel		N/a	0.01	3113B		
1020	Chromium		0.1	0.005	3113B			1074	Antimony		0.006	0.005	200.9		
1035	Mercury		0.002	0.001	245.1			1075	Beryllium		0.004	0.0005	200.9		
1038	Ttl (N02/NO3)		10					1085	Thallium		0.002	0.002	200.9		
1040	Nitrate	0.85	10	0.30	300.0	9/10/2013	JJ	Other IOCs							
1041	Nitrite		1.0	0.20	300.0			1005	Arsenic		0.010	0.005	200.9		
1045	Selenium		0.05	0.005	200.9			1025	Fluoride		4.0	0.02	300.0		
1094	Asbestos		7 MFL	0.18	100.1☆			1052	Sodium		N/a	0.5	3111B		

*Reported in mg/L unless otherwise noted † = formerly FRDS No. 1926 PQL = Process Qualitivity limit --- = No analysis performed
ND = Not detected within sensitivity of instrument

Roberta Ellis 09/27/13
Signature of Laboratory Supervisor **Date**

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

HAILEY CITY OF
115 MAIN ST. SO SUITE H
HAILEY ID 83333-0945

MAGIC VALLEY LABS, INC. 210 ADDISON AVE. TWIN FALLS ID 83301
PUBLIC DRINKING WATER RADIOLOGICAL ANALYSIS REPORT

RECEIVED JAN 2 1 2003 DEQ TWIN FALLS REGIONAL OFFICE

FRDS	CONTAMINANT	RESULT, µg/L	RESULT, pCi/L	90% Confidence interval (± 1.65σ)	MCL	ANALYST DATE	ANALYST	METHOD
4002	ALPHA ACTIVITY		*2.9	+/-1.4		12-17-02	SR	900.0
4XXX	URANIUM (measure if gross alpha exceeds 15 pCi/L; activity in pCi/L = .68 x concentration in µg/L)		**ND mg/L			8-26-02	CAR	E200.8
4000	ADJUSTED GROSS ALPHA (subtract uranium activity level from alpha activity)		2.9		15pCi/L			
4020	RADIUM 226 [measure if alpha activity plus 90 % confidence interval (1.65σ) is greater than 5 pCi/L]		**0.3			9-4-02	RS	E903.0
4030	RADIUM 228 (measure if radium 226 exceeds 3 pCi/L)		**ND			9-12-02	JAL	E904.0
4010	TOTAL MEASURED RADIUM (Sum of Ra 226 & Ra 228)		**0.3		5pCi/L			
4100	BETA/PHOTON ACTIVITY (measure major constituents if activity exceeds 50 pCi/L)		*3.2		4mREM	12-17-02	SR	900.0

☐ Nitric Acid Preservative

COMPOSITE SAMPLE DATES:
1st quarterly sample

2nd quarterly sample

3rd quarterly sample
(enter date for 4th quarter or latest composite collection date
beside date collected in the block to the right)

COMMENTS:

*tests performed by State of Idaho Bureau of Labs

**Tests performed by Energy Labs, Billings MT

PWS #	5070022
LAB SAMPLE TRACKING #	278021
DATE COLLECTED	8-19-02
*SAMPLE TYPE	
DATE RECEIVED	8-20-02
TIME COLLECTED	11:50AM
*LOCATION TAG #	
*SAMPLE COLLECTION LOCATION	RIVER ST WELL
DATE REPORTED BY LAB	1-18-03
*JURISDICTION	
PWS CONTACT PHONE (208)	

Brenda Ellis 1-21-03

Signature of lab supervisor **Date**

HAILEY CITY OF
115 MAIN ST SOUTH SUITE H
HAILEY ID 83333-0945

MAGIC VALLEY LABS, INC. 210 ADDISON AVE. TWIN FALLS ID 83301
PUBLIC DRINKING WATER RADIOLOGICAL ANALYSIS REPORT

RECEIVED JAN 21 2003 DEQ TWIN FALLS REGIONAL OFFICE

FRDS	CONTAMINANT	RESULT, µg/L	RESULT, pCi/L	90% Confidence interval (± 1.65σ)	MCL	ANALYST DATE	ANALYST	METHOD
4002	ALPHA ACTIVITY		*2.7	+/-1.3		12-17-02	SR	900.0
4XXX	URANIUM (measure if gross alpha exceeds 15 pCi/L: activity in pCi/L = .68 x concentration in µg/L)		**ND mg/L			8-26-02	CAR	E200.8
4000	ADJUSTED GROSS ALPHA (subtract uranium activity level from alpha activity)		2.7		15pCi/L			
4020	RADIUM 226 [measure if alpha activity plus 90 % confidence interval (1.65σ) is greater than 5 pCi/L]		**0.2			9-4-02	RS	E903.0
4030	RADIUM 228 (measure if radium 226 exceeds 3 pCi/L)		**ND			9-12-02	JAL	E904.0
4010	TOTAL MEASURED RADIUM (Sum of Ra 226 & Ra 228)		**0.2		5pCi/L			
4100	BETA/PHOTON ACTIVITY (measure major constituents if activity exceeds 50 pCi/L)		*3.0		4mREM	12-17-02	SR	900.0

☐ Nitric Acid Preservative

COMPOSITE SAMPLE DATES:

1st quarterly sample

2nd quarterly sample

3rd quarterly sample

(enter date for 4th quarter or latest composite collection date beside date collected in the block to the right)

COMMENTS:

*tests performed by State of Idaho Bureau of Labs

**Tests performed by Energy Labs, Billings MT

PWS #	5070022
LAB SAMPLE TRACKING #	278101
DATE COLLECTED	8-19-02
*SAMPLE TYPE	
DATE RECEIVED	8-20-02
TIME COLLECTED	11:00AM
*LOCATION TAG #	
*SAMPLE COLLECTION LOCATION	WOODSIDE WELL
DATE REPORTED BY LAB	1-18-03
*JURISDICTION	
PWS CONTACT PHONE (208)	

Brenda Ellis 1-21-03

Signature of lab supervisor **Date**

HAILEY CITY OF
115 MAIN ST SOUTH SUITE H
HAILEY ID 83333-0945

MAGIC VALLEY LABS, INC. 210 ADDISON AVE. TWIN FALLS ID 83301
PUBLIC DRINKING WATER RADIOLOGICAL ANALYSIS REPORT

FRDS	CONTAMINANT	RESULT, µg/L	RESULT, pCi/L	90% Confidence interval (± 1.65σ)	MCL	ANALYST DATE	ANALYST	METHO
4002	**ALPHA ACTIVITY**		*3.0	2.4		8/13/98	SR	900.
4XXX	**URANIUM** (measure if gross alpha exceeds 15 pCi/L; activity in pCi/L = .68 x concentration in µg/L)							
4000	**ADJUSTED GROSS ALPHA** (subtract uranium activity level from alpha activity)				15pCi/L			
4020	**RADIUM 226** [measure if alpha activity plus 90 % confidence interval (1.65σ) is greater than 5 pCi/L]		**					
4030	**RADIUM 228** (measure if radium 226 exceeds 3 pCi/L)							
4010	**TOTAL MEASURED RADIUM** (Sum of Ra 226 & Ra 228)				5pCi/L			
4100	**BETA/PHOTON ACTIVITY** (measure major constituents if activity exceeds 50 pCi/L)		*0.6		4mREM	8/13/98	SR	900.

☐ Nitric Acid Preservative

COMPOSITE SAMPLE DATES:

1st quarterly sample

2nd quarterly sample

3rd quarterly sample

(enter date for 4th quarter or latest composite collection date beside date collected in the block to the right)

COMMENTS:

*tests performed by State of Idaho Bureau of Labs

**Tests performed by Accu-Labs, Golden Co

PWS #	5070022
LAB SAMPLE TRACKING #	80735681
DATE COLLECTED	7/20/98
*SAMPLE TYPE	PLANT TAP
DATE RECEIVED	7/20/98
TIME COLLECTED	1000
*LOCATION TAG #	
*SAMPLE COLLECTION LOCATION	SITE 2 RIVERSIDE PUMP
DATE REPORTED BY LAB	9/9/98
*JURISDICTION	DEQ SCIRO
PWS CONTACT PHONE (208)	

Brenda Ellis 9-14-98

Signature of lab supervisor **Date**

CITY OF HAILEY
BOX 945
HAILEY ID 83333

SEP 15 1998
DEQ
TWIN FALLS REGIONAL OFFICE

MAGIC VALLEY LABS, INC. 210 ADDISON AVE. TWIN FALLS ID 83301
PUBLIC DRINKING WATER RADIOLOGICAL ANALYSIS REPORT

FRDS	CONTAMINANT	RESULT, µg/L	RESULT, pCi/L	90% Confidence interval (± 1.65σ)	MCL	ANALYST DATE	ANALYST	METHO
4002	**ALPHA ACTIVITY**		*2.2	2.1		8/13/98	SR	900.
4XXX	**URANIUM** (measure if gross alpha exceeds 15 pCi/L; activity in pCi/L = .68 x concentration in µg/L)							
4000	**ADJUSTED GROSS ALPHA** (subtract uranium activity level from alpha activity)				15pCi/L			
4020	**RADIUM 226** [measure if alpha activity plus 90 % confidence interval (1.65σ) is greater than 5 pCi/L]		**					
4030	**RADIUM 228** (measure if radium 226 exceeds 3 pCi/L)							
4010	**TOTAL MEASURED RADIUM** (Sum of Ra 226 & Ra 228)				5pCi/L			
4100	**BETA/PHOTON ACTIVITY** (measure major constituents if activity exceeds 50 pCi/L)		*1.7		4mREM	8/13/98	SR	900.

☐ Nitric Acid Preservative

COMPOSITE SAMPLE DATES:

1st quarterly sample

2nd quarterly sample

3rd quarterly sample

(enter date for 4th quarter or latest composite collection date beside date collected in the block to the right)

COMMENTS:

*tests performed by State of Idaho Bureau of Labs

**Tests performed by Accu-Labs, Golden Co

PWS #	5070022
LAB SAMPLE TRACKING #	807357611
DATE COLLECTED	7/20/98
SAMPLE TYPE	PLANT TAP
DATE RECEIVED	7/20/98
TIME COLLECTED	1000
LOCATION TAG #	
SAMPLE COLLECTION LOCATION	SITE 4 WOODSIDE
DATE REPORTED BY LAB	9/9/98
JURISDICTION	DEQ SCIRO
PWS CONTACT PHONE (208)	

Brenda Ellis 9-14-98.

Signature of lab supervisor **Date**

CITY OF HAILEY
BOX 945
HAILEY ID 83333

RECEIVED
SEP 15 1998
DEQ
TWIN FALLS REGIONAL OFFICE

ALCHEM LABORATORIES

Alchem Laboratories, Inc.

104 West 31st Street
Boise, Idaho 83714

Phone (208) 336-1172
FAX (208) 336-7124

Water, Waste Water and Soil Analysis

RADIOLOGY REPORT

PWS 5070022 LAB SAMPLE NO. 66609

NAME OF WATER SYSTEM CITY OF HAILEY

Name & Location of State Agency requesting copies:

DEQ-TWIN FALLS

REPORT RESULTS TO:

Name	Date Collected	Time
CITY OF HAILEY ATTN: STEPHEN TOZIER	11/28/94	14:35

Address	Collected by
BOX 945	S. TOZIER

City	State	Zip Code	County
HAILEY	IDAHO	83333	BLAINE

Sample Location

RIVER ST. WELL - 4TH QTR. 1994 COMPOSITE

NAME OF APPROVED LABORATORY WHERE ANALYSIS PERFORMED:

DEPT. OF HEALTH & WELFARE BUREAU OF LABORATORIES BOISE, ID

ANALYST: J.S. DATE COMPLETED: 12/22/94

ANALYSIS	MCL	RESULTS (pCi/liter)
Gross Beta	50.0 pCi/L	1.7
Gross Alpha	15 pCi/L	2.5

RECEIVED JAN - 9 1995 DEQ-TFRO

***Quarterly samples taken on 2/1/94, 5/2/94, 8/1/94 & 11/28/94.

Date Reported: 01/06/95

Laboratory Manager

ALCHEM LABORATORIES

Alchem Laboratories, Inc.

104 West 31st Street
Boise, Idaho 83714

Phone (208) 336-1172
FAX (208) 336-7124

Water, Waste Water and Soil Analysis

RADIOLOGY REPORT

PWS 5070022 LAB SAMPLE NO. 66608

NAME OF WATER SYSTEM CITY OF HAILEY

Name & Location of State Agency requesting copies:

DEQ-TWIN FALLS

REPORT RESULTS TO:

Name	Date Collected	Time
CITY OF HAILEY ATTN: STEPHEN TOZIER	11/28/94	15:15

Address	Collected by
BOX 945	S. TOZIER

City	State	Zip Code	County
HAILEY	IDAHO	83333	BLAINE

Sample Location

WOODSIDE WELL - 4TH QTR. 1994 COMPOSITE

NAME OF APPROVED LABORATORY WHERE ANALYSIS PERFORMED:

DEPT. OF HEALTH & WELFARE BUREAU OF LABORATORIES BOISE, ID

ANALYST: J.S. DATE COMPLETED: 12/22/94

ANALYSIS	MCL	RESULTS (pCi/liter)
Gross Beta	50.0 pCi/L	2.6
Gross Alpha	15 pCi/L	1.8

RECEIVED
JAN - 9 1995
DEQ-SCIRO

***Quarterly samples taken on 2/1/94, 5/2/94, 8/1/94 & 11/28/94.

Date Reported: 01/06/95

Laboratory Manager

HAILEY ORDINANCE NO. 1140

AN ORDINANCE OF THE CITY OF HAILEY AMENDING, SECTION 13.04.060 OF THE HAILEY MUNICIPAL CODE, TO PROVIDE FOR THE INSTALLATION AND MAINTENANCE OF BACKFLOW PREVENTION DEVICES AND FOR INSPECTION; BY PROVIDING FOR A REPEALER CLAUSE; BY PROVIDING FOR A SEVERABILITY CLAUSE AND BY PROVIDING AN EFFECTIVE DATE AFTER JANUARY 1, 2014.

WHEREAS, the Mayor and the City Council of the City of Hailey wish to amend the Hailey Municipal Code to ensure the safety of the City of Hailey water supply, to comply with state mandated water regulations, and to allow residents adequate time to comply with state mandated regulations; and

WHEREAS, the Mayor and City Council find that the amendments to the Chapter will further the public health, safety and general welfare.

NOW, THEREFORE, BE IT ORDAINED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF HAILEY, IDAHO, AS FOLLOWS:

Section 1. Section 13.04.060 of the Hailey Municipal Code is hereby amended by the addition of the underlined language and by the deletion of the stricken language, as follows:

13.04.060 Cross connections. By adopting this Section, the City hereby establishes and will implement a Cross Connection program to prevent the entrance to the Municipal Water System of materials known to be toxic or hazardous in accordance with the ~~The~~ standards for Cross Connections set forth in the ~~shall adhere to~~ Idaho Administrative Code~~, IDAPA~~ 58.01.08 – Idaho Rules for Public Drinking Water Systems, as amended ("Cross Connection Standards").

A. Cross Connections Prohibited. The installation or maintenance of a Cross Connection is hereby prohibited. Any such Cross Connection now existing is declared a nuisance and shall be removed or abated upon order of the City. Failure to remove a Cross Connection or install an approved Backflow Prevention Device as ordered within ten (10) days of the order shall result in discontinuance of municipal water service until compliance is made.

B. Backflow Prevention Devices. Any facility requiring a Backflow Prevention Device shall follow the requirements of the Cross Connection Standards ~~Idaho Administrative Code, IDAPA58.01.08, Subsection 900.02 (Table 2),~~ as amended. The minimum required Backflow Prevention Device shall ~~be~~ require a testable double check valve.

C. Inspections of Existing Buildings, Structures or Improvements. Inspections by the City or its authorized agent, bearing proper credentials and identification, may be made of any existing building, structures or improvements of any nature receiving water from the ~~m~~Municipal ~~w~~Water System~~supply~~. The City Water Division Manager ~~Superintendent~~ or his authorized agent shall make an inspection of any property, building, improvement or structure of any nature receiving water from the ~~m~~Municipal ~~w~~Water System ~~supply~~ if there appears probable cause to believe that a Cross Connection exists or that a Backflow Prevention Device should be installed.

D. Required Installations. Backflow Prevention Devices shall be installed at the Owner's expense at the ties on the premises or within any premises where, in the judgment of the City, the nature and extent of activities or the materials stored on the premises would present an immediate and dangerous hazard to health and/or be deleterious to the quality of the water should a Cross Connection occur, even though such Cross Connection does not exist at the time. In such circumstances, Backflow Prevention Devices may be required in the following premises:

1. Premises having an auxiliary water supply, unless the quality of the auxiliary supply is in compliance with the Cross Connection Standards and are acceptable to the City.

2. Premises having internal Cross Connections that are not correctable, or intricate plumbing arrangements which make it impracticable to ascertain whether Cross Connections exist.

3. Premises having a repeated history of Cross Connections.

4. Premises on which any substance is handled under pressure so as to permit entry into the Municipal Water System or where a Cross Connection could reasonably be expected to occur, including the handling of process waters and cooling waters.

5. Premises where materials of a toxic or hazardous nature are handled in such a way that if back siphonage should occur, a health hazard might result.

6. The following premise, unless the City and/or a health officer determine that no hazard exists:

    a. Hospitals, mortuaries, clinics.
    b. Laboratories.
    c. Metal plating industries.
    d. Sewage treatment plants.
    e. Food or beverage processing plants.
    f. Chemical plants using a water process.
    g. Petroleum processing or storage plants.
    h. Radioactive material processing plants or nuclear reactors.
    i. Dry Cleaners
    j. Others as specified by the health officer.

7. Other premises where Backflow Prevention Devices are reasonably required to protect the Municipal Water System.

8. Under circumstances set forth in this subsection, the City shall have the right to require a reduced pressure principle Backflow Prevention Device or a proper air gap separation to be installed at the property line.

E. Minimum Backflow Prevention Device. The type of Backflow Prevention Device required to be installed conform with the requirements of the Cross Connection Standards and shall depend on the degree of hazard which exists.

1. An air gap separation and/or a reduced pressure principle Backflow Prevention Device shall be installed where the Municipal Water System may be contaminated with sewage, industrial waste of a toxic nature, or other contaminant which could cause a health or system hazard.

2. In the case of a substance which may be objectionable but not hazardous to health, a double check valve assembly, air gap separation, or a reduced pressure principle Backflow Prevention Device shall be installed.

3. Where lawn sprinkling systems using the Municipal Water System are installed, double check valve assembly, reduced pressure principle Backflow Prevention Device, or an air gap separation shall be installed.

F. Installation. Backflow Prevention Devices required by this section (with the exception of fire sprinkler or standpipe systems) shall be installed at the Water Meter no closer than five feet (5') from the property line of the premises, or at a location approved by the City. The device shall be located so as to be readily accessible for maintenance. inspection and testing, and where no part of the device shall be submerged.

G. Annual Testing Required. Backflow Prevention Devices required by this chapter shall be installed under a permit issued by the City, and shall not be used until the same is tested by the installer and reported to the City, and inspected and approved by qualified City personnel. There shall be no charge for the permit and inspection by the City prior to approval of the installation. Thereafter, the Owner shall have such Backflow Prevention Device tested by a certified backflow prevention tester annually. Such testing, together with all maintenance and repair of such device, shall be at the Owner's expense and shall be completed by no later than August 1 of each year. All Backflow Prevention Devices shall be tested by a certified backflow prevention device tester at the Owner's expense. Whenever a device does not pass an annual test or is found to be defective, the devices shall, at the Owner's expense, be repaired, replaced, or isolated within ten (10) business days. Failure of the Owner to comply with the rules for installation, maintenance, repair, replacement, isolation, testing or inspection of Backflow Prevention Devices required by this Section shall be grounds for the termination of water service to the premises.

H. Approved Backflow Preventive Devices. Any Backflow Preventive Device required by this Section shall conform with the requirements of the Cross Connection Standards. These devices shall be furnished and installed by and at the expense of the Owner.

I. Irrigation Systems. No irrigation system shall be installed without adequate Backflow Prevention Devices at the point from which the water for irrigation is taken from the Municipal Water System, or at a location approved by the City.

J Fire Sprinkler Protection Systems and Fire Hydrants. All existing fire sprinkler or standpipe protection systems shall have an approved Backflow Prevention Device installed and tested by a licensed fire sprinkler installer. Failure to properly install or maintain the device may result in daily fines as provided for by the International Fire Code and the Hailey Municipal Code. Any termination of water supply to a required fire sprinkler or standpipe system will prevent the continued occupancy or use of the building until the water supply is re-established. Fire sprinkler and standpipe systems shall typically be installed on a separate water supply line prior to any Water Meter. No connection will be made to any Fire Hydrant by any person without having first received the permission of the City, except for firefighting purposes.

K. Private Water System. No person shall make or permit the Cross Connection of any Private Water System to a water line that is served by the Municipal Water System except as provided in this chapter. Whenever an Owner connects to the Municipal Water System, the Owner at Owner's expense shall physically disconnect any Private Water System from the Municipal Water System in such a manner that water from a Private Water System will never pass through the same pipes that carry water from the Municipal Water System, except as may be approved by the City and health officer.

Section 2. All Ordinances or Resolutions or parts thereof in conflict herewith are hereby repealed and rescinded.

Section 3. If any section, paragraph, sentence or provision hereof or the application thereof to any particular circumstances shall ever be held invalid or unenforceable, such holding shall not affect the remainder hereof, which shall continue in full force and effect and applicable to all circumstances to which it may validly apply.

Section 4. This Ordinance shall be in full force and effect on January 1, 2014 and after its passage, approval and publication according to law.

PASSED AND ADOPTED BY THE HAILEY CITY COUNCIL and approved by the Mayor this ___ day of December, 2013.

_____
Fritz X. Haemmerle, Mayor
City of Hailey

ATTEST:

_____
Mary Cone, City Clerk

Summary Publish: Idaho Mountain Express, December 11, 2013

Water System Master Plan

Appendix B

Hydraulic Model

SPF WATER ENGINEERING

SPF WATER ENGINEERING

MEMORANDUM

DATE: February 2, 2015

TO: Cathy Cooper, P.E.

FROM: David Keil, P.E.

CC: File 330.0210

RE: *Draft* - Hailey Water System Hydraulic Model Analysis

A. Computer Model Development

The City of Hailey's original hydraulic computer model was created using EPANET software and was last updated in 2008. For this project, the City's 2008 hydraulic model was converted to a WaterCAD V8i (Select Series 4) format, the most current hydraulic software produced by Bentley Systems Inc. at the time this Hailey Water Master Plan was prepared. WaterCAD V8i was used in lieu of EPANET due to several key software features which improve the accuracy and depth of information used in the Hailey Water Master Plan. These software features include genetic algorithm model calibration, multiple scenario management, and automated fire flow analysis across the entire distribution system network.

B. Demand Allocation

The Hailey water system meter readings were summarized for each of the thirty three "routes" in the water system (Route 5 through Route 38). These route demand summaries and anticipated locations for service area growth were used as the basis for existing and future water system demand allocation.

Existing (2014) Demand

To assign demands within the model as accurately as possible, existing demands were allocated within the distribution system model based on 2013 meter route records and the 2013 Water Route Map supplied by the City. The existing average day demands (ADD) for each route were divided by the number of model network junction nodes to estimate and assign the "base demand" for each node within each respective route. The model Maximum Day Demand (MDD) and Peak Hour Demand (PHD) were established by multiplying the peaking factors of 2.5 and 3.65, respectively, to all model nodes with a base demand.

Future Demand

The City's growth generally drives future increases in water system demands. Two types of growth are anticipated within the City of Hailey – (1) geographic expansion of the city limits and (2) infill of developable areas. The estimated increase in water system demands for these two types of growth, and how these increases are allocated to the locations where growth will most likely occur, is described in this section.

City Service Area Expansion

The number of acres available for development in the City of Hailey is described in the 2010 Comprehensive Plan[1]. The annexable and developable area is 781 acres at 4 to 5 units per acre. For the purposes of the water model, factors of 4.5 units per acre, 2.56 people per unit, and 350 gallons per capita per day (gpcd) average day demand (ADD) were assumed. The increase in water demand projected to result from city expansion of this area through build-out is 3.1 mgd ADD. The city is assumed to not be built out within 20 years (the planning period for the Master Plan).

The 2010 Comprehensive Plan describes two locations as being adjacent to the city limits and readily developable. These locations include (1) a 26 acre area south of Della View Subdivision and west of the Airport West Subdivision and (2) a 240 acre area in Quigley Canyon. The estimated demands for these areas for the years 2019 and 2034 are shown in Table 1. These demands were added to 2019 and 2034 scenarios at model nodes representing these future development locations and connecting to the water system with new 8-inch and 12-inch pipes.

Table 1. Estimated 2019 and 2034 Demands for City Expansion Areas.

Location	Area, acres	2019			2034		
		Percent Developed	ADD, mgd	ADD, gpm	Percent Developed	ADD, mgd	ADD, gpm
South of Della View/West of Airport	**26**	**10%**	**0.010**	**7.3**	**50%**	**0.052**	**36.4**
Quigley Canyon	**240**	**10%**	**0.097**	**67.2**	**50%**	**0.484**	**336.0**

Developable Infill Areas

A memorandum dated January 16, 2007 to Kathy Grotto, Hailey City Planner, from TischlerBise with subject *Demographic Data and Development Projections*, reports the

[1] City of Hailey. *2010 Comprehensive Plan. Part Three, Goals & Indicators. Section 5 - Land Use, Population and Growth Management*. Adopted by City Council Resolution 2010-18.

vacant land inventory within the 2007 city limits as a total of 243 acres. The 2010 Comprehensive Plan reports the total area of vacant land within the Hailey city limits as 520 acres, which includes the area for potential airport redevelopment. Excluding 219 acres for airport redevelopment, the total vacant land area reported by the 2010 Comprehensive Plan is 301 acres. Using factors of 4.5 units per acre, 2.56 people per unit, and 350 gallons per capita per day (gpcd) average day demand (ADD), the total increase in water demand projected to result from infill development is 1.0 mgd. Approximately 10 percent of infill is anticipated to occur prior to the year 2019 and 50 percent prior to 2034.

The projected increases in water system demands from infill were allocated in the hydraulic model based on the locations described in the vacant land inventory, Figure A8, in the January 16, 2007 memorandum from TischlerBise to Kathy Grotto. The number of lots associated with these areas described in the January 16, 2007 memorandum, along with the estimated demand for 2019, 2034, and build-out, are summarized in Table 2.

Table 2. Anticipated Infill Lots and Corresponding Water System Demand

Infill Location	Total Number of Developable Lots	2019 Estimated Demand, gpm[1]	2034 Estimated Demand, gpm[2]	Buildout Estimated Demand, gpm[3]
Northridge LR-2	**40**	**2.5**	**12.6**	**25.2**
Northridge LR-1	**71**	**4.5**	**22.3**	**44.7**
Northridge GR	**24**	**1.5**	**7.6**	**15.1**
Dove Meadows/Mother Lode LR-1	**20**	**1.3**	**6.3**	**12.6**
Hiawatha LR-1	**12**	**0.8**	**3.8**	**7.6**
Deerfield/Foxmoor LR-1	**31**	**2.0**	**9.8**	**19.5**
Northstar LR-1	**12**	**0.8**	**3.8**	**7.6**
China Gardens GR	**8**	**0.5**	**2.5**	**5.0**
Della View LR	**26**	**1.6**	**8.2**	**16.4**
N Woodside LR	**3**	**0.2**	**0.9**	**1.9**
C Woodside GR	**51**	**3.2**	**16.1**	**32.1**
S Woodside GR	**8**	**0.5**	**2.5**	**5.0**
Townsite Overlay – Residential	**24**	**1.5**	**7.6**	**15.1**
Business	**29**	**1.8**	**9.1**	**18.3**
SCI (Service-Commercial-Industrial)	**64**	**4.0**	**20.1**	**40.3**
Sweetwater Ph 2-4	**315**	**19.8**	**99.1**	**198.3**
Old Cutters	**149**	**9.4**	**46.9**	**93.8**
Dumke LR-1	**200**	**12.6**	**63.0**	**125.9**
Total ADD, gpm	**-**	**68.43**	**342.14**	**684.28**
Total ADD, mgd	**-**	**0.10**	**0.49**	**0.99**

[1] 2019 estimated infill demand is based on 10% of the total developable infill area.

[2] 2034 estimated infill demand is based on 50% of the total developable infill area.

[3] Modeling is focused on existing, near-term (5-year), and long-term (20-year) scenarios. Longer term scenarios involve a very high degree of variability. A model scenario was not developed for build-out. The build-out demands are shown in this table to use as a comparison to the demand projections developed for Section 4 of the Master Plan, Supply Requirements (Table 4-5).

With the estimated infill demand allocated by area, the demands were further divided by the total number of model nodes for each area. Each model node's 2019 and 2034 infill demand was added to the 2014 base demand to estimate the projected total 2019 and 2034 base demand at each node. The increase in base demand for each infill model node is shown in Table 3.

Table 3. Increase in Model Node Base Demand for 2019 and 2034

Infill Location	Number of Nodes in Location	2019 Base Demand Added to Each Node, gpm	2034 Base Demand Added to Each Node, gpm
Northridge LR-2	**9**	**0.28**	**1.40**
Northridge LR-1	**10**	**0.45**	**2.23**
Northridge GR	**13**	**0.12**	**0.58**
Dove Meadows/Mother Lode LR-1	**7**	**0.18**	**0.90**
Hiawatha LR-1	**5**	**0.15**	**0.76**
Deerfield/Foxmoor LR-1	**14**	**0.14**	**0.70**
Northstar LR-1	**4**	**0.19**	**0.94**
China Gardens GR	**2**	**0.25**	**1.26**
Della View LR	**1**	**1.64**	**8.18**
N Woodside LR	**2**	**0.09**	**0.47**
C Woodside GR	**10**	**0.32**	**1.61**
S Woodside GR	**4**	**0.13**	**0.63**
Townsite Overlay – Residential	**51**	**0.03**	**0.15**
Business	**29**	**0.06**	**0.31**
SCI (Service-Commercial-Industrial)	**32**	**0.13**	**0.63**
Sweetwater Ph 2-4	**51**	**0.39**	**1.94**
Old Cutters	**14**	**0.67**	**3.35**
Dumke LR-1	**2**	**6.30**	**31.48**

Future Water System Demand Summary

The projected development area and service population for 2019, 2034, and build-out are shown in Table 4.

Table 4. Projected Development Area and Service Population

	Area, acres			Service Population		
	2019	2034	Build-out	2019	2034	Build-out
Existing	**2,040**	**2,040**	2,040	**8,000**	**8,000**	8,000
Infill[1]	**30**	**151**	301	**346**	**1,740**	3,500
City Expansion	**58**	**207**	781	**663**	**2,385**	9,000
Total[1]	**2,128**	**2,398**	3,122	**9,009**	**12,125**	20,500

[1] Based on Water Demand Projections shown in Table 4-5 of the Master Plan.

[2] The projected city expansion population and demand increase in 2034 is estimated by subtracting the existing and infill values from the 2034 projections in Table 4-5 of the Master Plan.

The water system demand projections for the two model scenarios applied to this water system plan and for build-out are shown in Table 5.

Table 5. Demand Projections for 2019, 2034, and Buildout

	2019 Demand, mgd		2034 Demand, mgd		Buildout Demand, mgd	
	ADD	MDD	ADD	MDD	ADD	MDD
Existing	**2.9**	**7.1**	**2.9**	**7.1**	**2.9**	**7.1**
Infill[1]	**0.1**	**0.3**	**0.5**	**1.2**	**1.0**	**2.5**
City Expansion[1]	**0.20**	**0.50**	**0.89**	**2.2**	**3.1**	**7.9**
Total[2]	**3.2**	**7.9**	**4.2**	**10.6**	**7.0**	**17.5**

[1] Based on 4.5 units per acre, 2.56 people per unit, and 350 gallons per capita per day.

[2] Based on Water Demand Projections shown in Table 4-5 of the Master Plan.

C. Model Calibration

Hydrant flow testing was performed by city water system operations personnel at eleven locations throughout the city on November 19, 2013. The eleven test hydrant locations are shown in Figure 1. The operations personnel documented each flow test on the hydrant flow result sheet template provided by the Idaho Surveying and Rating Bureau, Inc. Each sheet documents the tested hydrant flow, the static pressure at the test hydrant, the recorded pitot tube pressure during the test along with assumed coefficient of discharge, the diameter of the test hydrant, and the residual pressure at a nearby witness hydrant. The hydrant flow results sheet also includes the estimated flow at 20 psi and the estimated pressure at a flow of 1,500 gpm for the test hydrant. Each of the hydrant flow result sheets for the tests used for model calibration is included at the end of this Memorandum. A summary of the hydrant flow test data that were used for model calibration are shown in Table 6.

Table 6. Hydrant Flow Test Observations for Model Calibration

		Static Test	Flow Test		
Pressure Zone	Test Hydrant	Static Pressure	Flow, gpm	Witness Hydrant	Residual Pressure
5530	**Hydrant 1**	**66**	**1,126**	**Hydrant 1A**	**64**
5530	**Hydrant 2**	**66**	**1,222**	**Hydrant 2A**	**64**
5530	**Hydrant 3**	**88**	**1,353**	**Hydrant 3A**	**76**
5530	**Hydrant 4**	**86**	**1,404**	**Hydrant 4A**	**80**
5530	**Hydrant 5**	**102**	**1,353**	**Hydrant 5A**	**86**
5530	**Hydrant 7**	**68**	**1,126**	**Hydrant 7A**	**66**
5530	**Hydrant 8**	**86**	**1,300**	**Hydrant 8A**	**83**
5488	**Hydrant 6**	**86**	**1,353**	**Hydrant 6A**	**69**
5488	**Hydrant 9**	**91**	**1,300**	**Hydrant 9A**	**80**
5435	**Hydrant 10**	**82**	**1,186**	**Hydrant 10A**	**63**
5435	**Hydrant 11**	**72**	**1,126**	**Hydrant 11A**	**57**

The static pressure, expressed as hydraulic grade, for each of the tests is shown in Table 7. This table also shows the nominal hydraulic grade line for each respective pressure zone based on tank overflow or the highest pressure reducing valve (PRV) setting for the two pressure zones served through PRVs. The observed hydraulic grade should closely match the nominal hydraulic grade since the tanks were at the overflow elevation during the calibration tests and the PRV's with the highest pressure setting supply water to the lower pressure zones during periods of low demand, such as November 19, 2013, the date the flow testing occurred.

Table 7. Observed Hydraulic Grade for Hydrant Flow Tests

Test Hydrant Number	Pressure Zone Nominal HGL, ft	Observed Hydraulic Grade, ft	Difference between Nominal Pressure Zone HGL and Observed HGL, psi
Hydrant 1	**5,530**	**5,531**	**-0.4**
Hydrant 2	**5,530**	**5,520**	**4.3**
Hydrant 3	**5,530**	**5,529**	**0.4**
Hydrant 4	**5,530**	**5,509**	**9.1**
Hydrant 5	**5,530**	**5,537**	**-3.0**
Hydrant 7	**5,530**	**5,527**	**1.3**
Hydrant 8	**5,530**	**5,523**	**3.0**
Hydrant 6	**5,488**	**5,508**	**-8.7**
Hydrant 9	**5,488**	**5,485**	**1.3**
Hydrant 10	**5,435**	**5,438**	**-1.3**
Hydrant 11	**5,435**	**5,439**	**-1.7**

The observed static hydraulic grade for Hydrants 2, 4, and 6 is not close to the nominal pressure zone hydraulic grade line. The difference between nominal HGL and observed hydraulic grade could be due to a number of factors.

1. Ground elevation was used to calculate the observed hydraulic grade. The source of data used for determining ground elevation is the United States Geological Survey (USGS) National Elevation Dataset. These data are derived from 7.5 minute topographical mapping by the USGS. Elevation data are provided at 10-meter horizontal resolution. The vertical accuracy varies by location. *(Potential vertical error = 5-feet)*
2. The actual location of the flow test hydrant and the witness hydrant might be slightly different than what is shown in the model. A slightly different horizontal location would lead to slightly different elevation assigned to the hydrant. The modeled hydrant locations are generally within approximately 100-feet of the actual hydrant location. *(Potential vertical error = 5-feet)*
3. The pressure could have been recorded at a hydrant port located anywhere from 1.5 to 4 feet above the ground surface. *(Potential vertical error = 4-feet)*

4. The accuracy in reading pressure gauge graduations during the static and residual pressure observations can vary. Graduations shown at 2 psi increments are easily misread and ±2 psi could be reported. *(Potential vertical error = 5-feet)*
5. The pressure gauge calibration could lead to slightly different pressure readings than actual pressure. Hailey water operations staff report accuracy within 2 psi for the pressure gauge used for flow testing. *(Potential vertical error = 5-feet)*

When added together, the total potential vertical error is 29-feet, which is greater than the difference between observed and expected static hydraulic grade recordings.

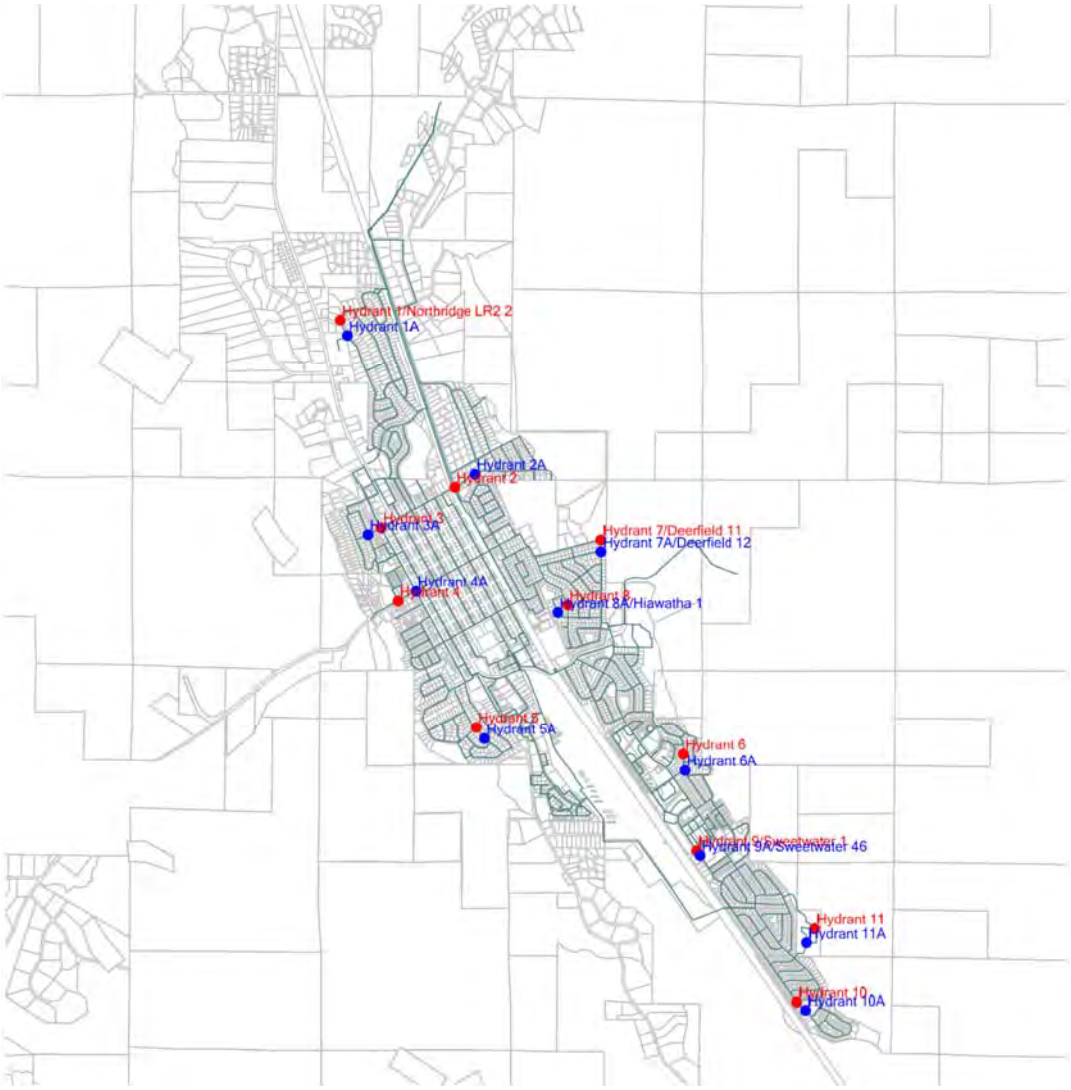


Figure 1. Locations for Eleven Hydrant Flow Tests and Corresponding Witness Hydrants

The results of the eleven hydrant flow tests were added to the Darwin Calibrator™ system in the hydraulic model. Darwin Calibrator™ is a calibration program within the WaterCAD™ modeling program which automatically iterates through adjustments in pipe roughness coefficients and demands to determine optimum model input data for the observed field data using a genetic algorithm "survival of the fittest" routine which carries the "most fit" parameters forward for comparison to each other until the user-defined fitness tolerance criteria are achieved.

The Darwin Calibrator™ was setup to adjust model input conditions until the static pressure recordings from before the flow tests, and flow and pressure recordings during flow tests, were simulated with "acceptable" fitness. Pipe roughness coefficients (Hazen-Williams C Factors) were allowed to range from 100 to 140 for each pipe diameter and the demands were allowed to range from 30% to 150% of the base demand for each of the city meter routes.

Calibration fitness was problematic for the given PRV settings. PRV settings were adjusted to more closely reflect the observed hydraulic grade before and during the flow tests. The facility settings used for model calibration are shown in Table 8. Flow test records note that all pumps were not operating for the flow tests and were off for the calibration.

Table 8. Facility Settings for Model Calibration

Facility	Pressure Setting, psi	HGL Setting, ft
Fox Acres 3" PRV	**86**	**5,515**
Fox Acres 8" PRV	**79**	**5,500**
Woodside 3" PRV	**78**	**5,500**
Woodside 8" PRV	**60**	**5,460**
Airport 3" PRV	**73**	**5,445**
Airport 8" PRV	**67**	**5,430**
Turbine Tank	**-**	**5,526**
Quigley Tank	**-**	**5,530**

The observed and simulated static hydraulic grade values are shown in Table 9. Figure 2 is a correlation plot of model data to observed field data following calibration. The model was calibrated to a correlation coefficient of 0.968.

Table 9. Static Test Observed and Simulated Hydraulic Grade and Differential

Hydrant Name	Observed HGL, ft	Simulated HGL, ft	Pressure Differential
Hydrant 1	**5,530.55**	**5,522.86**	**-3.3**
Hydrant 2	**5,520.11**	**5,521.91**	**0.8**
Hydrant 3	**5,528.43**	**5,521.63**	**-2.9**
Hydrant 4	**5,508.67**	**5,521.21**	**5.4**
Hydrant 5	**5,536.48**	**5,519.17**	**-7.5**
Hydrant 6	**5,507.58**	**5,497.06**	**-4.6**
Hydrant 7	**5,526.82**	**5,521.89**	**-2.1**
Hydrant 8	**5,522.60**	**5,522.15**	**-0.2**
Hydrant 9	**5,484.67**	**5,497.02**	**5.3**
Hydrant 10	**5,437.86**	**5,443.67**	**2.5**
Hydrant 11	**5,438.85**	**5,443.70**	**2.1**

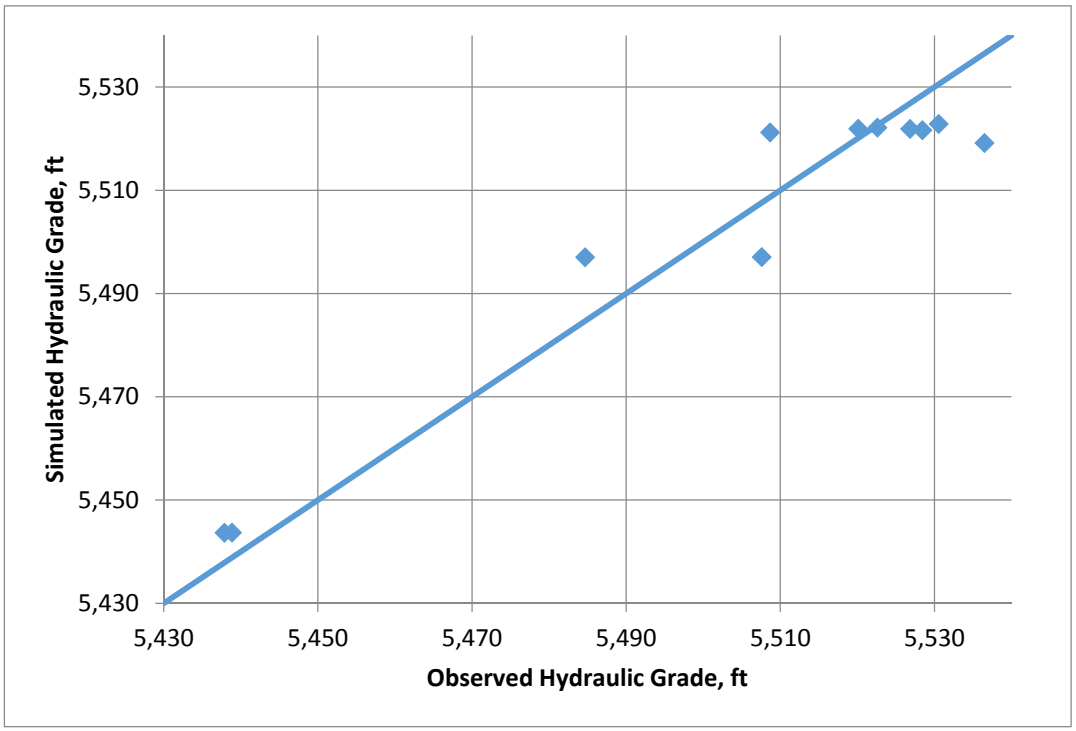


Figure 2. Static Hydraulic Grade Correlation Plot

The observed and simulated flow test hydraulic grade values are shown in Table 10. Figure 3 is a correlation plot of model data to observed field data following calibration. The model was calibrated to a correlation coefficient of 0.978.

Table 10. Flow Test Observed and Simulated Hydraulic Grade and Differential

Hydrant Name	Observed HGL, ft	Simulated HGL, ft	Pressure Differential
Hydrant 1	**5,508.61**	**5,513.24**	**2.0**
Hydrant 2	**5,517.35**	**5,511.69**	**-2.5**
Hydrant 3	**5,507.52**	**5,507.98**	**0.2**
Hydrant 4	**5,497.13**	**5,503.15**	**2.6**
Hydrant 5	**5,497.99**	**5,470.96**	**-11.7**
Hydrant 6	**5,481.15**	**5,479.83**	**-0.6**
Hydrant 7	**5,516.33**	**5,508.45**	**-3.4**
Hydrant 8	**5,514.19**	**5,511.72**	**-1.1**
Hydrant 9	**5,458.53**	**5,466.10**	**3.3**
Hydrant 10	**5,391.08**	**5,379.29**	**-5.1**
Hydrant 11	**5,392.77**	**5,395.48**	**1.2**

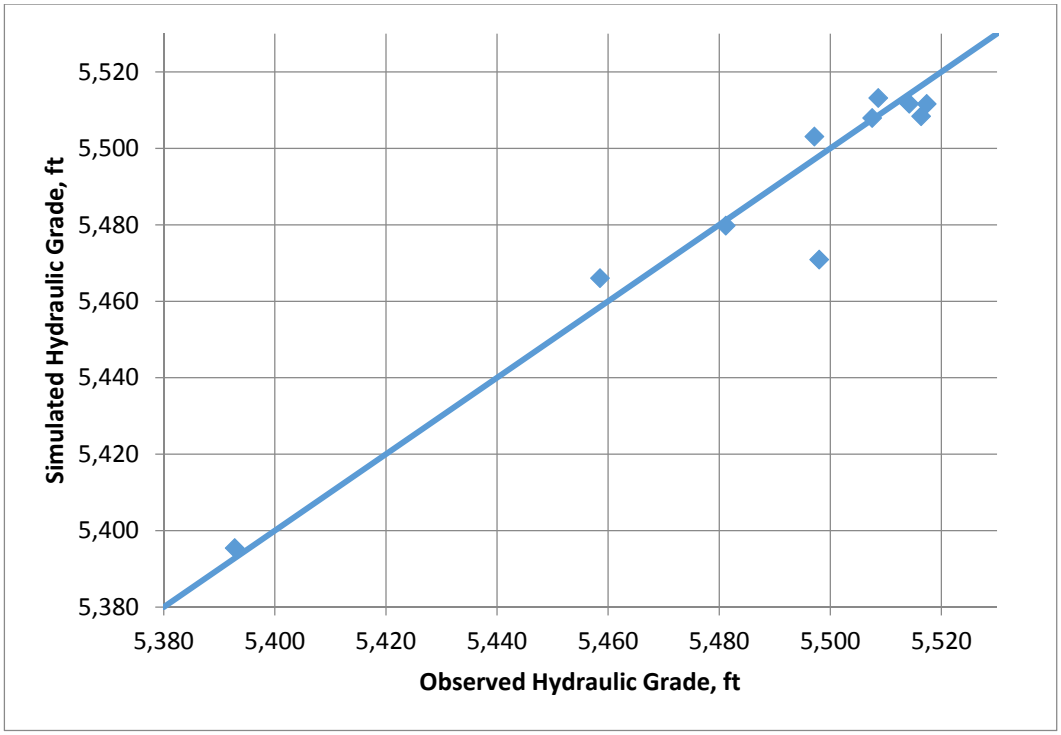


Figure 3. Flow Test Hydraulic Grade Correlation Plot

The differential between observed and simulated static pressure, and the differential between observed and simulated flow test residual pressure, was the greatest at Hydrant 5. Each test reported a greater hydraulic grade than the simulated hydrant grade. The field and model flow conditions were both evaluated with all of the system pumps turned off. It is possible that one or more of the wells responded to the flow and pressure condition and turned on during the flow tests resulting in higher observed field pressures.

D. Current (2014) Conditions Evaluation

The calibrated hydraulic model was setup to analyze distribution system performance under two scenarios – (1) Peak Hour Demand and (2) Maximum Day Demand plus Fire Flow.

Current (2014) Peak Hour Demand (PHD)

The PHD condition represents the maximum volume of water delivered to the system during any single hour, during the year. The peak hour demand peaking factor was applied to the base average daily demands for an estimated 2014 PHD of 10.3 mgd in the 2014 PHD model scenario.

The Idaho Drinking Water Rules require "*…elevated storage tanks, pressure calculations during peak hour demand shall be based on the lowest water level after both operational storage and equalization storage have been exhausted.*" (IDAPA 58.0.108 Section 552. Paragraph 01.b.viii.) The existing system configuration during this scenario is based on the following pump and tank operation:

- Quigley Tank water surface elevation = 5,519.9 ft. (12.1 feet above the assumed minimum water surface elevation in the water model.)
- Turbine Tank water surface elevation = 5,519.33 ft. (4.9 feet above the assumed minimum water surface elevation in the water model.)
- The Northridge Booster Pump No. 1 and the Woodside Booster Pump were not operating for the PHD scenario. All other well/booster pumps were operating.

System pressures for this demand condition range from 33 to 105 psi and maximum pipeline velocity is 8.0 ft/s.

Model nodes with peak hour demand pressure less than 40 psi are shown in Figure 4. These nodes are located near the intersection of Buttercup Road and Indian Creek Road and near the intersection of Indian Creek Road and North Hiawatha Drive. The customers in this area are served for irrigation and fire flow, not potable water, so the PHD 40 psi minimum pressure requirement could potentially be waived for this part of the system. One water customer at the south end of Hiawatha Drive does have an irrigation and service meter. Pressures at this node remain above 40 psi, so comply with regulatory requirements.

Figure 4. Model nodes with 2014 peak hour demand pressure less than 40 psi

Current (2014) Maximum Day Demand (MDD) plus Fire Flow

To determine whether the water system can provide the water flows required for firefighting, the hydraulic model was run under MDD conditions while maintaining 20 psi at all service connections within each service route assuming that water for firefighting is being used at various locations throughout the distribution system.

The Idaho Drinking Water Rules require "*…pressure calculations during fire flow demands shall be based on the lowest water level after operational storage, equalization storage, and fire suppression storage have been exhausted.*" (IDAPA 58.0.108 Section 552. Paragraph 01.b.viii.) The existing system configuration during this scenario is based on the following pump and tank operation:

- Quigley Tank water surface elevation = 5,514.36 ft. (6.56 feet above the assumed minimum water surface elevation in the water model.)
- Turbine Tank water surface elevation = 5,516.86 ft. (2.43 feet above the assumed minimum water surface elevation in the water model.)
- The Northridge Booster Pump No. 1 and the Woodside Booster Pump were not operating for the PHD scenario. All other well/booster pumps were operating.

The hydraulic modeling software fire flow analysis routine simulates a single fire at a time for each designated model junction node. All nodes were included in the fire flow analysis

except nodes upstream of supply pumps and near reservoirs. Minimum fire flow requirements were set as:

- 3,000 gpm near the court house location;
- 1,500 gpm for all other parts of the system, except upstream of supply pumps and near reservoirs.

The locations where fire flow availability was less than the required fire flow for the existing (2014) distribution system and maximum day demand conditions are shown in Table 11. Figure 5 shows in red the deficient node locations noted in Table 11. The table indicates the required fire flow by node within the model and the resulting available flow predicted by the model. Several of these lines are only service lines (they do not provide fire flow). The improvements needed to get fire flows to the end of these service lines is noted here, in case the purpose of the line changes in the future. However, immediate upgrades are not needed.

Table 11. Locations with limited fire flow availability (2014 MDD)

Location (Junction Node ID)	Required Flow, gpm	Available Fire Flow, gpm	Description	Notes
Townsite 6	**1,500**	**978**	**Alley between South 3rd Street and South 4th Street – south of Chestnut Street.**	**Service Line only. Not currently required to provide fire flow. Hydrants on surrounding streets provide fire flows.**
J-105	**1,500**	**1,223**	**North Hiawatha Drive – between Indian Creek Road and Red Devil Drive.**	
J-104	**1,500**	**1,153**		
262	**1,500**	**998**	**Edge Wood Lane – from Whitehaven Drive to eastern pipe terminus and from Whitehaven Drive to western pipe terminus.**	**Service Lines Only. Not currently required to provide fire flow. Hydrants on Winterhaven Dr. provide fire flows.**
260	**1,500**	**893**		
Sweetwater 28	**1,500**	**1,092**	**Within a subdivision east of Woodside Boulevard just west of Whitehaven Drive.**	**Service lines only. Not currently required to provide fire flow. Hydrants on Woodside Boulevard provide fire flows.**
Sweetwater 29	**1,500**	**1,097**		

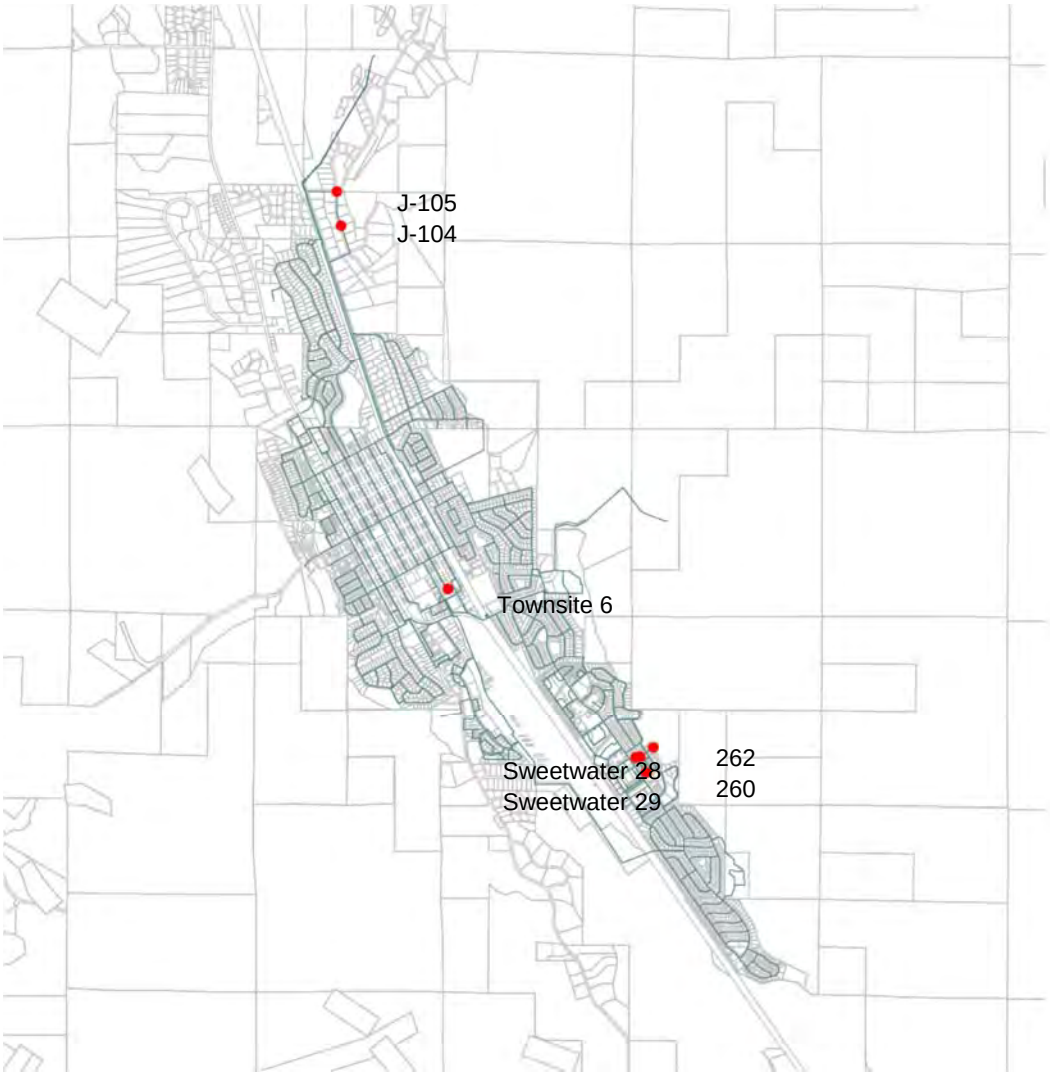


Figure 5. 2014 Locations without required fire flow availability (red)

Recommended System Improvements to Meet Current (2014) Conditions

The 2014 water system configuration has one area with peak hour pressure less than the required 40 psi. This area is near North Hiawatha Drive and Indian Creek Road. This area is served by the domestic water system for only irrigation and fire flow. Potable water is available at these properties via individual wells. The first potable water service is located downhill from these services where pressure during peak hour demand is greater than 40 psi. No improvements are needed in this area to improve peak hour pressure.

A list of water system improvements to increase fire flow availability above 1,500 gpm is shown in Table 12. Each of the improvements involves upsizing the water mains in the existing alignment 8-inch.

Table 12. Water system improvements to meet current (2014) conditions

Location Tag	Diameter, inches	Length, feet	Description	Notes
2014FF-1(a) 2014FF-1(b)	**8 8**	**880 650**	**Replace 6-inch water pipe with 8-inch water pipe (a) along Indian Creek Road from Buttercup Road to North Hiawatha Drive and (b) along Red Devil Drive from Buttercup Road to North Hiawatha Drive.**	**Include in final list of recommended upgrades.**
2014FF-2	**8**	**120**	**Extend new 8-inch water main from the existing water main in So 4th Ave to the dead-end 4-inch water main near the National Guard building.**	**Service line only. Do not include in final list of recommended upgrades. Increased line size needed if hydrant is added to line in future.**
2014FF-3	**8 8**	**210 250**	**Replace 4-inch water pipe with 8-inch water pipe along Winterhaven Drive.**	**Service line only. Do not include in final list of recmomended upgrades. Increased line size needed if hydrant is added to line in future.**
2014FF-4	**8 8**	**170 160**	**Replace 4-inch water pipe with 8-inch water pipe along within subdivision east of Woodside Boulevard west of Whitehaven Drive.**	**Service line only. Do not include in final list of recmomended upgrades. Increased line size is needed if hydrant is added to line in future.**
2014FF-5	**N/A**	**N/A**	**Fire flow booster station for future water services along Quigley Canyon Road.**	**Needed for future development in Quigley Canyon.**

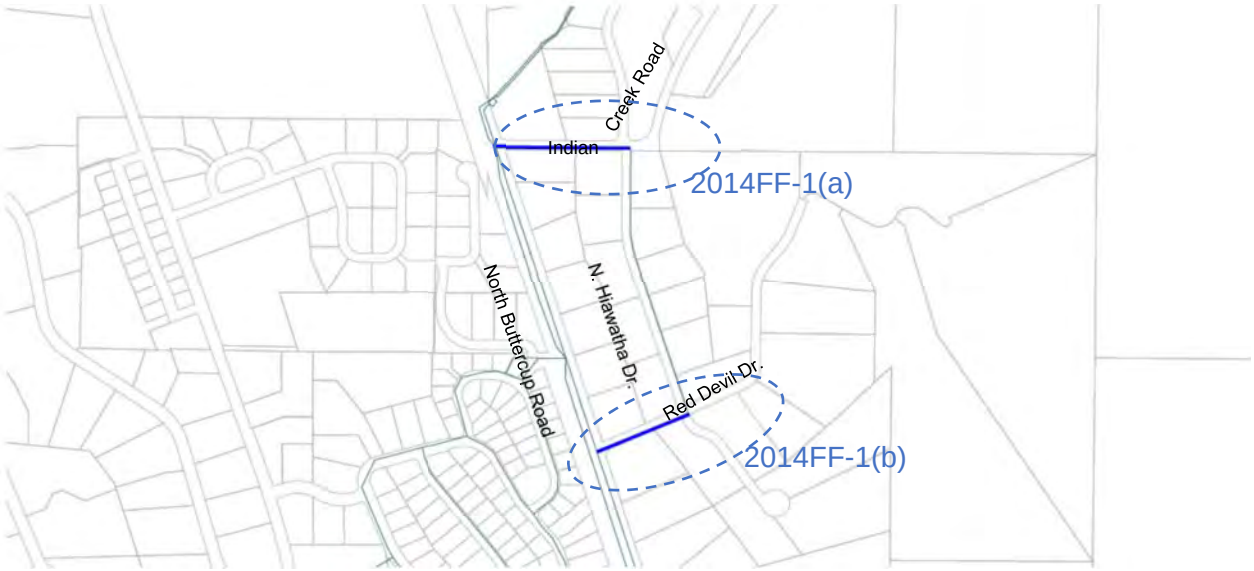


Figure 6. Improvements 2014FF-1(a) and 2014FF-1(b)

Figure 7. Improvement 2014FF-2

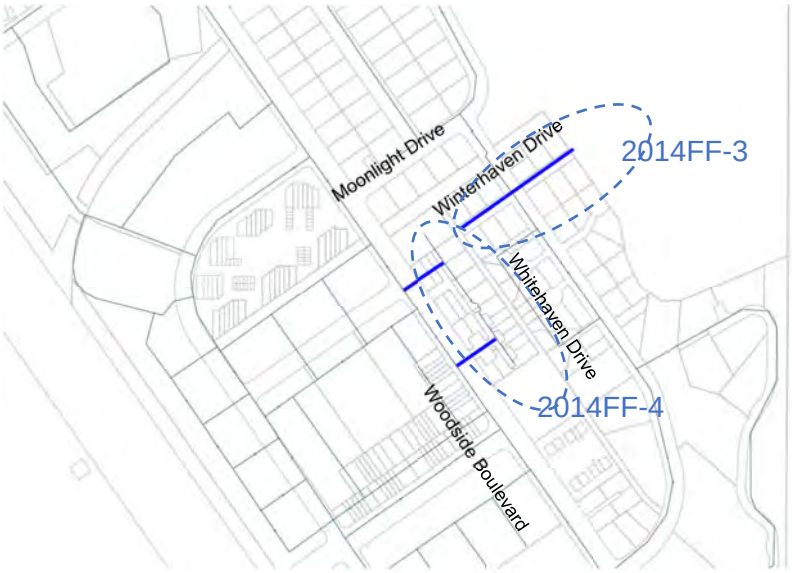


Figure 8. Improvements 2014FF-3 and 2014FF-4

The improvements described in Table 12 were entered into the model and a fire flow scenario was run to test the fire flow increase and availability at each location. These improvements increase fire flow availability to a level greater than 1,500 gpm at each location.

E. Near-Term (2019) Evaluation

The 2014 hydraulic analysis resulted in recommendations of several water distribution system improvements to improve fire flow availability. Scenarios for near-term (2019) peak hour demand and fire flow availability analyses included the 2014 improvements and projected increases in water system demands for infill and city expansion up to the year 2019. The same tank level, pump operation settings, and fire flow requirements were used in the 2019 analyses as were used in the 2014 analyses.

Near-Term (2019) Peak Hour Demand (PHD)

The system pressure during the 2019 PHD is greater than 40 psi with the exception of the area near the intersection of Buttercup Road and Indian Creek Road and near the intersection of Indian Creek Road and North Hiawatha Drive. As noted in the 2014 PHD analysis, the customers in this area are served for irrigation and fire flow, not potable water, so the 40 psi minimum pressure requirement could potentially be waived for this part of the system.

Near-Term (2019) Maximum Day Demand plus Fire Flow

The fire flow availability during the 2019 MDD is greater than the required fire flow throughout the entire distribution system when the recommended 2014 water distribution system improvements are included in the analysis.

Recommended System Improvements to Meet Near-Term (2019) Conditions

No further improvements are needed for 2019 beyond those improvements identified with the 2014 fire flow analysis.

F. Future (2034) Evaluation

The 2014 hydraulic analysis resulted in recommendations of several water distribution system improvements to improve fire flow availability. Scenarios for near-term (2034) peak hour demand and fire flow availability analyses included the 2014 improvements and projected increases in water system demands for infill and city expansion up to the year 2034. The same tank level, pump operation settings, and fire flow requirements were used in the 2034 analyses as were used in the 2014 analyses.

Future (2034) Peak Hour Demand (PHD)

Similar to the 2019 PHD analysis, the system pressure during the 2034 PHD is greater than 40 psi with the exception of the area near the intersection of Buttercup Road and Indian Creek Road and near the intersection of Indian Creek Road and North Hiawatha Drive. As noted in the 2014 PHD analysis, the customers in this area are served for irrigation and fire flow, not potable water, so the 40 psi minimum pressure requirement could potentially be waived for this part of the system.

Future (2034) Maximum Day Demand plus Fire Flow

The locations where fire flow availability was less than the required fire flow during the 2034 MDD are shown in Table 13. Figure 7 shows in red the deficient node locations noted in Table 13. The table indicates the required fire flow by node within the model and the resulting available flow predicted by the model.

Table 13. Locations with limited fire flow availability (2034 MDD)

Location (Junction Node ID)	Required Flow, gpm	Available Fire Flow, gpm	Description
J-162	**1,500**	**1,495**	**West Croy Street at wetern terminus of existing 6-inch water main.**
J-105	**1,500**	**1,452**	**North Hiawatha Drive approximately halfway between Indian Creek Road and Red Devil Drive.**

Figure 9. 2034 Locations without required fire flow availability (red)

Recommended System Improvements to Meet Future (2034) Conditions

Fire flow availability is approximately equal to the required flow of 1,500 gpm, and within an acceptable rounding error, at each predicted deficient location during 2034 MDD. These locations are reported in this analysis because they are indications of where fire flow could become limited as the water system ages and demands increase. Regardless of availability being approximately equal to the required flow, a list of water system improvements to increase fire flow availability above the required flow during 2034 MDD is shown in Table 14.

Table 14. Water system improvements to meet future (2034) conditions

Location Tag	Diameter, inches	Length, feet	Description
2034FF-1	**8**	**1,800**	**Replace 6-inch water main in North Hiawatha with 8-inch water main. Consider coordinating this water main improvement with 2014 improvement.**
2034FF-2	**8**	**1,300**	**Replace 6-inch water main in West Croy Street with 8-inch water main. Consider easement through private property to avoid dead-end main by connecting water main to the main in Croy Creek Road.**

Figure 10. Improvements 2034FF-1

Figure 11. Improvements 2034FF-2

G. Static Pressure Evaluation

A model scenario was also created to test the system pressures with full tanks (i.e., tank level at overflow elevation), no system demand, and no operating pumps. The system pressures in this scenario are based on the maximum HGL in the respective pressure zone based on the tank level or the PRV HGL serving the pressure zone. For example, the Airport PRV serves the South Woodside pressure zone. The 3-inch Airport PRV HGL is 5,445-feet and the lowest elevation in this area is 5,236.5-feet, which results in a static pressure of 90 psi.

Static pressures range from 35 psi on North Hiawatha Drive to 107 psi near the intersection of Triumph Drive and War Eagle Drive. Static pressure exceeds 100 psi in the areas south of Cedar Drive and west of Aviation Drive near the Big Wood River, and the southernmost area in the North Woodside Pressure Zone south of Moonlight Drive.

Figure 12 shows the static pressures in the Hailey water system under this scenario's conditions. Blue nodes represent water system locations with pressure less than 80 psi, yellow nodes represent water system locations with pressure between 80 psi and 100 psi, and red nodes represent water system locations with pressure greater than 100 psi.

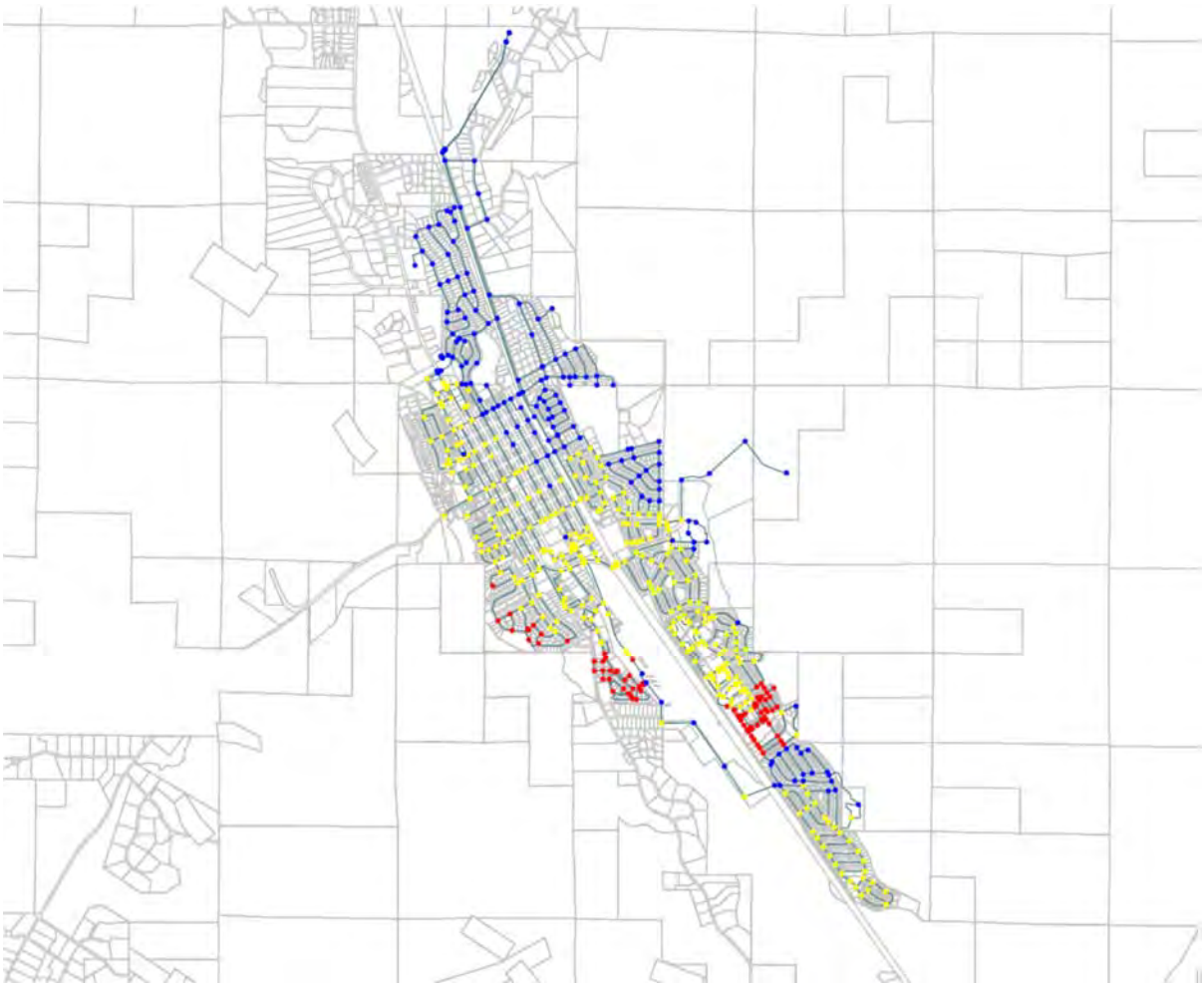


Figure 12. Static Pressures

H. Summary of Recommended System Improvements

The water distribution system improvements resulting from the hydraulic analysis are summarized in Table 15.

Table 15. Summary of Final Recommended Water Distribution System Hydraulic Improvements

Timeframe	Location	Diameter, inches	Length, feet	Description
0 to 5 years	**Hiawatha**	**8 8**	**880 650**	**Replace 6-inch water pipe with 8-inch water pipe (a) along Indian Creek Road from Buttercup Road to North Hiawatha Drive and (b) along Red Devil Drive from Buttercup Road to North Hiawatha Drive.**
	Quigley Canyon[1]	**N/A**	**N/A**	**Fire flow booster station for future water services along Quigley Canyon Road, when/if Quigley Canyon develops.**
	High Static pressures	**N/A**	**N/A**	**Determine if City wants to expand pressure reduced areas to include the Silver Star area to reduce static pressures under 100 psi.**
20 years	**Hiawatha**	**8**	**1,800**	**Replace 6-inch water main in North Hiawatha with 8-inch water main. Consider coordinating this water main improvement with 2014 improvement.**
	West Croy	**8**	**1,300**	**Replace 6-inch water main in West Croy Street with 8-inch water main. Consider easement through private property to avoid dead-end main by connecting water main to the main in Croy Creek Road.**

1. Fire flow booster station will be needed prior to water service connections in Quigley Canyon.

From: Mike Baledge [mailto:mike.baledge@haileycityhall.org]
Sent: Friday, April 03, 2015 11:35 AM
To: Cathy Cooper
Subject: RE: Water Master Plan

Cathy,

The Fire Department has been involved in the Water Master Plan review and agree with the background information and recommended actions related to fire flows.

Thanks for your work on this.
Deputy Chief
Mike Baledge
Fire Marshal.
City of Hailey

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
PRV-2-WOODSIDE_ND	5,327.75	<None>	5,506.35	77
PRV-2-WOODSIDE_NU	5,327.83	<None>	5,509.01	79
PMP-WOODSIDE_ND	5,328.43	<None>	5,509.23	78
PMP-RIVERST_ND	5,326.29	<None>	5,509.24	79
PMP-3RDAV_ND	5,324.30	<None>	5,510.14	81
J68	5,401.90	<None>	5,518.73	51
PMP-NRIDGE	5,348.63	<None>	5,510.03	70
TurbineLine_J2	5,515.83	<None>	5,518.71	1
J-54	5,420.00	<None>	5,513.28	40
J-53	5,420.00	<None>	5,513.30	40
J-52	5,420.00	<None>	5,513.30	40
FoxAcresPRV_US	5,505.65	<None>	5,518.42	6
TurbineLine_J1	5,506.04	<None>	5,518.44	5
J-47	5,327.90	<None>	5,509.02	79
J-46	5,327.70	<None>	5,506.34	77
J-3	5,420.00	<None>	5,513.34	40
J-2	5,420.00	<None>	5,513.36	40
J-101	5,418.00	<None>	5,512.79	41
J-100	5,420.00	<None>	5,513.19	40
PMP-WOODSIDE_NU	5,328.62	<None>	5,328.78	0
PMP-RIVERST_NU	5,240.00	<None>	5,262.27	10
Northridge	5,348.79	<None>	5,348.93	0
PMP-NRIDGE-2_NU	5,348.74	<None>	5,348.93	0
PMP-NRIDGE-2_ND	5,348.66	<None>	5,510.06	70
J-26	5,348.60	<None>	5,510.05	70
PMP-NRIDGE-1_NU	5,348.74	<None>	5,348.93	0
PMP-NRIDGE-1_ND	5,348.67	<None>	5,510.03	70
PMP-3RDAV_NU	5,200.00	<None>	5,214.46	6
Springs	5,515.28	<None>	(N/A)	(N/A)
FoxAcresPRV_US	5,316.49	<None>	5,503.05	81
PRV2_US	5,317.09	<None>	5,502.85	81
J-53	5,316.96	<None>	5,502.70	81
QuigleyLine_J1	5,510.87	<None>	5,519.88	4
PRV-3-9001_ND	5,271.00	Fire	5,448.91	77
PRV-3-9001_NU	5,271.00	Fire	5,490.24	95
J62	5,382.93	MainPZ	5,517.91	59
J60	5,336.00	MainPZ	5,517.40	79
SCI 32	5,284.00	MainPZ	5,491.59	90
SCI 31	5,290.00	MainPZ	5,492.36	88
SCI 30	5,285.00	MainPZ	5,492.10	90
SCI 29	5,290.00	MainPZ	5,491.83	87
SCI 28	5,285.00	MainPZ	5,491.59	90
SCI 27	5,284.00	MainPZ	5,491.37	90
SCI 26	5,287.00	MainPZ	5,492.50	89
SCI 25	5,276.00	MainPZ	5,490.31	93
SCI 24	5,276.00	MainPZ	5,490.51	93
SCI 23	5,283.00	MainPZ	5,490.82	90
SCI 22	5,283.00	MainPZ	5,490.96	90

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
SCI 21	5,283.00	MainPZ	5,491.22	90
Old Cutters 3	5,382.00	MainPZ	5,508.40	55
Old Cutters 2	5,380.00	MainPZ	5,508.41	56
Deerfield 1	5,330.00	MainPZ	5,509.60	78
Northridge LR2 1	5,365.00	MainPZ	5,509.78	63
Hydrant 1A	5,367.00	MainPZ	5,509.79	62
Townsite 37	5,346.00	MainPZ	5,507.75	70
Hiawatha 3	5,320.00	MainPZ	5,507.45	81
Hiawatha 2	5,320.00	MainPZ	5,508.26	82
J-95	5,328.00	MainPZ	5,507.45	78
J-9	5,320.00	MainPZ	5,508.98	82
J-84	5,340.00	MainPZ	5,507.67	73
Townsite 29	5,325.00	MainPZ	5,506.93	79
Townsite 38	5,328.00	MainPZ	5,507.44	78
Townsite 39	5,330.00	MainPZ	5,507.80	77
J-8	5,322.00	MainPZ	5,508.80	81
J-79	5,327.00	MainPZ	5,507.79	78
J-78	5,346.00	MainPZ	5,507.96	70
J-67	5,280.00	MainPZ	5,498.45	95
J-6	5,348.50	MainPZ	5,509.99	70
Business 12	5,330.00	MainPZ	5,508.57	77
Northridge LR2 10	5,370.00	MainPZ	5,509.75	61
Northridge LR1 1	5,354.00	MainPZ	5,509.73	68
J-41	5,316.00	MainPZ	5,508.95	84
Deerfield 3	5,317.00	MainPZ	5,509.12	83
J-4	5,320.00	MainPZ	5,508.61	82
J-393	5,329.00	MainPZ	5,509.36	78
J-392	5,380.50	MainPZ	5,510.24	56
J-391	5,400.00	MainPZ	5,510.50	48
Townsite 1	5,315.00	MainPZ	5,504.64	82
J-39	5,316.00	MainPZ	5,509.05	84
Townsite 2	5,318.00	MainPZ	5,504.77	81
Townsite 3	5,313.00	MainPZ	5,504.64	83
Townsite 4	5,321.50	MainPZ	5,505.59	80
J-384	5,368.00	MainPZ	5,509.58	61
J-382	5,374.00	MainPZ	5,509.73	59
Deerfield 4	5,315.00	MainPZ	5,509.13	84
J-377	5,313.00	MainPZ	5,503.06	82
J-37	5,330.00	MainPZ	5,509.41	78
Deerfield 2	5,330.00	MainPZ	5,509.26	78
J-35	5,330.00	MainPZ	5,509.25	78
J-34	5,290.00	MainPZ	5,503.33	92
J-303	5,328.30	MainPZ	5,509.23	78
J-302	5,328.07	MainPZ	5,509.24	79
J-301	5,322.00	MainPZ	5,508.78	81
J-300	5,319.00	MainPZ	5,508.65	82
Hydrant 8A/Hiawatha 1	5,319.00	MainPZ	5,508.48	82
Deerfield 6	5,339.00	MainPZ	5,508.43	73
Deerfield 5	5,339.00	MainPZ	5,508.40	73

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-296	5,345.00	MainPZ	5,507.86	71
J-295	5,344.00	MainPZ	5,507.80	71
Deerfield 7	5,350.00	MainPZ	5,507.75	68
J-293	5,331.00	MainPZ	5,509.03	77
Deerfield 14	5,345.00	MainPZ	5,508.42	71
J-291	5,348.00	MainPZ	5,507.88	69
J-290	5,351.00	MainPZ	5,507.77	68
Deerfield 13	5,356.00	MainPZ	5,507.74	66
Hydrant 7A/Deerfield 12	5,360.00	MainPZ	5,507.72	64
J-287	5,345.00	MainPZ	5,507.75	71
Deerfield 10	5,341.00	MainPZ	5,507.76	72
Deerfield 8	5,350.00	MainPZ	5,507.72	68
Hydrant 7/Deerfield 11	5,363.00	MainPZ	5,507.71	63
Deerfield 9	5,350.00	MainPZ	5,507.71	68
9990	5,319.00	MainPZ	5,508.59	82
Hydrant 8	5,321.00	MainPZ	5,508.21	81
J-280	5,339.00	MainPZ	5,507.76	73
J-279	5,325.00	MainPZ	5,507.46	79
Hiawatha 4	5,323.00	MainPZ	5,507.44	80
J-277	5,328.00	MainPZ	5,507.45	78
Hiawatha 6	5,330.00	MainPZ	5,507.53	77
J-275	5,328.00	MainPZ	5,507.84	78
J-274	5,328.00	MainPZ	5,507.60	78
J-273	5,331.00	MainPZ	5,507.60	77
J-272	5,331.00	MainPZ	5,507.62	77
J-271	5,346.00	MainPZ	5,507.67	70
J-270	5,341.00	MainPZ	5,507.71	72
J-269	5,343.00	MainPZ	5,507.67	71
J-268	5,339.00	MainPZ	5,507.65	73
J-267	5,336.00	MainPZ	5,507.65	74
J-266	5,344.00	MainPZ	5,507.72	71
J-265	5,354.00	MainPZ	5,507.90	67
J-264	5,346.00	MainPZ	5,507.75	70
J-263	5,350.00	MainPZ	5,507.78	68
J-262	5,351.00	MainPZ	5,507.77	68
J-261	5,354.00	MainPZ	5,507.78	67
Motherload 4	5,356.00	MainPZ	5,507.81	66
Motherload 5	5,357.00	MainPZ	5,507.84	65
Motherload 7	5,353.00	MainPZ	5,507.77	67
Motherload 6	5,355.00	MainPZ	5,507.78	66
J-256	5,357.00	MainPZ	5,507.81	65
J-255	5,357.00	MainPZ	5,507.85	65
Townsite 40	5,346.00	MainPZ	5,507.92	70
Townsite 41	5,342.00	MainPZ	5,507.66	72
Townsite 42	5,340.00	MainPZ	5,507.83	73
Townsite 43	5,328.00	MainPZ	5,507.64	78
J-250	5,328.00	MainPZ	5,507.86	78
J-249	5,325.00	MainPZ	5,507.59	79
J-248	5,343.00	MainPZ	5,507.67	71

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
Business 21	5,319.00	MainPZ	5,507.48	82
Business 22	5,313.00	MainPZ	5,506.74	84
J-245	5,321.00	MainPZ	5,507.44	81
J-244	5,319.00	MainPZ	5,506.83	81
J-243	5,322.00	MainPZ	5,507.43	80
J-242	5,326.00	MainPZ	5,507.02	78
Townsite 44	5,331.00	MainPZ	5,507.45	76
Townsite 30	5,333.00	MainPZ	5,507.19	76
Townsite 45	5,337.00	MainPZ	5,507.51	74
Townsite 31	5,333.00	MainPZ	5,507.31	76
Townsite 46	5,338.00	MainPZ	5,507.58	74
Townsite 32	5,333.00	MainPZ	5,507.35	76
Townsite 33	5,329.00	MainPZ	5,507.10	77
J-234	5,321.00	MainPZ	5,506.78	81
Business 23	5,312.00	MainPZ	5,506.20	84
Business 24	5,310.00	MainPZ	5,505.06	85
J-231	5,318.00	MainPZ	5,506.45	82
J-230	5,315.00	MainPZ	5,505.16	82
Townsite 5	5,315.00	MainPZ	5,505.17	82
Townsite 6	5,323.00	MainPZ	5,507.21	80
Townsite 7	5,324.00	MainPZ	5,507.22	79
Townsite 34	5,329.00	MainPZ	5,507.25	77
Townsite 35	5,328.00	MainPZ	5,507.29	78
Townsite 8	5,321.00	MainPZ	5,505.33	80
Townsite 9	5,323.00	MainPZ	5,505.61	79
Townsite 10	5,322.00	MainPZ	5,505.09	79
Townsite 11	5,318.00	MainPZ	5,504.77	81
Townsite 12	5,321.00	MainPZ	5,505.05	80
Townsite 36	5,329.00	MainPZ	5,507.24	77
Townsite 13	5,320.00	MainPZ	5,509.95	82
Townsite 14	5,319.00	MainPZ	5,505.40	81
Townsite 15	5,319.00	MainPZ	5,505.17	81
Townsite 16	5,318.00	MainPZ	5,505.10	81
Townsite 17	5,319.00	MainPZ	5,504.98	81
J-211	5,285.00	MainPZ	5,498.45	93
J-210	5,301.00	MainPZ	5,498.45	86
J-209	5,308.00	MainPZ	5,498.45	83
Townsite 18	5,313.00	MainPZ	5,504.58	83
Townsite 19	5,314.00	MainPZ	5,504.62	83
J-206	5,309.00	MainPZ	5,504.61	85
J-205	5,306.00	MainPZ	5,504.60	86
J-204	5,304.00	MainPZ	5,504.59	87
J-203	5,310.00	MainPZ	5,504.61	84
J-202	5,302.00	MainPZ	5,504.59	88
J-201	5,303.00	MainPZ	5,504.59	87
Business 25	5,308.00	MainPZ	5,504.61	85
J-199	5,308.00	MainPZ	5,504.58	85
J-198	5,295.00	MainPZ	5,502.95	90
J-197	5,286.00	MainPZ	5,501.53	93

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
Hydrant 5A	5,250.00	MainPZ	5,501.43	109
Della View 1	5,283.00	MainPZ	5,501.40	95
Hydrant 5	5,250.00	MainPZ	5,501.40	109
J-193	5,282.00	MainPZ	5,501.39	95
J-192	5,281.00	MainPZ	5,501.41	96
J-191	5,279.00	MainPZ	5,501.39	96
J-190	5,280.00	MainPZ	5,501.39	96
J-189	5,281.00	MainPZ	5,501.41	96
J-188	5,289.00	MainPZ	5,501.56	92
J-187	5,282.00	MainPZ	5,501.47	95
J-186	5,284.00	MainPZ	5,501.52	94
J-185	5,281.00	MainPZ	5,501.44	96
J-184	5,286.00	MainPZ	5,501.53	93
Hydrant 5	5,281.00	MainPZ	5,501.44	96
J-182	5,289.00	MainPZ	5,501.64	92
Business 26	5,302.00	MainPZ	5,505.06	88
J-180	5,312.00	MainPZ	5,504.53	83
J-179	5,310.00	MainPZ	5,504.24	84
J-178	5,292.00	MainPZ	5,503.33	92
J-177	5,289.00	MainPZ	5,503.74	93
J-176	5,290.00	MainPZ	5,503.61	93
J-175	5,291.00	MainPZ	5,503.95	92
China Gardens 2	5,293.00	MainPZ	5,504.94	92
China Gardens 1	5,294.00	MainPZ	5,505.10	92
J-172	5,295.00	MainPZ	5,505.18	91
J-171	5,296.00	MainPZ	5,505.24	91
J-170	5,295.00	MainPZ	5,505.18	91
J-169	5,296.00	MainPZ	5,505.32	91
J-168	5,297.00	MainPZ	5,505.43	90
J-167	5,300.00	MainPZ	5,505.38	89
J-166	5,300.00	MainPZ	5,505.45	89
J-165	5,298.00	MainPZ	5,505.38	90
Business 27	5,305.00	MainPZ	5,506.07	87
J-163	5,302.00	MainPZ	5,505.62	88
J-162	5,303.00	MainPZ	5,506.59	88
Business 28	5,310.00	MainPZ	5,505.98	85
Business 29	5,315.00	MainPZ	5,506.61	83
J-159	5,305.00	MainPZ	5,507.49	88
Hydrant 4	5,295.00	MainPZ	5,507.49	92
J-157	5,308.00	MainPZ	5,507.65	87
J-156	5,312.00	MainPZ	5,507.74	85
Hydrant 4A	5,295.00	MainPZ	5,507.47	92
J-154	5,322.00	MainPZ	5,507.97	81
Business 20	5,326.00	MainPZ	5,508.85	79
Northstar 3	5,318.00	MainPZ	5,508.94	83
J-151	5,325.00	MainPZ	5,509.08	80
J-150	5,325.00	MainPZ	5,509.06	80
Business 19	5,326.00	MainPZ	5,508.80	79
J-148	5,317.00	MainPZ	5,508.75	83

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-147	5,313.00	MainPZ	5,508.72	85
Northstar 4	5,318.00	MainPZ	5,508.63	83
Hydrant 3A	5,300.00	MainPZ	5,508.63	90
Business 16	5,326.00	MainPZ	5,508.57	79
Business 6	5,336.00	MainPZ	5,508.57	75
Business 15	5,328.00	MainPZ	5,508.56	78
Northridge GR 2	5,334.00	MainPZ	5,508.63	76
Northridge GR 1	5,335.00	MainPZ	5,508.53	75
Northridge GR 3	5,336.00	MainPZ	5,508.70	75
Northridge GR 7	5,340.00	MainPZ	5,509.07	73
Northridge LR1 2	5,348.00	MainPZ	5,509.61	70
J-136	5,337.00	MainPZ	5,508.23	74
Hydrant 3	5,300.00	MainPZ	5,508.58	90
Business 17	5,328.00	MainPZ	5,508.56	78
J-133	5,330.00	MainPZ	5,508.50	77
J-132	5,333.00	MainPZ	5,508.44	76
J-131	5,333.00	MainPZ	5,508.41	76
Townsite 47	5,333.00	MainPZ	5,508.30	76
Townsite 48	5,334.00	MainPZ	5,508.25	76
Townsite 49	5,336.00	MainPZ	5,508.19	75
Townsite 50	5,349.00	MainPZ	5,508.16	69
Townsite 51	5,359.00	MainPZ	5,508.15	65
Hydrant 2	5,360.00	MainPZ	5,508.15	64
Hydrant 2A	5,355.00	MainPZ	5,508.06	66
Motherload 3	5,357.00	MainPZ	5,508.11	66
Motherload 1	5,365.00	MainPZ	5,508.19	62
J-121	5,378.00	MainPZ	5,508.36	57
Old Cutters 1	5,385.00	MainPZ	5,508.69	54
Townsite 20	5,324.46	MainPZ	5,510.14	80
J-119	5,364.00	MainPZ	5,508.26	63
J-118	5,383.00	MainPZ	5,509.48	55
J-117	5,386.00	MainPZ	5,509.58	54
Northridge LR1 3	5,364.00	MainPZ	5,509.77	63
Northridge LR1 4	5,359.00	MainPZ	5,509.75	65
Northridge LR2 9	5,384.00	MainPZ	5,509.75	55
Northridge LR2 7	5,388.00	MainPZ	5,509.79	53
Hydrant 1/Northridge LR2 2	5,370.00	MainPZ	5,509.83	61
Northridge LR2 3	5,392.00	MainPZ	5,509.86	51
Northridge LR2 4	5,395.00	MainPZ	5,509.99	50
J-11	5,326.92	MainPZ	5,509.23	79
Northridge LR2 6	5,392.00	MainPZ	5,509.99	51
J-108	5,398.00	MainPZ	5,510.18	49
J-106	5,412.00	MainPZ	5,510.87	43
J-105	5,420.00	MainPZ	5,511.46	40
J-104	5,432.00	MainPZ	5,512.16	35
J-103	5,398.00	MainPZ	5,510.56	49
J-102	5,400.00	MainPZ	5,510.77	48
Business 5	5,336.00	MainPZ	5,508.57	75
Northridge LR2 8	5,385.00	MainPZ	5,509.82	54

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
9	5,316.00	MainPZ	5,508.89	84
8	5,318.00	MainPZ	5,508.65	83
7	5,316.00	MainPZ	5,508.89	84
Northridge LR1 5	5,351.00	MainPZ	5,509.74	69
Northridge LR1 6	5,349.00	MainPZ	5,509.74	70
Northridge LR1 7	5,352.00	MainPZ	5,509.74	68
Northridge GR 9	5,345.00	MainPZ	5,509.65	71
6	5,318.00	MainPZ	5,508.65	83
Northridge GR 8	5,339.00	MainPZ	5,509.59	74
Northridge GR 6	5,338.00	MainPZ	5,509.54	74
Northridge LR1 8	5,347.00	MainPZ	5,509.71	71
Northridge GR 5	5,337.00	MainPZ	5,508.71	74
Northridge GR 4	5,336.00	MainPZ	5,508.69	75
SCI 1	5,292.00	MainPZ	5,495.25	88
Northridge GR 12	5,342.00	MainPZ	5,509.85	73
Northridge GR 13	5,340.00	MainPZ	5,509.85	74
Northridge LR1 9	5,347.00	MainPZ	5,509.74	71
420	5,374.00	MainPZ	5,509.69	59
Northridge GR 11	5,340.00	MainPZ	5,509.91	74
418	5,378.00	MainPZ	5,509.73	57
412	5,336.00	MainPZ	5,510.74	76
Northridge LR1 10	5,347.00	MainPZ	5,509.73	71
Business 14	5,327.00	MainPZ	5,508.57	79
Northridge GR 10	5,347.00	MainPZ	5,509.77	71
Business 7	5,336.00	MainPZ	5,508.65	75
Motherload 2	5,365.00	MainPZ	5,508.18	62
Business 1	5,340.00	MainPZ	5,508.57	73
Business 10	5,330.00	MainPZ	5,508.57	77
SCI 20	5,279.00	MainPZ	5,490.97	92
Old Cutters 14	5,375.00	MainPZ	5,508.10	58
Old Cutters 12	5,375.00	MainPZ	5,508.10	58
Old Cutters 7	5,375.00	MainPZ	5,508.11	58
Old Cutters 13	5,375.00	MainPZ	5,508.10	58
Old Cutters 11	5,375.00	MainPZ	5,508.11	58
Old Cutters 6	5,375.00	MainPZ	5,508.12	58
Old Cutters 8	5,375.00	MainPZ	5,508.11	58
Old Cutters 5	5,375.00	MainPZ	5,508.13	58
Old Cutters 10	5,378.00	MainPZ	5,508.12	56
Old Cutters 9	5,376.00	MainPZ	5,508.13	57
Old Cutters 4	5,375.00	MainPZ	5,508.16	58
Business 13	5,330.00	MainPZ	5,508.57	77
Business 11	5,330.00	MainPZ	5,508.57	77
Business 9	5,336.00	MainPZ	5,508.57	75
Business 8	5,336.00	MainPZ	5,508.57	75
Business 4	5,338.00	MainPZ	5,508.57	74
Business 2	5,340.00	MainPZ	5,508.57	73
Business 3	5,340.00	MainPZ	5,508.57	73
SCI 19	5,280.00	MainPZ	5,490.93	91
SCI 18	5,282.00	MainPZ	5,491.20	91

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
SCI 17	5,276.00	MainPZ	5,490.52	93
SCI 16	5,276.00	MainPZ	5,490.58	93
SCI 15	5,277.00	MainPZ	5,490.67	93
SCI 14	5,278.00	MainPZ	5,490.78	92
SCI 13	5,279.00	MainPZ	5,490.80	92
SCI 12	5,278.00	MainPZ	5,490.78	92
SCI 11	5,279.00	MainPZ	5,490.83	92
SCI 10	5,305.00	MainPZ	5,496.90	83
SCI 9	5,277.00	MainPZ	5,490.24	92
SCI 7	5,278.00	MainPZ	5,490.77	92
SCI 6	5,283.00	MainPZ	5,491.28	90
SCI 5	5,286.00	MainPZ	5,493.07	90
SCI 4	5,287.00	MainPZ	5,493.82	90
SCI 3	5,298.00	MainPZ	5,496.17	86
170	5,300.00	MainPZ	5,504.59	89
168	5,302.00	MainPZ	5,504.59	88
166	5,300.00	MainPZ	5,504.59	89
164	5,310.00	MainPZ	5,498.45	82
SCI 2	5,297.00	MainPZ	5,496.17	86
160	5,343.00	MainPZ	5,507.75	71
158	5,344.00	MainPZ	5,507.72	71
Northstar 1	5,314.00	MainPZ	5,508.79	84
Northstar 2	5,315.00	MainPZ	5,508.79	84
152	5,315.00	MainPZ	5,508.75	84
J-1000	5,315.00	MainPZ	5,505.14	82
J-1001	5,315.00	MainPZ	5,505.12	82
J-1002	5,315.00	MainPZ	5,505.10	82
J-1003	5,313.00	MainPZ	5,505.07	83
Townsite 21	5,314.00	MainPZ	5,505.06	83
Townsite 22	5,314.00	MainPZ	5,505.06	83
Townsite 23	5,313.91	MainPZ	5,505.06	83
Townsite 24	5,314.70	MainPZ	5,505.00	82
Townsite 25	5,315.99	MainPZ	5,504.90	82
Townsite 26	5,319.00	MainPZ	5,505.33	81
Townsite 27	5,318.00	MainPZ	5,505.27	81
Townsite 28	5,316.00	MainPZ	5,505.21	82
J-41	5,349.09	MainPZ	5,507.71	69
Hiawatha 5	5,322.21	MainPZ	5,507.44	80
Northridge LR2 5	5,383.94	MainPZ	5,510.17	55
Dumke 1	5,345.15	MainPZ	5,507.69	70
Dumke 2	5,360.00	MainPZ	(N/A)	(N/A)
J-47	5,287.46	MainPZ	5,493.95	90
CityExpansion 1	5,280.00	MainPZ	(N/A)	(N/A)
CityExpansion 2	5,386.00	MainPZ	(N/A)	(N/A)
Hydrant 8	5,323.74	MainPZ	5,508.39	80
J-68	5,322.38	MainPZ	5,505.29	79
J-79	0.00	MainPZ	(N/A)	(N/A)
J-80	0.00	MainPZ	(N/A)	(N/A)
J-81	5,336.00	MainPZ	5,510.95	76

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J54	5,280.00	UpperWoodsidePZ	5,496.80	94
C Woodside 3	5,285.00	UpperWoodsidePZ	5,496.76	92
J50	5,275.00	UpperWoodsidePZ	5,496.77	96
J48	5,275.00	UpperWoodsidePZ	5,496.79	96
J-88	5,339.00	UpperWoodsidePZ	5,505.89	72
J-87	5,298.00	UpperWoodsidePZ	5,499.11	87
J-49	5,327.00	UpperWoodsidePZ	5,506.20	78
J-48	5,327.00	UpperWoodsidePZ	5,506.03	78
J-45	5,327.00	UpperWoodsidePZ	5,502.45	76
J-346	5,269.00	UpperWoodsidePZ	5,496.72	99
Hydrant 9/Sweetwater 1	5,272.00	UpperWoodsidePZ	5,496.76	97
C Woodside 1	5,267.00	UpperWoodsidePZ	5,496.73	100
Sweetwater 2	5,270.00	UpperWoodsidePZ	5,496.76	98
Sweetwater 3	5,278.00	UpperWoodsidePZ	5,496.88	95
J-338	5,285.00	UpperWoodsidePZ	5,496.99	92
J-337	5,292.00	UpperWoodsidePZ	5,497.53	89
J-336	5,297.00	UpperWoodsidePZ	5,498.25	87
J-335	5,296.00	UpperWoodsidePZ	5,498.79	88
Sweetwater 4	5,278.00	UpperWoodsidePZ	5,496.93	95
J-333	5,284.00	UpperWoodsidePZ	5,497.16	92
C Woodside 10	5,291.00	UpperWoodsidePZ	5,497.72	90
J-331	5,294.00	UpperWoodsidePZ	5,498.70	89
J-330	5,297.00	UpperWoodsidePZ	5,498.88	88
J-33	5,278.00	UpperWoodsidePZ	5,496.93	95
C Woodside 9	5,293.00	UpperWoodsidePZ	5,498.19	89
J-328	5,298.00	UpperWoodsidePZ	5,498.21	87
J-327	5,314.00	UpperWoodsidePZ	5,505.02	83
J-326	5,328.00	UpperWoodsidePZ	5,505.82	77
J-325	5,327.00	UpperWoodsidePZ	5,505.35	77
J-324	5,339.00	UpperWoodsidePZ	5,505.89	72
J-323	5,338.00	UpperWoodsidePZ	5,505.89	73
J-322	5,302.00	UpperWoodsidePZ	5,502.25	87
J-321	5,303.00	UpperWoodsidePZ	5,501.91	86
J-320	5,297.00	UpperWoodsidePZ	5,499.73	88
Sweetwater 5	5,278.00	UpperWoodsidePZ	5,496.93	95
J-319	5,299.00	UpperWoodsidePZ	5,499.87	87
N Woodside 1	5,299.00	UpperWoodsidePZ	5,499.73	87
J-317	5,299.00	UpperWoodsidePZ	5,500.62	87
J-316	5,306.00	UpperWoodsidePZ	5,501.40	85
N Woodside 2	5,304.00	UpperWoodsidePZ	5,501.86	86
J-314	5,308.00	UpperWoodsidePZ	5,501.91	84
J-313	5,305.00	UpperWoodsidePZ	5,501.41	85
J-312	5,307.00	UpperWoodsidePZ	5,502.10	85
J-311	5,306.00	UpperWoodsidePZ	5,501.86	85
J-310	5,316.00	UpperWoodsidePZ	5,502.87	81
J-309	5,312.00	UpperWoodsidePZ	5,502.46	83
J-308	5,312.00	UpperWoodsidePZ	5,502.48	83
J-307	5,314.00	UpperWoodsidePZ	5,502.45	82
J-306	5,335.00	UpperWoodsidePZ	5,505.89	74

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-305	5,315.00	UpperWoodsidePZ	5,502.46	81
J-304	5,319.00	UpperWoodsidePZ	5,505.52	81
J-30	5,279.00	UpperWoodsidePZ	5,496.91	94
Sweetwater 6	5,278.00	UpperWoodsidePZ	5,496.91	95
J-25	5,279.00	UpperWoodsidePZ	5,496.90	94
J-24	5,280.00	UpperWoodsidePZ	5,496.89	94
J-23	5,279.00	UpperWoodsidePZ	5,496.88	94
J-220	5,313.00	UpperWoodsidePZ	5,502.48	82
J-22	5,284.00	UpperWoodsidePZ	5,496.97	92
J-21	5,284.00	UpperWoodsidePZ	5,496.97	92
J-20	5,285.00	UpperWoodsidePZ	5,496.97	92
J-19	5,284.00	UpperWoodsidePZ	5,496.96	92
J-18	5,283.00	UpperWoodsidePZ	5,496.96	93
J-17	5,281.00	UpperWoodsidePZ	5,496.96	94
J-16	5,281.00	UpperWoodsidePZ	5,496.97	94
J-15	5,282.00	UpperWoodsidePZ	5,496.97	93
J-14	5,283.00	UpperWoodsidePZ	5,496.98	93
J-13	5,284.00	UpperWoodsidePZ	5,496.99	92
J-107	5,279.00	UpperWoodsidePZ	5,496.99	95
Sweetwater 7	5,278.00	UpperWoodsidePZ	5,496.79	95
Sweetwater 8	5,278.00	UpperWoodsidePZ	5,496.81	95
Sweetwater 9	5,278.00	UpperWoodsidePZ	(N/A)	(N/A)
Sweetwater 10	5,278.00	UpperWoodsidePZ	5,496.87	95
Sweetwater 11	5,278.00	UpperWoodsidePZ	5,496.87	95
88	5,279.00	UpperWoodsidePZ	5,496.88	94
Sweetwater 12	5,278.00	UpperWoodsidePZ	5,496.79	95
Sweetwater 13	5,278.00	UpperWoodsidePZ	5,496.79	95
Sweetwater 14	5,278.00	UpperWoodsidePZ	5,496.79	95
Sweetwater 15	5,278.00	UpperWoodsidePZ	5,496.79	95
Sweetwater 16	5,278.00	UpperWoodsidePZ	5,496.81	95
Sweetwater 17	5,278.00	UpperWoodsidePZ	5,496.80	95
Sweetwater 18	5,278.00	UpperWoodsidePZ	5,496.83	95
Sweetwater 19	5,278.00	UpperWoodsidePZ	5,496.81	95
Sweetwater 20	5,278.00	UpperWoodsidePZ	5,496.79	95
Sweetwater 21	5,278.00	UpperWoodsidePZ	5,496.79	95
416	5,338.00	UpperWoodsidePZ	5,505.89	73
C Woodside 2	5,290.00	UpperWoodsidePZ	5,496.73	90
32	5,286.00	UpperWoodsidePZ	5,497.09	92
C Woodside 4	5,286.00	UpperWoodsidePZ	5,497.11	92
292	5,298.00	UpperWoodsidePZ	5,498.20	87
Sweetwater 22	5,270.00	UpperWoodsidePZ	(N/A)	(N/A)
Sweetwater 23	5,271.00	UpperWoodsidePZ	(N/A)	(N/A)
Sweetwater 24	5,270.00	UpperWoodsidePZ	(N/A)	(N/A)
Sweetwater 25	5,271.00	UpperWoodsidePZ	(N/A)	(N/A)
Sweetwater 26	5,271.00	UpperWoodsidePZ	(N/A)	(N/A)
280	5,330.00	UpperWoodsidePZ	5,496.72	72
Sweetwater 27	5,278.00	UpperWoodsidePZ	5,496.93	95
278	5,275.00	UpperWoodsidePZ	5,496.72	96
266	5,298.00	UpperWoodsidePZ	5,498.21	87

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
C Woodside 8	5,296.00	UpperWoodsidePZ	5,498.20	88
262	5,270.00	UpperWoodsidePZ	5,496.81	98
260	5,276.00	UpperWoodsidePZ	5,496.80	96
26	5,278.00	UpperWoodsidePZ	5,497.00	95
258	5,275.00	UpperWoodsidePZ	5,496.86	96
256	5,290.00	UpperWoodsidePZ	5,497.53	90
254	5,290.00	UpperWoodsidePZ	5,497.46	90
24	5,278.00	UpperWoodsidePZ	5,496.98	95
22	5,278.00	UpperWoodsidePZ	5,497.00	95
216	5,290.00	UpperWoodsidePZ	5,497.40	90
214	5,290.00	UpperWoodsidePZ	5,497.58	90
212	5,289.00	UpperWoodsidePZ	5,497.40	90
210	5,290.00	UpperWoodsidePZ	5,497.52	90
208	5,285.00	UpperWoodsidePZ	5,497.38	92
Hydrant 6	5,290.00	UpperWoodsidePZ	5,497.55	90
C Woodside 5	5,320.00	UpperWoodsidePZ	5,497.28	77
18	5,280.00	UpperWoodsidePZ	5,497.28	94
Hydrant 6A	5,285.00	UpperWoodsidePZ	5,497.17	92
Sweetwater 28	5,276.00	UpperWoodsidePZ	5,496.77	96
Sweetwater 29	5,262.00	UpperWoodsidePZ	5,496.77	102
Sweetwater 30	5,260.00	UpperWoodsidePZ	5,496.78	103
Sweetwater 31	5,278.00	UpperWoodsidePZ	5,496.80	95
Sweetwater 32	5,276.00	UpperWoodsidePZ	5,496.77	96
Sweetwater 33	5,273.00	UpperWoodsidePZ	5,496.78	97
C Woodside 7	5,298.00	UpperWoodsidePZ	5,498.10	87
Sweetwater 34	5,270.00	UpperWoodsidePZ	5,496.78	98
Sweetwater 35	5,271.00	UpperWoodsidePZ	5,496.78	98
Sweetwater 36	5,271.00	UpperWoodsidePZ	5,496.77	98
Sweetwater 37	5,275.00	UpperWoodsidePZ	(N/A)	(N/A)
Sweetwater 38	5,275.00	UpperWoodsidePZ	(N/A)	(N/A)
Sweetwater 39	5,276.00	UpperWoodsidePZ	(N/A)	(N/A)
Sweetwater 40	5,270.00	UpperWoodsidePZ	5,496.76	98
Sweetwater 41	5,271.00	UpperWoodsidePZ	5,496.76	98
C Woodside 6	5,301.00	UpperWoodsidePZ	5,497.67	85
Sweetwater 42	5,271.00	UpperWoodsidePZ	5,496.76	98
Sweetwater 43	5,269.00	UpperWoodsidePZ	5,496.72	99
Sweetwater 44	5,270.00	UpperWoodsidePZ	5,496.73	98
Sweetwater 45	5,271.00	UpperWoodsidePZ	(N/A)	(N/A)
Hydrant 9A/Sweetwater 46	5,271.00	UpperWoodsidePZ	5,496.74	98
Sweetwater 47	5,270.00	UpperWoodsidePZ	5,496.76	98
Hydrant 9/Sweetwater 48	5,275.00	UpperWoodsidePZ	5,496.78	96
Sweetwater 49	5,276.00	UpperWoodsidePZ	5,496.78	96
Sweetwater 50	5,275.00	UpperWoodsidePZ	5,496.77	96
Sweetwater 51	5,276.00	UpperWoodsidePZ	(N/A)	(N/A)
10	5,300.00	UpperWoodsidePZ	5,497.67	86
FoxAcresPRV_DS	5,316.49	UpperWoodsidePZ	5,502.51	81
Hydrant 6	5,307.38	UpperWoodsidePZ	5,497.40	82
J-59	5,304.95	UpperWoodsidePZ	5,498.19	84
J-60	5,307.31	UpperWoodsidePZ	5,498.35	83

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-61	5,305.62	UpperWoodsidePZ	5,498.61	84
J-62	5,307.74	UpperWoodsidePZ	5,498.63	83
J-63	5,302.21	UpperWoodsidePZ	5,497.68	85
J-64	5,299.18	UpperWoodsidePZ	5,497.61	86
J-65	5,302.81	UpperWoodsidePZ	5,498.02	85
J-66	5,298.07	UpperWoodsidePZ	5,497.72	87
J-84	5,273.00	UpperWoodsidePZ	5,496.73	97
Sunburst J-85	5,273.00	UpperWoodsidePZ	5,496.73	97
J-86	5,285.00	UpperWoodsidePZ	5,496.73	92
Sunburst J-87	5,285.00	UpperWoodsidePZ	5,496.73	92
J-88	5,295.00	UpperWoodsidePZ	5,496.73	87
J-89	5,291.00	UpperWoodsidePZ	5,496.73	89
J-90	5,298.00	UpperWoodsidePZ	5,496.73	86
Sunburst J-91	5,295.00	UpperWoodsidePZ	5,496.73	87
J-91	5,250.00	LowerWoodsidePZ	5,438.73	82
J-85	5,260.00	LowerWoodsidePZ	5,439.80	78
J-73	5,293.00	LowerWoodsidePZ	5,448.91	68
J-72	5,252.00	LowerWoodsidePZ	5,439.79	81
J-71	5,265.00	LowerWoodsidePZ	5,438.98	75
J-66	5,280.00	LowerWoodsidePZ	5,447.79	73
J-65	5,275.00	LowerWoodsidePZ	5,446.86	75
J-64	5,275.00	LowerWoodsidePZ	5,445.42	74
J-63	5,260.00	LowerWoodsidePZ	5,441.44	79
J-62	5,265.00	LowerWoodsidePZ	5,443.05	77
J-61	5,260.00	LowerWoodsidePZ	5,440.04	78
J-60	5,258.00	LowerWoodsidePZ	5,439.32	79
J-386	5,252.00	LowerWoodsidePZ	5,439.13	81
J-385	5,253.00	LowerWoodsidePZ	5,439.13	81
J-376	5,250.00	LowerWoodsidePZ	5,438.45	82
J-375	5,250.00	LowerWoodsidePZ	5,438.45	82
J-374	5,250.00	LowerWoodsidePZ	5,438.45	82
J-373	5,250.00	LowerWoodsidePZ	5,438.45	82
J-372	5,250.00	LowerWoodsidePZ	5,438.45	82
Hydrant 10	5,260.00	LowerWoodsidePZ	5,438.46	77
J-370	5,241.00	LowerWoodsidePZ	5,438.47	86
S Woodside 1	5,242.00	LowerWoodsidePZ	5,438.50	85
J-368	5,244.00	LowerWoodsidePZ	5,438.55	84
S Woodside 3	5,246.00	LowerWoodsidePZ	5,438.65	84
Hydrant 10A	5,260.00	LowerWoodsidePZ	5,438.45	77
J-365	5,250.00	LowerWoodsidePZ	5,438.46	82
J-364	5,250.00	LowerWoodsidePZ	5,438.46	82
J-363	5,241.00	LowerWoodsidePZ	5,438.47	86
S Woodside 2	5,244.00	LowerWoodsidePZ	5,438.50	84
J-361	5,246.00	LowerWoodsidePZ	5,438.55	83
J-360	5,248.00	LowerWoodsidePZ	5,438.65	83
J-359	5,249.00	LowerWoodsidePZ	5,438.92	82
J-358	5,254.00	LowerWoodsidePZ	5,439.08	80
J-357	5,248.00	LowerWoodsidePZ	5,438.81	83
J-356	5,250.00	LowerWoodsidePZ	5,438.96	82

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-355	5,256.00	LowerWoodsidePZ	5,439.13	79
J-354	5,256.00	LowerWoodsidePZ	5,439.05	79
J-353	5,255.00	LowerWoodsidePZ	5,439.05	80
J-352	5,257.00	LowerWoodsidePZ	5,439.06	79
J-351	5,260.00	LowerWoodsidePZ	5,439.02	78
J-350	5,263.00	LowerWoodsidePZ	5,438.98	76
J-349	5,259.00	LowerWoodsidePZ	5,439.02	78
J-348	5,266.00	LowerWoodsidePZ	5,438.99	75
J-347	5,265.00	LowerWoodsidePZ	5,438.99	75
J-344	5,259.00	LowerWoodsidePZ	5,439.11	78
J-343	5,260.00	LowerWoodsidePZ	5,439.04	78
J-342	5,265.00	LowerWoodsidePZ	5,439.00	75
J-29	5,263.00	LowerWoodsidePZ	5,438.98	76
J-28	5,265.00	LowerWoodsidePZ	5,438.98	75
S Woodside 4	5,262.00	LowerWoodsidePZ	5,439.02	77
36	5,265.00	LowerWoodsidePZ	5,496.72	100
274	5,260.00	LowerWoodsidePZ	5,439.02	78
Hydrant 11	5,287.00	LowerWoodsidePZ	5,438.62	66
Hydrant 11A	5,287.00	LowerWoodsidePZ	5,438.63	66
SCI 8	5,277.00	LowerWoodsidePZ	5,448.91	75
138	5,266.00	LowerWoodsidePZ	5,496.72	100
136	5,268.00	LowerWoodsidePZ	5,496.72	99
Hydrant 10A	5,246.20	LowerWoodsidePZ	5,438.46	83

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
PRV-2-WOODSIDE_ND	5,327.75	<None>	5,488.74	70
PMP-WOODSIDE_ND	5,328.43	<None>	5,493.29	71
PMP-RIVERST_ND	5,326.29	<None>	5,497.54	74
PMP-3RDAV_ND	5,324.30	<None>	5,499.82	76
J68	5,401.90	<None>	5,513.59	48
J-6	5,348.50	<None>	5,498.67	65
PMP-NRIDGE	5,348.63	<None>	5,498.72	65
TurbineLine_J2	5,515.83	<None>	5,517.90	1
FoxAcresPRV_US	5,505.65	<None>	5,517.26	5
TurbineLine_J1	5,506.04	<None>	5,517.32	5
J-46	5,327.70	<None>	5,488.72	70
J-303	5,328.30	<None>	5,493.29	72
J-302	5,328.07	<None>	5,493.33	72
Townsite 20	5,324.46	<None>	5,499.82	76
J-11	5,326.92	<None>	5,497.51	74
Sweetwater 9	5,278.00	<None>	(N/A)	(N/A)
Sweetwater 22	5,270.00	<None>	(N/A)	(N/A)
Sweetwater 23	5,271.00	<None>	(N/A)	(N/A)
Sweetwater 24	5,270.00	<None>	(N/A)	(N/A)
Sweetwater 25	5,271.00	<None>	(N/A)	(N/A)
Sweetwater 26	5,271.00	<None>	(N/A)	(N/A)
Sweetwater 37	5,275.00	<None>	(N/A)	(N/A)
Sweetwater 38	5,275.00	<None>	(N/A)	(N/A)
Sweetwater 39	5,276.00	<None>	(N/A)	(N/A)
Sweetwater 45	5,271.00	<None>	(N/A)	(N/A)
Sweetwater 51	5,276.00	<None>	(N/A)	(N/A)
PMP-WOODSIDE_NU	5,328.62	<None>	5,328.78	0
PMP-RIVERST_NU	5,315.33	<None>	5,324.56	4
Northridge	5,348.79	<None>	5,348.93	0
PMP-NRIDGE-2_NU	5,348.74	<None>	5,348.93	0
PMP-NRIDGE-2_ND	5,348.66	<None>	5,498.76	65
J-26	5,348.60	<None>	5,498.74	65
PMP-NRIDGE-1_NU	5,348.74	<None>	5,348.93	0
PMP-NRIDGE-1_ND	5,348.67	<None>	5,498.72	65
PMP-3RDAV_NU	5,313.95	<None>	5,323.66	4
Springs	5,515.28	<None>	(N/A)	(N/A)
QuigleyLine_J1	5,510.87	<None>	5,519.80	4
J-79	5,343.83	<None>	(N/A)	(N/A)
J-80	5,343.83	<None>	(N/A)	(N/A)
PRV-2-WOODSIDE_NU	5,327.83	MainPZ	5,492.93	72
PRV-3-9001_NU	5,282.15	MainPZ	5,463.30	79
J62	5,382.93	MainPZ	5,509.18	55
J60	5,365.87	MainPZ	5,506.42	61
SCI 32	5,293.40	MainPZ	5,465.16	74
SCI 31	5,293.43	MainPZ	5,466.34	75
SCI 30	5,285.93	MainPZ	5,465.93	78
SCI 29	5,284.85	MainPZ	5,465.52	78
SCI 28	5,290.89	MainPZ	5,465.16	76

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
SCI 27	5,288.08	MainPZ	5,464.84	77
SCI 26	5,295.93	MainPZ	5,466.56	74
SCI 25	5,282.74	MainPZ	5,463.40	78
SCI 24	5,284.66	MainPZ	5,463.66	78
SCI 23	5,291.63	MainPZ	5,464.08	75
SCI 22	5,293.53	MainPZ	5,464.27	74
SCI 21	5,295.18	MainPZ	5,464.65	73
Old Cutters 3	5,401.49	MainPZ	5,495.41	41
Old Cutters 2	5,377.95	MainPZ	5,495.42	51
Deerfield 1	5,337.92	MainPZ	5,494.72	68
Northridge LR2 1	5,366.56	MainPZ	5,498.62	57
Hydrant 1A	5,377.13	MainPZ	5,498.62	53
Townsite 37	5,360.89	MainPZ	5,494.57	58
Hiawatha 3	5,323.19	MainPZ	5,493.78	74
Hiawatha 2	5,323.70	MainPZ	5,493.84	74
J-95	5,324.35	MainPZ	5,493.90	74
J-9	5,324.76	MainPZ	5,497.06	75
J-84	5,343.66	MainPZ	5,494.24	65
Townsite 29	5,332.62	MainPZ	5,493.29	70
Townsite 38	5,336.05	MainPZ	5,494.20	69
Townsite 39	5,345.12	MainPZ	5,494.82	65
J-8	5,322.02	MainPZ	5,496.74	76
J-79	5,335.64	MainPZ	5,494.96	69
J-78	5,362.92	MainPZ	5,494.81	57
J-67	5,294.03	MainPZ	5,477.51	80
J-54	5,423.60	MainPZ	5,506.13	36
J-53	5,424.35	MainPZ	5,506.18	35
J-52	5,424.44	MainPZ	5,506.17	35
Business 12	5,325.82	MainPZ	5,496.26	74
J-47	5,327.90	MainPZ	5,492.95	72
Northridge LR2 10	5,381.11	MainPZ	5,498.50	51
Northridge LR1 1	5,363.57	MainPZ	5,498.43	58
J-41	5,323.86	MainPZ	5,494.11	74
Deerfield 3	5,331.69	MainPZ	5,494.22	70
J-4	5,335.18	MainPZ	5,496.36	70
J-393	5,333.82	MainPZ	5,494.04	69
J-392	5,399.68	MainPZ	5,499.65	43
J-391	5,401.89	MainPZ	5,500.20	43
Townsite 1	5,321.34	MainPZ	5,489.68	73
J-39	5,326.50	MainPZ	5,494.17	73
Townsite 2	5,323.05	MainPZ	5,489.95	72
Townsite 3	5,323.00	MainPZ	5,489.70	72
Townsite 4	5,323.43	MainPZ	5,491.58	73
J-384	5,385.64	MainPZ	5,498.10	49
J-382	5,387.52	MainPZ	5,498.45	48
Deerfield 4	5,322.56	MainPZ	5,494.22	74
J-377	5,316.50	MainPZ	5,484.99	73
J-37	5,336.13	MainPZ	5,494.36	69
Deerfield 2	5,338.25	MainPZ	5,494.32	68

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-35	5,340.48	MainPZ	5,494.33	67
J-34	5,301.05	MainPZ	5,488.34	81
J-301	5,332.77	MainPZ	5,494.05	70
J-300	5,321.64	MainPZ	5,493.98	75
J-3	5,424.82	MainPZ	5,506.25	35
Hydrant 8A/Hiawatha 1	5,322.73	MainPZ	5,493.90	74
Deerfield 6	5,350.05	MainPZ	5,493.85	62
Deerfield 5	5,348.75	MainPZ	5,493.84	63
J-296	5,347.54	MainPZ	5,493.64	63
J-295	5,354.36	MainPZ	5,493.59	60
Deerfield 7	5,358.26	MainPZ	5,493.57	59
J-293	5,342.51	MainPZ	5,494.20	66
Deerfield 14	5,352.85	MainPZ	5,493.85	61
J-291	5,360.34	MainPZ	5,493.61	58
J-290	5,362.38	MainPZ	5,493.57	57
Deerfield 13	5,364.38	MainPZ	5,493.56	56
Hydrant 7A/Deerfield 12	5,364.09	MainPZ	5,493.56	56
J-287	5,351.99	MainPZ	5,493.59	61
Deerfield 10	5,347.02	MainPZ	5,493.64	64
Deerfield 8	5,354.94	MainPZ	5,493.57	60
Hydrant 7/Deerfield 11	5,369.97	MainPZ	5,493.56	54
Deerfield 9	5,360.34	MainPZ	5,493.58	58
9990	5,321.84	MainPZ	5,493.95	75
Hydrant 8	5,326.32	MainPZ	5,493.83	73
J-280	5,341.01	MainPZ	5,493.72	66
J-279	5,323.97	MainPZ	5,493.78	74
Hiawatha 4	5,323.99	MainPZ	5,493.78	74
J-277	5,328.49	MainPZ	5,493.84	72
Hiawatha 6	5,334.12	MainPZ	5,493.84	69
J-275	5,336.33	MainPZ	5,493.76	68
J-274	5,327.93	MainPZ	5,493.76	72
J-273	5,334.25	MainPZ	5,493.75	69
J-272	5,336.69	MainPZ	5,493.76	68
J-271	5,346.35	MainPZ	5,493.86	64
J-270	5,342.84	MainPZ	5,493.72	65
J-269	5,341.58	MainPZ	5,493.78	66
J-268	5,341.47	MainPZ	5,493.80	66
J-267	5,340.55	MainPZ	5,493.88	66
J-266	5,351.33	MainPZ	5,494.25	62
J-265	5,365.53	MainPZ	5,494.67	56
J-264	5,356.62	MainPZ	5,494.34	60
J-263	5,362.44	MainPZ	5,494.42	57
J-262	5,362.22	MainPZ	5,494.42	57
J-261	5,364.18	MainPZ	5,494.43	56
Motherload 4	5,366.42	MainPZ	5,494.49	56
Motherload 5	5,367.52	MainPZ	5,494.54	55
Motherload 7	5,358.50	MainPZ	5,494.39	59
Motherload 6	5,362.72	MainPZ	5,494.43	57
J-256	5,364.70	MainPZ	5,494.49	56

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-255	5,367.69	MainPZ	5,494.55	55
Townsite 40	5,362.45	MainPZ	5,494.86	57
Townsite 41	5,356.54	MainPZ	5,494.39	60
Townsite 42	5,355.76	MainPZ	5,494.76	60
Townsite 43	5,345.21	MainPZ	5,494.54	65
J-250	5,338.80	MainPZ	5,495.01	68
J-249	5,331.86	MainPZ	5,494.60	71
J-248	5,344.74	MainPZ	5,494.12	65
Business 21	5,313.81	MainPZ	5,494.40	78
Business 22	5,314.69	MainPZ	5,493.18	77
J-245	5,323.44	MainPZ	5,494.24	74
J-244	5,323.65	MainPZ	5,493.27	74
J-243	5,331.63	MainPZ	5,494.20	70
J-242	5,333.33	MainPZ	5,493.51	69
Townsite 44	5,341.99	MainPZ	5,494.20	66
Townsite 30	5,340.38	MainPZ	5,493.73	66
Townsite 45	5,345.69	MainPZ	5,494.20	64
Townsite 31	5,343.04	MainPZ	5,493.84	65
Townsite 46	5,343.04	MainPZ	5,494.21	66
Townsite 32	5,338.67	MainPZ	5,493.86	67
Townsite 33	5,333.53	MainPZ	5,493.52	69
J-234	5,330.86	MainPZ	5,493.10	70
Business 23	5,316.81	MainPZ	5,492.26	76
Business 24	5,315.97	MainPZ	5,490.46	76
J-231	5,324.67	MainPZ	5,492.63	73
J-230	5,321.43	MainPZ	5,490.71	73
Townsite 5	5,323.19	MainPZ	5,490.72	73
Townsite 6	5,324.03	MainPZ	5,491.16	72
Townsite 7	5,324.56	MainPZ	5,492.60	73
Townsite 34	5,334.54	MainPZ	5,493.71	69
Townsite 35	5,323.54	MainPZ	5,493.73	74
Townsite 8	5,323.39	MainPZ	5,491.07	73
Townsite 9	5,323.39	MainPZ	5,491.62	73
Townsite 10	5,323.69	MainPZ	5,490.59	72
Townsite 11	5,323.03	MainPZ	5,489.95	72
Townsite 12	5,323.69	MainPZ	5,490.51	72
Townsite 36	5,334.97	MainPZ	5,493.71	69
Townsite 13	5,324.84	MainPZ	5,499.46	76
Townsite 14	5,324.05	MainPZ	5,491.14	72
Townsite 15	5,324.09	MainPZ	5,490.71	72
Townsite 16	5,324.12	MainPZ	5,490.59	72
Townsite 17	5,324.26	MainPZ	5,490.36	72
J-211	5,300.13	MainPZ	5,477.51	77
J-210	5,303.79	MainPZ	5,477.51	75
J-209	5,310.50	MainPZ	5,477.51	72
Townsite 18	5,322.03	MainPZ	5,489.60	73
Townsite 19	5,321.83	MainPZ	5,489.70	73
J-206	5,312.06	MainPZ	5,489.70	77
J-205	5,304.00	MainPZ	5,489.69	80

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-204	5,303.25	MainPZ	5,489.68	81
J-203	5,316.41	MainPZ	5,489.70	75
J-202	5,315.17	MainPZ	5,489.68	76
J-201	5,302.84	MainPZ	5,489.68	81
Business 25	5,311.76	MainPZ	5,489.70	77
J-2	5,424.90	MainPZ	5,506.30	35
J-199	5,311.32	MainPZ	5,489.68	77
J-198	5,303.66	MainPZ	5,487.82	80
J-197	5,302.53	MainPZ	5,486.15	80
Hydrant 5A	5,299.62	MainPZ	5,486.03	81
Della View 1	5,293.04	MainPZ	5,485.99	84
Hydrant 5	5,298.35	MainPZ	5,486.00	81
J-193	5,294.10	MainPZ	5,485.99	83
J-192	5,294.89	MainPZ	5,486.01	83
J-191	5,290.91	MainPZ	5,485.99	85
J-190	5,287.39	MainPZ	5,485.99	86
J-189	5,289.92	MainPZ	5,486.02	85
J-188	5,282.31	MainPZ	5,486.20	88
J-187	5,279.90	MainPZ	5,486.09	89
J-186	5,290.23	MainPZ	5,486.16	85
J-185	5,289.97	MainPZ	5,486.04	85
J-184	5,297.92	MainPZ	5,486.16	82
Hydrant 5	5,301.20	MainPZ	5,486.05	80
J-182	5,302.25	MainPZ	5,486.29	80
Business 26	5,305.72	MainPZ	5,490.47	80
J-180	5,303.85	MainPZ	5,489.66	81
J-179	5,303.66	MainPZ	5,489.32	80
J-178	5,302.12	MainPZ	5,488.33	81
J-177	5,289.81	MainPZ	5,488.91	86
J-176	5,301.02	MainPZ	5,488.72	81
J-175	5,301.23	MainPZ	5,489.18	81
China Gardens 2	5,304.33	MainPZ	5,490.51	81
China Gardens 1	5,303.83	MainPZ	5,490.73	81
J-172	5,303.67	MainPZ	5,490.86	81
J-171	5,303.71	MainPZ	5,490.94	81
J-170	5,302.97	MainPZ	5,490.86	81
J-169	5,302.61	MainPZ	5,491.06	82
J-168	5,303.33	MainPZ	5,491.22	81
J-167	5,304.45	MainPZ	5,491.14	81
J-166	5,304.52	MainPZ	5,491.25	81
J-165	5,303.73	MainPZ	5,491.13	81
Business 27	5,309.73	MainPZ	5,492.08	79
J-163	5,305.95	MainPZ	5,491.49	80
J-162	5,306.29	MainPZ	5,493.01	81
Business 28	5,309.60	MainPZ	5,492.00	79
Business 29	5,310.87	MainPZ	5,493.03	79
J-159	5,311.69	MainPZ	5,494.44	79
Hydrant 4	5,310.30	MainPZ	5,494.45	80
J-157	5,312.41	MainPZ	5,494.76	79

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-156	5,318.55	MainPZ	5,494.93	76
Hydrant 4A	5,312.60	MainPZ	5,494.39	79
J-154	5,326.84	MainPZ	5,495.32	73
Business 20	5,331.55	MainPZ	5,496.83	72
Northstar 3	5,319.58	MainPZ	5,497.00	77
J-151	5,327.26	MainPZ	5,497.24	74
J-150	5,327.36	MainPZ	5,497.21	74
Business 19	5,325.71	MainPZ	5,496.73	74
J-148	5,318.45	MainPZ	5,496.65	77
J-147	5,317.90	MainPZ	5,496.60	77
Northstar 4	5,317.42	MainPZ	5,496.40	78
Hydrant 3A	5,318.38	MainPZ	5,496.40	77
Business 16	5,325.09	MainPZ	5,496.26	74
Business 6	5,339.04	MainPZ	5,496.25	68
Business 15	5,336.16	MainPZ	5,496.23	69
Northridge GR 2	5,342.20	MainPZ	5,496.34	67
Northridge GR 1	5,343.97	MainPZ	5,496.12	66
Northridge GR 3	5,343.86	MainPZ	5,496.47	66
Northridge GR 7	5,346.84	MainPZ	5,497.14	65
Northridge LR1 2	5,357.99	MainPZ	5,498.12	61
J-136	5,343.73	MainPZ	5,495.49	66
Hydrant 3	5,325.44	MainPZ	5,496.27	74
Business 17	5,330.01	MainPZ	5,496.25	72
J-133	5,336.77	MainPZ	5,496.12	69
J-132	5,342.50	MainPZ	5,495.96	67
J-131	5,344.32	MainPZ	5,495.90	66
Townsite 47	5,348.58	MainPZ	5,495.63	64
Townsite 48	5,352.43	MainPZ	5,495.51	62
Townsite 49	5,356.40	MainPZ	5,495.36	60
Townsite 50	5,361.69	MainPZ	5,495.26	58
Townsite 51	5,366.67	MainPZ	5,495.20	56
Hydrant 2	5,367.87	MainPZ	5,495.17	55
Hydrant 2A	5,369.72	MainPZ	5,494.83	54
Motherload 3	5,368.44	MainPZ	5,494.84	55
Motherload 1	5,372.06	MainPZ	5,495.03	53
J-121	5,381.48	MainPZ	5,495.43	49
Old Cutters 1	5,389.53	MainPZ	5,496.09	46
J-119	5,368.27	MainPZ	5,495.32	55
J-118	5,384.74	MainPZ	5,497.91	49
J-117	5,389.63	MainPZ	5,498.14	47
Northridge LR1 3	5,375.24	MainPZ	5,498.56	53
Northridge LR1 4	5,369.84	MainPZ	5,498.50	56
Northridge LR2 9	5,383.91	MainPZ	5,498.50	50
Northridge LR2 7	5,387.64	MainPZ	5,498.61	48
Hydrant 1/Northridge LR2 2	5,378.31	MainPZ	5,498.72	52
Northridge LR2 3	5,387.93	MainPZ	5,498.79	48
Northridge LR2 4	5,391.65	MainPZ	5,499.10	47
Northridge LR2 6	5,392.31	MainPZ	5,499.10	46
J-108	5,399.23	MainPZ	5,499.52	43

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-106	5,413.46	MainPZ	5,500.64	38
J-105	5,423.27	MainPZ	5,502.44	34
J-104	5,444.95	MainPZ	5,504.59	26
J-103	5,400.22	MainPZ	5,500.36	43
J-102	5,403.05	MainPZ	5,500.79	42
J-101	5,422.11	MainPZ	5,505.07	36
J-100	5,422.95	MainPZ	5,505.93	36
Business 5	5,337.69	MainPZ	5,496.25	69
Northridge LR2 8	5,389.74	MainPZ	5,498.68	47
9	5,318.08	MainPZ	5,494.08	76
8	5,322.68	MainPZ	5,493.97	74
7	5,320.81	MainPZ	5,494.08	75
Northridge LR1 5	5,361.53	MainPZ	5,498.45	59
Northridge LR1 6	5,358.95	MainPZ	5,498.41	60
Northridge LR1 7	5,360.81	MainPZ	5,498.41	60
Northridge GR 9	5,353.58	MainPZ	5,498.16	63
6	5,321.41	MainPZ	5,493.97	75
Northridge GR 8	5,349.03	MainPZ	5,498.04	65
Northridge GR 6	5,348.46	MainPZ	5,497.96	65
Northridge LR1 8	5,353.69	MainPZ	5,498.28	63
Northridge GR 5	5,343.44	MainPZ	5,496.48	66
Northridge GR 4	5,344.04	MainPZ	5,496.45	66
SCI 1	5,300.75	MainPZ	5,471.27	74
Northridge GR 12	5,349.25	MainPZ	5,498.48	65
Northridge GR 13	5,345.35	MainPZ	5,498.47	66
Northridge LR1 9	5,355.23	MainPZ	5,498.40	62
420	5,386.28	MainPZ	5,498.36	49
Northridge GR 11	5,349.55	MainPZ	5,498.55	65
418	5,392.34	MainPZ	5,498.46	46
412	5,343.83	MainPZ	5,496.42	66
Northridge LR1 10	5,353.65	MainPZ	5,498.31	63
Business 14	5,337.30	MainPZ	5,496.24	69
Northridge GR 10	5,353.77	MainPZ	5,498.36	63
Business 7	5,342.29	MainPZ	5,496.39	67
Motherload 2	5,372.07	MainPZ	5,495.02	53
Business 1	5,344.81	MainPZ	5,496.25	66
Business 10	5,334.96	MainPZ	5,496.25	70
SCI 20	5,287.00	MainPZ	5,464.27	77
Old Cutters 14	5,376.62	MainPZ	5,494.16	51
Old Cutters 12	5,360.79	MainPZ	5,494.49	58
Old Cutters 7	5,363.47	MainPZ	5,494.73	57
Old Cutters 13	5,362.54	MainPZ	5,494.50	57
Old Cutters 11	5,360.77	MainPZ	5,494.62	58
Old Cutters 6	5,363.31	MainPZ	5,494.74	57
Old Cutters 8	5,362.76	MainPZ	5,494.71	57
Old Cutters 5	5,365.85	MainPZ	5,494.82	56
Old Cutters 10	5,361.78	MainPZ	5,494.70	58
Old Cutters 9	5,370.39	MainPZ	5,494.77	54
Old Cutters 4	5,372.42	MainPZ	5,494.91	53

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
Business 13	5,325.65	MainPZ	5,496.26	74
Business 11	5,325.89	MainPZ	5,496.26	74
Business 9	5,328.53	MainPZ	5,496.25	73
Business 8	5,337.19	MainPZ	5,496.25	69
Business 4	5,339.42	MainPZ	5,496.25	68
Business 2	5,343.86	MainPZ	5,496.25	66
Business 3	5,334.36	MainPZ	5,496.25	70
SCI 19	5,283.66	MainPZ	5,464.22	78
SCI 18	5,289.46	MainPZ	5,464.61	76
SCI 17	5,285.02	MainPZ	5,463.67	77
SCI 16	5,285.22	MainPZ	5,463.74	77
SCI 15	5,285.05	MainPZ	5,463.87	78
SCI 14	5,284.82	MainPZ	5,464.00	78
SCI 13	5,285.15	MainPZ	5,464.04	78
SCI 12	5,284.84	MainPZ	5,464.00	78
SCI 11	5,285.45	MainPZ	5,464.08	77
SCI 10	5,311.50	MainPZ	5,474.47	71
SCI 9	5,282.66	MainPZ	5,463.31	78
SCI 7	5,286.64	MainPZ	5,464.01	77
SCI 6	5,294.60	MainPZ	5,464.73	74
SCI 5	5,296.15	MainPZ	5,467.43	74
SCI 4	5,296.51	MainPZ	5,468.58	75
SCI 3	5,302.25	MainPZ	5,473.06	74
170	5,306.34	MainPZ	5,489.68	79
168	5,302.48	MainPZ	5,489.68	81
166	5,302.06	MainPZ	5,489.68	81
164	5,313.75	MainPZ	5,477.51	71
SCI 2	5,303.72	MainPZ	5,473.06	73
160	5,349.86	MainPZ	5,494.38	63
158	5,351.00	MainPZ	5,494.25	62
Northstar 1	5,314.12	MainPZ	5,496.73	79
Northstar 2	5,317.27	MainPZ	5,496.74	78
152	5,318.15	MainPZ	5,496.66	77
J-1000	5,320.78	MainPZ	5,490.68	74
J-1001	5,321.19	MainPZ	5,490.65	73
J-1002	5,320.25	MainPZ	5,490.61	74
J-1003	5,316.15	MainPZ	5,490.56	76
Townsite 21	5,319.15	MainPZ	5,490.54	74
Townsite 22	5,319.25	MainPZ	5,490.53	74
Townsite 23	5,319.15	MainPZ	5,490.53	74
Townsite 24	5,317.04	MainPZ	5,490.42	75
Townsite 25	5,323.95	MainPZ	5,490.23	72
Townsite 26	5,324.05	MainPZ	5,491.01	72
Townsite 27	5,323.76	MainPZ	5,490.90	72
Townsite 28	5,323.79	MainPZ	5,490.79	72
J-41	5,358.29	MainPZ	5,493.59	59
Hiawatha 5	5,323.70	MainPZ	5,493.78	74
Northridge LR2 5	5,397.61	MainPZ	5,499.48	44
Dumke 1	5,351.15	MainPZ	5,493.86	62

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
Dumke 2	5,360.00	MainPZ	5,493.17	58
J-47	5,296.56	MainPZ	5,468.78	75
CityExpansion 1	5,280.00	MainPZ	5,466.18	81
CityExpansion 2	5,386.00	MainPZ	5,496.13	48
FoxAcresPRV_US	5,316.49	MainPZ	5,484.95	73
PRV2_US	5,317.09	MainPZ	5,484.30	72
Hydrant 8	5,323.74	MainPZ	5,493.89	74
J-68	5,323.69	MainPZ	5,491.12	73
J-81	5,344.54	MainPZ	5,496.74	66
J54	5,280.09	UpperWoodsidePZ	5,471.44	83
C Woodside 3	5,277.68	UpperWoodsidePZ	5,471.33	84
J50	5,277.58	UpperWoodsidePZ	5,471.35	84
J48	5,280.35	UpperWoodsidePZ	5,471.41	83
J-88	5,338.66	UpperWoodsidePZ	5,487.99	65
J-87	5,302.38	UpperWoodsidePZ	5,476.27	75
J-49	5,327.42	UpperWoodsidePZ	5,488.50	70
J-48	5,327.64	UpperWoodsidePZ	5,488.23	70
J-45	5,328.25	UpperWoodsidePZ	5,483.27	67
J-346	5,273.63	UpperWoodsidePZ	5,471.10	86
Hydrant 9/Sweetwater 1	5,274.77	UpperWoodsidePZ	5,471.11	85
C Woodside 1	5,280.43	UpperWoodsidePZ	5,471.13	83
Sweetwater 2	5,276.80	UpperWoodsidePZ	5,471.13	84
Sweetwater 3	5,287.20	UpperWoodsidePZ	5,471.54	80
J-338	5,293.54	UpperWoodsidePZ	5,472.09	77
J-337	5,299.82	UpperWoodsidePZ	5,473.35	75
J-336	5,306.06	UpperWoodsidePZ	5,474.83	73
J-335	5,306.71	UpperWoodsidePZ	5,475.86	73
Sweetwater 4	5,291.69	UpperWoodsidePZ	5,471.66	78
J-333	5,294.52	UpperWoodsidePZ	5,472.31	77
C Woodside 10	5,297.38	UpperWoodsidePZ	5,473.59	76
J-331	5,306.00	UpperWoodsidePZ	5,475.65	74
J-330	5,308.07	UpperWoodsidePZ	5,476.01	73
J-33	5,293.52	UpperWoodsidePZ	5,471.69	77
C Woodside 9	5,304.03	UpperWoodsidePZ	5,474.52	74
J-328	5,302.38	UpperWoodsidePZ	5,474.54	75
J-327	5,323.59	UpperWoodsidePZ	5,486.59	71
J-326	5,343.71	UpperWoodsidePZ	5,487.89	63
J-325	5,328.34	UpperWoodsidePZ	5,487.17	69
J-324	5,348.16	UpperWoodsidePZ	5,487.99	61
J-323	5,345.37	UpperWoodsidePZ	5,487.99	62
J-322	5,316.47	UpperWoodsidePZ	5,482.03	72
J-321	5,315.52	UpperWoodsidePZ	5,481.61	72
J-320	5,308.97	UpperWoodsidePZ	5,477.45	73
Sweetwater 5	5,291.35	UpperWoodsidePZ	5,471.66	78
J-319	5,311.89	UpperWoodsidePZ	5,477.83	72
N Woodside 1	5,311.26	UpperWoodsidePZ	5,477.63	72
J-317	5,310.67	UpperWoodsidePZ	5,479.57	73
J-316	5,313.55	UpperWoodsidePZ	5,481.13	73
N Woodside 2	5,314.75	UpperWoodsidePZ	5,481.56	72

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-314	5,316.58	UpperWoodsidePZ	5,481.87	72
J-313	5,313.55	UpperWoodsidePZ	5,481.18	73
J-312	5,314.20	UpperWoodsidePZ	5,482.54	73
J-311	5,313.55	UpperWoodsidePZ	5,482.10	73
J-310	5,323.16	UpperWoodsidePZ	5,483.63	70
J-309	5,320.74	UpperWoodsidePZ	5,483.08	70
J-308	5,324.86	UpperWoodsidePZ	5,483.20	69
J-307	5,324.50	UpperWoodsidePZ	5,483.20	69
J-306	5,344.97	UpperWoodsidePZ	5,487.99	62
J-305	5,320.71	UpperWoodsidePZ	5,483.28	70
J-304	5,323.80	UpperWoodsidePZ	5,487.45	71
J-30	5,293.14	UpperWoodsidePZ	5,471.64	77
Sweetwater 6	5,291.49	UpperWoodsidePZ	5,471.61	78
J-25	5,293.38	UpperWoodsidePZ	5,471.63	77
J-24	5,291.93	UpperWoodsidePZ	5,471.60	78
J-23	5,288.06	UpperWoodsidePZ	5,471.58	80
J-220	5,315.94	UpperWoodsidePZ	5,483.43	73
J-22	5,293.54	UpperWoodsidePZ	5,472.06	77
J-21	5,293.54	UpperWoodsidePZ	5,472.06	77
J-20	5,293.54	UpperWoodsidePZ	5,472.06	77
J-19	5,293.54	UpperWoodsidePZ	5,472.06	77
J-18	5,293.51	UpperWoodsidePZ	5,472.06	77
J-17	5,292.91	UpperWoodsidePZ	5,472.06	78
J-16	5,293.54	UpperWoodsidePZ	5,472.06	77
J-15	5,293.54	UpperWoodsidePZ	5,472.07	77
J-14	5,293.54	UpperWoodsidePZ	5,472.08	77
J-13	5,293.51	UpperWoodsidePZ	5,472.09	77
J-107	5,293.52	UpperWoodsidePZ	5,471.85	77
Sweetwater 7	5,282.09	UpperWoodsidePZ	5,471.17	82
Sweetwater 8	5,284.34	UpperWoodsidePZ	5,471.24	81
Sweetwater 10	5,284.52	UpperWoodsidePZ	5,471.50	81
Sweetwater 11	5,285.62	UpperWoodsidePZ	5,471.48	81
88	5,288.58	UpperWoodsidePZ	5,471.58	79
Sweetwater 12	5,284.64	UpperWoodsidePZ	5,471.17	81
Sweetwater 13	5,281.86	UpperWoodsidePZ	5,471.16	82
Sweetwater 14	5,284.83	UpperWoodsidePZ	5,471.18	81
Sweetwater 15	5,282.99	UpperWoodsidePZ	5,471.17	82
Sweetwater 16	5,287.72	UpperWoodsidePZ	5,471.22	80
Sweetwater 17	5,286.03	UpperWoodsidePZ	5,471.21	80
Sweetwater 18	5,286.42	UpperWoodsidePZ	5,471.30	80
Sweetwater 19	5,284.18	UpperWoodsidePZ	5,471.22	81
Sweetwater 20	5,280.63	UpperWoodsidePZ	5,471.16	83
Sweetwater 21	5,283.77	UpperWoodsidePZ	5,471.17	81
416	5,351.80	UpperWoodsidePZ	5,487.99	59
C Woodside 2	5,292.21	UpperWoodsidePZ	5,471.22	78
32	5,300.55	UpperWoodsidePZ	5,472.13	74
C Woodside 4	5,295.26	UpperWoodsidePZ	5,472.18	77
292	5,303.44	UpperWoodsidePZ	5,474.53	74
280	5,344.91	UpperWoodsidePZ	5,471.17	55

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
Sweetwater 27	5,289.28	UpperWoodsidePZ	5,471.66	79
278	5,288.99	UpperWoodsidePZ	5,471.13	79
266	5,302.56	UpperWoodsidePZ	5,474.53	75
C Woodside 8	5,304.15	UpperWoodsidePZ	5,474.52	74
262	5,280.76	UpperWoodsidePZ	5,471.60	83
260	5,280.39	UpperWoodsidePZ	5,471.60	83
26	5,281.05	UpperWoodsidePZ	5,471.90	83
258	5,280.09	UpperWoodsidePZ	5,471.60	83
256	5,299.49	UpperWoodsidePZ	5,473.35	75
254	5,296.42	UpperWoodsidePZ	5,473.20	77
24	5,280.08	UpperWoodsidePZ	5,471.86	83
22	5,280.09	UpperWoodsidePZ	5,471.90	83
216	5,296.30	UpperWoodsidePZ	5,472.90	77
214	5,294.69	UpperWoodsidePZ	5,473.29	77
212	5,298.77	UpperWoodsidePZ	5,472.90	75
210	5,302.18	UpperWoodsidePZ	5,473.13	74
208	5,294.96	UpperWoodsidePZ	5,472.85	77
Hydrant 6	5,313.87	UpperWoodsidePZ	5,473.17	69
C Woodside 5	5,330.04	UpperWoodsidePZ	5,472.58	62
18	5,305.24	UpperWoodsidePZ	5,472.57	73
Hydrant 6A	5,298.93	UpperWoodsidePZ	5,472.33	75
Sweetwater 28	5,280.93	UpperWoodsidePZ	5,471.15	82
Sweetwater 29	5,281.62	UpperWoodsidePZ	5,471.17	82
Sweetwater 30	5,281.93	UpperWoodsidePZ	5,471.17	82
Sweetwater 31	5,284.24	UpperWoodsidePZ	5,471.19	81
Sweetwater 32	5,283.16	UpperWoodsidePZ	5,471.15	82
Sweetwater 33	5,283.10	UpperWoodsidePZ	5,471.15	82
C Woodside 7	5,302.40	UpperWoodsidePZ	5,474.31	75
Sweetwater 34	5,279.23	UpperWoodsidePZ	5,471.14	83
Sweetwater 35	5,276.75	UpperWoodsidePZ	5,471.14	84
Sweetwater 36	5,279.61	UpperWoodsidePZ	5,471.14	83
Sweetwater 40	5,276.99	UpperWoodsidePZ	5,471.12	84
Sweetwater 41	5,275.90	UpperWoodsidePZ	5,471.11	85
C Woodside 6	5,333.60	UpperWoodsidePZ	5,473.41	61
Sweetwater 42	5,276.44	UpperWoodsidePZ	5,471.11	84
Sweetwater 43	5,274.50	UpperWoodsidePZ	5,471.10	85
Sweetwater 44	5,274.33	UpperWoodsidePZ	5,471.10	85
Hydrant 9A/Sweetwater 46	5,274.00	UpperWoodsidePZ	5,471.10	85
Sweetwater 47	5,271.74	UpperWoodsidePZ	5,471.13	86
Hydrant 9/Sweetwater 48	5,277.54	UpperWoodsidePZ	5,471.13	84
Sweetwater 49	5,279.48	UpperWoodsidePZ	5,471.15	83
Sweetwater 50	5,275.91	UpperWoodsidePZ	5,471.13	85
10	5,317.78	UpperWoodsidePZ	5,473.41	67
J-53	5,316.96	UpperWoodsidePZ	5,484.13	72
FoxAcresPRV_DS	5,316.49	UpperWoodsidePZ	5,483.50	72
Hydrant 6	5,307.38	UpperWoodsidePZ	5,472.84	72
J-59	5,304.95	UpperWoodsidePZ	5,474.70	74
J-60	5,307.31	UpperWoodsidePZ	5,475.01	73
J-61	5,305.62	UpperWoodsidePZ	5,475.45	74

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-62	5,307.74	UpperWoodsidePZ	5,475.51	73
J-63	5,302.21	UpperWoodsidePZ	5,473.64	74
J-64	5,299.18	UpperWoodsidePZ	5,473.47	76
J-65	5,302.81	UpperWoodsidePZ	5,474.19	74
J-66	5,298.07	UpperWoodsidePZ	5,473.62	76
J-84	5,273.00	UpperWoodsidePZ	5,471.23	86
Sunburst J-85	5,273.00	UpperWoodsidePZ	5,471.23	86
J-86	5,282.00	UpperWoodsidePZ	5,471.22	82
Sunburst J-87	5,281.00	UpperWoodsidePZ	5,471.22	82
J-88	5,297.00	UpperWoodsidePZ	5,471.21	76
J-89	5,283.00	UpperWoodsidePZ	5,471.23	82
J-90	5,299.00	UpperWoodsidePZ	5,471.21	75
Sunburst J-91	5,299.00	UpperWoodsidePZ	5,471.21	75
PRV-3-9001_ND	5,281.40	LowerWoodsidePZ	5,448.53	72
J-91	5,256.91	LowerWoodsidePZ	5,435.66	77
J-85	5,266.18	LowerWoodsidePZ	5,437.03	74
J-73	5,282.17	LowerWoodsidePZ	5,448.53	72
J-72	5,265.57	LowerWoodsidePZ	5,437.03	74
J-71	5,268.69	LowerWoodsidePZ	5,436.02	73
J-66	5,275.54	LowerWoodsidePZ	5,447.10	74
J-65	5,264.93	LowerWoodsidePZ	5,445.91	78
J-64	5,272.70	LowerWoodsidePZ	5,444.10	74
J-63	5,257.55	LowerWoodsidePZ	5,439.09	79
J-62	5,266.56	LowerWoodsidePZ	5,441.11	76
J-61	5,265.79	LowerWoodsidePZ	5,437.33	74
J-60	5,265.64	LowerWoodsidePZ	5,436.44	74
J-386	5,261.36	LowerWoodsidePZ	5,436.19	76
J-385	5,260.63	LowerWoodsidePZ	5,436.19	76
J-376	5,236.50	LowerWoodsidePZ	5,435.26	86
J-375	5,242.77	LowerWoodsidePZ	5,435.26	83
J-374	5,241.98	LowerWoodsidePZ	5,435.26	84
J-373	5,242.74	LowerWoodsidePZ	5,435.26	83
J-372	5,242.70	LowerWoodsidePZ	5,435.26	83
Hydrant 10	5,248.71	LowerWoodsidePZ	5,435.28	81
J-370	5,249.06	LowerWoodsidePZ	5,435.30	81
S Woodside 1	5,248.80	LowerWoodsidePZ	5,435.34	81
J-368	5,250.24	LowerWoodsidePZ	5,435.42	80
S Woodside 3	5,253.56	LowerWoodsidePZ	5,435.55	79
Hydrant 10A	5,243.65	LowerWoodsidePZ	5,435.27	83
J-365	5,245.55	LowerWoodsidePZ	5,435.27	82
J-364	5,251.71	LowerWoodsidePZ	5,435.28	80
J-363	5,258.88	LowerWoodsidePZ	5,435.30	76
S Woodside 2	5,260.80	LowerWoodsidePZ	5,435.34	76
J-361	5,261.53	LowerWoodsidePZ	5,435.42	75
J-360	5,257.55	LowerWoodsidePZ	5,435.56	77
J-359	5,257.92	LowerWoodsidePZ	5,435.93	77
J-358	5,262.52	LowerWoodsidePZ	5,436.13	75
J-357	5,256.67	LowerWoodsidePZ	5,435.77	78
J-356	5,259.08	LowerWoodsidePZ	5,435.98	77

FlexTable: Junction Table

Label	Elevation (ft)	Zone	Hydraulic Grade (ft)	Pressure (psi)
J-355	5,263.96	LowerWoodsidePZ	5,436.20	75
J-354	5,268.31	LowerWoodsidePZ	5,436.10	73
J-353	5,271.39	LowerWoodsidePZ	5,436.09	71
J-352	5,274.00	LowerWoodsidePZ	5,436.12	70
J-351	5,270.70	LowerWoodsidePZ	5,436.07	72
J-350	5,274.76	LowerWoodsidePZ	5,436.02	70
J-349	5,267.41	LowerWoodsidePZ	5,436.07	73
J-348	5,272.62	LowerWoodsidePZ	5,436.03	71
J-347	5,269.28	LowerWoodsidePZ	5,436.03	72
J-344	5,266.68	LowerWoodsidePZ	5,436.17	73
J-343	5,268.49	LowerWoodsidePZ	5,436.09	73
J-342	5,275.75	LowerWoodsidePZ	5,436.04	69
J-29	5,277.15	LowerWoodsidePZ	5,436.02	69
J-28	5,277.62	LowerWoodsidePZ	5,436.02	69
S Woodside 4	5,276.80	LowerWoodsidePZ	5,436.06	69
36	5,278.35	LowerWoodsidePZ	5,471.12	84
274	5,276.15	LowerWoodsidePZ	5,436.07	69
Hydrant 11	5,272.77	LowerWoodsidePZ	5,435.52	71
Hydrant 11A	5,261.29	LowerWoodsidePZ	5,435.53	76
SCI 8	5,280.85	LowerWoodsidePZ	5,448.53	73
138	5,280.33	LowerWoodsidePZ	5,471.12	83
136	5,271.69	LowerWoodsidePZ	5,471.10	86
Hydrant 10A	5,246.20	LowerWoodsidePZ	5,435.27	82

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
PRV-2-WOODSIDE_ND	<None>	(N/A)	1,500	(N/A)
PRV-2-WOODSIDE_NU	<None>	(N/A)	1,500	(N/A)
PMP-WOODSIDE_ND	<None>	(N/A)	1,500	(N/A)
PMP-RIVERST_ND	<None>	(N/A)	1,500	(N/A)
PMP-3RDAV_ND	<None>	(N/A)	1,500	(N/A)
J68	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE	<None>	(N/A)	1,500	(N/A)
TurbineLine_J2	<None>	(N/A)	1,500	(N/A)
J-54	<None>	1	1,500	0
J-53	<None>	1	1,500	0
J-52	<None>	1	1,500	0
FoxAcresPRV_US	<None>	(N/A)	1,500	(N/A)
TurbineLine_J1	<None>	(N/A)	1,500	(N/A)
J-47	<None>	(N/A)	1,500	(N/A)
J-46	<None>	(N/A)	1,500	(N/A)
J-3	<None>	1	1,500	0
J-2	<None>	1	1,500	0
J-101	<None>	1	1,500	0
J-100	<None>	1	1,500	0
PMP-WOODSIDE_NU	<None>	(N/A)	1,500	(N/A)
PMP-RIVERST_NU	<None>	(N/A)	1,500	(N/A)
Northridge	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE-2_NU	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE-2_ND	<None>	(N/A)	1,500	(N/A)
J-26	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE-1_NU	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE-1_ND	<None>	(N/A)	1,500	(N/A)
PMP-3RDAV_NU	<None>	(N/A)	1,500	(N/A)
Springs	<None>	(N/A)	1,500	(N/A)
FoxAcresPRV_US	<None>	(N/A)	1,500	(N/A)
PRV2_US	<None>	(N/A)	1,500	(N/A)
J-53	<None>	(N/A)	1,500	(N/A)
QuigleyLine_J1	<None>	(N/A)	1,500	(N/A)
PRV-3-9001_ND	Fire	5	1,500	2,577
PRV-3-9001_NU	Fire	4	1,500	2,577
J62	MainPZ	(N/A)	1,500	(N/A)
J60	MainPZ	2	1,500	10,000
SCI 32	MainPZ	4	1,500	2,328
SCI 31	MainPZ	4	1,500	2,577
SCI 30	MainPZ	6	1,500	2,514
SCI 29	MainPZ	4	1,500	2,442
SCI 28	MainPZ	4	1,500	2,478
SCI 27	MainPZ	4	1,500	2,506
SCI 26	MainPZ	6	1,500	2,666
SCI 25	MainPZ	4	1,500	2,529
SCI 24	MainPZ	6	1,500	2,531
SCI 23	MainPZ	4	1,500	2,438
SCI 22	MainPZ	4	1,500	2,449

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
SCI 21	MainPZ	4	1,500	2,541
Old Cutters 3	MainPZ	13	1,500	2,271
Old Cutters 2	MainPZ	6	1,500	3,303
Deerfield 1	MainPZ	5	1,500	8,205
Northridge LR2 1	MainPZ	4	1,500	5,496
Hydrant 1A	MainPZ	8	1,500	5,970
Townsite 37	MainPZ	3	1,500	2,533
Hiawatha 3	MainPZ	4	1,500	3,617
Hiawatha 2	MainPZ	4	1,500	4,558
J-95	MainPZ	8	1,500	6,648
J-9	MainPZ	8	1,500	6,578
J-84	MainPZ	8	1,500	6,574
Townsite 29	MainPZ	8	1,500	6,677
Townsite 38	MainPZ	6	1,500	6,532
Townsite 39	MainPZ	3	1,500	2,726
J-8	MainPZ	7	1,500	6,543
J-79	MainPZ	3	1,500	2,744
J-78	MainPZ	8	1,500	6,470
J-67	MainPZ	6	1,500	2,779
J-6	MainPZ	(N/A)	1,500	(N/A)
Business 12	MainPZ	6	1,500	6,425
Northridge LR2 10	MainPZ	8	1,500	5,989
Northridge LR1 1	MainPZ	7	1,500	6,052
J-41	MainPZ	4	1,500	5,883
Deerfield 3	MainPZ	4	1,500	6,116
J-4	MainPZ	4	1,500	6,347
J-393	MainPZ	5	1,500	7,493
J-392	MainPZ	9	1,500	5,905
J-391	MainPZ	8	1,500	5,897
Townsite 1	MainPZ	5	1,500	6,436
J-39	MainPZ	4	1,500	6,275
Townsite 2	MainPZ	4	1,500	5,762
Townsite 3	MainPZ	7	1,500	6,759
Townsite 4	MainPZ	4	1,500	4,505
J-384	MainPZ	8	1,500	6,120
J-382	MainPZ	14	1,500	6,011
Deerfield 4	MainPZ	4	1,500	5,594
J-377	MainPZ	17	1,500	2,004
J-37	MainPZ	5	1,500	8,029
Deerfield 2	MainPZ	5	1,500	7,833
J-35	MainPZ	7	1,500	7,872
J-34	MainPZ	4	1,500	3,793
J-303	MainPZ	(N/A)	1,500	(N/A)
J-302	MainPZ	(N/A)	1,500	(N/A)
J-301	MainPZ	25	1,500	7,433
J-300	MainPZ	4	1,500	7,287
Hydrant 8A/Hiawatha 1	MainPZ	4	1,500	4,711
Deerfield 6	MainPZ	4	1,500	5,021

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Deerfield 5	MainPZ	4	1,500	4,815
J-296	MainPZ	4	1,500	4,111
J-295	MainPZ	4	1,500	4,468
Deerfield 7	MainPZ	4	1,500	4,124
J-293	MainPZ	7	1,500	7,540
Deerfield 14	MainPZ	4	1,500	4,657
J-291	MainPZ	4	1,500	4,101
J-290	MainPZ	4	1,500	3,739
Deerfield 13	MainPZ	4	1,500	3,620
Hydrant 7A/Deerfield 12	MainPZ	4	1,500	3,651
J-287	MainPZ	4	1,500	3,982
Deerfield 10	MainPZ	4	1,500	4,483
Deerfield 8	MainPZ	4	1,500	4,231
Hydrant 7/Deerfield 11	MainPZ	4	1,500	3,114
Deerfield 9	MainPZ	6	1,500	4,062
9990	MainPZ	4	1,500	7,104
Hydrant 8	MainPZ	4	1,500	6,007
J-280	MainPZ	4	1,500	6,094
J-279	MainPZ	4	1,500	5,382
Hiawatha 4	MainPZ	4	1,500	3,449
J-277	MainPZ	6	1,500	6,806
Hiawatha 6	MainPZ	4	1,500	3,342
J-275	MainPZ	4	1,500	6,334
J-274	MainPZ	4	1,500	5,061
J-273	MainPZ	4	1,500	3,640
J-272	MainPZ	4	1,500	3,841
J-271	MainPZ	4	1,500	4,618
J-270	MainPZ	6	1,500	6,112
J-269	MainPZ	4	1,500	6,500
J-268	MainPZ	6	1,500	6,603
J-267	MainPZ	4	1,500	6,676
J-266	MainPZ	8	1,500	6,598
J-265	MainPZ	4	1,500	6,071
J-264	MainPZ	4	1,500	6,294
J-263	MainPZ	4	1,500	5,891
J-262	MainPZ	4	1,500	4,829
J-261	MainPZ	4	1,500	4,294
Motherload 4	MainPZ	4	1,500	4,494
Motherload 5	MainPZ	4	1,500	4,744
Motherload 7	MainPZ	4	1,500	4,241
Motherload 6	MainPZ	4	1,500	4,211
J-256	MainPZ	4	1,500	4,347
J-255	MainPZ	4	1,500	4,647
Townsite 40	MainPZ	3	1,500	2,966
Townsite 41	MainPZ	3	1,500	2,590
Townsite 42	MainPZ	3	1,500	2,622
Townsite 43	MainPZ	3	1,500	2,747
J-250	MainPZ	3	1,500	2,745

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
J-249	MainPZ	3	1,500	2,765
J-248	MainPZ	8	1,500	6,742
Business 21	MainPZ	7	1,500	6,541
Business 22	MainPZ	4	1,500	3,137
J-245	MainPZ	6	1,500	6,531
J-244	MainPZ	4	1,500	3,073
J-243	MainPZ	6	3,250	6,531
J-242	MainPZ	3	1,500	2,999
Townsite 44	MainPZ	10	3,250	6,552
Townsite 30	MainPZ	3	1,500	2,924
Townsite 45	MainPZ	7	1,500	6,531
Townsite 31	MainPZ	3	1,500	2,935
Townsite 46	MainPZ	9	1,500	6,545
Townsite 32	MainPZ	3	1,500	2,950
Townsite 33	MainPZ	8	1,500	6,679
J-234	MainPZ	8	1,500	6,674
Business 23	MainPZ	8	1,500	6,670
Business 24	MainPZ	4	1,500	4,198
J-231	MainPZ	8	1,500	6,673
J-230	MainPZ	4	1,500	4,022
Townsite 5	MainPZ	4	1,500	6,164
Townsite 6	MainPZ	3	1,500	978
Townsite 7	MainPZ	3	1,500	1,592
Townsite 34	MainPZ	8	1,500	6,672
Townsite 35	MainPZ	8	1,500	6,661
Townsite 8	MainPZ	3	1,500	2,217
Townsite 9	MainPZ	4	1,500	5,591
Townsite 10	MainPZ	4	1,500	6,099
Townsite 11	MainPZ	4	1,500	5,487
Townsite 12	MainPZ	4	1,500	6,203
Townsite 36	MainPZ	8	1,500	6,683
Townsite 13	MainPZ	7	1,500	6,859
Townsite 14	MainPZ	7	1,500	6,781
Townsite 15	MainPZ	7	1,500	6,772
Townsite 16	MainPZ	7	1,500	6,770
Townsite 17	MainPZ	7	1,500	6,764
J-211	MainPZ	6	1,500	2,779
J-210	MainPZ	4	1,500	2,779
J-209	MainPZ	4	1,500	3,239
Townsite 18	MainPZ	7	1,500	6,758
Townsite 19	MainPZ	7	1,500	6,757
J-206	MainPZ	7	1,500	6,738
J-205	MainPZ	4	1,500	4,734
J-204	MainPZ	5	1,500	4,473
J-203	MainPZ	7	1,500	6,743
J-202	MainPZ	4	1,500	3,028
J-201	MainPZ	4	1,500	4,423
Business 25	MainPZ	5	1,500	6,671

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
J-199	MainPZ	5	1,500	6,461
J-198	MainPZ	4	1,500	2,755
J-197	MainPZ	4	1,500	2,742
Hydrant 5A	MainPZ	6	1,500	2,909
Della View 1	MainPZ	4	1,500	2,705
Hydrant 5	MainPZ	6	1,500	2,872
J-193	MainPZ	4	1,500	2,750
J-192	MainPZ	4	1,500	2,807
J-191	MainPZ	4	1,500	2,751
J-190	MainPZ	4	1,500	2,606
J-189	MainPZ	4	1,500	2,888
J-188	MainPZ	4	1,500	2,773
J-187	MainPZ	4	1,500	2,844
J-186	MainPZ	4	1,500	2,822
J-185	MainPZ	4	1,500	2,901
J-184	MainPZ	4	1,500	2,859
Hydrant 5	MainPZ	4	1,500	2,805
J-182	MainPZ	4	1,500	2,938
Business 26	MainPZ	4	1,500	5,810
J-180	MainPZ	5	1,500	6,048
J-179	MainPZ	4	1,500	5,310
J-178	MainPZ	4	1,500	3,951
J-177	MainPZ	4	1,500	2,996
J-176	MainPZ	4	1,500	3,600
J-175	MainPZ	4	1,500	3,577
China Gardens 2	MainPZ	4	1,500	4,222
China Gardens 1	MainPZ	4	1,500	3,821
J-172	MainPZ	4	1,500	4,155
J-171	MainPZ	4	1,500	3,978
J-170	MainPZ	4	1,500	4,258
J-169	MainPZ	4	1,500	4,143
J-168	MainPZ	4	1,500	3,935
J-167	MainPZ	4	1,500	4,154
J-166	MainPZ	4	1,500	4,047
J-165	MainPZ	4	1,500	4,770
Business 27	MainPZ	8	1,500	6,669
J-163	MainPZ	4	1,500	4,279
J-162	MainPZ	3	1,500	1,527
Business 28	MainPZ	4	1,500	4,474
Business 29	MainPZ	4	1,500	3,811
J-159	MainPZ	3	1,500	3,204
Hydrant 4	MainPZ	6	1,500	4,523
J-157	MainPZ	4	1,500	3,760
J-156	MainPZ	4	1,500	3,804
Hydrant 4A	MainPZ	8	1,500	6,548
J-154	MainPZ	4	1,500	4,590
Business 20	MainPZ	8	1,500	6,565
Northstar 3	MainPZ	7	1,500	6,571

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
J-151	MainPZ	8	1,500	6,600
J-150	MainPZ	8	1,500	6,598
Business 19	MainPZ	6	1,500	6,538
J-148	MainPZ	7	1,500	6,528
J-147	MainPZ	4	1,500	6,113
Northstar 4	MainPZ	4	1,500	6,483
Hydrant 3A	MainPZ	7	1,500	6,491
Business 16	MainPZ	4	1,500	5,584
Business 6	MainPZ	8	1,500	6,400
Business 15	MainPZ	8	1,500	6,405
Northridge GR 2	MainPZ	6	1,500	6,365
Northridge GR 1	MainPZ	8	1,500	6,365
Northridge GR 3	MainPZ	8	1,500	6,325
Northridge GR 7	MainPZ	7	1,500	6,255
Northridge LR1 2	MainPZ	8	1,500	6,205
J-136	MainPZ	3	1,500	1,651
Hydrant 3	MainPZ	8	1,500	6,464
Business 17	MainPZ	8	1,500	6,455
J-133	MainPZ	8	1,500	6,424
J-132	MainPZ	8	1,500	6,401
J-131	MainPZ	8	1,500	6,397
Townsite 47	MainPZ	8	1,500	6,408
Townsite 48	MainPZ	8	1,500	6,414
Townsite 49	MainPZ	8	1,500	6,420
Townsite 50	MainPZ	8	1,500	6,423
Townsite 51	MainPZ	8	1,500	6,416
Hydrant 2	MainPZ	11	1,500	6,408
Hydrant 2A	MainPZ	4	1,500	5,359
Motherload 3	MainPZ	4	1,500	5,550
Motherload 1	MainPZ	7	1,500	6,267
J-121	MainPZ	3	1,500	2,066
Old Cutters 1	MainPZ	4	1,500	3,664
Townsite 20	MainPZ	(N/A)	1,500	(N/A)
J-119	MainPZ	8	1,500	6,313
J-118	MainPZ	8	1,500	6,106
J-117	MainPZ	8	1,500	5,925
Northridge LR1 3	MainPZ	8	1,500	5,977
Northridge LR1 4	MainPZ	17	1,500	5,993
Northridge LR2 9	MainPZ	8	1,500	5,987
Northridge LR2 7	MainPZ	7	1,500	5,970
Hydrant 1/Northridge LR2 2	MainPZ	8	1,500	5,961
Northridge LR2 3	MainPZ	8	1,500	5,954
Northridge LR2 4	MainPZ	8	1,500	5,928
J-11	MainPZ	(N/A)	1,500	(N/A)
Northridge LR2 6	MainPZ	8	1,500	5,928
J-108	MainPZ	8	1,500	5,905
J-106	MainPZ	3	1,500	1,573
J-105	MainPZ	3	1,500	1,222

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
J-104	MainPZ	3	1,500	1,152
J-103	MainPZ	8	1,500	5,440
J-102	MainPZ	8	1,500	5,821
Business 5	MainPZ	8	1,500	6,401
Northridge LR2 8	MainPZ	8	1,500	5,965
9	MainPZ	6	1,500	4,691
8	MainPZ	4	1,500	4,798
7	MainPZ	4	1,500	5,719
Northridge LR1 5	MainPZ	8	1,500	6,038
Northridge LR1 6	MainPZ	7	1,500	6,091
Northridge LR1 7	MainPZ	6	1,500	6,087
Northridge GR 9	MainPZ	7	1,500	6,248
6	MainPZ	4	1,500	5,941
Northridge GR 8	MainPZ	7	1,500	6,251
Northridge GR 6	MainPZ	9	1,500	6,253
Northridge LR1 8	MainPZ	8	1,500	6,240
Northridge GR 5	MainPZ	8	1,500	6,341
Northridge GR 4	MainPZ	8	1,500	6,346
SCI 1	MainPZ	4	1,500	3,043
Northridge GR 12	MainPZ	8	1,500	6,282
Northridge GR 13	MainPZ	4	1,500	3,627
Northridge LR1 9	MainPZ	8	1,500	6,173
420	MainPZ	9	1,500	6,035
Northridge GR 11	MainPZ	8	1,500	6,292
418	MainPZ	8	1,500	6,003
412	MainPZ	5	1,500	7,984
Northridge LR1 10	MainPZ	8	1,500	6,243
Business 14	MainPZ	7	1,500	6,396
Northridge GR 10	MainPZ	8	1,500	6,255
Business 7	MainPZ	8	1,500	6,366
Motherload 2	MainPZ	7	1,500	6,240
Business 1	MainPZ	4	1,500	4,780
Business 10	MainPZ	4	1,500	6,152
SCI 20	MainPZ	4	1,500	2,464
Old Cutters 14	MainPZ	13	1,500	2,236
Old Cutters 12	MainPZ	4	1,500	2,859
Old Cutters 7	MainPZ	4	1,500	3,440
Old Cutters 13	MainPZ	4	1,500	3,630
Old Cutters 11	MainPZ	4	1,500	4,216
Old Cutters 6	MainPZ	4	1,500	4,756
Old Cutters 8	MainPZ	4	1,500	4,686
Old Cutters 5	MainPZ	4	1,500	5,307
Old Cutters 10	MainPZ	4	1,500	4,468
Old Cutters 9	MainPZ	6	1,500	4,999
Old Cutters 4	MainPZ	6	1,500	5,728
Business 13	MainPZ	4	1,500	6,176
Business 11	MainPZ	7	1,500	6,426
Business 9	MainPZ	4	1,500	6,084

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Business 8	MainPZ	16	1,500	6,405
Business 4	MainPZ	8	1,500	6,402
Business 2	MainPZ	4	1,500	5,449
Business 3	MainPZ	4	1,500	5,077
SCI 19	MainPZ	4	1,500	2,516
SCI 18	MainPZ	4	1,500	2,560
SCI 17	MainPZ	6	1,500	2,540
SCI 16	MainPZ	4	1,500	2,544
SCI 15	MainPZ	4	1,500	2,525
SCI 14	MainPZ	4	1,500	2,533
SCI 13	MainPZ	4	1,500	2,526
SCI 12	MainPZ	4	1,500	2,533
SCI 11	MainPZ	4	1,500	2,550
SCI 10	MainPZ	4	1,500	3,189
SCI 9	MainPZ	4	1,500	2,525
SCI 7	MainPZ	6	1,500	2,553
SCI 6	MainPZ	22	1,500	2,586
SCI 5	MainPZ	6	1,500	2,736
SCI 4	MainPZ	6	1,500	2,833
SCI 3	MainPZ	4	1,500	3,073
170	MainPZ	4	1,500	3,509
168	MainPZ	4	1,500	3,674
166	MainPZ	4	1,500	3,318
164	MainPZ	4	1,500	3,469
SCI 2	MainPZ	4	1,500	3,144
160	MainPZ	8	1,500	6,546
158	MainPZ	8	1,500	6,602
Northstar 1	MainPZ	4	1,500	4,621
Northstar 2	MainPZ	6	1,500	6,548
152	MainPZ	8	1,500	6,536
J-1000	MainPZ	4	1,500	4,059
J-1001	MainPZ	4	1,500	4,129
J-1002	MainPZ	4	1,500	4,315
J-1003	MainPZ	4	1,500	4,775
Townsite 21	MainPZ	4	1,500	5,467
Townsite 22	MainPZ	4	1,500	5,537
Townsite 23	MainPZ	4	1,500	5,593
Townsite 24	MainPZ	4	1,500	5,457
Townsite 25	MainPZ	7	1,500	6,764
Townsite 26	MainPZ	7	1,500	6,778
Townsite 27	MainPZ	5	1,500	6,316
Townsite 28	MainPZ	4	1,500	6,143
J-41	MainPZ	12	1,500	1,499
Hiawatha 5	MainPZ	4	1,500	3,448
Northridge LR2 5	MainPZ	8	1,500	5,912
Dumke 1	MainPZ	4	1,500	3,946
Dumke 2	MainPZ	(N/A)	1,500	(N/A)
J-47	MainPZ	6	1,500	2,851

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
CityExpansion 1	MainPZ	(N/A)	1,500	(N/A)
CityExpansion 2	MainPZ	(N/A)	1,500	(N/A)
Hydrant 8	MainPZ	(N/A)	1,500	(N/A)
J-68	MainPZ	(N/A)	1,500	(N/A)
J-79	MainPZ	(N/A)	1,500	(N/A)
J-80	MainPZ	(N/A)	1,500	(N/A)
J-81	MainPZ	(N/A)	1,500	(N/A)
J54	UpperWoodsidePZ	10	1,500	3,082
C Woodside 3	UpperWoodsidePZ	17	1,500	2,996
J50	UpperWoodsidePZ	17	1,500	3,029
J48	UpperWoodsidePZ	17	1,500	3,065
J-88	UpperWoodsidePZ	4	1,500	6,074
J-87	UpperWoodsidePZ	6	1,500	4,243
J-49	UpperWoodsidePZ	6	1,500	6,325
J-48	UpperWoodsidePZ	6	1,500	6,173
J-45	UpperWoodsidePZ	17	1,500	2,043
J-346	UpperWoodsidePZ	4	1,500	2,787
Hydrant 9/Sweetwater 1	UpperWoodsidePZ	7	1,500	3,316
C Woodside 1	UpperWoodsidePZ	10	1,500	3,138
Sweetwater 2	UpperWoodsidePZ	8	1,500	3,297
Sweetwater 3	UpperWoodsidePZ	7	1,500	3,544
J-338	UpperWoodsidePZ	4	1,500	3,514
J-337	UpperWoodsidePZ	5	1,500	3,257
J-336	UpperWoodsidePZ	4	1,500	2,920
J-335	UpperWoodsidePZ	5	1,500	3,898
Sweetwater 4	UpperWoodsidePZ	8	1,500	3,539
J-333	UpperWoodsidePZ	8	1,500	3,737
C Woodside 10	UpperWoodsidePZ	6	1,500	3,939
J-331	UpperWoodsidePZ	6	1,500	4,234
J-330	UpperWoodsidePZ	6	1,500	4,282
J-33	UpperWoodsidePZ	8	1,500	3,578
C Woodside 9	UpperWoodsidePZ	6	1,500	4,066
J-328	UpperWoodsidePZ	6	1,500	4,055
J-327	UpperWoodsidePZ	6	1,500	5,996
J-326	UpperWoodsidePZ	6	1,500	6,094
J-325	UpperWoodsidePZ	4	1,500	6,087
J-324	UpperWoodsidePZ	4	1,500	5,853
J-323	UpperWoodsidePZ	4	1,500	4,639
J-322	UpperWoodsidePZ	6	1,500	5,185
J-321	UpperWoodsidePZ	6	1,500	5,170
J-320	UpperWoodsidePZ	6	1,500	4,402
Sweetwater 5	UpperWoodsidePZ	8	1,500	3,534
J-319	UpperWoodsidePZ	4	1,500	4,536
N Woodside 1	UpperWoodsidePZ	6	1,500	4,500
J-317	UpperWoodsidePZ	5	1,500	4,090
J-316	UpperWoodsidePZ	4	1,500	4,202
N Woodside 2	UpperWoodsidePZ	6	1,500	5,159
J-314	UpperWoodsidePZ	4	1,500	4,646

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
J-313	UpperWoodsidePZ	4	1,500	4,313
J-312	UpperWoodsidePZ	4	1,500	4,246
J-311	UpperWoodsidePZ	4	1,500	4,355
J-310	UpperWoodsidePZ	4	1,500	5,326
J-309	UpperWoodsidePZ	4	1,500	5,233
J-308	UpperWoodsidePZ	4	1,500	5,041
J-307	UpperWoodsidePZ	6	1,500	4,735
J-306	UpperWoodsidePZ	6	1,500	6,076
J-305	UpperWoodsidePZ	12	1,500	1,499
J-304	UpperWoodsidePZ	6	1,500	6,315
J-30	UpperWoodsidePZ	10	1,500	3,570
Sweetwater 6	UpperWoodsidePZ	4	1,500	3,543
J-25	UpperWoodsidePZ	17	1,500	3,568
J-24	UpperWoodsidePZ	9	1,500	3,563
J-23	UpperWoodsidePZ	9	1,500	3,559
J-220	UpperWoodsidePZ	6	1,500	4,581
J-22	UpperWoodsidePZ	4	1,500	2,807
J-21	UpperWoodsidePZ	4	1,500	3,139
J-20	UpperWoodsidePZ	5	1,500	3,413
J-19	UpperWoodsidePZ	10	1,500	3,368
J-18	UpperWoodsidePZ	5	1,500	3,307
J-17	UpperWoodsidePZ	9	1,500	3,269
J-16	UpperWoodsidePZ	5	1,500	3,286
J-15	UpperWoodsidePZ	5	1,500	3,346
J-14	UpperWoodsidePZ	5	1,500	3,437
J-13	UpperWoodsidePZ	4	1,500	3,564
J-107	UpperWoodsidePZ	8	1,500	3,622
Sweetwater 7	UpperWoodsidePZ	6	1,500	3,384
Sweetwater 8	UpperWoodsidePZ	9	1,500	3,422
Sweetwater 9	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Sweetwater 10	UpperWoodsidePZ	14	1,500	3,537
Sweetwater 11	UpperWoodsidePZ	9	1,500	3,524
88	UpperWoodsidePZ	9	1,500	3,574
Sweetwater 12	UpperWoodsidePZ	8	1,500	3,366
Sweetwater 13	UpperWoodsidePZ	17	1,500	3,370
Sweetwater 14	UpperWoodsidePZ	8	1,500	3,373
Sweetwater 15	UpperWoodsidePZ	9	1,500	3,376
Sweetwater 16	UpperWoodsidePZ	8	1,500	3,391
Sweetwater 17	UpperWoodsidePZ	17	1,500	3,389
Sweetwater 18	UpperWoodsidePZ	8	1,500	3,409
Sweetwater 19	UpperWoodsidePZ	17	1,500	3,410
Sweetwater 20	UpperWoodsidePZ	9	1,500	3,372
Sweetwater 21	UpperWoodsidePZ	9	1,500	3,369
416	UpperWoodsidePZ	4	1,500	3,719
C Woodside 2	UpperWoodsidePZ	15	1,500	2,864
32	UpperWoodsidePZ	20	1,500	3,616
C Woodside 4	UpperWoodsidePZ	7	1,500	3,646
292	UpperWoodsidePZ	6	1,500	4,066

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Sweetwater 22	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Sweetwater 23	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Sweetwater 24	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Sweetwater 25	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Sweetwater 26	UpperWoodsidePZ	(N/A)	1,500	(N/A)
280	UpperWoodsidePZ	4	1,500	2,301
Sweetwater 27	UpperWoodsidePZ	7	1,500	3,512
278	UpperWoodsidePZ	3	1,500	2,189
266	UpperWoodsidePZ	6	1,500	4,064
C Woodside 8	UpperWoodsidePZ	6	1,500	4,065
262	UpperWoodsidePZ	3	1,500	1,092
260	UpperWoodsidePZ	3	1,500	987
26	UpperWoodsidePZ	7	1,500	3,552
258	UpperWoodsidePZ	9	1,500	3,195
256	UpperWoodsidePZ	4	1,500	3,469
254	UpperWoodsidePZ	5	1,500	3,326
24	UpperWoodsidePZ	7	1,500	3,462
22	UpperWoodsidePZ	7	1,500	3,515
216	UpperWoodsidePZ	4	1,500	3,197
214	UpperWoodsidePZ	6	1,500	3,901
212	UpperWoodsidePZ	7	1,500	3,841
210	UpperWoodsidePZ	5	1,500	3,859
208	UpperWoodsidePZ	6	1,500	3,827
Hydrant 6	UpperWoodsidePZ	7	1,500	3,843
C Woodside 5	UpperWoodsidePZ	5	1,500	3,714
18	UpperWoodsidePZ	8	1,500	3,763
Hydrant 6A	UpperWoodsidePZ	7	1,500	3,708
Sweetwater 28	UpperWoodsidePZ	3	1,500	1,190
Sweetwater 29	UpperWoodsidePZ	3	1,500	1,188
Sweetwater 30	UpperWoodsidePZ	20	1,500	1,814
Sweetwater 31	UpperWoodsidePZ	8	1,500	3,381
Sweetwater 32	UpperWoodsidePZ	3	1,500	1,742
Sweetwater 33	UpperWoodsidePZ	8	1,500	3,348
C Woodside 7	UpperWoodsidePZ	6	1,500	4,010
Sweetwater 34	UpperWoodsidePZ	8	1,500	3,336
Sweetwater 35	UpperWoodsidePZ	8	1,500	3,345
Sweetwater 36	UpperWoodsidePZ	8	1,500	3,320
Sweetwater 37	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Sweetwater 38	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Sweetwater 39	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Sweetwater 40	UpperWoodsidePZ	6	1,500	3,297
Sweetwater 41	UpperWoodsidePZ	5	1,500	3,269
C Woodside 6	UpperWoodsidePZ	14	1,500	3,894
Sweetwater 42	UpperWoodsidePZ	4	1,500	3,168
Sweetwater 43	UpperWoodsidePZ	4	1,500	2,812
Sweetwater 44	UpperWoodsidePZ	4	1,500	2,911
Sweetwater 45	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Hydrant 9A/Sweetwater 46	UpperWoodsidePZ	4	1,500	3,071

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Sweetwater 47	UpperWoodsidePZ	8	1,500	3,267
Hydrant 9/Sweetwater 48	UpperWoodsidePZ	6	3,000	3,355
Sweetwater 49	UpperWoodsidePZ	6	1,500	3,364
Sweetwater 50	UpperWoodsidePZ	9	1,500	3,338
Sweetwater 51	UpperWoodsidePZ	(N/A)	1,500	(N/A)
10	UpperWoodsidePZ	6	1,500	3,877
FoxAcresPRV_DS	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Hydrant 6	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-59	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-60	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-61	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-62	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-63	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-64	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-65	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-66	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-84	UpperWoodsidePZ	16	1,500	2,897
Sunburst J-85	UpperWoodsidePZ	15	1,500	2,897
J-86	UpperWoodsidePZ	15	1,500	2,905
Sunburst J-87	UpperWoodsidePZ	8	1,500	2,906
J-88	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-89	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-90	UpperWoodsidePZ	13	1,500	2,904
Sunburst J-91	UpperWoodsidePZ	6	1,500	2,904
J-91	LowerWoodsidePZ	15	1,500	1,663
J-85	LowerWoodsidePZ	16	1,500	1,724
J-73	LowerWoodsidePZ	5	1,500	2,338
J-72	LowerWoodsidePZ	7	1,500	1,723
J-71	LowerWoodsidePZ	14	1,500	1,701
J-66	LowerWoodsidePZ	16	1,500	2,270
J-65	LowerWoodsidePZ	16	1,500	2,185
J-64	LowerWoodsidePZ	15	1,500	2,068
J-63	LowerWoodsidePZ	16	1,500	1,810
J-62	LowerWoodsidePZ	16	1,500	1,904
J-61	LowerWoodsidePZ	16	1,500	1,735
J-60	LowerWoodsidePZ	16	1,500	1,701
J-386	LowerWoodsidePZ	15	1,500	1,690
J-385	LowerWoodsidePZ	16	1,500	1,689
J-376	LowerWoodsidePZ	4	1,500	1,524
J-375	LowerWoodsidePZ	2	1,500	1,498
J-374	LowerWoodsidePZ	13	1,500	1,544
J-373	LowerWoodsidePZ	13	1,500	1,554
J-372	LowerWoodsidePZ	13	1,500	1,555
Hydrant 10	LowerWoodsidePZ	14	1,500	1,608
J-370	LowerWoodsidePZ	16	1,500	1,645
S Woodside 1	LowerWoodsidePZ	15	1,500	1,644
J-368	LowerWoodsidePZ	16	1,500	1,645
S Woodside 3	LowerWoodsidePZ	16	1,500	1,650

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Hydrant 10A	LowerWoodsidePZ	14	1,500	1,576
J-365	LowerWoodsidePZ	25	1,500	1,594
J-364	LowerWoodsidePZ	25	1,500	1,619
J-363	LowerWoodsidePZ	17	1,500	1,645
S Woodside 2	LowerWoodsidePZ	15	1,500	1,644
J-361	LowerWoodsidePZ	16	1,500	1,644
J-360	LowerWoodsidePZ	7	1,500	1,643
J-359	LowerWoodsidePZ	7	1,500	1,672
J-358	LowerWoodsidePZ	16	1,500	1,686
J-357	LowerWoodsidePZ	7	1,500	1,660
J-356	LowerWoodsidePZ	7	1,500	1,677
J-355	LowerWoodsidePZ	16	1,500	1,691
J-354	LowerWoodsidePZ	16	1,500	1,687
J-353	LowerWoodsidePZ	16	1,500	1,687
J-352	LowerWoodsidePZ	16	1,500	1,688
J-351	LowerWoodsidePZ	15	1,500	1,686
J-350	LowerWoodsidePZ	13	1,500	1,687
J-349	LowerWoodsidePZ	15	1,500	1,694
J-348	LowerWoodsidePZ	14	1,500	1,694
J-347	LowerWoodsidePZ	14	1,500	1,697
J-344	LowerWoodsidePZ	16	1,500	1,692
J-343	LowerWoodsidePZ	15	1,500	1,688
J-342	LowerWoodsidePZ	15	1,500	1,692
J-29	LowerWoodsidePZ	6	1,500	1,689
J-28	LowerWoodsidePZ	4	1,500	1,682
S Woodside 4	LowerWoodsidePZ	15	1,500	1,682
36	LowerWoodsidePZ	14	1,500	1,692
274	LowerWoodsidePZ	15	1,500	1,670
Hydrant 11	LowerWoodsidePZ	14	1,500	1,580
Hydrant 11A	LowerWoodsidePZ	14	1,500	1,585
SCI 8	LowerWoodsidePZ	17	1,500	2,379
138	LowerWoodsidePZ	14	1,500	1,693
136	LowerWoodsidePZ	4	1,500	1,676
Hydrant 10A	LowerWoodsidePZ	(N/A)	1,500	(N/A)

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
PRV-2-WOODSIDE_ND	<None>	(N/A)	1,500	(N/A)
PMP-WOODSIDE_ND	<None>	(N/A)	1,500	(N/A)
PMP-RIVERST_ND	<None>	(N/A)	1,500	(N/A)
PMP-3RDAV_ND	<None>	(N/A)	1,500	(N/A)
J68	<None>	(N/A)	1,500	(N/A)
J-6	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE	<None>	(N/A)	1,500	(N/A)
TurbineLine_J2	<None>	(N/A)	1,500	(N/A)
FoxAcresPRV_US	<None>	(N/A)	1,500	(N/A)
TurbineLine_J1	<None>	(N/A)	1,500	(N/A)
J-46	<None>	(N/A)	1,500	(N/A)
J-303	<None>	(N/A)	1,500	(N/A)
J-302	<None>	(N/A)	1,500	(N/A)
Townsite 20	<None>	(N/A)	1,500	(N/A)
J-11	<None>	(N/A)	1,500	(N/A)
Sweetwater 9	<None>	(N/A)	1,500	(N/A)
Sweetwater 22	<None>	(N/A)	1,500	(N/A)
Sweetwater 23	<None>	(N/A)	1,500	(N/A)
Sweetwater 24	<None>	(N/A)	1,500	(N/A)
Sweetwater 25	<None>	(N/A)	1,500	(N/A)
Sweetwater 26	<None>	(N/A)	1,500	(N/A)
Sweetwater 37	<None>	(N/A)	1,500	(N/A)
Sweetwater 38	<None>	(N/A)	1,500	(N/A)
Sweetwater 39	<None>	(N/A)	1,500	(N/A)
Sweetwater 45	<None>	(N/A)	1,500	(N/A)
Sweetwater 51	<None>	(N/A)	1,500	(N/A)
PMP-WOODSIDE_NU	<None>	(N/A)	1,500	(N/A)
PMP-RIVERST_NU	<None>	(N/A)	1,500	(N/A)
Northridge	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE-2_NU	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE-2_ND	<None>	(N/A)	1,500	(N/A)
J-26	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE-1_NU	<None>	(N/A)	1,500	(N/A)
PMP-NRIDGE-1_ND	<None>	(N/A)	1,500	(N/A)
PMP-3RDAV_NU	<None>	(N/A)	1,500	(N/A)
Springs	<None>	(N/A)	1,500	(N/A)
QuigleyLine_J1	<None>	(N/A)	1,500	(N/A)
J-79	<None>	(N/A)	1,500	(N/A)
J-80	<None>	(N/A)	1,500	(N/A)
PRV-2-WOODSIDE_NU	MainPZ	(N/A)	1,500	(N/A)
PRV-3-9001_NU	MainPZ	6	1,500	2,205
J62	MainPZ	(N/A)	1,500	(N/A)
J60	MainPZ	8	1,500	7,267
SCI 32	MainPZ	4	1,500	2,039
SCI 31	MainPZ	4	1,500	2,293
SCI 30	MainPZ	6	1,500	2,257
SCI 29	MainPZ	6	1,500	2,210
SCI 28	MainPZ	6	1,500	2,167

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
SCI 27	MainPZ	6	1,500	2,217
SCI 26	MainPZ	6	1,500	2,344
SCI 25	MainPZ	6	1,500	2,204
SCI 24	MainPZ	6	1,500	2,200
SCI 23	MainPZ	4	1,500	2,129
SCI 22	MainPZ	4	1,500	2,122
SCI 21	MainPZ	4	1,500	2,181
Old Cutters 3	MainPZ	3	1,500	1,861
Old Cutters 2	MainPZ	6	1,500	2,679
Deerfield 1	MainPZ	8	1,500	6,462
Northridge LR2 1	MainPZ	7	1,500	3,967
Hydrant 1A	MainPZ	8	1,500	3,967
Townsite 37	MainPZ	4	1,500	2,284
Hiawatha 3	MainPZ	4	1,500	3,465
Hiawatha 2	MainPZ	4	1,500	4,269
J-95	MainPZ	9	1,500	4,413
J-9	MainPZ	9	1,500	4,323
J-84	MainPZ	9	1,500	4,377
Townsite 29	MainPZ	9	1,500	4,420
Townsite 38	MainPZ	8	1,500	4,340
Townsite 39	MainPZ	4	1,500	2,489
J-8	MainPZ	12	1,500	4,307
J-79	MainPZ	4	1,500	2,586
J-78	MainPZ	9	1,500	4,312
J-67	MainPZ	6	1,500	2,564
J-54	MainPZ	9	1,500	3,896
J-53	MainPZ	8	1,500	3,902
J-52	MainPZ	8	1,500	3,901
Business 12	MainPZ	9	1,500	4,255
J-47	MainPZ	(N/A)	1,500	(N/A)
Northridge LR2 10	MainPZ	9	1,500	3,983
Northridge LR1 1	MainPZ	16	1,500	4,028
J-41	MainPZ	5	1,500	5,345
Deerfield 3	MainPZ	5	1,500	5,376
J-4	MainPZ	7	1,500	4,282
J-393	MainPZ	8	1,500	6,358
J-392	MainPZ	8	1,500	3,902
J-391	MainPZ	8	1,500	3,897
Townsite 1	MainPZ	16	1,500	4,455
J-39	MainPZ	5	1,500	5,617
Townsite 2	MainPZ	8	1,500	4,455
Townsite 3	MainPZ	9	1,500	4,456
Townsite 4	MainPZ	4	1,500	4,382
J-384	MainPZ	12	1,500	4,074
J-382	MainPZ	22	1,500	4,001
Deerfield 4	MainPZ	4	1,500	5,102
J-377	MainPZ	4	1,500	1,936
J-37	MainPZ	8	1,500	6,398

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Deerfield 2	MainPZ	8	1,500	6,336
J-35	MainPZ	8	1,500	6,308
J-34	MainPZ	4	1,500	3,542
J-301	MainPZ	10	1,500	6,075
J-300	MainPZ	10	1,500	5,990
J-3	MainPZ	15	1,500	3,909
Hydrant 8A/Hiawatha 1	MainPZ	4	1,500	4,403
Deerfield 6	MainPZ	4	1,500	4,457
Deerfield 5	MainPZ	4	1,500	4,313
J-296	MainPZ	4	1,500	3,836
J-295	MainPZ	4	1,500	3,991
Deerfield 7	MainPZ	4	1,500	3,717
J-293	MainPZ	8	1,500	6,204
Deerfield 14	MainPZ	4	1,500	4,195
J-291	MainPZ	4	1,500	3,620
J-290	MainPZ	4	1,500	3,321
Deerfield 13	MainPZ	4	1,500	3,259
Hydrant 7A/Deerfield 12	MainPZ	4	1,500	3,359
J-287	MainPZ	4	1,500	3,639
Deerfield 10	MainPZ	4	1,500	4,118
Deerfield 8	MainPZ	4	1,500	3,883
Hydrant 7/Deerfield 11	MainPZ	4	1,500	2,827
Deerfield 9	MainPZ	6	1,500	3,648
9990	MainPZ	8	1,500	5,919
Hydrant 8	MainPZ	5	1,500	5,533
J-280	MainPZ	10	1,500	5,251
J-279	MainPZ	7	1,500	4,603
Hiawatha 4	MainPZ	4	1,500	3,334
J-277	MainPZ	16	1,500	4,504
Hiawatha 6	MainPZ	4	1,500	3,179
J-275	MainPZ	8	1,500	5,317
J-274	MainPZ	6	1,500	4,819
J-273	MainPZ	4	1,500	3,456
J-272	MainPZ	4	1,500	3,604
J-271	MainPZ	4	1,500	4,387
J-270	MainPZ	10	1,500	5,111
J-269	MainPZ	9	1,500	4,811
J-268	MainPZ	16	1,500	4,742
J-267	MainPZ	17	1,500	4,612
J-266	MainPZ	17	1,500	4,394
J-265	MainPZ	8	1,500	4,296
J-264	MainPZ	8	1,500	4,335
J-263	MainPZ	8	1,500	4,315
J-262	MainPZ	6	1,500	4,308
J-261	MainPZ	12	1,500	3,903
Motherload 4	MainPZ	4	1,500	4,065
Motherload 5	MainPZ	4	1,500	4,277
Motherload 7	MainPZ	4	1,500	3,961

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Motherload 6	MainPZ	12	1,500	3,879
J-256	MainPZ	4	1,500	3,996
J-255	MainPZ	4	1,500	4,189
Townsite 40	MainPZ	4	1,500	2,647
Townsite 41	MainPZ	4	1,500	2,347
Townsite 42	MainPZ	4	1,500	2,369
Townsite 43	MainPZ	4	1,500	2,487
J-250	MainPZ	4	1,500	2,562
J-249	MainPZ	4	1,500	2,628
J-248	MainPZ	9	1,500	4,478
Business 21	MainPZ	9	1,500	4,331
Business 22	MainPZ	4	1,500	3,049
J-245	MainPZ	20	1,500	4,335
J-244	MainPZ	4	1,500	2,950
J-243	MainPZ	15	3,250	4,338
J-242	MainPZ	4	1,500	2,843
Townsite 44	MainPZ	15	3,250	4,339
Townsite 30	MainPZ	4	1,500	2,763
Townsite 45	MainPZ	16	1,500	4,344
Townsite 31	MainPZ	4	1,500	2,738
Townsite 46	MainPZ	18	1,500	4,356
Townsite 32	MainPZ	4	1,500	2,805
Townsite 33	MainPZ	9	1,500	4,421
J-234	MainPZ	9	1,500	4,418
Business 23	MainPZ	9	1,500	4,419
Business 24	MainPZ	4	1,500	3,991
J-231	MainPZ	9	1,500	4,418
J-230	MainPZ	4	1,500	3,812
Townsite 5	MainPZ	8	1,500	4,459
Townsite 6	MainPZ	7	1,500	4,451
Townsite 7	MainPZ	3	1,500	2,618
Townsite 34	MainPZ	9	1,500	4,421
Townsite 35	MainPZ	9	1,500	4,417
Townsite 8	MainPZ	3	1,500	2,163
Townsite 9	MainPZ	8	1,500	4,447
Townsite 10	MainPZ	16	1,500	4,453
Townsite 11	MainPZ	8	1,500	4,455
Townsite 12	MainPZ	9	1,500	4,454
Townsite 36	MainPZ	9	1,500	4,425
Townsite 13	MainPZ	9	1,500	4,548
Townsite 14	MainPZ	9	1,500	4,462
Townsite 15	MainPZ	15	1,500	4,459
Townsite 16	MainPZ	9	1,500	4,458
Townsite 17	MainPZ	9	1,500	4,457
J-211	MainPZ	4	1,500	2,564
J-210	MainPZ	4	1,500	2,567
J-209	MainPZ	4	1,500	2,960
Townsite 18	MainPZ	9	1,500	4,455

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Townsite 19	MainPZ	9	1,500	4,455
J-206	MainPZ	9	1,500	4,451
J-205	MainPZ	6	1,500	4,450
J-204	MainPZ	4	1,500	4,353
J-203	MainPZ	17	1,500	4,452
J-202	MainPZ	4	1,500	2,818
J-201	MainPZ	4	1,500	4,301
Business 25	MainPZ	16	1,500	4,448
J-2	MainPZ	15	1,500	3,918
J-199	MainPZ	8	1,500	4,447
J-198	MainPZ	4	1,500	2,606
J-197	MainPZ	4	1,500	2,515
Hydrant 5A	MainPZ	4	1,500	2,563
Della View 1	MainPZ	4	1,500	2,541
Hydrant 5	MainPZ	4	1,500	2,556
J-193	MainPZ	4	1,500	2,566
J-192	MainPZ	4	1,500	2,602
J-191	MainPZ	4	1,500	2,572
J-190	MainPZ	4	1,500	2,476
J-189	MainPZ	4	1,500	2,724
J-188	MainPZ	4	1,500	2,758
J-187	MainPZ	4	1,500	2,785
J-186	MainPZ	4	1,500	2,687
J-185	MainPZ	4	1,500	2,736
J-184	MainPZ	4	1,500	2,664
Hydrant 5	MainPZ	4	1,500	2,542
J-182	MainPZ	4	1,500	2,721
Business 26	MainPZ	8	1,500	4,434
J-180	MainPZ	8	1,500	4,442
J-179	MainPZ	8	1,500	4,440
J-178	MainPZ	4	1,500	3,695
J-177	MainPZ	4	1,500	2,917
J-176	MainPZ	4	1,500	3,370
J-175	MainPZ	4	1,500	3,360
China Gardens 2	MainPZ	4	1,500	3,943
China Gardens 1	MainPZ	4	1,500	3,595
J-172	MainPZ	4	1,500	3,919
J-171	MainPZ	4	1,500	3,769
J-170	MainPZ	4	1,500	4,025
J-169	MainPZ	4	1,500	3,938
J-168	MainPZ	4	1,500	3,749
J-167	MainPZ	4	1,500	3,975
J-166	MainPZ	4	1,500	3,876
J-165	MainPZ	6	1,500	4,410
Business 27	MainPZ	9	1,500	4,419
J-163	MainPZ	4	1,500	4,101
J-162	MainPZ	18	1,500	1,484
Business 28	MainPZ	4	1,500	4,352

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Business 29	MainPZ	4	1,500	3,771
J-159	MainPZ	4	1,500	3,067
Hydrant 4	MainPZ	6	1,500	4,312
J-157	MainPZ	4	1,500	3,623
J-156	MainPZ	4	1,500	3,633
Hydrant 4A	MainPZ	16	1,500	4,332
J-154	MainPZ	6	1,500	4,324
Business 20	MainPZ	9	1,500	4,318
Northstar 3	MainPZ	9	1,500	4,319
J-151	MainPZ	9	1,500	4,333
J-150	MainPZ	9	1,500	4,332
Business 19	MainPZ	16	1,500	4,305
J-148	MainPZ	11	1,500	4,301
J-147	MainPZ	7	1,500	4,300
Northstar 4	MainPZ	15	1,500	4,290
Hydrant 3A	MainPZ	10	1,500	4,289
Business 16	MainPZ	7	1,500	4,260
Business 6	MainPZ	9	1,500	4,244
Business 15	MainPZ	9	1,500	4,246
Northridge GR 2	MainPZ	16	1,500	4,227
Northridge GR 1	MainPZ	19	1,500	4,228
Northridge GR 3	MainPZ	9	1,500	4,203
Northridge GR 7	MainPZ	17	1,500	4,155
Northridge LR1 2	MainPZ	9	1,500	4,112
J-136	MainPZ	3	1,500	1,571
Hydrant 3	MainPZ	9	1,500	4,274
Business 17	MainPZ	9	1,500	4,270
J-133	MainPZ	9	1,500	4,257
J-132	MainPZ	9	1,500	4,249
J-131	MainPZ	9	1,500	4,249
Townsite 47	MainPZ	9	1,500	4,259
Townsite 48	MainPZ	9	1,500	4,264
Townsite 49	MainPZ	9	1,500	4,270
Townsite 50	MainPZ	9	1,500	4,273
Townsite 51	MainPZ	9	1,500	4,274
Hydrant 2	MainPZ	9	1,500	4,272
Hydrant 2A	MainPZ	7	1,500	4,257
Motherload 3	MainPZ	8	1,500	4,222
Motherload 1	MainPZ	11	1,500	4,201
J-121	MainPZ	3	1,500	1,942
Old Cutters 1	MainPZ	4	1,500	3,360
J-119	MainPZ	9	1,500	4,215
J-118	MainPZ	12	1,500	4,071
J-117	MainPZ	9	1,500	3,971
Northridge LR1 3	MainPZ	9	1,500	3,973
Northridge LR1 4	MainPZ	9	1,500	3,985
Northridge LR2 9	MainPZ	9	1,500	3,981
Northridge LR2 7	MainPZ	8	1,500	3,967

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Hydrant 1/Northridge LR2 2	MainPZ	9	1,500	3,959
Northridge LR2 3	MainPZ	8	1,500	3,953
Northridge LR2 4	MainPZ	8	1,500	3,931
Northridge LR2 6	MainPZ	8	1,500	3,931
J-108	MainPZ	8	1,500	3,902
J-106	MainPZ	7	1,500	2,499
J-105	MainPZ	6	1,500	1,995
J-104	MainPZ	3	1,500	1,607
J-103	MainPZ	8	1,500	3,652
J-102	MainPZ	8	1,500	3,866
J-101	MainPZ	9	1,500	3,752
J-100	MainPZ	8	1,500	3,871
Business 5	MainPZ	9	1,500	4,244
Northridge LR2 8	MainPZ	8	1,500	3,963
9	MainPZ	4	1,500	4,403
8	MainPZ	4	1,500	4,458
7	MainPZ	5	1,500	5,270
Northridge LR1 5	MainPZ	8	1,500	4,018
Northridge LR1 6	MainPZ	16	1,500	4,049
Northridge LR1 7	MainPZ	16	1,500	4,048
Northridge GR 9	MainPZ	17	1,500	4,139
6	MainPZ	7	1,500	5,472
Northridge GR 8	MainPZ	16	1,500	4,143
Northridge GR 6	MainPZ	9	1,500	4,146
Northridge LR1 8	MainPZ	9	1,500	4,131
Northridge GR 5	MainPZ	9	1,500	4,211
Northridge GR 4	MainPZ	9	1,500	4,216
SCI 1	MainPZ	4	1,500	2,666
Northridge GR 12	MainPZ	9	1,500	4,153
Northridge GR 13	MainPZ	4	1,500	3,446
Northridge LR1 9	MainPZ	9	1,500	4,092
420	MainPZ	19	1,500	4,019
Northridge GR 11	MainPZ	9	1,500	4,159
418	MainPZ	9	1,500	3,996
412	MainPZ	7	1,500	6,844
Northridge LR1 10	MainPZ	9	1,500	4,132
Business 14	MainPZ	16	1,500	4,241
Northridge GR 10	MainPZ	9	1,500	4,138
Business 7	MainPZ	10	1,500	4,226
Motherload 2	MainPZ	11	1,500	4,201
Business 1	MainPZ	7	1,500	4,246
Business 10	MainPZ	7	1,500	4,250
SCI 20	MainPZ	4	1,500	2,164
Old Cutters 14	MainPZ	4	1,500	2,043
Old Cutters 12	MainPZ	4	1,500	2,920
Old Cutters 7	MainPZ	4	1,500	3,488
Old Cutters 13	MainPZ	6	1,500	3,334
Old Cutters 11	MainPZ	6	1,500	3,960

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Old Cutters 6	MainPZ	8	1,500	4,198
Old Cutters 8	MainPZ	10	1,500	4,197
Old Cutters 5	MainPZ	8	1,500	4,200
Old Cutters 10	MainPZ	8	1,500	4,197
Old Cutters 9	MainPZ	8	1,500	4,197
Old Cutters 4	MainPZ	11	1,500	4,196
Business 13	MainPZ	10	1,500	4,257
Business 11	MainPZ	9	1,500	4,256
Business 9	MainPZ	16	1,500	4,249
Business 8	MainPZ	12	1,500	4,246
Business 4	MainPZ	10	1,500	4,245
Business 2	MainPZ	7	1,500	4,246
Business 3	MainPZ	7	1,500	4,247
SCI 19	MainPZ	6	1,500	2,222
SCI 18	MainPZ	6	1,500	2,228
SCI 17	MainPZ	6	1,500	2,205
SCI 16	MainPZ	6	1,500	2,208
SCI 15	MainPZ	6	1,500	2,212
SCI 14	MainPZ	6	1,500	2,215
SCI 13	MainPZ	6	1,500	2,216
SCI 12	MainPZ	6	1,500	2,215
SCI 11	MainPZ	6	1,500	2,218
SCI 10	MainPZ	4	1,500	2,826
SCI 9	MainPZ	6	1,500	2,205
SCI 7	MainPZ	6	1,500	2,213
SCI 6	MainPZ	6	1,500	2,218
SCI 5	MainPZ	6	1,500	2,406
SCI 4	MainPZ	6	1,500	2,493
SCI 3	MainPZ	4	1,500	2,753
170	MainPZ	4	1,500	3,343
168	MainPZ	4	1,500	3,571
166	MainPZ	4	1,500	3,213
164	MainPZ	5	1,500	3,135
SCI 2	MainPZ	4	1,500	2,784
160	MainPZ	9	1,500	4,360
158	MainPZ	17	1,500	4,396
Northstar 1	MainPZ	6	1,500	4,309
Northstar 2	MainPZ	17	1,500	4,309
152	MainPZ	9	1,500	4,304
J-1000	MainPZ	4	1,500	3,856
J-1001	MainPZ	4	1,500	3,915
J-1002	MainPZ	5	1,500	4,111
J-1003	MainPZ	6	1,500	4,451
Townsite 21	MainPZ	8	1,500	4,454
Townsite 22	MainPZ	8	1,500	4,454
Townsite 23	MainPZ	8	1,500	4,454
Townsite 24	MainPZ	8	1,500	4,455
Townsite 25	MainPZ	16	1,500	4,457

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Townsite 26	MainPZ	15	1,500	4,461
Townsite 27	MainPZ	10	1,500	4,460
Townsite 28	MainPZ	8	1,500	4,459
J-41	MainPZ	4	1,500	3,722
Hiawatha 5	MainPZ	4	1,500	3,327
Northridge LR2 5	MainPZ	8	1,500	3,909
Dumke 1	MainPZ	4	1,500	3,629
Dumke 2	MainPZ	(N/A)	1,500	(N/A)
J-47	MainPZ	6	1,500	2,509
CityExpansion 1	MainPZ	(N/A)	1,500	(N/A)
CityExpansion 2	MainPZ	(N/A)	1,500	(N/A)
FoxAcresPRV_US	MainPZ	(N/A)	1,500	(N/A)
PRV2_US	MainPZ	(N/A)	1,500	(N/A)
Hydrant 8	MainPZ	(N/A)	1,500	(N/A)
J-68	MainPZ	(N/A)	1,500	(N/A)
J-81	MainPZ	(N/A)	1,500	(N/A)
J54	UpperWoodsidePZ	18	1,500	2,484
C Woodside 3	UpperWoodsidePZ	18	1,500	2,422
J50	UpperWoodsidePZ	18	1,500	2,445
J48	UpperWoodsidePZ	18	1,500	2,472
J-88	UpperWoodsidePZ	7	1,500	5,127
J-87	UpperWoodsidePZ	8	1,500	3,440
J-49	UpperWoodsidePZ	8	1,500	5,338
J-48	UpperWoodsidePZ	8	1,500	5,208
J-45	UpperWoodsidePZ	3	1,500	1,923
J-346	UpperWoodsidePZ	4	1,500	2,521
Hydrant 9/Sweetwater 1	UpperWoodsidePZ	19	1,500	2,626
C Woodside 1	UpperWoodsidePZ	18	1,500	2,524
Sweetwater 2	UpperWoodsidePZ	19	1,500	2,618
Sweetwater 3	UpperWoodsidePZ	17	1,500	2,796
J-338	UpperWoodsidePZ	9	1,500	3,010
J-337	UpperWoodsidePZ	5	1,500	2,970
J-336	UpperWoodsidePZ	4	1,500	2,595
J-335	UpperWoodsidePZ	14	1,500	3,420
Sweetwater 4	UpperWoodsidePZ	9	1,500	2,798
J-333	UpperWoodsidePZ	8	1,500	2,956
C Woodside 10	UpperWoodsidePZ	7	1,500	3,170
J-331	UpperWoodsidePZ	7	1,500	3,406
J-330	UpperWoodsidePZ	7	1,500	3,443
J-33	UpperWoodsidePZ	17	1,500	2,824
C Woodside 9	UpperWoodsidePZ	7	1,500	3,277
J-328	UpperWoodsidePZ	11	1,500	3,283
J-327	UpperWoodsidePZ	8	1,500	4,936
J-326	UpperWoodsidePZ	7	1,500	5,143
J-325	UpperWoodsidePZ	7	1,500	5,098
J-324	UpperWoodsidePZ	6	1,500	5,020
J-323	UpperWoodsidePZ	17	1,500	4,120
J-322	UpperWoodsidePZ	8	1,500	4,255

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
J-321	UpperWoodsidePZ	8	1,500	4,199
J-320	UpperWoodsidePZ	8	1,500	3,579
Sweetwater 5	UpperWoodsidePZ	18	1,500	2,794
J-319	UpperWoodsidePZ	6	1,500	3,736
N Woodside 1	UpperWoodsidePZ	8	1,500	3,624
J-317	UpperWoodsidePZ	5	1,500	3,620
J-316	UpperWoodsidePZ	17	1,500	3,778
N Woodside 2	UpperWoodsidePZ	8	1,500	4,190
J-314	UpperWoodsidePZ	4	1,500	4,136
J-313	UpperWoodsidePZ	4	1,500	3,862
J-312	UpperWoodsidePZ	17	1,500	3,839
J-311	UpperWoodsidePZ	4	1,500	3,923
J-310	UpperWoodsidePZ	7	1,500	4,642
J-309	UpperWoodsidePZ	7	1,500	4,563
J-308	UpperWoodsidePZ	4	1,500	4,395
J-307	UpperWoodsidePZ	4	1,500	4,245
J-306	UpperWoodsidePZ	7	1,500	5,128
J-305	UpperWoodsidePZ	6	1,500	4,046
J-304	UpperWoodsidePZ	8	1,500	5,188
J-30	UpperWoodsidePZ	17	1,500	2,817
Sweetwater 6	UpperWoodsidePZ	8	1,500	2,800
J-25	UpperWoodsidePZ	18	1,500	2,816
J-24	UpperWoodsidePZ	18	1,500	2,811
J-23	UpperWoodsidePZ	17	1,500	2,806
J-220	UpperWoodsidePZ	4	1,500	4,249
J-22	UpperWoodsidePZ	4	1,500	2,491
J-21	UpperWoodsidePZ	5	1,500	2,811
J-20	UpperWoodsidePZ	7	1,500	2,990
J-19	UpperWoodsidePZ	7	1,500	2,988
J-18	UpperWoodsidePZ	5	1,500	2,967
J-17	UpperWoodsidePZ	5	1,500	2,919
J-16	UpperWoodsidePZ	5	1,500	2,923
J-15	UpperWoodsidePZ	7	1,500	2,981
J-14	UpperWoodsidePZ	7	1,500	2,979
J-13	UpperWoodsidePZ	9	1,500	2,977
J-107	UpperWoodsidePZ	17	1,500	2,858
Sweetwater 7	UpperWoodsidePZ	9	1,500	2,675
Sweetwater 8	UpperWoodsidePZ	17	1,500	2,702
Sweetwater 10	UpperWoodsidePZ	17	1,500	2,789
Sweetwater 11	UpperWoodsidePZ	17	1,500	2,779
88	UpperWoodsidePZ	17	1,500	2,817
Sweetwater 12	UpperWoodsidePZ	18	1,500	2,661
Sweetwater 13	UpperWoodsidePZ	18	1,500	2,664
Sweetwater 14	UpperWoodsidePZ	18	1,500	2,667
Sweetwater 15	UpperWoodsidePZ	18	1,500	2,669
Sweetwater 16	UpperWoodsidePZ	18	1,500	2,680
Sweetwater 17	UpperWoodsidePZ	18	1,500	2,678
Sweetwater 18	UpperWoodsidePZ	11	1,500	2,692

Fire Flow Node FlexTable: Fire Flow Report

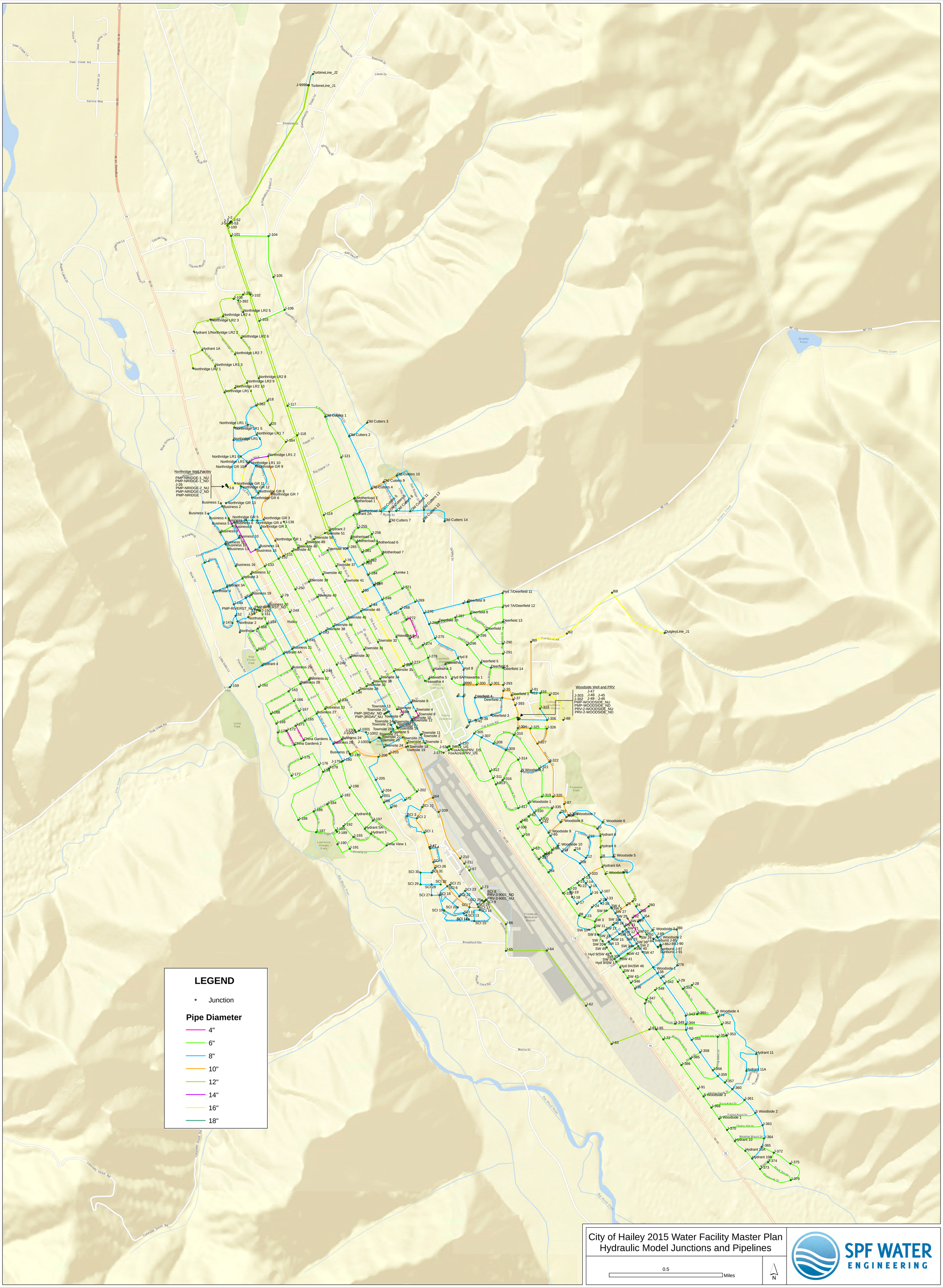
Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Sweetwater 19	UpperWoodsidePZ	18	1,500	2,693
Sweetwater 20	UpperWoodsidePZ	18	1,500	2,666
Sweetwater 21	UpperWoodsidePZ	18	1,500	2,663
416	UpperWoodsidePZ	5	1,500	3,237
C Woodside 2	UpperWoodsidePZ	15	1,500	2,326
32	UpperWoodsidePZ	9	1,500	2,864
C Woodside 4	UpperWoodsidePZ	9	1,500	2,891
292	UpperWoodsidePZ	7	1,500	3,287
280	UpperWoodsidePZ	4	1,500	1,907
Sweetwater 27	UpperWoodsidePZ	9	1,500	2,775
278	UpperWoodsidePZ	6	1,500	1,907
266	UpperWoodsidePZ	8	1,500	3,287
C Woodside 8	UpperWoodsidePZ	8	1,500	3,286
262	UpperWoodsidePZ	9	1,500	2,566
260	UpperWoodsidePZ	9	1,500	2,566
26	UpperWoodsidePZ	9	1,500	2,810
258	UpperWoodsidePZ	10	1,500	2,566
256	UpperWoodsidePZ	12	1,500	3,127
254	UpperWoodsidePZ	5	1,500	3,055
24	UpperWoodsidePZ	9	1,500	2,745
22	UpperWoodsidePZ	9	1,500	2,786
216	UpperWoodsidePZ	5	1,500	2,926
214	UpperWoodsidePZ	7	1,500	3,137
212	UpperWoodsidePZ	9	1,500	3,094
210	UpperWoodsidePZ	14	1,500	3,122
208	UpperWoodsidePZ	9	1,500	3,075
Hydrant 6	UpperWoodsidePZ	18	1,500	3,113
C Woodside 5	UpperWoodsidePZ	9	1,500	3,002
18	UpperWoodsidePZ	8	1,500	2,987
Hydrant 6A	UpperWoodsidePZ	8	1,500	2,941
Sweetwater 28	UpperWoodsidePZ	14	1,500	2,659
Sweetwater 29	UpperWoodsidePZ	8	1,500	2,664
Sweetwater 30	UpperWoodsidePZ	17	1,500	2,664
Sweetwater 31	UpperWoodsidePZ	18	1,500	2,669
Sweetwater 32	UpperWoodsidePZ	17	1,500	2,659
Sweetwater 33	UpperWoodsidePZ	18	1,500	2,654
C Woodside 7	UpperWoodsidePZ	8	1,500	3,245
Sweetwater 34	UpperWoodsidePZ	18	1,500	2,642
Sweetwater 35	UpperWoodsidePZ	18	1,500	2,647
Sweetwater 36	UpperWoodsidePZ	9	1,500	2,632
Sweetwater 40	UpperWoodsidePZ	15	1,500	2,618
Sweetwater 41	UpperWoodsidePZ	9	1,500	2,624
C Woodside 6	UpperWoodsidePZ	12	1,500	3,137
Sweetwater 42	UpperWoodsidePZ	9	1,500	2,622
Sweetwater 43	UpperWoodsidePZ	4	1,500	2,533
Sweetwater 44	UpperWoodsidePZ	6	1,500	2,612
Hydrant 9A/Sweetwater 46	UpperWoodsidePZ	9	1,500	2,617
Sweetwater 47	UpperWoodsidePZ	10	1,500	2,605

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Hydrant 9/Sweetwater 48	UpperWoodsidePZ	12	3,000	2,654
Sweetwater 49	UpperWoodsidePZ	8	1,500	2,660
Sweetwater 50	UpperWoodsidePZ	10	1,500	2,642
10	UpperWoodsidePZ	18	1,500	3,129
J-53	UpperWoodsidePZ	(N/A)	1,500	(N/A)
FoxAcresPRV_DS	UpperWoodsidePZ	(N/A)	1,500	(N/A)
Hydrant 6	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-59	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-60	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-61	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-62	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-63	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-64	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-65	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-66	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-84	UpperWoodsidePZ	18	1,500	2,350
Sunburst J-85	UpperWoodsidePZ	18	1,500	2,350
J-86	UpperWoodsidePZ	11	1,500	2,356
Sunburst J-87	UpperWoodsidePZ	15	1,500	2,356
J-88	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-89	UpperWoodsidePZ	(N/A)	1,500	(N/A)
J-90	UpperWoodsidePZ	9	1,500	2,355
Sunburst J-91	UpperWoodsidePZ	17	1,500	2,355
PRV-3-9001_ND	LowerWoodsidePZ	8	1,500	2,190
J-91	LowerWoodsidePZ	14	1,500	1,561
J-85	LowerWoodsidePZ	25	1,500	1,590
J-73	LowerWoodsidePZ	7	1,500	2,190
J-72	LowerWoodsidePZ	25	1,500	1,590
J-71	LowerWoodsidePZ	15	1,500	1,542
J-66	LowerWoodsidePZ	14	1,500	2,087
J-65	LowerWoodsidePZ	15	1,500	2,011
J-64	LowerWoodsidePZ	14	1,500	1,904
J-63	LowerWoodsidePZ	14	1,500	1,669
J-62	LowerWoodsidePZ	14	1,500	1,756
J-61	LowerWoodsidePZ	25	1,500	1,601
J-60	LowerWoodsidePZ	25	1,500	1,569
J-386	LowerWoodsidePZ	17	1,500	1,577
J-385	LowerWoodsidePZ	24	1,500	1,574
J-376	LowerWoodsidePZ	4	1,500	1,462
J-375	LowerWoodsidePZ	3	1,500	1,413
J-374	LowerWoodsidePZ	4	1,500	1,459
J-373	LowerWoodsidePZ	3	1,500	1,464
J-372	LowerWoodsidePZ	4	1,500	1,465
Hydrant 10	LowerWoodsidePZ	6	1,500	1,517
J-370	LowerWoodsidePZ	18	1,500	1,522
S Woodside 1	LowerWoodsidePZ	20	1,500	1,546
J-368	LowerWoodsidePZ	24	1,500	1,568
S Woodside 3	LowerWoodsidePZ	24	1,500	1,569

Fire Flow Node FlexTable: Fire Flow Report

Label	Zone	Fire Flow Iterations	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)
Hydrant 10A	LowerWoodsidePZ	14	1,500	1,517
J-365	LowerWoodsidePZ	5	1,500	1,517
J-364	LowerWoodsidePZ	4	1,500	1,516
J-363	LowerWoodsidePZ	3	1,500	1,515
S Woodside 2	LowerWoodsidePZ	3	1,500	1,537
J-361	LowerWoodsidePZ	15	1,500	1,568
J-360	LowerWoodsidePZ	25	1,500	1,568
J-359	LowerWoodsidePZ	25	1,500	1,570
J-358	LowerWoodsidePZ	24	1,500	1,570
J-357	LowerWoodsidePZ	25	1,500	1,569
J-356	LowerWoodsidePZ	25	1,500	1,570
J-355	LowerWoodsidePZ	25	1,500	1,569
J-354	LowerWoodsidePZ	23	1,500	1,567
J-353	LowerWoodsidePZ	17	1,500	1,567
J-352	LowerWoodsidePZ	17	1,500	1,558
J-351	LowerWoodsidePZ	23	1,500	1,545
J-350	LowerWoodsidePZ	5	1,500	1,486
J-349	LowerWoodsidePZ	16	1,500	1,544
J-348	LowerWoodsidePZ	5	1,500	1,529
J-347	LowerWoodsidePZ	17	1,500	1,533
J-344	LowerWoodsidePZ	25	1,500	1,555
J-343	LowerWoodsidePZ	23	1,500	1,544
J-342	LowerWoodsidePZ	8	1,500	1,515
J-29	LowerWoodsidePZ	10	1,500	1,465
J-28	LowerWoodsidePZ	10	1,500	1,456
S Woodside 4	LowerWoodsidePZ	13	1,500	1,544
36	LowerWoodsidePZ	5	1,500	1,496
274	LowerWoodsidePZ	13	1,500	1,547
Hydrant 11	LowerWoodsidePZ	3	1,500	1,510
Hydrant 11A	LowerWoodsidePZ	23	1,500	1,524
SCI 8	LowerWoodsidePZ	9	1,500	2,190
138	LowerWoodsidePZ	3	1,500	1,481
136	LowerWoodsidePZ	10	1,500	1,498
Hydrant 10A	LowerWoodsidePZ	(N/A)	1,500	(N/A)



City of Hailey 2015 Water Facility Master Plan
Hydraulic Model Junctions and Pipelines

0.5 Miles

N

SPF WATER ENGINEERING

Water System Master Plan

Appendix C

Water Rights

SPF WATER ENGINEERING

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

DISTRICT COURT - SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho
MAR 29 2012
By _____ Clerk
Deputy Clerk

In Re SRBA)
)
Case No. 39576)
)

PARTIAL DECREE PURSUANT TO
I.R.C.P. 54(b) FOR

Water Right 37-00296A

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST # H
HAILEY, ID 83333

SOURCE: INDIAN CREEK SPRING TRIBUTARY: INDIAN CREEK

QUANTITY: 2.62 CFS

Right Nos. 37-296A, 37-717A, 37-717B, 37-1216 and 37-7854 are limited to a total combined diversion rate of 3.38 cfs.

PRIORITY DATE: 04/01/1880

Pursuant to a call in times of scarcity, this right is senior to Water Right Nos. 37-296B and 37-296C.

POINT OF DIVERSION: T03N R18E S23 SENW Within Blaine County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	04-15 TO 10-31	2.62 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-00717A

DISTRICT COURT - SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho
MAR 29 2012
By _____ Clerk
Deputy Clerk

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST #H
HAILEY, ID 83333

SOURCE: INDIAN CREEK SPRING TRIBUTARY: INDIAN CREEK

QUANTITY: 1.72 CFS

Right Nos. 37-296A, 37-717A, 37-717B, 37-1216 and 37-7854 are limited to a total combined diversion rate of 3.38 cfs.

PRIORITY DATE: 08/01/1907

Pursuant to a call in times of scarcity, this right is senior to Water Right Nos. 37-296B and 37-296C.

POINT OF DIVERSION: T03N R18E S23 SENW Within Blaine County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	11-01 TO 04-14	1.72 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

This right is a portion of former right No. 37-717.
THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-00717B

DISTRICT COURT - SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho
MAR 29 2012
By _____ Clerk
Deputy Clerk

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST #H
HAILEY, ID 83333

SOURCE: INDIAN CREEK SPRING TRIBUTARY: INDIAN CREEK

QUANTITY: 0.76 CFS

Right Nos. 37-296A, 37-717A, 37-717B, 37-1216 and 37-7854 are limited to a total combined diversion rate of 3.38 cfs.

PRIORITY DATE: 08/01/1907

Pursuant to a call in times of scarcity, this right is junior to Water Right No. 37-19470.

POINT OF DIVERSION: T03N R18E S23 SENW Within Blaine County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	01-01 TO 12-31	0.76 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

This right is a portion of former right No. 37-717.
THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

DISTRICT COURT - SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho

MAR 29 2012

By _____ Clerk
Deputy Clerk

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-01216

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST # H
HAILEY, ID 83333

SOURCE: INDIAN CREEK SPRING TRIBUTARY: INDIAN CREEK

QUANTITY: 0.90 CFS

Right Nos. 37-296A, 37-717A, 37-717B, 37-1216 and 37-7854 are limited to a total combined diversion rate of 3.38 cfs.

PRIORITY DATE: 04/01/1884

Pursuant to a call in times of scarcity, this right is senior to Water Right Nos. 37-296B and 37-296C.

POINT OF DIVERSION: T03N R18E S23 SENW Within Blaine County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	11-01 TO 04-14	0.90 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

2010 SEP 24 PM 02:00
DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO
FILED _____

RECEIVED
SEP 28 2010
DEPARTMENT OF
WATER RESOURCES

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-02698

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST # H
HAILEY, ID 83333

SOURCE: GROUND WATER

QUANTITY: 2.56 CFS

The total instantaneous diversion of water from all points of diversion under transfer no. 4508 shall not exceed 7.18 cfs.

PRIORITY DATE: 10/29/1964

POINT OF DIVERSION:

T02N R18E	S04	SESW	Within Blaine County
	S09	SENW	
		SESE	
	S10	SWSE	

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	01-01 TO 12-31	2.56 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

2010 SEP 24 PM 02:00
DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO
FILED _____

RECEIVED
SEP 28 2010
DEPARTMENT OF
WATER RESOURCES

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-02699

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST # H
HAILEY, ID 83333

SOURCE: GROUND WATER

QUANTITY: 2.00 CFS

The total instantaneous diversion of water from all points of diversion under transfer no. 4508 shall not exceed 7.18 cfs.

PRIORITY DATE: 08/11/1964

POINT OF DIVERSION:

T02N R18E	S04	SESW	Within Blaine County
	S09	SENW	
		SESE	
	S10	SWSE	

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	01-01 TO 12-31	2.00 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

2010 SEP 24 PM 02:00
DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO
FILED _____

RECEIVED
SEP 28 2010
DEPARTMENT OF
WATER RESOURCES

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-07305

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST # H
HAILEY, ID 83333

SOURCE: GROUND WATER

QUANTITY: 2.62 CFS

The total instantaneous diversion of water from all points of diversion under transfer no. 4508 shall not exceed 7.18 cfs.

PRIORITY DATE: 11/04/1973

POINT OF DIVERSION:

T02N R18E	S04	SESW	Within Blaine County
	S09	SENW	
		SESE	
	S10	SWSE	

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	01-01 TO 12-31	2.62 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-07854

DISTRICT COURT - SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho
MAR 29 2012
By _____ Clerk
_____ Deputy Clerk

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST # H
HAILEY, ID 83333

SOURCE: INDIAN CREEK SPRING TRIBUTARY: INDIAN CREEK

QUANTITY: 3.38 CFS
2450.00 AFY

PRIORITY DATE: 07/23/1980

The rights for the use of water confirmed in this right shall be junior and subordinate to all rights for the use of water other than hydropower, within the State of Idaho that are initiated later in time than the priority of this right and shall not give rise to any right or claim against any future rights for the use of water, other than hydropower, within the State of Idaho initiated later in time than the priority of this right.

POINT OF DIVERSION: T03N R18E S23 SWSENW Within Blaine County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Power	01-01 TO 12-31	3.38 CFS 2450.00 AFY

Use of water under this right shall be non-consumptive.
Power generation is at the Indian Creek Spring Power Plant.

PLACE OF USE: Power Within Blaine County
T03N R18E S33 NWNE

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

The diversion and use of water for hydropower purposes under this right is subject to review by the Director on or after June 14, 2020. Upon appropriate findings relative to the interest of the public, the Director may cancel all or any part of the use authorized herein and may revise, delete or add conditions under which the right may be exercised.

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

State of Idaho
Department of Water Resources

Water Right License

WATER RIGHT NO. 37-08837

Priority: September 10, 2001 Maximum Diversion Rate: 4.67 CFS

It is hereby certified that CITY OF HAILEY
115 S MAIN ST #H
HAILEY ID 83333 has complied with the terms and conditions of the permit, issued pursuant to Application for Permit dated November 04, 1994; and has submitted Proof of Beneficial Use on September 10, 2001. An examination indicates that the workshave a diversion capacity of 12.69 cfs of water from:

SOURCE
GROUND WATER

and a water right has been established as follows:

BENEFICIAL USE	PERIOD OF USE	DIVERSION RATE
MUNICIPAL	01/01 to 12/31	4.67 CFS

LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER BLAINE County	SE1/4SW1/4	Sec. 4, Twp 02N, Rge 18E, B.M.
GROUND WATER BLAINE County	SE1/4NW1/4	Sec. 9, Twp 02N, Rge 18E, B.M.
GROUND WATER BLAINE County	SE1/4SE1/4	Sec. 9, Twp 02N, Rge 18E, B.M.
GROUND WATER BLAINE County	SE1/4SW1/4	Sec. 4, Twp 02N, Rge 18E, B.M.
GROUND WATER BLAINE County	SE1/4SW1/4	Sec. 4, Twp 02N, Rge 18E, B.M.
GROUND WATER BLAINE County	SW1/4SE1/4	Sec. 10, Twp 02N, Rge 18E, B.M.

CONDITIONS OF APPROVAL

1. The daily diversion volume for non-domestic uses under this municipal right shall not exceed 2,500 gallons per use and the daily diversion volume for domestic uses under this right shall not exceed 13,000 gallons per dwelling in accordance with Section 42-111, Idaho Code.

2. The maximum combined diversion rate from the three points of diversion located in Township 2 North, Range 18 East, Section 4, SESW, shall not exceed 4.67 cfs.

3. Irrigation of large projects such as parks, golf courses, or sports activities fields is not authorized under this right.

SCANNED
JUL 16 2010

State of Idaho
Department of Water Resources

Water Right License

WATER RIGHT NO. 37-08837

4. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.

5. Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

6. A map depicting the place of use boundary for this water right at the time of this approval is attached to this document for illustrative purposes.

This license is issued pursuant to the provisions of Section 42-219, Idaho Code. The water right confirmed by this license is subject to all prior water rights and shall be used in accordance with Idaho law and applicable rules of the Department of Water Resources.

Signed and sealed this 15th day of July, 2010.

Shelley W. Keen
for GARY SPACKMAN
Interim Director

SCANNED
JUL 16 2010

2012 OCT 17 PM 02:00
DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO
FILED _____

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-22670

RECEIVED
OCT 19 2012
DEPARTMENT OF WATER RESOURCES

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST #H
HAILEY, ID 83333

SOURCE: GROUND WATER

QUANTITY: 1.78 CFS

PRIORITY DATE: 11/01/1907

POINT OF DIVERSION: T02N R18E S09 SENW SESE Within Blaine County
S10 SWSE

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	01-01 TO 12-31	1.78 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

To the extent necessary for administration between points of diversion for ground water, and between points of diversion for ground water and hydraulically connected surface sources, ground water was first diverted under this right from the Cramer Water Company Well located in T02N, R18E, S09, SENW.

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

2012 OCT 17 PM 02:00
DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO
FILED _____

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-22671

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST #H
HAILEY, ID 83333

SOURCE: GROUND WATER

QUANTITY: 0.60 CFS

PRIORITY DATE: 09/01/1931

POINT OF DIVERSION: T02N R18E S09 SENW SESE Within Blaine County
S10 SWSE

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	01-01 TO 12-31	0.60 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

To the extent necessary for administration between points of diversion for ground water, and between points of diversion for ground water and hydraulically connected surface sources, ground water was first diverted under this right from the Cramer Water Company Well located in T02N, R18E, S09, SENW.

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA Case No. 39576	))))	PARTIAL DECREE PURSUANT TO I.R.C.P. 54(b) FOR Water Right 37-00906

DISTRICT COURT - SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho

JUL 29 2011

By _____ Clerk
Deputy Clerk

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST #H
HAILEY, ID 83333

SOURCE: BIG WOOD RIVER TRIBUTARY: MALAD RIVER

QUANTITY: 1.039 CFS

PRIORITY DATE: 04/01/1940

POINT OF DIVERSION: T03N R18E S20 SWNW Within Blaine County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	04-15 TO 10-31	1.039 CFS

The municipal purpose of use is for the irrigation of the grass landing strip at Friedman Memorial Airport.

PLACE OF USE: Municipal

			Within Blaine County
T02N R18E S15	NENW 6.4		NWNW 20.0
	SWNW 10.0		SENW 31.0
	NESW 28.0		NWSE 20.0
	SWSE 35.0		SESE 8.3

158.7 Acres Total

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

2010 SEP 24 PM 02:00
DISTRICT COURT - SRBA
TWIN FALLS CO., IDAHO
FILED _____

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-10717

NAME AND ADDRESS: CITY OF HAILEY
115 S MAIN ST # H
HAILEY, ID 83333

SOURCE: BIG WOOD RIVER TRIBUTARY: MALAD RIVER

QUANTITY: 2.86 CFS

PRIORITY DATE: 03/24/1883

POINT OF DIVERSION: T03N R18E S20 SWNW Within Blaine County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Municipal	04-15 TO 10-31	2.86 CFS

PLACE OF USE:

Place of use is within the service area of the City of Hailey municipal water supply system as provided for under Idaho Law.

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES

TRANSFER OF WATER RIGHT

TRANSFER NO. 76168

This is to certify that: CITY OF HAILEY
115 S MAIN ST #H
HAILEY ID 83333
(208)788-4221

has requested a change to the water right(s) listed below. This change in water right(s) is authorized pursuant to the provisions of Section 42-222, Idaho Code. A summary of the changes is also listed below. The authorized change for each affected water right, including conditions of approval, is shown on the following pages of this document.

Summary of Water Rights Before the Proposed Change

Right	Origin/Basis	Priority	Rate	Volume	Acre Limit	Total Acres	Source
37-20831	WR/Decreed	10/14/1977	0.21 cfs	27.3 af		9.1	GROUND WATER

Purpose of Transfer (Changes Proposed)

Current Number	Split	POD	POU	Add POD	Period of Use	Nature of Use
37-20831	NO	YES	YES	NO	NO	NO

Summary of Water Rights After the Approved Change

Existing Right	New No. (changed portion)	Transfer Rate	Transfer Volume	Acre Limit	Total Acres	New No. (remaining portion)	Remaining Rate	Remaining Volume	Remaining Acre Limit	Remaining Total Acres
37-20831	**37-20831**	0.21 cfs	27.3 af	N/A	9.1		N/A	N/A		N/A
COMBINED TOTALS		**0.21 cfs**	**27.3 af**		**9.1**		N/A	N/A	N/A	N/A

Detailed Water Right Description(s) attached

Dated this 17th day of December, 2010

Southern Region Manager

WATER RIGHT NO. 37-20831
As Modified by Transfer No. 76168

In accordance with the approval of Transfer No. 76168, Water Right No. 37-20831 is now described as follows.

Right Holder: CITY OF HAILEY
115 S MAIN ST #H
HAILEY ID 83333

Priority Date: October 14, 1977

Source: GROUND WATER

BENEFICIAL USE	From	To	Diversion Rate	Volume
IRRIGATION	04/01	to 11/01	0.21 CFS	27.3 AF
			0.21 CFS	27.3 AF

LOCATION OF POINT(S) OF DIVERSION:
GROUND WATER SENESW Sec. 4 Twp 02N Rge 18E BLAINE County

PLACE OF USE: IRRIGATION

Twp Rge Sec	NE				NW				SW				SE				
	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	Totals
02N 18E 4									1.6			2.8		.4	4.3		9.1

Total Acres: 9.1

CONDITIONS OF APPROVAL

1. This right when combined with all other rights shall provide no more than 0.02 cfs per acre nor more than 3.0 afa per acre at the field headgate for irrigation of the lands above.

2. After specific notification by the Department, the right holder shall install a suitable measuring device or shall enter into an agreement with the Department to use power records to determine the amount of water diverted and shall annually report the information to the Department.

3. The right holder shall accomplish the change authorized by this transfer within one year of the date of this approval.

4. Failure of the right holder to comply with the conditions of this transfer is cause for the Director to rescind approval of the transfer.

5. Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.

This water right is subject to all prior water rights and shall be administered in accordance with Idaho law and applicable rules of the Department of Water Resources.

Dated this 17th day of December, 20 10

Southern Region Manager

State of Idaho
Department of Water Resources

Transfer Of Water Right

Transfer No. 76168

Water Service Area Boundary for City Of Hailey
Rights: 37-20831

Legend

- Point of Diversion
- Place Of Use Boundary
- Townships
- PLS Sections
- Quarter Quarters

0 0.045 0.09 0.18 Miles

N

IN THE DISTRICT COURT OF THE FIFTH JUDICIAL DISTRICT OF THE
STATE OF IDAHO, IN AND FOR THE COUNTY OF TWIN FALLS

In Re SRBA	)	PARTIAL DECREE PURSUANT TO
	)	I.R.C.P. 54(b) FOR
Case No. 39576	)	
	)	Water Right 37-22019

DISTRICT COURT-SRBA
Fifth Judicial District
County of Twin Falls - State of Idaho

APR - 1 2010

By _____ Clerk
Deputy Clerk

NAME AND ADDRESS: HAILEY CEMETERY MAINTENANCE DISTRICT
PO BOX 4515
HAILEY, ID 83333

CITY OF HAILEY
115 S MAIN ST #H
HAILEY, ID 83333

SOURCE: GROUND WATER

QUANTITY: 9.37 CFS
1701.00 AFY

PRIORITY DATE: 03/29/1961

POINT OF DIVERSION: T02N R18E S10 SESW Within Blaine County

PURPOSE AND PERIOD OF USE:

PURPOSE OF USE	PERIOD OF USE	QUANTITY
Irrigation	04-15 TO 10-31	9.37 CFS 1701.00 AFY

PLACE OF USE: Irrigation — Within Blaine County

T02N R18E	S10	SWSW 1.0	SESW 11.0
		SWSE 39.0	
	S14	NWSW 14.0	SWSW 28.0
	S15	NWNE 40.0	SWNE 36.0
		SENE 21.0	NENW 28.0
		SENW 4.0	NESE 39.0
		NWSE 11.0	SESE 23.0
	S22	NENE 1.0	
	S23	NENW 33.0	NWNW 33.0
		SWNW 4.0	SENW 36.0
		NESW 11.0	NWSE 34.0
		SWSE 23.0	SESE 16.0

486.0 Acres Total

OTHER PROVISIONS NECESSARY FOR DEFINITION OR ADMINISTRATION OF THIS WATER RIGHT:

THIS PARTIAL DECREE IS SUBJECT TO SUCH GENERAL PROVISIONS NECESSARY FOR THE DEFINITION OF THE RIGHTS OR FOR THE EFFICIENT ADMINISTRATION OF THE WATER RIGHTS AS MAY BE ULTIMATELY DETERMINED BY THE COURT AT A POINT IN TIME NO LATER THAN THE ENTRY OF A FINAL UNIFIED DECREE. I.C. SECTION 42-1412(6).

RULE 54(b) CERTIFICATE

With respect to the issues determined by the above judgment or order, it is hereby CERTIFIED, in accordance with Rule 54(b), I.R.C.P., that the court has determined that there is no just reason for delay of the entry of a final judgment and that the court has and does hereby direct that the above judgment or order shall be a final judgment upon which execution may issue and an appeal may be taken as provided by the Idaho Appellate Rules.

Eric J. Wildman
Presiding Judge of the
Snake River Basin Adjudication

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/4/2014

WATER RIGHT NO. 37-22311

Owner Type	Name and Address
Current Owner	CITY OF HAILEY 115 S MAIN ST #H HAILEY, ID 83333 (208)788-4221
Original Owner	JUANITA C DREXLER PO BOX 396 HAILEY, ID 83333 (208)788-4189
Original Owner	CHARLES E CORD JR PO BOX 252 SUN VALLEY, ID 83353 (208)622-8306

Priority Date: 03/24/1883
Basis: Decreed
Status: Active

Source	Tributary
BIG WOOD RIVER	MALAD RIVER

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	04/15	10/31	1.5 CFS	
Total Diversion			1.5 CFS	

Location of Point(s) of Diversion:

BIG WOOD RIVER | SWNW | Sec. 20 | Township 03N | Range 18E | BLAINE County

IRRIGATION Use:
Acre Limit: 31

Place(s) of use:

Place of Use Legal Description: IRRIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	3		SWSW	20									
		4		NESE	13.6		NWSE	3		SESE	21.9			

Total Acres: 58.5

Conditions of Approval:

1.		The point of diversion for this right is locally known as Headgate #22 in Water District 37 for delivery to the Hiawatha Canal.
2.	K06	This right is limited to the irrigation of 31 acres within the place of use described above in a single irrigation season.
3.	E55	Right Nos. 37-22321, 37-22311, and 37-22316 are limited to the irrigation of a combined total of 31 acres in a single irrigation season.
4.	J01	Place of use is within portions of Old Cutters Subdivision.
5.	T19	Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.
6.	R05	Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37.
7.	R43	The right holder shall maintain a measuring device and lockable controlling works of a type approved by the Department in a manner that will provide the watermaster suitable control of the diversion(s).

Dates:
Licensed Date:
Decreed Date: 01/21/2009
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
Water Supply Bank Enrollment Date Accepted:
Water Supply Bank Enrollment Date Removed:
Application Received Date:
Protest Deadline Date:
Number of Protests: 0

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/4/2014

WATER RIGHT NO. 37-22316

Owner Type	Name and Address
Current Owner	CITY OF HAILEY 115 S MAIN ST #H HAILEY, ID 83333 (208)788-4221
Original Owner	JUANITA C DREXLER PO BOX 396 HAILEY, ID 83333 (208)788-4189
Original Owner	CHARLES E CORD JR PO BOX 252 SUN VALLEY, ID 83353 (208)622-8306

Priority Date: 03/24/1883
Basis: Decreed
Status: Active

Source	Tributary
BIG WOOD RIVER	MALAD RIVER

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	04/15	10/31	0.18 CFS	
Total Diversion			0.18 CFS	

Location of Point(s) of Diversion:

BIG WOOD RIVER | SWNW | Sec. 20 | Township 03N | Range 18E | BLAINE County

IRRIGATION Use:
Acre Limit: 31

Place(s) of use:

Place of Use Legal Description: IRRIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	3		SWSW	20									
		4		NESE	13.6		NWSE	3		SESE	21.9			

Total Acres: 58.5

Conditions of Approval:

1.		The point of diversion for this right is locally known as Headgate #22 in Water District 37 for delivery to the Hiawatha Canal.
2.	K06	This right is limited to the irrigation of 31 acres within the place of use described above in a single irrigation season.
3.	E55	Right Nos. 37-22321, 37-22311, and 37-22316 are limited to the irrigation of a combined total of 31 acres in a single irrigation season.
4.	J01	Place of use is within portions of Old Cutters Subdivision.
5.	T19	Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.
6.	R05	Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37.
7.	R43	The right holder shall maintain a measuring device and lockable controlling works of a type approved by the Department in a manner that will provide the watermaster suitable control of the diversion(s).

Dates:
Licensed Date:
Decreed Date: 01/21/2009
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
Water Supply Bank Enrollment Date Accepted:
Water Supply Bank Enrollment Date Removed:
Application Received Date:
Protest Deadline Date:
Number of Protests: 0

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/4/2014

WATER RIGHT NO. 37-22321

Owner Type	Name and Address
Current Owner	CITY OF HAILEY 115 S MAIN ST #H HAILEY, ID 83333 (208)788-4221
Original Owner	WILLIAM G ABBOTT , ID
Original Owner	JUANITA C DREXLER PO BOX 396 HAILEY, ID 83333 (208)788-4189
Original Owner	CORD GILDRED PARTNERS C/O CHARLES E CORD JR PO BOX 1760 SUN VALLEY, ID 83353
Original Owner	CHARLES E CORD JR PO BOX 252 SUN VALLEY, ID 83353 (208)622-8306

Priority Date: 03/24/1883
Basis: Decreed
Status: Active

Source	Tributary
BIG WOOD RIVER	MALAD RIVER

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	04/15	10/31	0.19 CFS	
Total Diversion			0.19 CFS	

Location of Point(s) of Diversion:

BIG WOOD RIVER|SWNW|Sec. 20|Township 03N|Range 18E|BLAINE County

IRRIGATION Use:
Acre Limit: 31

Place(s) of use:

Place of Use Legal Description: IRRIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	3		SWSW	20									
		4		NESE	13.6		NWSE	3		SESE	21.9			

Total Acres: 58.5

Conditions of Approval:

1.		The point of diversion for this right is locally known as Headgate #22 in Water District 37 for delivery to the Hiawatha Canal.
2.	K06	This right is limited to the irrigation of 31 acres within the place of use described above in a single irrigation season.
3.	E55	Right Nos. 37-22321, 37-22311, and 37-22316 are limited to the irrigation of a combined total of 31 acres in a single irrigation season.
4.	J01	Place of use is within portions of Old Cutters Subdivision.
5.	T19	Pursuant to Section 42-1412(6), Idaho Code, this water right is subject to such general provisions necessary for the definition of the rights or for the efficient administration of water rights as may be determined by the Snake River Basin Adjudication court at a point in time no later than the entry of the final unified decree.
6.	R05	Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37.
7.	R43	The right holder shall maintain a measuring device and lockable controlling works of a type approved by the Department in a manner that will provide the watermaster suitable control of the diversion(s).

Dates:
Licensed Date:
Decreed Date: 01/21/2009
Enlargement Use Priority Date:

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/4/2014

WATER RIGHT NO. 37-22773

Owner Type	Name and Address
Current Owner	CITY OF HAILEY 115 S MAIN ST #H HAILEY, ID 83333 (208)788-4221
Original Owner	WOOD RIVER VALLEY ASSOC 2710 SUNRISE RIM RD BOISE, ID 83705 (208)344-8502

Priority Date: 05/01/1888
Basis: Decreed
Status: Active

Source	Tributary
BIG WOOD RIVER	MALAD RIVER

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	04/15	10/31	0.12 CFS	
MITIGATION	04/15	10/31	0.07 CFS	
Total Diversion			0.19 CFS	

Location of Point(s) of Diversion:

BIG WOOD RIVER | SWNW | Sec. 20 | Township 03N | Range 18E | BLAINE County

Place(s) of use:

Place of Use Legal Description: IRRIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	4		SENW	2.1									
				NESW	6.6		SESW	5.4						

Place of Use Legal Description: MITIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	4	3	NENW			SENW							
				NESW			SESW							

Total Acres: 14.1

Conditions of Approval:

1.		This right is a split from former right 37-21811
2.		The rights listed below, shall provide nor more than 3.5 afa per acre at the field headgate for irrigation of the lands in the place of use whenever sprinkler methods of irrigation are used. Combined Right Nos. 37-22773, 37-22774, 37-22775 and 37-22776.
3.	E55	Right Nos. 37-22773, 37-22774, 37-22775 and 37-22776 are limited to the irrigation of a combined total of 14.1 acres in a single irrigation season.
4.	C18	This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412 (6), Idaho Code.
5.	G05	Water diverted from Headgate #22 delivered through Hiawatha Canal.
6.		This right mitigates for the depletion of water resulting from the diversion and use of water under Right 37-22825 and 37-22831. A total of 0.074 cfs of this right is changed from irrigation use on 8.7 acres to mitigation use. To prevent injury to other water right holders, the right holder shall cease diverting 0.059 cfs of this right from the Big Wood River and cease irrigation of 8.7 acres. In addition, 0.015 cfs of this right shall be delivered into the Hiawatha Canal to prevent injury to water right holders within the Hiawatha Canal system.
7.		The diversion rate of this right is 0.194 cfs.

Dates:
Licensed Date:
Decreed Date: 08/30/2011
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
Water Supply Bank Enrollment Date Accepted:
Water Supply Bank Enrollment Date Removed:
Application Received Date:
Protest Deadline Date:
Number of Protests: 0

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/4/2014

WATER RIGHT NO. 37-22774

Owner Type	Name and Address
Current Owner	CITY OF HAILEY 115 S MAIN ST #H HAILEY, ID 83333 (208)788-4221
Original Owner	WOOD RIVER VALLEY ASSOC 2710 SUNRISE RIM RD BOISE, ID 83705 (208)344-8502

Priority Date: 09/18/1885
Basis: Decreed
Status: Active

Source	Tributary
BIG WOOD RIVER	MALAD RIVER

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	04/15	10/31	0.12 CFS	
MITIGATION	04/15	10/31	0.07 CFS	
Total Diversion			0.19 CFS	

Location of Point(s) of Diversion:

BIG WOOD RIVER | SWNW | Sec. 20 | Township 03N | Range 18E | BLAINE County

Place(s) of use:

Place of Use Legal Description: IRRIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	4		SENW	2.1									
				NESW	6.6		SESW	5.4						

Place of Use Legal Description: MITIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	4	3	NENW			SENW							
				NESW			SESW							

Total Acres: 14.1

Conditions of Approval:

1.		This right is a split from former right 37-21813.
2.	E55	Right Nos. 37-22773, 37-22774, 37-22775 and 37-22776 are limited to the irrigation of a combined total of 14.1 acres in a single irrigation season.
3.	G05	Water diverted from Headgate #22 delivered through Hiawatha Canal.
4.		The diversion rate of this right is .195 cfs.
5.		The rights listed below, shall provide nor more than 3.5 afa per acre at the field headgate for irrigation of the lands in the place of use whenever sprinkler methods of irrigation are used. Combined Right Nos. 37-22773, 37-22774, 37-22775 and 37-22776.
6.	C18	This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412 (6), Idaho Code.
7.		This right mitigates for the depletion of water resulting from the diversion and use of water under Right 37-22825 and 37-22831. A total of 0.074 cfs of this right is changed from irrigation use on 8.7 acres to mitigation use. To prevent injury to other water right holders, the right holder shall cease diverting 0.059 cfs of this right from the Big Wood River and cease irrigation of 8.7 acres. In addition, 0.015 cfs of this right shall be delivered into the Hiawatha Canal to prevent injury to water right holders within the Hiawatha Canal system.

Dates:
Licensed Date:
Decreed Date: 08/30/2010
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
Water Supply Bank Enrollment Date Accepted:
Water Supply Bank Enrollment Date Removed:
Application Received Date:
Protest Deadline Date:
Number of Protests: 0

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/4/2014

WATER RIGHT NO. 37-22775

Owner Type	Name and Address
Current Owner	CITY OF HAILEY 115 S MAIN ST #H HAILEY, ID 83333 (208)788-4221
Original Owner	WOOD RIVER VALLEY ASSOC 2710 SUNRISE RIM RD BOISE, ID 83705 (208)344-8502

Priority Date: 06/30/1884
Basis: Decreed
Status: Active

Source	Tributary
BIG WOOD RIVER	MALAD RIVER

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	04/15	10/31	0.24 CFS	
MITIGATION	04/15	10/31	0.15 CFS	
Total Diversion			0.39 CFS	

Location of Point(s) of Diversion:

BIG WOOD RIVER | SWNW | Sec. 20 | Township 03N | Range 18E | BLAINE County

Place(s) of use:

Place of Use Legal Description: IRRIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	4		SENW	2.1									
				NESW	6.6		SESW	5.4						

Place of Use Legal Description: MITIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	4	3	NENW			SENW							
				NESW			SESW							

Total Acres: 14.1

Conditions of Approval:

1.		The rights listed below, shall provide nor more than 3.5 afa per acre at the field headgate for irrigation of the lands in the place of use whenever sprinkler methods of irrigation are used. Combined Right Nos. 337-22773, 37-22774, 37-22775 and 37-22776.
2.		This right is a split from former right 37-21815.
3.	G05	Water diverted from Headgate #22 delivered through Hiawatha Canal.
4.	E55	Right Nos. 37-22773, 37-22774, 37-22775 and 37-22776 are limited to the irrigation of a combined total of 14.1 acres in a single irrigation season.
5.		The diversion rate of this right is .387 cfs.
6.	C18	This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412 (6), Idaho Code.
7.		This right mitigates for the depletion of water resulting from the diversion and use of water under Rights 37-22825 and 37-22831. A total of 0.147cfs of this right is changed from irrigation use on 8.7 acres to mitigation use. To prevent injury to other water right holders, the right holder shall cease diverting 0.118 cfs of this right from the Big Wood River and cease irrigation of 8.7 acres. In addition, 0.029 cfs of this right shall be delivered into the Hiawatha Canal to prevent injury to water right holders within the Hiawatha Canal system.

Dates:
Licensed Date:
Decreed Date: 08/30/2010
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
Water Supply Bank Enrollment Date Accepted:
Water Supply Bank Enrollment Date Removed:
Application Received Date:
Protest Deadline Date:
Number of Protests: 0

Close

IDAHO DEPARTMENT OF WATER RESOURCES
Water Right Report

8/4/2014

WATER RIGHT NO. 37-22776

Owner Type	Name and Address
Current Owner	CITY OF HAILEY 115 S MAIN ST #H HAILEY, ID 83333 (208)788-4221
Original Owner	WOOD RIVER VALLEY ASSOC 2710 SUNRISE RIM RD BOISE, ID 83705 (208)344-8502

Priority Date: 03/24/1883
Basis: Decreed
Status: Active

Source	Tributary
BIG WOOD RIVER	MALAD RIVER

Beneficial Use	From	To	Diversion Rate	Volume
IRRIGATION	04/15	10/31	0.14 CFS	
MITIGATION	04/15	10/31	0.09 CFS	
Total Diversion			0.23 CFS	

Location of Point(s) of Diversion:

BIG WOOD RIVER | SWNW | Sec. 20 | Township 03N | Range 18E | BLAINE County

Place(s) of use:

Place of Use Legal Description: IRRIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	4		SENW	2.1									
				NESW	6.6		SESW	5.4						

Place of Use Legal Description: MITIGATION BLAINE County

Township	Range	Section	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres	Lot	Tract	Acres
02N	18E	4	3	NENW			SENW							
				NESW			SESW							

Total Acres: 14.1

Conditions of Approval:

1.		This right is a split from former right 37-21817 .
2.		The rights listed below, shall provide nor more than 3.5 afa per acre at the field headgate for irrigation of the lands in the place of use whenever sprinkler methods of irrigation are used. Combined Right Nos. 37-22773, 37-22774, 37-22775 and 37-22776.
3.	E55	Right Nos. 37-22773, 37-22774, 37-22775 and 37-22776 are limited to the irrigation of a combined total of 14.1acres in a single irrigation season.
4.		The diversion rate of this right is .235 cfs.
5.	G05	Water diverted from Headgate #22 delivered through Hiawatha Canal.
6.		This right mitigates for the depletion of water resulting from the diversion and use of water under Rights 37-22825 and 37-22831. A total of 0.090 cfs of this right is changed from irrigation use on 8.7 acres to mitigation use. To prevent injury to other water right holders, the right holder shall cease diverting 0.072 cfs of this right from the Big Wood River and cease irrigation of 8.7 acres. In addition, 0.018 cfs of this right shall be delivered into the Hiawatha Canal to prevent injury to water right holders within the Hiawatha Canal system.
7.	C18	This partial decree is subject to such general provisions necessary for the definition of the rights or for the efficient administration of the water rights as may be ultimately determined by the Court at a point in time no later than the entry of a final unified decree. Section 42-1412 (6), Idaho Code.

Dates:
Licensed Date:
Decreed Date: 08/30/2010
Enlargement Use Priority Date:
Enlargement Statute Priority Date:
Water Supply Bank Enrollment Date Accepted:
Water Supply Bank Enrollment Date Removed:
Application Received Date:
Protest Deadline Date:
Number of Protests: 0

State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 37-22825

Priority: April 24, 2013 Maximum Diversion Rate: 0.49 CFS

This is to certify, that CITY OF HAILEY
115 S MAIN ST #H
HAILEY ID 83333

has applied for a permit to appropriate water from:

Source: GROUND WATER

and a permit is APPROVED for development of water as follows:

BENEFICIAL USE	PERIOD OF USE	RATE OF DIVERSION
IRRIGATION	04/15 to 10/31	0.49 CFS

LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER NW1/4SE1/4SW1/4 Sec. 9, Twp 02N, Rge 18E, B.M.
BLAINE County

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	18E	9									3.0			3.2					6.2

Total Acres: 6.2

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before **July 01, 2018.**
2. Subject to all prior water rights.
3. This right does not grant any right-of-way or easement across the land of another.
4. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
5. Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37.
6. The right holder shall maintain a measuring device with totalizing meter and lockable controlling works of a type approved by the Department in a manner that will provide the watermaster suitable control of the diversion. The measuring device must provide the ability to determine the daily volume of use.

   The right holder shall record the daily volume used and provide the records to the watermaster as necessary to regulate the use.

State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 37-22825

7. To mitigate for the depletion of water resulting from the use of water under this right and to prevent injury to senior water right holders, the right holder shall cease diverting and using water as authorized by the following water rights for the purposes and amounts specified below.

Right No.	Use Changed to Mitigation	Mitigation Rate (cfs)	Mitigation Volume (AF)	Mitigation Acres
37-22773	Irrigation	0.042	N/A	6.2
37-22774	Irrigation	0.042	N/A	6.2
37-22775	Irrigation	0.084	N/A	6.2
37-22776	Irrigation	0.051	N/A	6.2

To mitigate for the depletion of water within the Hiawatha Canal system resulting from the non-use of water under rights 37-22773, 37-22774, 37-22775, and 37-22776 for mitigation purposes mentioned above an additional portion of the rights shall be delivered into the Hiawatha Canal to prevent injury to water right holders within the Hiawatha Canal system for the purposes and amounts specified below.

Right No.	Use Changed to Mitigation	Mitigation Rate (cfs)	Mitigation Volume (AF)
37-22773	Irrigation	0.011	N/A
37-22774	Irrigation	0.011	N/A
37-22775	Irrigation	0.021	N/A
37-22776	Irrigation	0.013	N/A

Moreover, the official records for rights 37-22773, 37-22774, 37-22775, and 37-22776 will be changed to show that the portions identified above are being dedicated to mitigation purposes.

In summary the total mitigation for this right is split into two components: 80% (0.219 cfs) to be left in the Big Wood River and 20% (0.056 cfs) left in the Hiawatha Canal for conveyance loss associated with the delivery of water by the Hiawatha Canal Water Users Association of Lateral or Laterals though its canal and lateral system.

The land that will no longer be irrigated under these rights is located within the NENW, SENW, NESW and SESW of Section 04, Township 02N, Range 18E.

If the specified mitigation rights, or portions thereof, are sold, transferred, leased, used on any place of use, or is not deliverable due to a shortage of water or a priority call, then the volume of water authorized for diversion under this right approval shall be reduced by the same proportion as the reduction to the mitigation rights.

State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 37-22825

8. This right is limited to 3.5 acre feet/acre/annum equivalent to 21.7 acre feet/annum for 6.2 acres. This right is further limited to the daily volumes corresponding to the deliverable priorities of the mitigation rights:
   If right 37-22773 with priority of 5/1/1888 and other senior mitigation rights are deliverable this right is limited to 0.434 acre feet per day.
   If right 37-22774 with priority of 9/18/1885 and other senior mitigation rights are deliverable this right is limited to 0.351 acre feet per day.
   If right 37-22775 with priority of 6/30/1884 and other senior mitigation rights are deliverable this right is limited to 0.268 acre feet per day.
   If right 37-22776 with priority of 3/24/1883 is the only mitigation right deliverable this right is limited to 0.101 acre feet per day.
   If no mitigation right is deliverable this right must be curtailed.
9. Noncompliance with any condition of this right, including the requirement for mitigation and recording of use, is cause for the director to issue a notice of violation, cancel or revoke the right, or, if the right is included in a water district, request that the watermaster curtail diversion and use of water.
10. Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this 12th day of July, 2013.

FOR GARY SPACKMAN, Director

State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 37-22831

Priority: July 15, 2013 Maximum Diversion Rate: 0.33 CFS

This is to certify, that CITY OF HAILEY
115 S MAIN ST #H
HAILEY ID 83333

has applied for a permit to appropriate water from:

Source: GROUND WATER

and a permit is APPROVED for development of water as follows:

BENEFICIAL USE	PERIOD OF USE	RATE OF DIVERSION
IRRIGATION	04/15 to 10/31	0.33 CFS

LOCATION OF POINT(S) OF DIVERSION:

GROUND WATER SW1/4NE1/4 Sec. 16, Twp 02N, Rge 18E, B.M.
BLAINE County

PLACE OF USE: IRRIGATION

Twp	Rge	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
02N	18E	16			2.5														2.5

Total Acres: 2.5

CONDITIONS OF APPROVAL

1. Proof of application of water to beneficial use shall be submitted on or before **October 01, 2018.**
2. Subject to all prior water rights.
3. This right does not grant any right-of-way or easement across the land of another.
4. Right holder shall comply with the drilling permit requirements of Section 42-235, Idaho Code and applicable Well Construction Rules of the Department.
5. Use of water under this right will be regulated by a watermaster with responsibility for the distribution of water among appropriators within a water district. At the time of this approval, this water right is within State Water District No. 37.
6. The right holder shall maintain a measuring device and lockable controlling works of a type approved by the Department in a manner that will provide the watermaster suitable control of the diversion(s).
7. The right holder shall record the daily volume used and provide the records to the watermaster as necessary to regulate the use.

State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 37-22831

8. To mitigate for the depletion of water resulting from the use of water under this right and to prevent injury to senior water right holders, the right holder shall cease diverting and using water as authorized by the following water rights for the purposes and amounts specified below.

Right No.	Use Changed to Mitigation	Mitigation Rate (cfs)	Mitigation Volume (AF)	Mitigation Acres
37-22773	Irrigation	0.017	N/A	2.5
37-22774	Irrigation	0.017	N/A	2.5
37-22775	Irrigation	0.034	N/A	2.5
37-22776	Irrigation	0.021	N/A	2.5

To mitigate for the depletion of water within the Hiawatha Canal system resulting from the non-use of water under rights 37-22773, 37-22774, 37-22775, and 37-22776 for mitigation purposes mentioned above an additional portion of the rights shall be delivered into the Hiawatha Canal to prevent injury to water right holders within the Hiawatha Canal system for the purposes and amounts specified below.

Right No.	Use Changed to Mitigation	Mitigation Rate (cfs)	Mitigation Volume (AF)
37-22773	Irrigation	0.004	N/A
37-22774	Irrigation	0.004	N/A
37-22775	Irrigation	0.008	N/A
37-22776	Irrigation	0.005	N/A

Moreover, the official records for rights 37-22773, 37-22774, 37-22775, and 37-22776 will be changed to show that the portions identified above are being dedicated to mitigation purposes.

In summary the total mitigation for this right is split into two components: 80% (0.089 cfs) to be left in the Big Wood River and 20% (0.021 cfs) left in the Hiawatha Canal for conveyance loss associated with the delivery of water by the Hiawatha Canal Water Users Association of Lateral or Laterals though its canal and lateral system.

The land that will no longer be irrigated under these rights is located within the NENW, SENW, NESW and SESW of Section 04, Township 02N, Range 18E.

If the specified mitigation rights, or portions thereof, are sold, transferred, leased, used on any place of use, or is not deliverable due to a shortage of water or a priority call, then the volume of water authorized for diversion under this right approval shall be reduced by the same proportion as the reduction to the mitigation rights.

State of Idaho
Department of Water Resources

Permit to Appropriate Water

NO. 37-22831

9. This right is limited to 3.5 acre feet/acre/annum equivalent to 8.75 acre feet/annum for 2.5 acres. This right is further limited to the daily volumes corresponding to the deliverable priorities of the mitigation rights:
   If right 37-22773 with priority of 5/1/1888 and other senior mitigation rights are deliverable this right is limited to 0.177 acre feet per day.
   If right 37-22774 with priority of 9/18/1885 and other senior mitigation rights are deliverable this right is limited to 0.143 acre feet per day.
   If right 37-22775 with priority of 6/30/1884 and other senior mitigation rights are deliverable this right is limited to 0.109 acre feet per day.
   If right 37-22776 with priority of 3/24/1883 is the only mitigation right deliverable this right is limited to 0.042 acre feet per day.
   If no mitigation right is deliverable this right must be curtailed.
10. Noncompliance with any condition of this right, including the requirement for mitigation, is cause for the director to issue a notice of violation, cancel or revoke the right, or, if the right is included in a water district, request that the watermaster curtail diversion and use of water.
11. Any license issued by IDWR pursuant to the right or portion thereof for the use of trust water is subject to a term review of 20 years after the date of this approval to determine availability of water for the use and to re-evaluate the public interest at the end of the term.

This permit is issued pursuant to the provisions of Section 42-204, Idaho Code. Witness the signature of the Director, affixed at Boise, this 13th day of September, 2013.

GARY SPACKMAN, Director

Water System Master Plan

Appendix D

Capital Improvement Program

SPF WATER ENGINEERING

APPENDIX D – CAPITAL IMPROVEMENT PROGRAM

The Capital Improvement Program items were ranked using a pairwise comparison approach in a workshop with City officials and staff held in Fall 2014. The rankings and need were considered in developing the final ranking of each CIP item. Details on each CIP item are included first, with the pairwise comparison results provided at the end of this appendix.

Cost Estimation

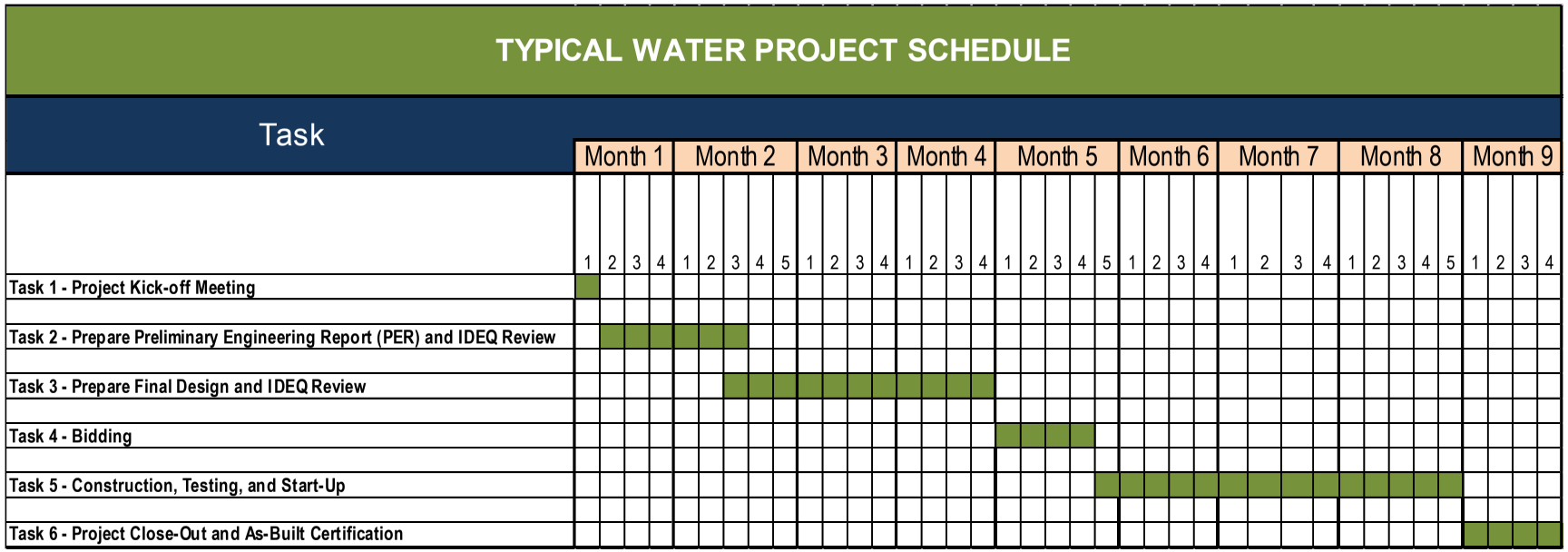
Cost estimates presented in this document were developed in accordance with standards published by the Association for the Advancement of Cost Estimation International (AACEI). These cost estimates are categorized as Level 5, or order-of-magnitude cost estimates and have an anticipated accuracy range of -30% to +50%. The Engineering News Record 20-City Construction Cost index (CCI) at the time of this evaluation is 9835 (July-August 2014). Using the CCI allows for straightforward updates to these cost estimates in the future.

The cost estimates include an estimation contingency of 20% and typically an allowance equal to 15% of the estimated construction cost for engineering, financial, and administrative costs (smaller projects may have a higher estimated cost). Right-of-way acquisition or land costs are not included in total project cost.

The order-of-magnitude capital cost estimates have been prepared to guide in project evaluation and implementation and are based on information available at the time of the estimate. The actual final costs of a project depend on its final scope, actual labor and material costs, competitive market conditions, implementation schedule, and other variables. As a result, the final project costs can be expected to vary from the estimates presented herein. Because of this likely variation in costs, project feasibility and funding needs must be carefully reviewed before specific financial decisions are made to help ensure proper project evaluation and adequate funding.

Typical Project Schedule

For planning purposes, a generic schedule for a typical water project is included on the next page. Depending on the specifics of the project, planning, design, and construction times could be shorter or longer than shown on the schedule.


TYPICAL WATER PROJECT SCHEDULE
Task
Month 1
Month 2
Month 3
Month 4
Month 5
Month 6
Month 7
Month 8
Month 9
1 2 3 4 1 2 3 4 5 1 2 3 4 1 2 3 4 1 2 3 4 5 1 2 3 4 1 2 3 4 1 2 3 4 5 1 2 3 4
Task 1 - Project Kick-off Meeting
Task 2 - Prepare Preliminary Engineering Report (PER) and IDEQ Review
Task 3 - Prepare Final Design and IDEQ Review
Task 4 - Bidding
Task 5 - Construction, Testing, and Start-Up
Task 6 - Project Close-Out and As-Built Certification

Improvement No. 1 – Investigate the Potential for Additional Supply from the River Street Well. Install Larger Pump in River Street Well.

INVESTIGATE ADDITIONAL SUPPLY FROM RIVER STREET WELL

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT : City of Hailey - Water Master Plan
JOB # : 330.0210
LOCATION : Hailey, ID
ENR CCI : 9,835 (20-City Average)

AACE ESTIMATE CLASS : 5
DATE : 8/12/2014
BY : CC
REVIEWED : EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	INSTALL LEVEL TRANSDUCER AND SCADA WATER LEVEL TRACKING	1	LS	$10,000	$10,000
2	ENGINEERING & PERMITTING	1	LS	$2,500	$2,500
3	CONTINGENCY	20%			$2,500
		ESTIMATED PROJECT COST			**$15,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

INSTALL LARGER PUMP IN RIVER STREET WELL

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT : City of Hailey - Water Master Plan
JOB # : 330.0210
LOCATION : Hailey, ID
ENR CCI : 9,835 (20-City Average)

AACE ESTIMATE CLASS : 5
DATE : 8/12/2014
BY : CC
REVIEWED : EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	150 HP PUMP AND MOTOR, INSTALLED	1	LS	$40,000	$40,000
2	ELECTRICAL EQUIPMENT	1	LS	$18,000	$18,000
3	ENGINEERING & PERMITTING	15%	LS		$8,700
4	CONTINGENCY	20%			$13,300
		ESTIMATED PROJECT COST			**$80,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

It is likely that the River Street Well, with a larger pump, could provide more flow than it currently provides. A new pump and new electrical equipment would be anticipated as part of the upgrade. Installing a water level monitor in the well and tracking flow rate and pumping water levels will allow for a calculation of the additional supply that could be obtained from this well. For this estimate, we have assumed the well would provide an additional 500 gpm over the current flow rate of 1,070 gpm. This estimate will be fine tuned during the investigation and a pump recommended.

A pump to supply a total of 1,600 gpm at 260 feet TDH was priced here (quote from GJ Vertiline in Twin Falls). The results of the recommended investigation may change the recommended pump sizing.

Improvement No. 2 – Extend Hatches at Quigley Tank

EXTEND HATCHES AT QUIGLEY TANK

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	8/12/2014
LOCATION :	Hailey, ID	**BY :**	EL
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	CC

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	EXTEND HATCHES AT QUIGLEY TANK	2	LS	$20,000	$20,000
4	CONTINGENCY	20%			$4,000
		ESTIMATED PROJECT COST			**$24,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

The existing access hatches at Quigley Tank are not located a minimum of 24 inches above existing grade, as required by IDEQ rules. Extenders will be fabricated to extend the height of the hatches to the required elevation.

Improvement No. 3 – Add Standby Power Generator at Woodside Facility

WOODSIDE FACILITY STANDBY POWER

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	8/12/2014
LOCATION :	Hailey, ID	**BY :**	EL
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	CC

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	200 KW GENERATOR and ATS	1	LS	$50,000	$50,000
2	INSTALLATION, CONCRETE PAD	1	LS	$25,000	$25,000
3	ENGINEERING & PERMITTING	15%	LS		$7,500
4	CONTINGENCY	20%			$16,500
		ESTIMATED PROJECT COST			**$99,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

Adding a standby generator at one of the City's well facilities will provide additional source of supply (not just Indian Creek Spring) during a power outage. The Woodside facility is recommended for the first generator because of the difficulty in keeping Quigley Tank full if the Woodside well and booster pump are not operational. By the numbers, this generator is not needed until 2021, but the City may choose to consider installing it sooner as a customer service measure. A permanent generator has been priced here, a mobile generator would be expected to cost less.

Improvement No. 4 – Add Chlorination to Third Avenue Well

ADD CHLORINATION TO THIRD AVENUE WELL

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	8/12/2014
LOCATION :	Hailey, ID	**BY :**	EL
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	CC

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	SODIUM HYPOCHLORITE STORAGE AND FEED SYSTEM	1	LS	$16,000	$16,000
2	CHEMICAL BLDG W/ SECONDARY CONTAINMENT	216	SF	$150	$32,000
3	ENGINEERING & PERMITTING	1	LS	$25,000	$25,000
4	CONTINGENCY	20%			$15,000
		ESTIMATED PROJECT COST			**$88,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

The City's existing Third Avenue Well does not currently have a chlorination system. This limits how much the City can use the well and still maintain the targeted chlorine residual in the distribution system. The proposed chlorination system could be housed adjacent to the existing well house in a new building.

The City has ruled out gas chlorine as an option at this location due to the neighboring elementary school and potential safety concerns. Both on-site sodium hypochlorite generation and utilizing liquid sodium hypochlorite in totes were assessed as potential options. A liquid sodium hypochlorite system, with the solution in totes, is the recommended option due to cost considerations.

Improvement No. 5a – Investigate Potential for Additional Supply from Indian Creek Spring

INDIAN CREEK SPRING INVESTIGATION

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	8/12/2014
LOCATION :	Hailey, ID	**BY :**	CC
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	CAMERA AND MAP EXISTING LATERALS	1	LS	$10,000	$10,000
2	DRILL AND TEST PUMP TWO TEST WELLS	2	LS	$8,000	$16,000
3	ADDITIONAL DATA COLLECTION, ANALYSIS, ENGINEERING, AND PERMITTING INVESTIGATION	1	LS	$20,000	$20,000
4	CONTINGENCY	20%			$9,200
		ESTIMATED PROJECT COST			**$55,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

The spring is currently (2014/15) flowing less than the City's spring water right. SPF's draft Technical Memorandum dated June 30, 2014 describes potential improvements to the spring collection system, and also analyzes historic data that indicates spring flows may be more strongly tied to precipitation than collection system efficiencies.

The potential improvements range from clearing roots from the existing laterals to drilling and pumping shallow wells in the spring area. A good place to start will be inspecting the existing lateral collection pipes in the spring collection area, mapping pipe locations, and noting condition of piping. Drilling and test pumping two test wells would provide information for drilling shallow wells in the spring area to collect additional water. Confirming (or not) the presence of the bentonite slurry wall reportedly constructed in 1983 and assessing its effectiveness may also be helpful. Determine what other improvements, if any, at the spring collection area are warranted to improve collection efficiency.

At a minimum, mapping and documenting the location and condition of the spring collection laterals makes sense. The information gleaned from this investigation should be used to determine if additional improvements are worthwhile and what they should include.

Improvement No. 5b – Implement Selected Improvement(s) at Indian Creek Spring

INDIAN CREEK SPRING IMPROVEMENTS - SHALLOW WELLS

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT : City of Hailey - Water Master Plan
JOB # : 330.0210
LOCATION : Hailey, ID
ENR CCI : 9,835 (20-City Average)

AACE ESTIMATE CLASS : 5
DATE : 8/12/2014
BY : CC
REVIEWED : EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	SEVEN WELLS - 30 FOOT DEPTH EACH - 250 GPM EACH - 10" DIAMETER	210	LF	$275	$57,800
2	WELL PUMP (5 HP), PIPING/MECHANICAL/ELECTRICAL	7	EA	$15,000	$105,000
3	SITE WORK	1	LS	$25,000	$25,000
4	STANDBY GENERATOR (50 KW)	1	LS	$30,000	$30,000
5	ENGINEERING, FINANCIAL, ADMINISTRATIVE	15%			$32,700
6	CONTINGENCY	20%			$50,100
		ESTIMATED PROJECT COST			**$300,600**

Note: Shallow wells are priced here as the anticipated most expensive option. Assume that existing single phase power supply in the area is adequate to power the pumps.

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

There are a range of options available for improving collection efficiency at the spring. Drilling shallow wells is expected to be the most expensive, and we have priced it here to show the full cost range of potential options.

Improvement No. 6 – Investigate the Potential for Additional Supply from the Northridge Facility. Implement Selected Improvements at Northridge Facility.

INVESTIGATE ADDITIONAL SUPPLY FROM NORTHRIDGE FACILITY

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	8/12/2014
LOCATION :	Hailey, ID	**BY :**	CC
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	DATA TRACKING, ANALYSIS	1	LS	$7,500	$7,500
2	CONTINGENCY	20%			$1,500
		ESTIMATED PROJECT COST			**$9,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

IMPROVEMENTS FOR ADDITIONAL SUPPLY FROM NORTHRIDGE FACILITY

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	8/12/2014
LOCATION :	Hailey, ID	**BY :**	CC
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	ADD VFD WITH HARMONIC FILTER TO ONE 50 HP WELL PUMP	1	LS	$15,000	$15,000
2	CHANGE CONTROLS SET-UP FOR BOOSTER PUMPS	1	LS		$2,500
3	CONTINGENCY	20%			$3,500
		ESTIMATED PROJECT COST			**$21,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

The Northridge Facility has an authorized water right diversion rate of 2,100 gpm. The facility currently provides 1,880 gpm on maximum day. Changes to operations of the pumps would provide for a more constant 2,100 gpm supply from this facility, allowing the city to maximize supply from the Northridge Facility. At this time, we anticipate that the options considered will include looking at adding variable frequency drives, changing controls, or potentially changing the booster pumps (unlikely). The investigation will pinpoint what alterations can be made to maximize supply.

Making some operational changes at the Northridge Facility will allow the City to maximize supply from this facility. We anticipate that the likely option will be adding a VFD to one of the 50 horsepower well pumps and changing controls settings for how the booster pumps are operating (i.e. – having them run based on flow). One booster pump already has a VFD, we anticipate that setting that one to run based on flow will cause the other one to run at a similar flow rate. This option has been used for pricing. If the investigation indicates that a different option is more advantageous, the anticipated pricing will change.

Improvement No. 7 – Silver Star Pressure Reduced Area

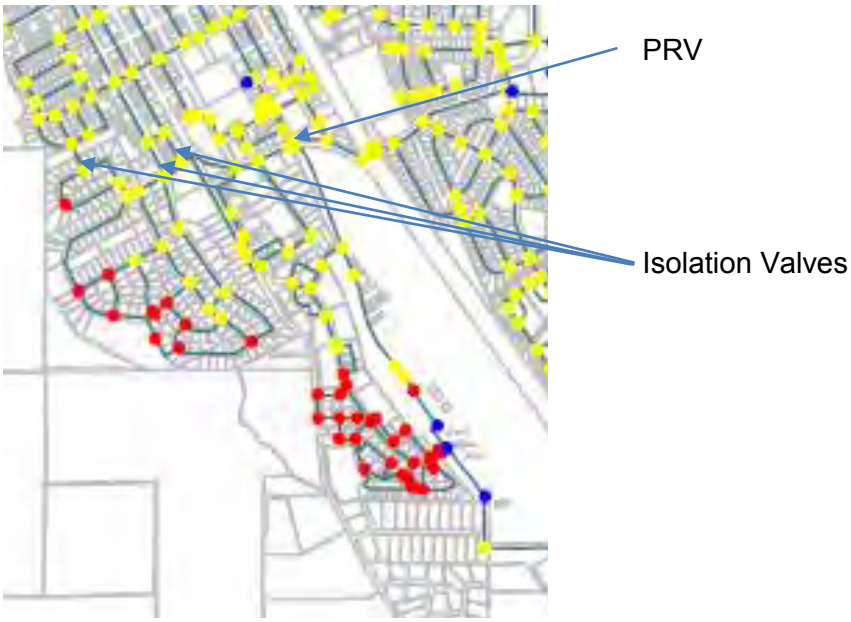
SILVER STAR PRESSURE REDUCED AREA
ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT : City of Hailey - Water Master Plan
JOB # : 330.0210
LOCATION : Hailey, ID
ENR CCI : 9,835 (20-City Average)

AACE ESTIMATE CLASS : 5
DATE : 8/12/2014
BY : CC
REVIEWED : EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	PRV STATIONS	1	EA	$125,000	$125,000
2	ISOLATION VALVES ON PIPELINES	3	EA	$5,000	$15,000
3	ENGINEERING & PERMITTING	15%			$21,000
4	CONTINGENCY	20%			$32,200
		ESTIMATED PROJECT COST			**$193,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.



The Silver Star area has static pressures that reach as high as 107 psi. IDEQ regulations require pressures to be less than 100 psi (and ideally less than 80 psi). To lower pressures in this area, the City could create a third pressure reduced zone with one pressure reducing station and several isolation valves installed in existing pipelines.

Improvement No. 8 – Replace Existing Pipeline from Indian Creek Spring to Turbine Tank

REPLACE EXISTING PIPELINE FROM INDIAN CREEK SPRING TO TURBINE TANK

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	1/21/2015
LOCATION :	Hailey, ID	**BY :**	CC
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	REPLACE EXISTING PIPELINE BETWEEN INDIAN CREEK SPRING AND TURBINE TANK WITH A NEW 12" LINE	12,144	LF	$100	$1,214,400
2	ENGINEERING & PERMITTING	15%			$182,160
3	CONTINGENCY	20%			$279,300
		ESTIMATED PROJECT COST			**$1,676,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

The existing pipeline between Indian Creek Spring and Turbine Tank is approximately 2.3 miles long. It is quite old – part of the line is suspected to be wooden pipe. This pipeline would be replaced with new 12-inch diameter piping. HDPE pipe may be able to be used in a pipe bursting approach.

Improvement No. 9 – Investigate Ways to Improve Connectivity to Quigley Tank. Implement Improvements.

IMPROVE CONNECTIVITY TO QUIGLEY TANK

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	1/21/2015
LOCATION :	Hailey, ID	**BY :**	CC
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	TANK FILL BOOSTER PUMP STATION AT BASE OF QUIGLEY CANYON	1	EA	$350,000	$350,000
2	INITIAL INVESTIGATION OF ALTERNATIVES, ENGINEERING & PERMITTING	15%			$52,500
3	CONTINGENCY	20%			$80,500
		ESTIMATED PROJECT COST			**$483,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

Hailey's operators currently fill Quigley Tank by selectively operating the Woodside Well Facility. The Quigley Tank overflow is 4.05 feet higher than the Turbine Tank overflow level. A hydraulic "bottleneck" in the distribution system, in conjunction with operation of Woodside Well, keep Quigley Tank full. This improvement would analyze ways to make it easier to fill Quigley Tank. A booster pump station at the base of Quigley Canyon would be certain to work. This pump station could fill Quigley Tank using all water supply sources in the potable water system, not just Woodside Well. Improving pipe connectivity, particularly around the Third Avenue Well, may improve the filling rate of Quigley Tank. More analysis and modeling is recommended prior to selecting an alternative to be implemented. The booster pump station alternative has been shown here as it is anticipated to be the most expensive.

Improvement No. 10 - Design, Permit, and Construct New Well

SPF WATER ENGINEERING

NEW WELL FACILITY

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	8/12/2014
LOCATION :	Hailey, ID	**BY :**	CC
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	WELL - 200 FOOT DEPTH, 18" DIAMETER CASING	200	LF	$400	$80,000
2	WELL PUMP (100 TO 125 HP), WELL HOUSE/ MECHANICAL/ ELECTRICAL	1	LS	$350,000	$350,000
3	SITE WORK AND PIPING	1	LS	$100,000	$100,000
4	ENGINEERING, FINANCIAL, ADMINISTRATIVE	15%			$80,000
5	CONTINGENCY	20%			$122,000
		ESTIMATED PROJECT COST			**$732,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

Assuming the existing River Street, Indian Creek Spring, and Northridge facilities can be successfully optimized to gain additional production, a new well is needed in 2024 to meet firm capacity requirements. New wells are assumed to have a 1.8 MGD capacity. If the production gained from optimization of the existing facilities is less than expected, a new well will be needed sooner.

The new well should be located in the main pressure zone. There are many different options for location. Existing city property should be considered first. A 50 foot clear radius around the well is required by Idaho Department of Environmental Quality, in addition to setbacks from any other specific potential contaminant sources in the area. Existing water rights, with a new point of diversion added, are anticipated to be adequate to accommodate the planned new source.

Improvement No. 11 – Add Standby Power Generator at Third Avenue Facility

THIRD AVENUE WELL STANDBY POWER

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT :	City of Hailey - Water Master Plan	**AACE ESTIMATE CLASS :**	5
JOB # :	330.0210	**DATE :**	8/12/2014
LOCATION :	Hailey, ID	**BY :**	EL
ENR CCI :	9,835 (20-City Average)	**REVIEWED :**	CC

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	150 KW GENERATOR AND ATS	1	LS	$38,000	$38,000
2	INSTALLATION, CONCRETE PAD	1	LS	$20,000	$20,000
3	ENGINEERING & PERMITTING	15%	LS		$5,700
4	CONTINGENCY	20%			$12,700
		ESTIMATED PROJECT COST			**$76,400**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

A standby power generator is needed at a second well facility in 2031. It could be located at any of the well facilities as desired by the City. The Third Avenue Well was chosen because it has the largest capacity. Alternatively, the City may consider one of its other existing facilities or a new well facility. The generator could also be installed sooner as a customer service measure. A permanent generator has been priced, a mobile generator would be expected to cost less.

Improvement No. 12 – Construct New Well

SPF WATER ENGINEERING

NEW WELL FACILITY

ENGINEER'S OPINION OF PROBABLE PROJECT COST

PROJECT : City of Hailey - Water Master Plan
JOB # : 330.0210
LOCATION : Hailey, ID
ENR CCI : 9,835 (20-City Average)

AACE ESTIMATE CLASS : 5
DATE : 8/12/2014
BY : CC
REVIEWED : EL

NO.	DESCRIPTION	QTY	UNIT	UNIT PRICE	COST
1	WELL - 200 FOOT DEPTH, 18" DIAMETER CASING	200	LF	$400	$80,000
2	WELL PUMP (100 TO 125 HP), WELL HOUSE/ MECHANICAL/ ELECTRICAL	1	LS	$350,000	$350,000
3	SITE WORK AND PIPING	1	LS	$100,000	$100,000
4	ENGINEERING, FINANCIAL, ADMINISTRATIVE	15%			$80,000
5	CONTINGENCY	20%			$122,000
		ESTIMATED PROJECT COST			**$732,000**

This cost estimate reflects our professional opinion of accurate costs at this time based on current conditions at the project location. This estimate is subject to change through the project planning and design process. Actual construction cost will depend on the cost of labor, materials, equipment, and services provided by others, contractor's methods of determining prices, competitive bidding and market conditions.

The City will need additional sources of supply into the future to maintain firm capacity above maximum day demand. Based on the demand projections, another new well is projected to be required in 2033. The City should re-asses the need for additional supply closer to 2033 as the projection makes assumptions about how much additional supply is gained from maximizing supply from existing sources (increasing collection efficiency from Indian Creek Springs, increasing production from the Northridge Facility and the River Street Well). The projection also assumes the new well constructed in 2024 has 1.8 MGD capacity. All of these assumptions could change over time and the need for and timing of the new source should be re-assessed.

A location for this well has not been identified. It may be located within a new development area that comes to the City in the future, or could be located within the existing service area.

Depending on available spring flows, the City may or may not need a new water right for this well. Chapter 8 provides additional information on water rights.

Improvement No. 13 – Establish Fire Flow Policy

Fire flow requirements for new structures in the City are established by the Hailey Fire Department. Currently the highest fire flow in the City is 3,000 gpm for 3 hours. The International Fire Code establishes fire flows based on building type, area, size, and whether or not automatic sprinkler systems are provided.

Fire flows have a substantial impact on the water system source and storage requirements. We recommend the City work with the Fire Department to establish a fire flow policy that ensures adequate water for fire protection, while avoiding unnecessary expansion or upgrades to the water system in the future. Fire flows are reduced by including fire walls or sprinklers in the building design, making it reasonable for fire flow requirements for new buildings to stay within the existing available flow rates.

Improvement No. 14 – Arsenic Testing with Lower Detection Limit

The City's current arsenic testing provides a detection limit of 5 ug/l. The current EPA established maximum contaminant level (MCL) is 10 ug/l. There is potential in the future for EPA to lower the MCL to 5 ug/l. It will help the City with planning to know whether arsenic levels in their sources of supply are close to 5 ug/l, or substantially under 5 ug/l. The current recommendation is to obtain testing to a detection level of 1 ug/l to assist with future planning.

Improvement No. 15 – Develop and Implement Conservation Plan

The City's is very interested in developing and implementing a conservation plan. We have assumed City Staff would do the development work on the plan. The plan will mainly focus on reducing consumptive (irrigation) uses.

Pairwise Comparison Results

The following pairwise comparison was completed at a workshop with City officials and staff in Fall 2014. The list of improvements was based on the preliminary draft version of the master plan, and some improvements have changed.

	Hailey CIP Pairwise Comparison	1 Design, Permit, and Construct New Well	2 - Improvement deleted - not needed - Backup Power Capability for Chlorination System at Indian Creek Spring	3 Add Chlorination to Third Avenue Well	4 Investigate Potential for Additional Supply from Indian Creek Spring	5 Implement Selected Improvement(s) at Indian Creek Spring	6 Pipeline Upgrades - Indian Creek Road and Red Devil Drive from Buttercup to North Hiawatha Drive.	7 Silver Star Pressure Reduced Zone	8 Mobile Generator	9 Investigate the Potential for Additional Supply from the River Street Well	10 Install larger pump in River Street Well	11 Investigate the Potential for Additional Supply from the Northridge Facility.	12 Implement selected improvement(s) at Northridge Facility	13 Construct New Well	14 Add second mobile generator	15 Construct New Storage Tank	16 Pipeline Upgrade - North Hiawatha Drive	17 Pipeline Upgrade - West Croy Street	18 Establish Fire Flow Policy	19 Arsenic Testing with Lower Detection Limit	20 Replace Pipeline from Spring to Turbine Tank	21 Pipeline Improvements to Improve Connectivity to Quigley Tank
1	Design, Permit, and Construct New Well		1	3	4	5	1	7	8	9	10	11	12	13	1	1	1	1	18	19	20	21
2	- Improvement deleted - not needed - Backup Power Capability for Chlorination System at Indian Creek Spring																					
3	Add Chlorination to Third Avenue Well				4	5	3	3	8	3	3	3	3	3	3	3	3	3	3	3	3	3
4	Investigate Potential for Additional Supply from Indian Creek Spring					4	4	4	8	4	4	4	4	4	4	4	4	4	4	4	4	4
5	Implement Selected Improvement(s) at Indian Creek Spring						5	5	8	5	5	5	5	5	5	5	5	5	5	5	5	5
6	Pipeline Upgrades - Indian Creek Road and Red Devil Drive from Buttercup to North Hiawatha Drive.							7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
7	Silver Star Pressure Reduced Zone								8	9	10	11	12	7	7	7	7	7	18	7	20	21
8	Mobile Generator									8	8	8	8	8	8	8	8	8	8	8	8	8
9	Investigate the Potential for Additional Supply from the River Street Well										9	9	9	9	9	9	9	9	18	9	9	9
10	Install larger pump in River Street Well											10	10	10	10	10	10	10	18	10	10	10
11	Investigate the Potential for Additional Supply from the Northridge Facility.												11	11	11	11	11	11	18	11	11	11
12	Implement selected improvement(s) at Northridge Facility													12	12	12	12	12	18	12	12	12
13	Construct New Well														14	15	16	17	18	19	20	21
14	Add second mobile generator															14	14	14	18	14	20	21
15	Construct New Storage Tank																15	15	18	15	20	21
16	Pipeline Upgrade - North Hiawatha Drive																	17	18	16	20	21
17	Pipeline Upgrade - West Croy Street																		18	17	20	21
18	Establish Fire Flow Policy																			18	18	18
19	Arsenic Testing with Lower Detection Limit																				20	21
20	Replace Pipeline from Spring to Turbine Tank																					20
21	Pipeline Improvements to Improve Connectivity to Quigley Tank																					

Improvements by Ranking from City Workshop - September, 2014			
Total Votes Received	**Percentage of Total Votes**	**Improvement Number**	**Improvement Description**
19	9.9%	8	Mobile Generator (for Woodside)
18	9.4%	4	Investigate Potential for Additional Supply from Indian Creek Spring
17	8.9%	5	Implement Selected Improvement(s) at Indian Creek Spring
16	8.4%	3	Add Chlorination to Third Avenue Well
15	7.9%	18	Establish Fire Flow Policy
14	7.3%	9	Investigate the Potential for Additional Supply from the River Street Well
13	6.8%	10	Install larger pump in River Street Well
12	6.3%	11	Investigate the Potential for Additional Supply from the Northridge Facility.
11	5.8%	12	Implement selected improvement(s) at Northridge Facility
10	5.2%	20	Replace Pipeline from Spring to Turbine Tank
9	4.7%	21	Pipeline Improvements to Improve Connectivity to Quigley Tank
8	4.2%	7	Silver Star Pressure Reduced Zone
6	3.1%	1	Design, Permit, and Construct New Well
6	3.1%	14	Add second mobile generator
5	2.6%	15	Construct New Storage Tank
4	2.1%	17	Pipeline Upgrade - West Croy Street
3	1.6%	16	Pipeline Upgrade - North Hiawatha Drive
3	1.6%	19	Arsenic Testing with Lower Detection Limit
2	1.0%	13	Construct New Well
0	0.0%	2	Improvement deleted - not needed - Backup Power Capability for Chlorination System at Indian Creek Spring
0	0.0%	6	Pipeline Upgrades - Indian Creek Road and Red Devil Drive from Buttercup to North Hiawatha Drive.
Improvement Numbers (and some improvements) have been revised from the Draft Master Plan to the Final.			