



# Appendices



**GROWING POSSIBILITIES** ►





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GROWING POSSIBILITIES



### Appendix A: Water System Facilities Records

- Well Logs
- Well 6 Pump Station Evaluation
- System Inventory
- Hydrant Survey







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GROWING POSSIBILITIES

REPORT OF WELL DRILLER State of Idaho

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State law requires that this report shall be filed with the State Beelamation Eagineer within 30 days after completion or abandonment of the well. 16\* Total VELL OWNER: Size of drilled hole: dopth of well: <u>220</u> Standing water level below ground: <u>32</u> Temp. Fahr, <u>49</u> Test delivery: <u>1926</u> or <u>cfs</u> 2ump? <u>X</u> Bail Name Fred Evarfordt - Wayne Peterson Address 1970 North Yellowstone Avenue gpm Idaho Falls, Idaho 53401 Size of pump and motor used to make test: Owner's Permit No. 12" Jurhine New well 🔳 Despensed 🚺 Abandoned 🗌 Longth of time of test: 24 Hrs. Hin. or gpm. Shutoff pressure: Controlled by: Valve Cap Plug No control Does well leak around casing? Yes No K Water is to be used for: Municipal METHOD OF CONSTRUCTION: Rotary Dug 🚺 Other (explain) CASING SCHEDULE: Threaded Welded I <u>16</u> "Diam. from <u>+1</u> ft. to <u>18"]C"</u> ft. <u>12</u> "Diam. from <u>C</u> ft. to <u>9</u>] ft. SING SCHEWY 16 "Diam. from 41 from C <u>9]</u> FRON TO YES GR NO "Diam. from ft. to FEET FEET ft. "Diam, from ft. to rt. 6 <u>0</u> topecil 70" Dia. to Thickness of casing: .312 10 16 Material: <u>gravel</u> 16'8" Steel 🖬 concrete 🛄 wood 🛄 10 other 🗌 20 16 <u>beselt</u> 20 <u>30</u> (explain) 13 34., 30 yea PERFORATED? Yes . No X Type of 35 37 34 broken . H. 50 perforator used: 37 <u>fractured</u> τ. 50 6Ĉ 4 by 60 Ë, 63 Size of perforations: <u>brokan</u> \_perforations from \_\_\_\_\_ fŧ. ft. to 63 gravel perforations from 78 clay basalt ft. to ft. 75, \_\_\_ft. to 78 \_\_\_\_perforations from \_\_\_\_\_ ft. 94 <u>broken</u> ft. to perforations from WAS SCREEN INSTALLED? Yes ۶t. 120 pasalt fire. No 1  $\frac{125}{127}$ 120 ÷. Manufacturer's name 125 fractured brn and 135 fractured bro sand broken caving 3.27 Model No. Iype\_ basait Slot 51ze Set from Slot size Set from ft. to Slot size Set from it. to 22, 235 17.1 TĽ Diss.\_ basalt firm 14.5 152 Disp. えい 152 1585 cinders **ERVine** CONSTRUCTION: Well gravel packed? Yes 25B broken 160 Gravel lava No. X size of gravel Grave. placed from ft. to ft. Surface set provided? Yes X No To what depth? 63 ft. Material used in seal: cement 162 160lava ft. Surface seal brcken 162167cinders cavins 167171 Dasalt 171 black dirty 17Lcinders Did any strata contain unusable water? Yes 180 No. 2 Type of water: Noth of strata 182 Noth of strata 182 ISC **Sasalt** firm 188 -----.... nard 192 black some clay dirty cinders 101 baselt strata off: 194 199 black dirty cinders 198 203 basalt cinders black caving 209 203 Surface casing used? Yea No. LX. 214 sand silt brown लाव Gemented in place? Yes X No | 220 215Locate well in section <del>-000367</del>--Work started October 2, 1968 Work finished: <u>Detober 25, 1968 > 5</u> Well Driller's Statement: This well was I Sec. drilled under my supervision and this report is true to the best of my knowledge. Name: Andrew Well Drilling Contractors Address: 1268 K. 17th St., Idaho Falls, Idaho Signed by: Henry K. Henry License No. Date: June 24,1968 LOCATION OF WELL: County\_ Bonnavilla. NE X MW X Sec. 26 T. 2 N/S R. 38 E/M B. M. Use other side for additional remarks - 🕤 🖬 🖞

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## State carbon Department of Water Administration

### WELL DRILLER'S REPORT

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Address Jamon, Idaho	FI4	awing	א 🗋 ל	res CZNo G.P.M. flow F. GualityGood	····-	_
Owner's Permit No. 25-7023	1 ~	rezian	clused j	in pressurep.s.),	· —	- 1
Owner's Permit No			63 SY	Li Valve C Çap D Plug		
2. NATURE OF WORK	8. W4	E41 T	EST DA	NYA.		
IX New well CD Deepened CD Replacement	E	Pump		C) Bailor C) Other		
Li Abandoned (describe method of abandoning)	04	ohargo	G.9.M,	Отих Орма Ноигу Р	IMPEd	<u> </u>
3. PROPOSED USE	<u> </u>		·	· · · · · · · · · · · · · · · · · · ·		
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🞞 Musicipal 🗇 Industrial 🗇 Stock	Diam.	From	\$ 10 ( 0	d Material		140
4. METHOD DRILLED	- 30	2	15	Gravel Sand	<u>;</u>	<u>†</u> − <u></u>
🛱 Cable 🛛 Rotory 💭 Dug 🖒 Other		15	51	Bilt Gravel	Ţ	$\square$
	24	<u>51</u> 54	54   62	<u>Clay Broken Beselt</u> Firm Gray <sup>m</sup>	<del>}</del>	
5. WELL CONSTRUCTION		62	80	Clay Gravel	1	<u>;                                    </u>
Dismeter of bole inches Total depth <u>365</u> feet		<u>80</u>	82	Sand	ĻΣ	
Casing schedule: 🙆 Steaf 🖾 Concrete	<b>  </b>	<u>82</u> 90	<u>90</u> 95	i <u>Silt Gravel</u> Band Gravel	j x	H
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$\frac{-250}{.250}$ inches $\frac{24}{.20}$ inches $\frac{42}{.0}$ feet $\frac{54}{.043}$ feet		105	120	Sand Gravel	<u>ک</u>	
	L	1 <u>20</u> 135	135 137	Loope Lava Clay Gravel	<b>⊢</b> X	╞─┤
		137	140	Sandstone Loose Lave	┥──	<u>┽╼</u> ┄╡
inches foot leat		140	165	Fim Lava	<u> </u>	;— I
Wasspacker or seasiused? 🗇 Yes 🐼 No		165	173	Firm Brown & Gray Basal	£	
Perforeted? (2 Yes 📓 No	a second s	173	181	Hard Basalt (Caving)	× 1	┟─┤
How perforated? C: Factory C: Knife D: Torch		1 <u>81</u> 187	<u>187</u> 215	LOOSE Banelt Clay Firm Brown Beselt	.h	<b>{</b> ₿
Size of perforation inches by inches Number Prom To		215	227	Broken Basalt_ Clay		
Number Prom To To		217	225	Firm Brown Basalt		니
perforations feet feet	1	2 <u>40</u> 262	262 280	<u>Eard Baselt</u> <u>Hard Baselt</u> Grav	┼╌┈	┿┈╼┥
		280	290	Fira Beselt Orey		<u> </u>
Well serven installed? 🕞 Yes 🗿 No		290	305	Bard Bosslt Green		
Manufacturer's name		305	327	Pire Sard	1	<u>      </u>
Turns diamatic line			335	Loose Leve Red Cla Sandstone	X	<b>-</b>
Diamater Stot size Set from feet to, feet	10	360	365	Gravel Red Clay	X.	₩₹
Diameter Slot size Set from feet to feet					Ţ	
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Surface seet? 🌺 Yes 🗁 No. To what depth <u>263</u> test :						
Material used in seal of Cement grout D Puddling clay					<u> </u>	
8. LOCATION OF WELL						
Sketch map location must agree with written location	10.			Oct. 73 finished Mar. 74		
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County					· —	-
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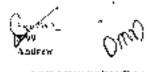
REPORT OF WELL DRILLER State of Idaho

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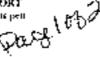
State law requires that this report shall be filed with the State Reclamation

DAHO DEPARTMENT OF W WELL DRILLER'S Use Typewetter or Bot	-
1. DRILLING PERMIT NO. <u>25. 96 E. 0030</u> -000 Other IOVE No. <u>25-07634</u>	11. WELL TESTS:
2. OWNER: Name City of Amman	3400 76 160 6 Hrs
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3. LOCATION OF WELL by legal description:	Water Guality lest or comments:Balloin hole lemp
Skorch map youyton myst agrae with writer forstoon.	Clepth first Water Ellopuntarad
Twp. C.Z. North # or South () Ago. 3.2 East # or West 7	Both From 16 Annurky: Lithology Waler Quality & Temperature Y & Sis From 16 Provide Contract Provide State Provide
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دا NikSub. Name	20+ 13+ 171' Clean Portish Saled Rock
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Thermal L'Injection TrOthor     S. TYPE OF WORK crieck aluthal apply IReplacement etc	
<ul> <li>★ New Well T: Maddy T: Abandonmark C: Other</li> <li>6. DRULL METHOD</li> <li>★Cair Rolary ★Ceble C: Mud Rotary T: Other</li></ul>	11" 258 260" Drecker Red Late
7. SEALING PROCEDURES	14" 241 Black Richto ful Charses
	16" 338 339 Frede Black lills
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10. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Build the state of the s	Fimi Name Vellmer high Differer Fimi No 383 Fimi Office Research Start - Date July 017 210 Supervisor or Operator Research Tells Date A. 6057

FORWARD WRITE COPY TO WATER RESOURCES



#### IDAHO DEPARTMENT OF WATER RESOURCES WEEL ORD LER'S REPORT Use Expendition or Hallpoint pett



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5. YVP: OF WORK: sheat all tion apply (Replacement, etc.).

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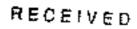
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PRILLING PERMIT NO.	12. WELL TESTS:	Lat:	: Long	
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Name City of Ammon- Acceles: 21255 Ammon H. City Anno Falla State Bol. IP. \$3406 3. LOCATION OF WELL by legal description:	Water Temp 57. Water Quality lest on		Banla	m nole lamp
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DATE:	March 20, 2014	astres in
TO:	Lance Bates, City Engineer City of Ammon 2135 S. Ammon Rd. Ammon, ID 83406	11802
FROM:	Marvin W. Fielding, P.E. Coher L. Hollingshead, E.I.	W W FR

### RE: Well 6 Pump Station Evaluation City of Ammon – Well #6 Design & Remodel #213072-000

As requested, Keller Associates has performed a supply and storage analysis of Ammon's existing potable water system. The analysis was performed to assist the City in determining when additional wells and storage tanks may be needed to neet projected water system demands. We found in this analysis that additional storage will be needed by the year 2019 and additional supply by the year 2022. This report summarizes the results of the analysis and provides estimates of probable cost for well, tank and pump station improvements.

### Supply and Storage Analysis

Information that was used in this analysis included; population projections from the City of Ammon Comprehensive Plan, existing well capacities from peak day logs and operator interviews, system demands during peak periods, and fire flow requirements provided by the Idaho Surveying and Rating Bureau.

The City's firm pumping capacity (largest well offline in accordance with IDAPA 58.01.08.501.18) is approximately 11,470 gpm based on well log reports and recorded values during peak demand periods as shown in Table 1.1 of the attached documentation. The City will need additional sources when the maximum day demand (MDD) reaches the existing firm capacity. An additional source will be needed by the year 2022 when Ammon's projected population reaches 16,780 with a corresponding MDD of 11,420 gpm. Projected system demands are shown in Table 1.3.

The City of Ammon has 3.5 million gallons (MG) of total storage volume in two concrete storage tanks; 2.0 MG in the Ammon Hill Tank and 1.5 MG in the Well #8 Tank. Peak hour demand (PHD) is delivered using a combination of well supply and storage volume. It was assumed that the amount of supply was equal to the system's firm well capacity of 11,470 gpm and that per capita consumption for a peak day remained near 980 gallons per person. Additional equalization storage will be needed when the City's population reaches approximately 15,900 in the year 2019. Storage volumes are comprised of fire suppression, equilization for peak hour, dead storage, and operational storage and are summarized in Table 1.2 of the attached documentation. Well 6 Pump Station Evaluation Page | 2

### Tank and Pump Station Improvements

An evaluation of the 500,000 gallon storage tank on October 11, 2013 found the tank to be structurally sound. A report dated November 2013 by Keller Associates recommended improvements that can be categorized as necessary and optional. Necessary improvements total approximately \$106,500. These include removing the silt in the tank, replacing the existing built-up roof, vent, access hatch lock, and internal pipe supports; repairing the wall to roof joint and lowering the outlet pipe. Optional interior and exterior tank coatings would cost an additional \$84,300. A copy of the tank evaluation report is attached.

Alternative 1 – Repair Existing Well and Construct New Building: Repairing the well necessitates removing the existing building to access the well. In this alternative, the well would be cleaned out and a screen and filter pack installed. Twelve inch casing would be extended from the top of the screen to the surface. The cost to rehabilitate the existing well is estimated to be \$106,000. Target production for the well is approximately 2,000 gpm. A new building would be constructed to house the well, booster pumps and generator. The building could also accommodate an office. Estimated costs for the new building and site improvements are \$623,000. The existing piping would remain intact and be incorporated in the new building. A breakdown of costs for Alternative 1 is attached.

Alternative 2 – Drill New Well and Upgrade Building: Drill a new well on the same lot and connect to the existing piping. Target production of the new is approximately 2,000 gpm. This alternative does not require demolition of the existing building, but requires the full cost of developing a new well. The estimated cost of the new well, pump and piping is \$304,000. Building improvements with this alternative total approximately \$544,000. A breakdown of costs for Alternative 2 is attached.

### **Summary**

Repair of the existing well with the associated tank and pump station improvements described above is the lowest cost alternative to bring the Well 6 pump station back into service. The total cost of this alternative is approximately \$835,500. This is approximately 40 percent of the cost to construct a new facility with similar capacity.

### **KELLER ASSOCIATES, INC.**

### **Attachments**

Summary of Supply and Storage Tank Evaluation Report Well Evaluation Reports Cost Analysis

Consultant's opinions of probable cost represent Consultant's judgment as an experienced and qualified design professional. Since Consultant has no control over the cost of labor, materials, equipment, or services furnished by others, or over the Owner's and other contractor's methods of determining prices, or over competitive bidding or market conditions, the Consultant cannot and does not guarantee that proposals, bids, or actual construction cost will not vary from opinions of probable cost prepared by the Consultant.

### Summary of Supply and Storage

Ammon Wells	Flows (gpm)
Well 2	300*
Well 3	508
Well 5	1,100*
Well 7	1,985
*Well 8	3,380
*Well 9	1,950*
*Well 10	2,490
*Well 11	3,136
Total	14,849
Firm Capacity	11,469

Table 1.1 – Ammon Well Supply and Firm Capacity

\* Values are based off of pump curves and not observed in the field

	2012	2015	2019	2025	2035
Population	14,234	14,884	15,922	17,703	21,580
Storage Component					
Fire Suppression <sup>2</sup>	630,000	630,000	630,000	630,000	630,000
Equalization <sup>3</sup>	1,538,497	1,887,099	2,464,639	3,162,379	3,854,947
Standby <sup>4</sup>	0	0	0	0	0
Subtotal	2,168,497	2,517,099	3,094,639	3,792,379	4,484,947
Dead @ 5% <sup>5</sup>	108,425	125,855	154,732	189,619	224,247
Operational @ 10% <sup>6</sup>	216,850	251,710	309,464	379,238	448,495
Total Required	2,493,771	2,894,663	3,558,835	4,361,236	5,157,690
Available <sup>7</sup>	3,500,000	3,500,000	3,500,000	3,500,000	3,500,000
Additional Needed	0	0	58,835	861,236	1,657,690

### Table 1.2 – Storage Analysis<sup>1</sup>

<sup>1</sup> Assumes firm capacity grows to stay equal with or exceed MDD

<sup>2</sup>Fire flow at town square 3,500 gpm for 3 hours; can be offset if source > MDD

<sup>3</sup>Storage to compensate for difference between PHD and firm pump capacity

<sup>4</sup>Storage for 8 hours of operation at ADD; Offset by pumping capacity under standby power

<sup>5</sup>Based on 6" silt stop in bottom of tank and 6" freeboard below tank overflow

<sup>6</sup>Difference in tank level between pump on and pump off

<sup>7</sup>Hill Tank + Well #8 Tank

Estimated Year	Total Population	Average Day Demand (gpm*)	Maximum Day Demand (gpm)	Peak Hour Demand (gpm)	Average Summer Day Demand (gpm)	Average Winter Day Demand (gpm)
2012	14,234	3,649	9,688	14,532	8,321	1,166
2013	14,447	3,704	9,833	14,750	8,446	1,183
2014	14,664	3,759	9,981	14,971	8,573	1,201
2015	14,884	3,816	10,130	15,196	8,702	1,219
2019	15,922	4,082	10,836	16,255	9,308	1,304
2020	16,192	4,151	11,021	16,531	9,466	1,326
2022	16,780	4,302	11,421	17,131	9,810	1,374
2025	17,703	4,538	12,049	18,074	10,350	1,450
2030	19,545	5,011	13,303	19,954	11,427	1,601
2035	21,580	5,532	14,688	22,032	12,616	1,768

Table 1.3 – Projected Future System Demands



### CITY OF AMMON, IDAHO

Well #6 Tank

### STRUCTURAL REVIEW

November 2013







### WELL #6 TANK STRUCTURAL REVIEW

City of Ammon, Idaho

### Scope of Work

The City of Ammon has a potable water storage reservoir adjacent to Well #6. The reservoir is an above grade prestressed concrete tank with precast concrete tee beams for the roof structure. The tank has been in service since the early 1970s. On October 11, 2013, Keller Associates performed an on-site structural inspection of the Ammon Well #6 reservoir structure. The information in this report is the result of the onsite inspection and evaluations made by Keller Associates.



Ammon Well #6 Tank

### **Reservoir Inspection Process**

The on-site structural inspection was done on the morning of October 11, 2013. The City provided the equipment for the inspection work, including lights, fall protection equipment and an oxygen monitor. City personnel were on site during the inspection to help with equipment and provide safety backup. Keller Associates planned on providing a dry interior inspection (a dry inspection is done with the water drained from the tank, but not necessarily completely dry). The City of Ammon had previously drained the tank to approximately two feet above tank finish floor level, matching the top of inlet pipe elevation. The water tank cannot be completely drained unless the drain line is pumped out.

An oxygen monitor was used inside the reservoir during the inspection. During the interior inspection, two city personnel on the roof assisted with equipment and safety as needed.

The only access to the interior is a rectangular hatch on the south side of the roof. City personnel had fall protection equipment at the hatch during the inspection, and lowered Keller personnel into the tank.

Portable battery-powered, handheld lights were used inside the reservoir to make the interior inspection. Handheld digital cameras were used during the inspection to visually record findings. Due to generally poor lighting inside a large closed tank, most of the documentation was by visual observations and notes.

Keller personnel entered the reservoir to do interior observation and inspection. The first part of the work included the interior walls and floor. The walls, and wall connections at the roof, were easily visible. The floor was covered with one to four inches of sand, beneath two feet of water that still remained. The roof was observed from the floor and along the perimeter next to the hatch opening. Close observation and soundness checking of the roof slab was done from the ladder or from the exterior. Exterior inspections of the exposed roof and the exposed wall were also performed.



### Existing Reservoir Condition

From the visual on-site inspection, plus design experience and research, the tank was determined to be prestressed concrete reinforced primarily with post-tensioning tendons. High-strength steel tendons apply compression to the wall to counteract the applied forces and provide residual compression. This method actively reinforces the structure and significantly enhances its water-tightness and long-term durability.

The design and construction of this tank appears to resemble an AWWA D115 type tank. Posttensioning is a proven technology with decades of successful applications on thousands of structures worldwide including bridges, high-rise buildings, foundation systems, parking structures, silos for granular material storage and liquid storage tanks

Research indicates the tank was constructed in the early 1970s, with an inside diameter of approximately 60 feet and 25 feet to top of wall. The overflow is approximately 6 inches below the top of wall/underside of double tee beam. The double tee beams are approximately 2 feet deep, giving the tank an overall height of 27 feet. The tank roof elevation is approximately 24 feet above grade, thus the tank floor elevation is approximately three feet below grade. The total water storage capacity for this reservoir is approximately 520,000 gallons, and usable storage is approximately 485,000 gallons.

### Foundation & Floor Slab

As no record drawings on the footings and slab were available, professional assumptions were made and are noted here. The floor and wall joint were not visible at time of inspection due to sand coverage and water depth; however, it appears the wall footing is integral with the concrete floor slab. No joints were visible and/or noted.

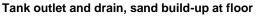
The floor slab slopes gradually from the outer wall to the drain line. The floor is a concrete slab on grade and functions as a membrane slab, transferring the loads from the water directly to the soil below. There were no noticeable sand disturbances to indicate water loss through the floor slab, but visibility was limited.

### Interior Piping

The interior piping consists of a ductile iron overflow pipe attached to the wall on the south side, a ductile iron inlet pipe projecting through the floor on the east side, and a ductile iron outlet and drain pipe located just northeast of center. The inlet and outlet pipes appear to project anywhere from 18 inches to 24 inches. The projection of the inlet and outlet pipes above the floor serves as a silt stop to reduce the flow of accumulated sediment in the tank into the outlet pipe. However, it does limit usable storage capacity to the elevation of the outlet pipe. The City may want to consider lowering the outlet pipe to gain additional storage. The outlet pipe is an 18-inch pipe feeding the boosters; the inlet pipe comes directly from Well #6. There is a gate valve (located outside the reservoir in a valve pit) to regulate flow into the tank.









Tank inlet, up to four inches of sand at floor around inlet



Overflow pipe and supports

An overflow pipe located on the south side of the tank penetrates through the floor slab and extends up to the top, approximately 6 inches below the underside of the roof beams. The pipe is laterally supported by steel brackets that are attached to the interior side of the wall.

A drain pipe is located just north of the center of the tank, and terminates flush with the recessed floor. The drain pipe has a gate valve outside the reservoir to control draining. However, the exterior drain outlet is above tank finish floor and does not allow the tank to

drain fully. Given the amount of sediment in bottom of the tank, it is likely that the drain line has a substantial amount of sand within the pipe.

The drain pipe, inlet pipe, and outlet pipe have minimal corrosion typical of ductile iron piping inside reservoirs. The degree of corrosion is not detrimental to the pipe and can be easily remedied during cleaning. The overflow pipe and its supports have varying degrees of corrosion. There is a significant amount of pack rust occurring at the pipe flanges and bolts. There is also a significant amount of rust buildup at all overflow pipe supports. This can be attributed to the carbon steel supports and bolts with limited or no coating. All bolts and overflow piping supports should be removed and replaced with stainless steel hardware. Rusting on the ductile iron flanges and piping should be remedied during cleaning.





Close-up of rusting pipe supports

### Concrete Walls

The reservoir consists of four cast-in-place, full height wall segments (approximately 8 inches thick) that are vertically and horizontally prestressed. The walls are post-tensioned horizontally at four wall pilasters that are visible on the exterior, placing the tank in constant compression. Concrete is a material with high compressive strength but relatively low tensile strength.

Through the principles of structural design, the level of post-tensioning applied to a structural component can reduce or eliminate the tensile stresses in the concrete. Post-tensioning allows for large concrete placements without construction, expansion, or control joints. Vertical joints extending the full height of the wall occur at approximately every 47 feet. It is assumed a waterstop was placed at each of these vertical wall joint locations.

Throughout the interior of the tank, there are multiple locations where coating has



South wall segment, with coating at base

been applied. At each of the vertical wall joints, an approximate 24-inch wide coating strip extends the full height. The bottom 10 feet of both the south and west wall segments are also coated. There are multiple other locations where coating has been randomly applied. In



looking at the coating, it appears it may have been a grout epoxy mix to infill voids and provide added water tightness. In many locations, the outer layer of the coating has boiled. Portions of the coating were removed, revealing water between the coating and concrete wall at these boiling locations. However, no cracking or spalling of the coating was noted and in all locations the wall appears to be sound and in good condition.



Boiling of coating removed; concrete appears to be in sound condition underneath

There are some areas on the interior wall where small rust spots are visible. These spots are likely caused by old wall ties left in place during the original construction. The rusting ties are of little concern, since the rusting process on the end of ties cast in the wall is a very slow process and could take many more years for the rust to penetrate a few inches into the wall. The rusting



Exterior pilaster and underside of roof overhang, minor scaling at roof

tie metal expands as it rusts and can cause concrete pop-outs around the tie location; no pop-outs were visible in the walls. There are very few visible cracks throughout, and the wall appears to be sound and in good condition.

Most of the exterior wall is above grade, with the bottom three feet buried. The exterior of the wall has an aesthetic sack finish and coating applied. No signs of deterioration with the prestressing tendons were visible. The prestressing tendons are encapsulated in concrete and terminate at each pilaster. The pilasters and exterior wall exhibit minor cracking, mostly in the outer concrete sack finish that has since been coated. There are locations where the sack finish/coating is no longer bonded to the structural concrete and has spalled off and/or cracked. These cracks are superficial and do not extend into the core wall. A few locations exhibited minor leaching and or damp spots. No observable leaks were present. The concrete wall appears to be sound and in good condition; however, the aesthetic finish will continue to deteriorate over time and may need replaced at some future time as deemed necessary by the City.





Surface scaling and cracking occurring in sack finish and coating

The base-to-wall joint was not visible; however, discussions with the original design engineer indicate the walls rest on a neoprene pad placed on the footing with seismic base cables extending from the footing to exterior wall. (The main purpose of the cable is to restrain the walls from moving during a seismic event without putting additional stress into the wall.) This joint appears capable of withstanding at-rest backfill and hydrostatic loads. The cables and the neoprene bearing pad between the wall and the footing provide a flexible connection, allowing expansion / contraction movement between the wall and footing without inducing additional stresses in the wall or footing. It is assumed the base-to-wall joint also incorporates a waterstop.

The roof-to-wall joint was inspected from both the inside and outside of the tank. This ioint is considered to be a flexible ioint. Around the perimeter of the tank, the roof double tee beams bear directly on wide neoprene pad а centered at the top of the wall panel. Between the double tees, the void is infilled with reinforced concrete to match the thickness and circumference of the wall below. It does appear that this joint allows lateral movement between the wall and roof joint, enabling the structure to expand and



Roof-to-wall joint

contract. However, it is unknown if any type of vertical dowel exists to restrain against excessive movement during dynamic loading in the event of an earthquake; hence some vulnerabilities may be present.





Concrete infill experiencing moderate deterioration

On the interior of the tank, there are a few locations where the concrete infill between the double tee beams is exhibiting some deterioration. The reinforcing is exposed due to the concrete cover previously spalling off. Although this exposed reinforcing at the infill does not pose a structural concern, it does create a maintenance issue and should be repaired.

At the exterior, the roof-to-wall joint appears to have been patched and sack finished. Cracking is occurring in the patchwork, and some minor spalling at the top of wall exists. Cracking will continue to be an

ongoing problem at this location due to the flexible nature of the joint. Minor spalling may also occur at the top of wall/concrete infill. Ongoing maintenance may be required, but overall, the wall and roof joint appear to be in sound condition for static loading conditions.



Patching at roof-to-wall joint experiencing moderate deterioration



### Interior Roof

The roof slab is constructed of panels precast double tee spanning between the perimeter walls. These panels are welded together at various steel embed plates along the panel edges. The joint between the panels appears to have a mastic or polybased sealant the full length of joint. The underside of the roof was inspected from the interior of the tank, and hammer sounding was performed near the hatch to determine concrete soundness and check for delaminations. Near the overflow pipe, some cracking was observed in the flange of the double tee: however, no delamination or



Roof double tees

excessive rust stains were observed to cause concern. Minor surface rusting stains were present throughout the underside of the roof, likely due to inadequate concrete cover. However, no surface delamination or spalling of the concrete (generally associated with severe reinforcement corrosion) was observed. Near the hatch opening some deterioration has occurred, exposing some of the aggregate. The underside of the roof slab is in fair to good condition, with some minimal corrosion occurring throughout. Regular inspection should be performed to evaluate whether ongoing deterioration is progressing and/or if maintenance is needed.



Cracking on underside of roof panel





Rusting of reinforcing on underside of roof slab, lack of concrete cover

### Exterior of Roof of Tank

The concrete double tee roof appears to be covered with a tar and gravel roof. A tar and gravel roof consists of layers of asphalt and tar paper adhered with applications of molten asphalt. It appears that, for this application, a one-inch layer of sand was used between layers of asphalt tar paper. The laminated layers then received a top finish of gravel, some of which became embedded in the hot asphalt, and some of which lies loose on the surface of the roof. The purpose of the gravel is to shield the asphalt from the damaging effect of sun exposure. Over the years, many small trees have sprouted up in various locations, and seams of the tar paper have separated. From discussions with City staff little to no maintenance on the roof has been performed over the years, indicating this is likely the original roofing. The life expectancy of a tar and gravel roof is 20 years; this roof has far exceeded the normal life span. Keller Associates recommends the roofing system be replaced.



Tar and gravel roofing with tree growth

Peeling of roofing system



### Roof Vent

The vent in the roof appears to be in adequate condition. The ventilator is not secure against vandalism, and could allow dust and other contaminates to get into the reservoir. Keller Associates recommends the vent be replaced with a security vent to prevent contamination of the reservoir.

### Access Hatch

There is one manway access hatch into the tank on the south side of the roof. The hatch appears to be in adequate condition, and provides a lip over



Roof access hatch and vent

the edge to prevent exterior water intrusion. No locking mechanism exists. Keller Associates recommends the hatch be modified to incorporate a lock to prevent against vandalism.

### Overflow Outflow

The termination of the overflow was observed; the fine mesh screening was damaged and did not enclose the pipe. The fine mesh screen should be replaced to prevent intrusion into the tank.



Overflow outflow mesh is damaged



### Conclusions

Under current conditions, the tank appears to be resisting the static loads, is in reasonably good shape for the age of structure, and has minimal deterioration on both the exterior and interior of the tank. The life expectancy of a prestressed concrete tank under static loads can be expected to be anywhere from 50-100 years, depending on location, construction methods, performance and maintenance. Overall, the tank is capable of performing in its current function for many more years under static loading conditions. As this tank appears to be in sound condition, it would be reasonable to assume this tank to have a life expectancy of another 20 years, and possibly even greater, with ongoing maintenance and regular inspections. This of course is based upon no significant seismic event occurring during that time period.

Under dynamic loading conditions, which would occur under a design level earthquake, the tank may have some vulnerabilities. A seismic evaluation or analysis was not part of this scope; however, based on the history of prestressed concrete tanks, these types of tanks have performed well in seismic events. Some vulnerabilities that may exist appear to be at the roof-to-wall connection and wall-to-footing connection, as both of these connections are unknown and could not be verified at the time of inspection.

### Recommendations

Keller Associates recommends the following improvements and procedures if the City elects to keep the tank in service:

- Sand is an ongoing maintenance issue, and should be removed during inspections to observe the condition of the floor and the wall-to-base joint.
- Replace all overflow pipe supports and bolts associated with overflow piping with stainless steel hardware. Clean and remove rust buildup on overflow pipe, specifically at pipe flanges.
- Repair and patch reinforcing and concrete infill between double tee beams where reinforcing is exposed and rusting.
- Replace tar and gravel roof with new membrane roof.
- Replace roof vent with new security roof vent.
- Provide locking mechanism on access hatch.
- Provide new fine screen on overflow outflow.
- Consider lowering the top of outlet pipe to increase usable storage. Maintain penetration through floor with a minimum of 8" clear from top of slab.
- Consider providing proper drain outflow to allow complete drainage of tank without pumping.
- The exterior coating and sack finish is primarily an aesthetic feature; ongoing maintenance and/or replacement of finish to be completed as necessary by the City.
- Regular tank inspection should be conducted to observe conditions and evaluate maintenance needs. These can be conducted by divers every two years with tank full of water, and every five to ten years with tank drained. Particularly, inspections should note interior coating condition and rust staining on underside of roof slab/beams to determine ongoing deterioration or maintenance needs.



September 27, 2013

Keller Associates, Inc. Mr. Marvin Fielding 356 W Sunnyside Rd, Suite B Idaho Falls, ID 83402

### RE: AMMON WELL #6 WELL ANALYSIS REPORT

Dear Mr. Fielding:

This letter transmits my analysis of Well 6. The well has a bridge at 321 ft that prevented video logging to the total depth of 365 ft. Sand content was within state standards at a flow rate of 600 gpm but at flow rates above this, the sand content was unacceptable. Because the well is in a building and a drilling rig cannot be placed over the well, there is not much that can be done to reduce the sand. There appears to be two options; use the well as is, but pump at a lower rate or drill a new well. Details and findings of this study are presented below.

### **Pumping Test**

On September 16, 2013 a pumping test was conducted in Well 6 using the existing pump. We attempted to access the water level monitoring tube but an installed pressure transducer prevented access and it could not be removed from the water level access tube. No water levels were recorded during pumping. A Rossum Sand Tester was installed on the discharge line for the pump. Water from the well was pumped to the large water storage tank adjacent to the well house. The water flow rate was read in the sump located between the well house and the storage tank by City of Ammon Personnel. City employee's also made changes to the well flow rate using the installed VFD. Prior to this test the well had set idle for at least 3 years.

The basic procedure was to run the pump at the initial rate of 1400 gpm, make a sand measurement and then decrease the flow rate by about 200 gpm, perform another 10 minute sand test, decrease the flow rate by another 200 gpm, take a sand reading and so on. This was done until the sand rate was less than 5 ppm (the Idaho State Standard). Flow rates and sand content are presented in Table 1. Sand content started out extremely high and a full 10 minute test could not be run because it would have filled the test tube on the sand tester with sand. As the pumping rate was decreased, the sand content also decreased.

Plots of the data are presented in Figure 1. The upper plot shows all the data collected during testing and the lower plot shows the sand content at flow rates below 1000 gpm. Sand content generally follows an exponential curve as shown in the upper plot with an R squared value of 0.993, indicating a good match to the data. The increase in sand content with higher flow is caused by the increased velocity of the water entering the well having a greater capacity to transport sand. As can be seen the state level for sand content (5 ppm) was not reached until flow was decreased to 600 gpm.

Table 1 Sand content in parts per million by volume versus flow rate in gallons per minute.

ppm	gpm
623	1400
275	1350
158	1200
24	1000
5.8	800
1.05	600



### Pump Removal

Pump Tech removed the existing pump and pump column for the well on September 19, 2013 using a high capacity overhead crane to lift the pump through the roof port. The pump was set at a depth of 170 ft. The static water level was measured from the top of the well casing at 162 ft. Pump Tech took the pump to their shop and the pump column was stored in the vacant lot northwest of the water tank. The 10 inch pump column is heavily rusted but no breaks or weak spots were identified during removal.

### Video Logging

Cushman Well Drilling performed a downhole video logging of the well on September 24, 2013, using a color camera with side view capabilities. A recording was made and it is on file with Keller Associates in Idaho Falls. The objectives of the video survey were to evaluate the integrity of the steel well casing and to understand where sand was entering the well. A garden hose left running into the well for several days to flush the well and enhance visibility. Rust was severe on the well casing throughout most of the length of the well. It was extremely thick above and just below the water table. A number of large rust flakes, several inches across, were observed. It was difficult to tell the thickness of the rust but in some locations bubbles or nodules of rust may have extended to as much as 3/8ths of an inch above the surface of the casing. No breaches in the casing were observed and the casing welds appear to be solid and intact.

The camera was stopped at 321 ft by a bridge consisting of debris, sediment and rock. It appeared that that the bridge did not completely block the well. A dark shadow on one side (about 1/3 the circumference of the casing) indicates an opening for water to flow upward from below. An opening past the bridge must exist because the dense overlying basalt formation cannot the produce the 1400 gpm provided during the pumping test. The camera was retrieved from the well with no issues. On the recording several long, badly rusted intervals are examined, but these do not appear to penetrate the full thickness of the well casing.

### **Discussion**

The existing well has a severe sand problem at flow rates above 1000 gpm. The sand pumped from the well most likely comes from the sandstone layer between 335 and 360 ft (see well log in Attachment 1). Access to the well is restricted by the existing building, which precludes putting a drilling rig over the well for a work over without tearing down part of the building. Because the outcome of a well work-over for eliminating sand pumping are difficult to predict in advance it is not recommended that the alternative of tearing down a part of the building be pursued. Thus, any work to be performed will have to be accomplished using a crane. This narrows the options to

- 1. Pumping Well 6 at 600 gpm
- 2. Drill a new well.

A Cost estimate for drilling a replacement well is provided in Table 2. The proposed well would be 390 feet deep and be completed with 60 ft of stainless steel wire wrapped screen and a sand pack. The targeted flow rate for the well is 1,000 gpm. The estimated cost is ~\$160,000 not including a new pump and motor. An alternative is to drill a deep test hole to 600 feet to determine if more water can be found at depth in sand free, fractured basalt. It is not known if highly fractured basalt exists at depth at this location. If it does exist it might produce more that 1,000 gpm.



### Sand Testing of Ammon Well #10

At the request of Rick Williams, a sand test was conducted in Ammon 10 on September 26, 2013. A Rossum Sand Tester was attached to the main discharge line of the pump in an existing <sup>1</sup>/<sub>2</sub> inch threaded port. Sand measuring started immediately upon the start up of the pump and ran for 10 minutes. The well was pumped at 1000 gpm, under 82 psi. The measured sand content was 2.64 ppm and the data sheet is presented in Figure 2. It was noted that sand deposition was high after start up and diminished with continued pumping.

Respectfully,

Thomas R. Wood, PhD, PG



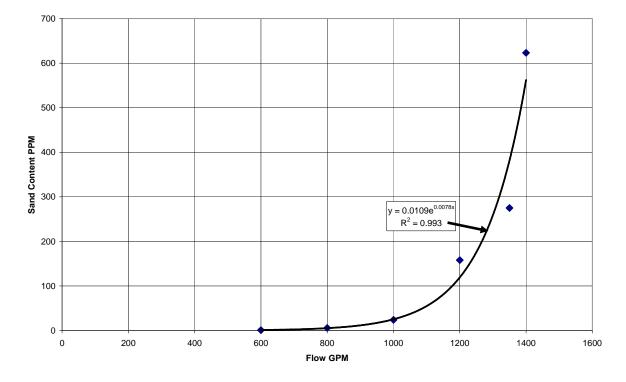


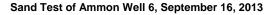
Table 2 Cost estimate for drilling a replacement well.

	Geologists	Estimate S	heet	E.	
Page 1	Ammon 6 Replacement Well	Number			
Contractor	Unknown			Contract Amoun	
Submitted	Tom Wood		i.	Capiterniber 27, 2	na -
ban Sumbar	Description.	Estimated Guentity	Unit	Unit Price	Total Amount
1	Mob-Denob	1	68	\$7,500	\$2,50
2	f-inch test hole		UF.	\$50	9
3	Bet Dersporay Barface Gasing 20-inch	140	ur.	\$250	\$36,40
4	Onit Nominal 29-indl Open Tole	250	U.	\$200	\$58,00
5	Hinch Steel Viel Casing (8:375 - Inch)	300	ur.	510	\$10,00
	Rends well access	00	15	\$256	\$15,00
7	File Pack	2	or	\$800	\$1,60
	fontante	15	CF	\$25	\$37
9	Cement Sankary Seal	10	CF.	\$500	\$5,00
10	Well Development	24	HR	\$250	\$8,40
5.5	Mob/Demob test pump		65	\$7,500	\$7,90
12	Pumping Test	30	HR.	\$175	\$5,20
10	Sampling		1.5	\$2,800	\$2,60



Sand Test of Ammon Well 6, September 16, 2013





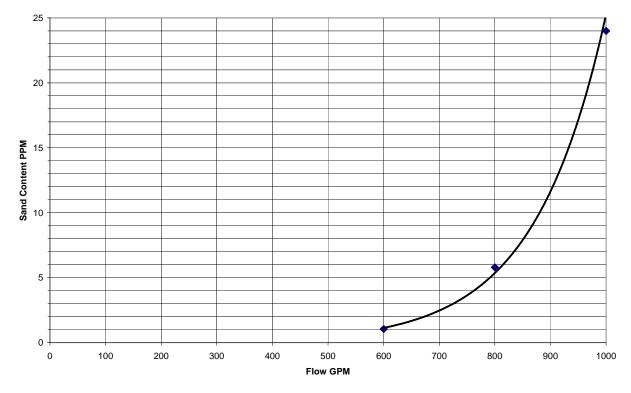


Figure 1 Sand content versus flow rate, upper is all data and lower is sand content a lower flow.



### Sand Content Data Sheet Rossum Sand Tester

Project:City of Ammon Well 10Date:9/26/13Location:½ inch port on Main Line

Test Number	Date	Time	Flow Rate	Volume of Sand in Rossum Sand Tester	Parts per Million by volume
1	9/26/13	9:25-9:35	1000 gpm	0.05 ml	2.64 ppm (start up sand test)



Figure 2. Sand content data sheet for Ammon Well 10.



### Appendix 1 Well Log for Ammon #6

Clearwater Geosciences, LLP	
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1818 East 49<sup>th</sup> South, Idaho Falls, ID 83404, Ph. 208-589-5555



<u>Clearwater Geosciences, LLP</u> Ground Water Development and Exploration

November 19, 2013

Keller Associates, Inc. Mr. Marvin Fielding 356 W Sunnyside Rd, Suite B Idaho Falls, ID 83402

#### RE: AMMON WELL #6 WELL RETROFIT WITH PART OF THE BUILDING REMOVED

Dear Mr. Fielding:

You requested that I consider options for Ammon Well 6 if a portion of the well house was torn down. In that case I will assume that a drilling rig could be placed over the well and the well worked over.

The first step would be to remove the bridge at 321 ft and clean out slough material in the well to the original total depth of the well (365 ft). At this point we have two options; 1) remove the sand from the open interval (263 – 365 ft) using a well screen or drill deeper in the hopes of encountering a deeper water bearing zone. Unfortunately, the drilling regulations will not allow mixing of the water from this interval with water from a deeper interval, so drilling deeper means we will have to pick up all the water from a lower zone. There is no information nearby on the water bearing characteristics of the deeper formations, so, drilling deeper would be exploration. I estimate that drilling a test well an additional 135 ft to be about \$20,000. Due to the level of uncertainty with this approach, this is the limit of my cost analysis, if the City is interested; I can do a more thorough break down.

The most straight forward approach is to install a Muni-Pak (Johnson Well Screen Trademark), which is basically two well screens with a sand pack in between. The screens and the sand pack are sized to eliminate the sand in a well. I was unable to recover sufficient sand in the pumping test but I estimate a 20 thousands slot screen would be sufficient to remove the sand. A complete sand analysis needs to be done prior to final design. The 12-inch casing would be run to land surface because of the degradation of the existing 16-inch casing.

A Cost estimate for retrofitting a Muni-Pak in Well 6 is provided in Table 1. I assumed 60 ft of Muni-Pak with 40 ft at the bottom and two 10 ft lengths between 265 and 325 ft. The targeted flow rate for the modified well is 2,000 gpm. This is just a guess since I could not get any drawdown data during pumping of Well 6.

Respectfully,

Thomas R. Wood, PhD, PG





<u>Clearwater Geosciences, LLP</u> Ground Water Development and Exploration

Table 1 Cost estimate for retrofitting the well.

### **Ammon Well 6 Replacement**

### **Cost Estimate**

Project	Ammon 6 Well Retro Fit	Number	0		
Submitted	Clearwater Geosciences, LLP	Date	Novem	ber 19, 2013	
ltem Number	Description	Estimated Quantity	Unit	Unit Price	Total Amount
	Ammon Well 6 12-inch Channel Pack				
1	Mob-Demob	1	LS	\$7,500	\$7,500
2	16-inch Drilling and Hole Cleaning	12	HR	\$350	\$4,200
3	Well Development With Rig	12	HR	\$350	\$4,200
4	Video Well	1	LS	\$750	\$750
5	12-inch Tail and Head Pipes	305	LF	\$60	\$18,300
6	10x12-inch Muni-Pack Screen (20 thousandths slot)	60	LF	\$383	\$22,950
7	K-Packer 12 to 16-inch	1	EA	\$2,137	\$2,137
8	Mob/Demob test pump	1	LS	\$7,500	\$7,500
9	Pumping Test / Well Development	30	HR	\$175	\$5,250
10	Sampling	1	LS	\$2,800	\$2,800
11	Design, Permitting and Reporting	1	LS	\$9,000	\$9,000
12					
13					
14					
				TOTAL	\$84,587

### City of Ammon

Estimate of Probable Cost

Alternative 1 - Repair Existing Well and Construct New Building

Tank	<u>Improvements</u>	
1	Replace Tank Roof, Vent and Access Hatch Lock	\$46,100
2	Piping Improvements	\$4,000
3	Repair/patch Interior Concrete at Wall/lid Joint	\$12,000
4	Remove sand	\$14,000
Subt	otal - Tank Improvements	\$76,100
<u>Repa</u>	ir Existing Well	
1	Repair existing well (see breakdown)	\$76,000
Subt	otal - Repair Existing Well	\$76,000
<u>Builc</u>	ling	
1	Demo Existing Building	\$10,000
2	1600 SF Masonry Building	\$100,000
3	New RMP transformer	\$10,000
4	Pumps and Motors	\$60,000
5	300 KVA Generator	\$80,000
6	VFD's	\$32,000
7	Electrical	\$110,000
8	SCADA	\$40,000
Subt	otal - Building	\$442,000
<u>Eme</u>	rgency Water Fill Station	
1	10'X10' Fenced Area	\$900
2	1" Тар	\$1,000
3	Frost Free Yard Hydrant	\$600
4	Gravel Pad	\$300
Subt	otal - Emergency Fill Station	\$2,800
Sub-	Total Repair Existing Well Alternative	\$596,900
Engi	neering @ 15%	\$89,535
Cont	ingency @ 25%	\$149,225
Tota	I Repair Existing Well Alternative	\$835,660



### City of Ammon

Estimate of Probable Cost

Alternative 2 - Construct New Well and Upgrade Building

Tank	Improvements	
1	Replace Tank Roof, Vent and Access Hatch Lock	\$46,100
2	Piping Improvements	\$4,000
3	Repair/patch interior concrete at wall/lid joint	\$12,000
4	Remove sand	\$14,000
	otal - Tank Improvements	\$76,100
<u>New</u>	Well	
1	New well (see breakdown)	\$160,000
2	Pump and motor	\$12,000
3	VFD	\$10,000
4	Drop pipe	\$5,000
5	Pitless Adapter	\$12,000
6	12" Pipe to existing	\$10,000
7	Abandon Existing Well	\$8,000
Subt	otal - New Well	\$217,000
Build	ling Improvements	
1	Building Repairs	\$24,000
2	15'X25' Generator Addition	\$30,000
3	Pumps and Motors	\$60,000
4	Generator	\$80,000
5	VFD's	\$32,000
6	Electrical	\$110,000
7	New RMP Transformer	\$10,000
8	SCADA	\$40,000
-	otal - Building	\$386,000
Eme	rgency Water Fill Station	
1	10'X10' Fenced Area	\$900
2	1" Тар	\$1,000
3	Frost Free Yard Hydrant	\$600
4	Gravel Pad	\$300
Subt	otal - Emergency Fill Station	\$2,800
Sub-	Total New Well Alternative	\$681,900
Engiı	neering @ 15%	\$102,285
-	ingency @ 25%	\$170,475
	New Well Alternative	\$954,660





May 29, 2013

Marvin Fielding Reifer Associates, Inc. 356 W. Sanayside, Ste. B. Idaho Falis, Idaho - 83404

Re: Well No. 6 Pump House, Amazon, ID

Dear Marvin,

We appreciate the opportunity to submit the following proposal for work on the referenced project. The proposal is for partial architecteral services including construction documents, building/negotiation consultation and minimal construction administration services. We have assurated that the project building and construction adapprogration will be handled by Keller.

Our scope of work for the project as we understand it is as follows.

Provide solected arcintectural services including design, construction documents, shopdrawing and submittal review, and documentation for the following project:

Opgrade of Well No. 6 Pump House including building fastia, soffit, mastery cleaning, window fill in, door refurbish and wood trict coving. Project cost estimated by NBW at \$23,750.00.

Civil engineering and mechanical engineering is excluded from our scope of services.

The proposed for for these services is \$2,950.00 not including reimbursable expenses

We appreciate the opportunity to present flus proposal to you. If these figures are acceptable, we are able to begin work immediately upon your authorization. If you have any questions or comments, please contact as immediately.

Sincerely,

NBW Architects P.A

Harris R. Harris

Kevin R. Boddy, AIA Architect

K4(H)/ths

New Y. Norison, et al., "Review Readily, and therefore Westmann startings of the formation astronom in the start."



#### Architecture) Scope of Work & Estimate of Cost

Well, No.6 Pump House

City of Ammon ID.

Well No. 5 is located in the Hiliview Vilage subdivision located in the center of in the City of Ammon Joaho and was constructed in the mid 1950's. The period house is comprised of a 1,000 SF post and beam building utilizing steel columns and wood Giu-tem beams with mesonry infit panels between the columns. The root structure is constructed of T&G wood decking and a 10 year old single ply root membrone installed over an existing built-up- root system.

The structure appears to be structurally sound and generally in good shape. The exterior shows signs of water namage and some efflorescence on the musuity. The single ply roofing system appears to be water tight but there are several areas where water is being shed from the roof and causing problems.

The following is a detailed look at the existing conditions that we feel requires immediate attention:

- The building fascial softit and exposed glusters been system show mild water damage caused by water being shall from the roof. The wood trim associated with the steel columns that run vertically below each of the beams show signs of wreathing and separation from the adjacent masonry construction.
  - a. Recommendation: Provide new gulter and down spoot system to control the shadding of water from the existing roof. Provide new pre-finished metal (ascia and soffit materials to cover damaged areas and wrap the existing exposed beams. Wrap existing wood trim at column location with pre-finished metal materials.
  - b. Estimate of probable cost #\$9,980.00
- The exterior masonry and portions of the interior show signs of effortescence and some mood demage caused from the freeze thaw cycle created by the moisture from the roof as well as the lawn migation system.
  - Recommendation: Remove offlorescence from building with approved masonry cleaner Adjust existing lown irrigation system so that it limits the amount of water sorayed on the masonry surfaces. Tuck point dreas of damaged masonry construction
  - b. Estimate of probable costs × \$5,148.00

Scent - Restaurung - Kenn R.Beddy, ein - Immer H. Wyan, hi-Taneten af the Amerika Structure of American

- 3. Several of the exterior windows are in need or repair or replacement.
  - a Recommendation: Replace glazing (m/ associated damaged frames. Where the north bay of windows has been covered, we recommend that all of the windows be renkwed and refliked with stud frammy then obvered with a pre-finished insulating panel.
  - f. Estimate of probable casts = Window replacement \$350.00, Panels \$5,400.00.
- 4 All of the doors are in need of paint and repair. The todong systems on each door stick and are to some extend in need of replacement.
  - a. Recommendation: Remove the existing door locksets and deadbolts, sond the doors sufficiently to receive new enamel point system and then reinstall the new locksets and deadbolts.
  - i) boomate of probable costs = \$050.00.
- 5. Gepsibetween masurity & wood or masonry & steel are showing and are in need of repeir.
  - Recommendation: Rake all joints between wood masonry and metal surfaces then upply elustometic sealant and backer rad. Work to include har not limited to abors, Windows, lauvers & grills and columns.
  - b. Estimate of probable costs = \$750.00

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Currently the structure is of limited use to the City of Ammon but critical if the need arises. We feel that with the total estimated costs of **\$23.570.00** that the work indicated above would be one step towards extending the life of the structure and help maintain its osefulness to the City.

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GROWING POSSIBILITIES

# City Pump Station Inventory 7-12-2012

Facility	Grounds	Building	Equipment	Comments
Pump Station 2	Landscaped & Maintained by Others	Fair Exterior, Interior Recent Remodeled	Submersible Pump, Aged, Peak Pumping	Needs Equipment Upgrades SCADA
Pump Station 3	Unmaintained, Not visible	Poor-Fair Exterior, Very Poor Interior	Deep Well Pump, Aged, Peak Pumping	Needs Equipment Upgrades SCADA
Pump Station 5	Landscaped, Some Maintenance, Not Visible	Partial Reconstruction Exterior and Interior	Deep Well Pump, Aged, Peak Pumping	Needs Equipment Upgrades SCADA
Pump Station 6	Landscaped, Not Maintained	Deteriorating, Needs remodeled, rebuilt	Inoperable needs rebuilt	·····
Pump Station 7	Landscaped, Recent Construction maintained by others	Good Exterior, Interior needs painted	Deep Well Pump, Aged, Peak Pumping	Needs Equipment Upgrades SCADA
Pump Station 8	Unlandscaped, pavement, gravel not visible	Concrete Block in good condition,	Deep Well Pump, Boosters, Generators	Pump Bldg needs paint inside, outside
Pump Station 9	No Landscaping, Unmaintained grounds, large lot	New Concrete Block, Excellent inside and out	Deep Well Pump, Boosters, Generator	Possible Community Garden or Tree Farm
Pump Station 10	Unfenced, No Landscape, unmaintained, 100'x 100'	New Concrete Block, Excellent inside and out	Deep Well Pump, Generator	Security Concerns, Possible Development Concerns
· ·				Security Concerns, Possible Development Concerns
Pump Station 11	No Landscape inside or out minimum maintenance	New Concrete Block, Excellent inside and out	Deep Well Pump, Generator	
Pump Station 12	Landscape outside, gravel pavement inside, park maintenance	New Concrete Block, Excellent inside and out	Boosters, Generator	



Ammon 2018 WFPS





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GROWING POSSIBILITIES



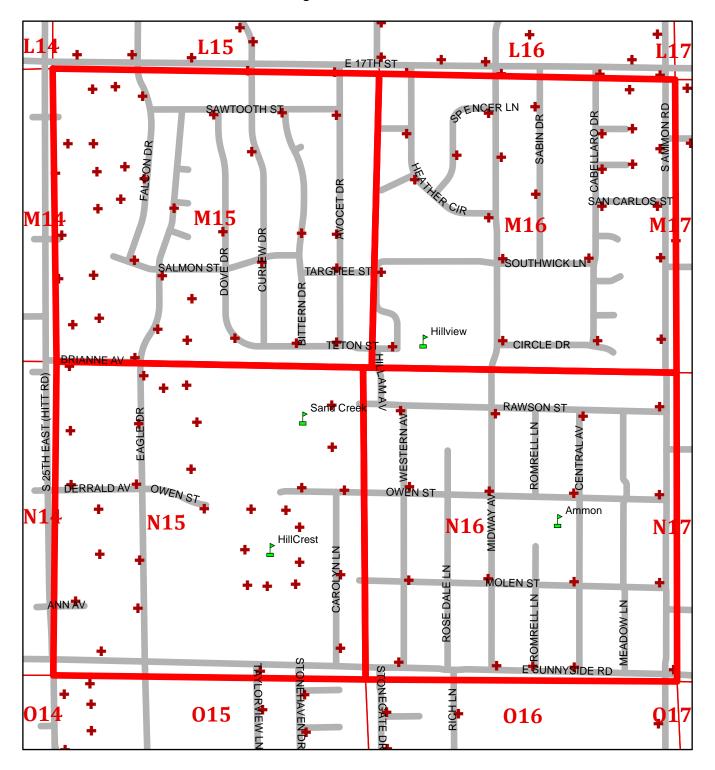


# **Aminon** Communities Master Plan

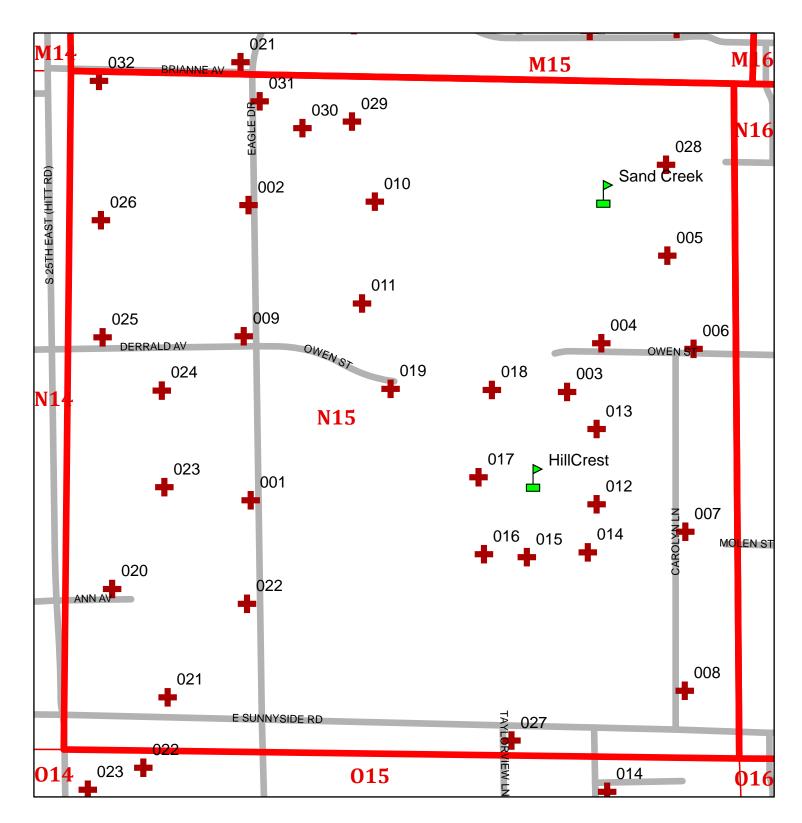
# HYDRANT INVENTORY

**July 2014** 

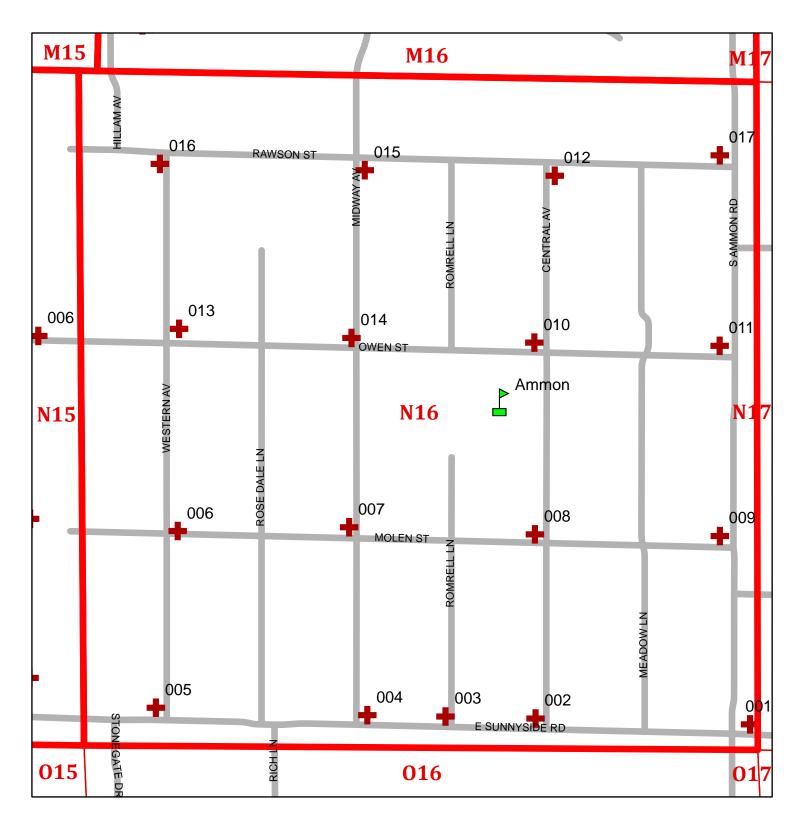
# Ammon Communities Master Plan City Fire Grid



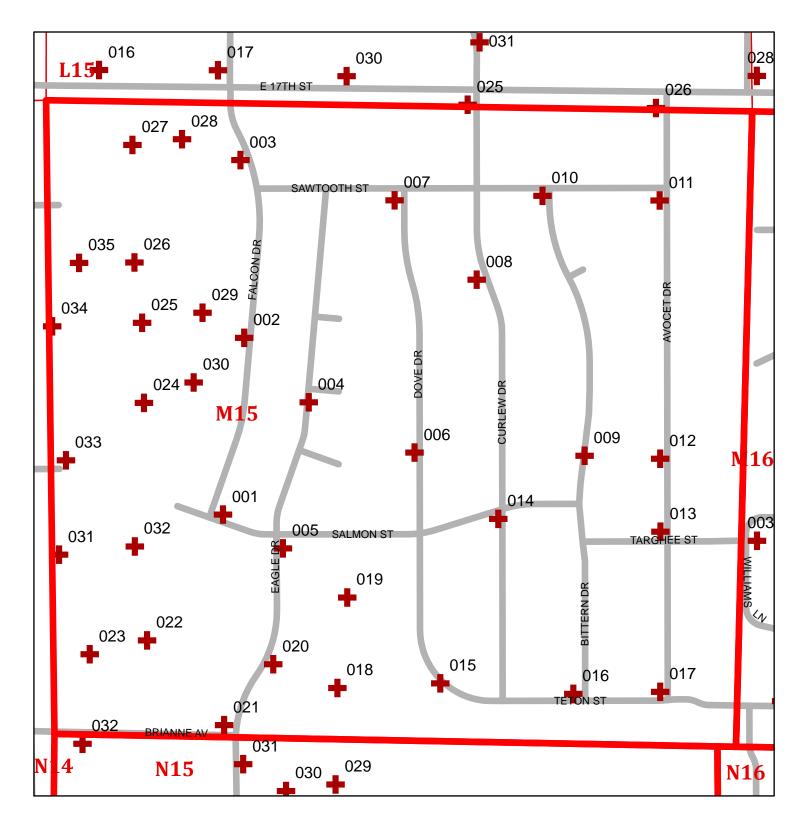
# Ammon City Fire Grid N15



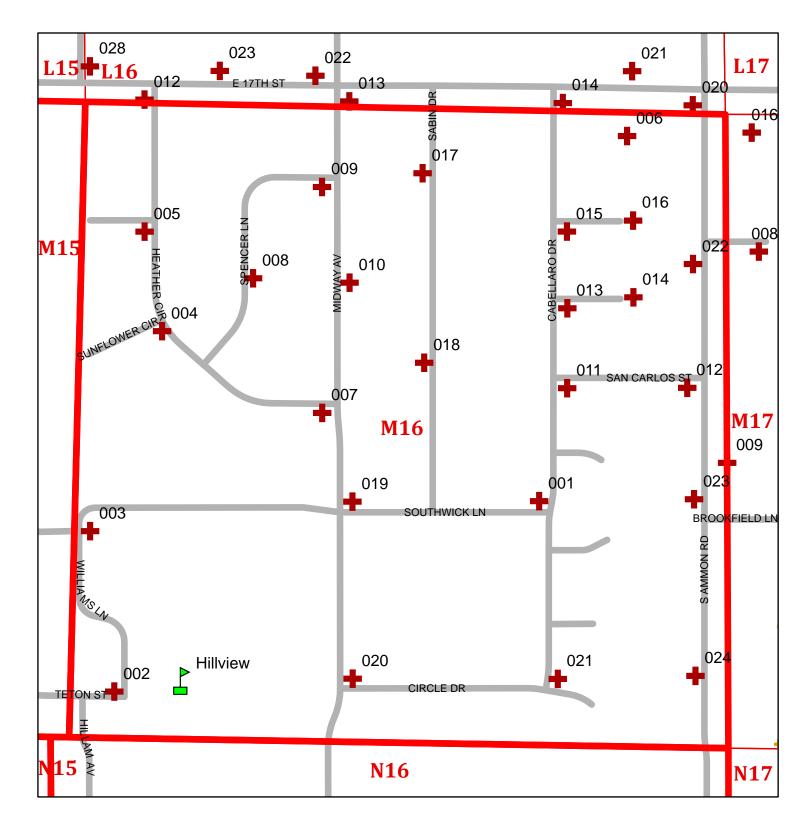
# Ammon City Fire Grid N16



# Ammon City Fire Grid M15



# Ammon City Fire Grid M16



Fire Grid	Hydrant Number	Hydrant ID	Pictures	Manufacturer	Year	Bury Depth (ft)
N15				1		
N15	001	N15-001	131-133	Clow	2003	6.5
N15	002	N15-002	110-112	Clow	1996	
N15	003	N15-003	10-12	Mueller	1990	
N15	004	N15-004	34-36	Waterous	1986	5.5
N15	005	N15-005	40-42	Kennedy	1985	
N15	006	N15-006	37-39	Waterous	1986	5.5
N15	007	N15-007	28-30	Waterous	1995	6.0
N15	008	N15-008	25-27	Waterous	1996	6.0
N15	009	N15-009	107-109	Clow	1996	
N15	010	N15-010	122-124	Clow	Buried	6.5
N15	011	N15-011	125-127	Clow	2002	6.5
N15	012	N15-012	16-18	Mueller	1990	
N15	013	N15-013	13-15	Mueller	1991	
N15	014	N15-014	19-21	Mueller	1990	
N15	015	N15-015	22-24	Mueller	1990	
N15	016	N15-016	1-3	Mueller	2006	
N15	017	N15-017	4-6	Mueller	Concrete	
N15	018	N15-018	7-9	Mueller	1991	
N15	019	N15-019	128-130	Waterous	2000	6.5
N15	020	N15-020	83-85	Clow	2001	6.0
N15	021	N15-021	137-139	Waterous	2006	6.5 24"ext
N15	022	N15-022	134-136	Clow	2001	6.0
N15	023	N15-023	103-106	Clow	2003	
N15	024	N15-024	99-102	Clow	2000	6.0
N15	025	N15-025	90-92	Waterous	1998	6.0
N15	026	N15-026	93-95	Waterous	1998	6.0
N15	027	N15-027	31-33	Waterous	1975	5.0
N15	028	N15-028	43-45	Kennedy	1985	
N15	029	N15-029	119-121	Clow	2002	6.5
N15	030	N15-030	116-118	Clow	2008	7.0
N15	031	N15-031	113-115	Clow	2008	
N15	032	N15-032	96-98	Waterous	1998	6.0
	001		50.50		1000	0.0
N16						
N16	001	N16-001	83-84	Pacific States	1974	
N16	002	N16-002	19-21	Clow	2005	
N16	003	N16-003	16-18	Clow	2005	
N16	004	N16-004	74-76	Clow	Buried	6.5
N16	005	N16-005	79-82	Clow	2005	
N16	006	N16-006	40-42	Pacific States	1965	
N16	007	N16-007	36-38	Pacific States	1965	
N16	008	N16-008	32-34	Pacific States	1965	
N16	009	N16-009	26-30	Pacific States	1962	
N16	010	N16-010	51-53	Pacific States	1968	
N16	011	N16-011	54-56	Pacific States	1966	
N16	012	N16-012	61-63	Pacific States	1954	
N16	013	N16-013	43-46	Mueller	2011	
N16	014	N16-014	48-50	Pacific States	1968	
N16	015	N16-015	64-66	Pacific States	1968	
N16	016	N16-016	68-70	Clow	2013	6.0
N16	017	N16-017	58-60	Pacific States	1962	
N16	Meadow & Sunnyside	Not In GIS	22-24	Clow	2005	6.5

M15		Ŭ		U		
M15	001	M15-001	48-50	Pacific States	1963	
M15	002	M15-002	36-38	Pacific States	1963	
M15	003	M15-003	22-24	Waterous	2009	5.5
M15	004	M15-004	74-76	Pacific States	1961	
M15	005	M15-005	55-57	Clow	2007	
M15	006	M15-006	116-118	Mueller	1976	
M15	007	M15-007	86-88	Pacific States	1966	
M15	008	M15-008	78-80	Clow	2007	
M15	009	M15-009	104-105	Waterous	2005	
M15	010	M15-010	101-103	Pacific States	1954	
M15	011	M15-011	97-99	Pacific States	1952	
M15	012	M15-012	106-108	Pacific States	1952	
M15	013	M15-013	109-111	Pacific States	1952	
M15	014	M15-014	113-115	Pacific States	1956	
M15	015	M15-015	120-122	Pacific States	1956	*Damaged
M15	016	M15-016	123-125	Pacific States	1954	-
M15	017	M15-017	129-130	Pacific States	1951	
M15	018	M15-018	61-64	Waterous	2005	6.0 24"ext
M15	019	M15-019	58-60	Waterous	2005	6.0 12"ext
M15	020	M15-020	68-70	Waterous	2005	6.0
M15	021	M15-021	65-67	Clow	1996	
M15	022	M15-022	4-6	Waterous	1999	6.0 24"ext
M15	023	M15-023	1-3	Waterous	2007	6.5
M15	024	M15-024	140-142	Waterous	1994	5.5
M15	025	M15-025	137-139	Waterous	1995	5.5
M15	026	M15-026	134-136	Waterous	1994	6.0
M15	027	M15-027	131-133	Waterous	1995	6.0
M15	028	M15-028	149-151	Waterous	1994	6.0
M15	029	M15-029	146-148	Waterous	1994	5.5
M15	030	M15-030	143-145	Waterous	1994	5.5
M15	031	M15-031	10-12	Waterous	1994	
M15	032	M15-032	13-15	Waterous	1995	5.5
M15	033	M15-033	7-9	Waterous	1994	5.5
M15	034	M15-034	16-18	Waterous	1994	6.0
M15	035	M15-035	19-21	Waterous	1994	6.0

### Ammon Communities Master Plan **Hydrant Inventory**

		J		0		
M16						
M16	001	M16-001	40-42	Waterous	1991	5.5
M16	002	M16-002	1-3	Pacific States	1966	
M16	003	M16-003	6-8	Pacific States	1962	
M16	004	M16-004	80-82	Pacific States	1973	
M16	005	M16-005	83-85	Waterous	1990	6.0
M16	006	M16-006	64-66	Clow	2001	
M16	007	M16-007	12-16	Pacific States	1973	
M16	008	M16-008	89-91	Waterous	1990	6.0
M16	009	M16-009	20-22	Clow	2011	5.0
M16	010	M16-010	17-19	Pacific States	1978	
M16	011	M16-011	46-48	Pacific States	1977	
M16	012	M16-012	43-45	Pacific States	1977	
M16	013	M16-013	52-54	Pacific States	1977	
M16	014	M16-014	49-51	Pacific States	1977	
M16	015	M16-015	55-57	Pacific States	1977	
M16	016	M16-016	58-60	Pacific States	1977	
M16	017	M16-017	26-29	Pacific States	1964	
M16	018	M16-018	30-32	Pacific States	1965	
M16	019	M16-019	9-11	Pacific States	1964	
M16	020	M16-020	33-35	Pacific States	1968	
M16	021	M16-021	36-38	Waterous	1993	6.0
M16	022	M16-022	70-72	Pacific States	1977	
M16	023	M16-023	73-75	Pacific States	1979	
M16	024	M16-024	76-78	Pacific States	1979	
M16	S. of Hillview Elem	Not In GIS	132-133	Mueller	2008	
	2 @ Wellhouse W. of					
M16	Hillview Elem	Not In GIS	4-5	Waterous		

L15						
L15	025	L15-025	90-92	Pacific States	1974	
L15	026	L15-026	94-95	Waterous	1975	5.0

L16						
L16	012	L16-012	86-88	Waterous	1990	6.0
L16	013	L16-013	23-25	Pacific States	1978	
L16	014	L16-014	61-63	Pacific States	1977	
L16	020	L16-020	67-69	Pacific States	1977	

Hydrant ID: N15-001 Manufacturer: Clow Year: 2003 Bury Depth (ft): 6.5

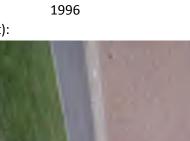


Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft):

N15-003 Mueller 1990



Hydrant ID:	N15-002
Manufacturer:	Clow
Year:	1996
Bury Depth (ft):	





Hydrant ID:	N15-004	
Manufacturer:	Waterous	
Year:	1986	
Bury Depth (ft):	5.5	



Keller Associates, Inc. June 2014

Hydrant ID:N15-005Manufacturer:KennedyYear:1985

Bury Depth (ft):



Hydrant ID:	N15-007
Manufacturer:	Waterous
Year:	1995
Bury Depth (ft):	6.0



Hydrant ID:N15-006Manufacturer:WaterousYear:1986Bury Depth (ft):5.5



Manufacturer:	Waterous
Year:	1996
Bury Depth (ft):	6.0



Keller Associates, Inc. June 2014

Hydrant ID:	N15-009
Manufacturer:	Clow
Year:	1996

Bury Depth (ft):



Hydrant ID:	N15-011
Manufacturer:	Clow
Year:	2002
Bury Depth (ft):	6.5



Hydrant ID:	N15-010
Manufacturer:	Clow
Year:	Buried
Bury Depth (ft):	6.5



Hydrant ID: Manufacturer: Year: Bury Depth (ft): N15-012 Mueller 1990



Hydrant ID:N15-013Manufacturer:MuellerYear:1991

Bury Depth (ft):



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft):

N15-015 Mueller 1990



Hydrant ID:	N15-014
Manufacturer:	Mueller
Year:	1990
Bury Depth (ft):	



N15-016

Mueller

2006

Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft):



Keller Associates, Inc. June 2014

Hydrant ID:N15-017Manufacturer:MuellerYear:ConcreteBury Depth (ft):

Hydrant ID:	N15-019
Manufacturer:	Waterous
Year:	2000
Bury Depth (ft):	6.5



Hydrant ID:	N15-018
Manufacturer:	Mueller
Year:	1991
Bury Depth (ft):	





Hydrant ID:	N15-020	
Manufacturer:	Clow	
Year:	2001	
Bury Depth (ft):	6.0	
	Aller	11/11/11



Hydrant ID:N15-021Manufacturer:WaterousYear:2006Bury Depth (ft):6.5 24" extension



Hydrant ID:	N15-023
Manufacturer:	Clow
Year:	2003
Bury Depth (ft):	



Hydrant ID:	N15-022
Manufacturer:	Clow
Year:	2001
Bury Depth (ft):	6.0



Hydrant ID:	N15-024
Manufacturer:	Clow
Year:	2000
Bury Depth (ft):	6.0



Ammon Communities Master Plan	
Hydrant Inventory	

Hydrant ID:N15-025Manufacturer:WaterousYear:1998Bury Depth (ft):6.0



Hydrant ID:	N15-027
Manufacturer:	Waterous
Year:	1975
Bury Depth (ft):	5.0



Hydrant ID:	N15-026
Manufacturer:	Waterous
Year:	1998
Bury Depth (ft):	6.0



Hydrant ID:	N15-028
Manufacturer:	Kennedy
Year:	1985
Bury Depth (ft):	



Ammon Communities Master Plan
Hydrant Inventory

Hydrant ID:	N15-029
Manufacturer:	Clow
Year:	2002
Bury Depth (ft):	6.5



Hydrant ID:	N15-031
Manufacturer:	Clow
Year:	2008
Bury Depth (ft):	



Hydrant ID: N15-030 Manufacturer: Clow Year: 2008 Bury Depth (ft):





Hydrant ID:	N15-032
Manufacturer:	Waterous
Year:	1998
Bury Depth (ft):	6.0
and the second second	1997 - C.



Hydrant ID:N16-001Manufacturer:Pacific StatesYear:1974

Bury Depth (ft):



Hydrant ID:	N16-003
Manufacturer:	Clow
Year:	2005
Bury Depth (ft):	



Hydrant ID:	N16-002
Manufacturer:	Clow
Year:	2005
Bury Depth (ft):	



Manufacturer:	Clow
Year: Bury Depth (ft):	buried 6.5
Bary Beptil (11).	



Keller Associates, Inc. June 2014

Hydrant ID:	N16-005
Manufacturer:	Clow
Year:	2005

Bury Depth (ft):



N16-007 Pacific States 1965



Hydrant ID: Manufacturer: Year: Bury Depth (ft):

N16-006



Hydrant ID:	N16-008
Manufacturer:	Pacific States
Year:	1965
Bury Depth (ft):	



Hydrant ID: N16-009 Manufacturer: Pacific States Year: 1962

Bury Depth (ft):



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft)

N16-011 Pacific States 1966



Hydrant ID:	
Manufacturer:	
Year:	
Bury Depth (ft):	

N16-010 Pacific States





Hydrant ID:	N16-012
Manufacturer:	Pacific States
Year:	1954
Bury Depth (ft):	



Keller Associates, Inc. June 2014

Hydrant ID: N16-013 Manufacturer: Mueller Year: 2011

Bury Depth (ft):



Hydrant ID:	
Manufacturer:	
Year:	
Bury Depth (ft):	

N16-015 Pacific States 1968



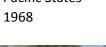
Hydrant ID: Manufacturer: Year:

N16-014 Pacific States

Bury Depth (ft):









Hydrant ID:	N16-016
Manufacturer:	Clow
Year:	2013
Bury Depth (ft):	6.0



Hydrant ID: N16-017 Manufacturer: Year: 1962

Bury Depth (ft):

Pacific States



Hydrant ID: N16-Not In GIS Manufacturer: Clow Year: 2005 Bury Depth (ft): 6.5



Keller Associates, Inc. June 2014

Hydrant ID: Manufacturer: Year: Bury Depth (ft):

M15-001 Pacific States 1963



Hydrant ID:	M15-003
Manufacturer:	Waterous
Year:	2009
Bury Depth (ft):	5.5



Hydrant ID: Manufacturer: Year: Bury Depth (ft):

M15-002 Pacific States



Hydrant ID:	M15-004
Manufacturer:	Pacific States
Year:	1961
Bury Dopth (ft):	



Hydrant ID:	M15-005
Manufacturer:	Clow
Year:	2007

Bury Depth (ft):



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft):

M15-007 Pacific States 1966



Hydrant ID:	M1
Manufacturer:	Mu
Year:	197
Bury Denth (ft):	



Bury Depth (ft):



Hydrant ID:	M15-008
Manufacturer:	Clow
Year:	2007
Bury Denth (ft)	



Keller Associates, Inc. June 2014

Hydrant ID: M15-009 Manufacturer: Waterous Year: 2005

Bury Depth (ft):





Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft)

M15-011 Pacific States 1952

t):



Hydrant ID: Manufacturer: Year: Bury Depth (ft):

M15-010 Pacific States



DAVEAU DE L

M15-012	
Pacific States	
1952	
	Pacific States



Keller Associates, Inc. June 2014

Hydrant ID: M15-013 Manufacturer: Pacific States Year: 1952 Bury Depth (ft):

Hydrant ID: Manufacturer: Year:

M15-015 \*DAMAGED Pacific States 1956

Bury Depth (ft):



Hydrant ID: Manufacturer: Year: Bury Depth (ft):

M15-014 Pacific States 1956



the state of the state of the state In Contracts

Hydrant ID:	M15-016
Manufacturer:	Pacific States
Year:	1954
Bury Depth (ft):	

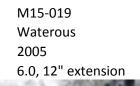


Hydrant ID:M15-017Manufacturer:Pacific StatesYear:1951

Bury Depth (ft):



Hydrant ID:	M15-01
Manufacturer:	Watero
Year:	2005
Bury Depth (ft):	6.0, 12"





Hydrant ID:	M15-018	
Manufacturer:	Waterous	
Year:	2005	
Bury Depth (ft):	6.0, 24" extension	



Hydrant ID:	M15-020
Manufacturer:	Waterous
Year:	2005
Bury Depth (ft):	6.0



Hydrant ID: M15-021 Manufacturer: Clow Year: 1996

Bury Depth (ft):



Hydrant ID:	
Manufacturer:	,
Year:	
Bury Depth (ft):	

M15-023 Waterous 2007 6.5



Hydrant ID: M15-022 Manufacturer: Year: 1999 Bury Depth (ft):

Waterous 6.0, 24" extension



M15-024
Waterous
1994
5.5



Ammon Communities Master Plan
Hydrant Inventory

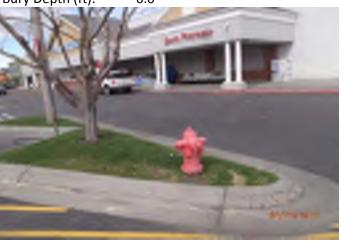
Hydrant ID:M15-025Manufacturer:WaterousYear:1995Bury Depth (ft):5.5



Hydrant ID:	M15-027
Manufacturer:	Waterous
Year:	1995
Bury Depth (ft):	6.0



Hydrant ID:M15-026Manufacturer:WaterousYear:1994Bury Depth (ft):6.0



Hydrant ID:	M15-028
Manufacturer:	Waterous
Year:	1994
Bury Depth (ft):	6.0



Keller Associates, Inc. June 2014

Hydrant ID:	M15-029
Manufacturer:	Waterous
Year:	1994
Bury Depth (ft):	5.5



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft):

M15-031 Waterous 1994



Hydrant ID:	M15-030
Manufacturer:	Waterous
Year:	1994
Bury Depth (ft):	5.5



Hydrant ID:	M15-032	
Manufacturer:	Waterous	
Year:	1995	
Bury Depth (ft):	5.5	
		1331324



Hydrant ID:M15-033Manufacturer:WaterousYear:1994Bury Depth (ft):5.5



Hydrant ID:	M15-035
Manufacturer:	Waterous
Year:	1994
Bury Depth (ft):	6.0



Hydrant ID:	M15-034
Manufacturer:	Waterous
Year:	1994
Bury Depth (ft):	6.0



Keller Associates, Inc. June 2014

Hydrant ID: M16-001 Manufacturer: Waterous Year: 1991 Bury Depth (ft): 5.5



Hydrant ID:
Manufacturer
Year:
Bury Depth (ft

M16-003 Pacific States 1962



Hydrant ID: Manufacturer: Year: Bury Depth (ft): M16-002





Hydrant ID:	M16-004
Manufacturer:	Pacific States
Year:	1973
Bury Depth (ft):	



Hydrant ID:M16-005Manufacturer:WaterousYear:1990Bury Depth (ft):6.0



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft):

M16-007 Pacific States 1973



Hydrant ID:M16-006Manufacturer:ClowYear:2001Bury Depth (ft):



Hydrant ID:	M16-008
Manufacturer:	Waterous
Year:	1990
Bury Depth (ft):	6.0

Keller Associates, Inc. June 2014

Hydrant ID:	M16-009
Manufacturer:	Clow
Year:	2011
Bury Depth (ft):	5.0



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft)

M16-011 Pacific States 1977



Hydrant ID: Manufacturer: Year: Bury Depth (ft):

M16-010 Pacific States





Hydrant ID:	M16-012
Manufacturer:	Pacific States
Year:	1977
Bury Depth (ft):	



Keller Associates, Inc. June 2014

Hydrant ID: M16-013 Manufacturer: Pacific States Year: 1977

Bury Depth (ft):



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft)

M16-015 Pacific States 1977



Hydrant ID: Manufacturer: Year:

M16-014 Pacific States

Bury Depth (ft):





Hydrant ID:	M16-016
Manufacturer:	Pacific States
Year:	1977
Bury Depth (ft):	



Keller Associates, Inc. June 2014

Hydrant ID: M16-017 Manufacturer: Pacific States Year: 1964

Bury Depth (ft):



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft):

M16-019 Pacific States 1964



Hydrant ID: Manufacturer: Year:

M16-018 Pacific States 1965

Bury Depth (ft):

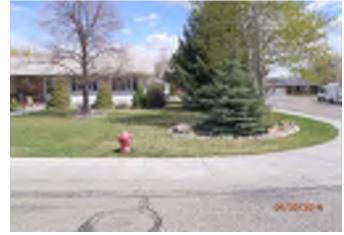


Hydrant ID:	M16-020
Manufacturer:	Pacific States
Year:	1968
Bury Depth (ft):	



Ammon Communities Master Plan
Hydrant Inventory

Hydrant ID:M16-021Manufacturer:WaterousYear:1993Bury Depth (ft):6.0



Hydrant ID:
Manufacturer:
Year:
Bury Depth (ft):

M16-023 Pacific States 1979



Hydrant ID:	M16-022
Manufacturer:	1977
Year:	1965
Bury Dopth (ft)	



Hydrant ID:	M16-024
Manufacturer:	Pacific States
Year:	1979
Bury Depth (ft):	



Hydrant ID:Not In GIS - S of Hillview ElemManufacturer:MuellerYear:2008Bury Depth (ft):



Hydrant ID: Manufacturer: Year: Bury Depth (ft): Not In GIS - 2 @ Wellhouse W of Hillview Elem. Waterous





Keller Associates, Inc. June 2014

Hydrant ID:L15-025Manufacturer:Pacific StatesYear:1974

Bury Depth (ft):



Hydrant ID:L15-026Manufacturer:WaterousYear:1975Bury Depth (ft):5.0



Keller Associates, Inc. June 2014

Hydrant ID: L16-012 Manufacturer: Waterous Year: 1990 Bury Depth (ft): 6.0



L16-014 Pacific States 1977



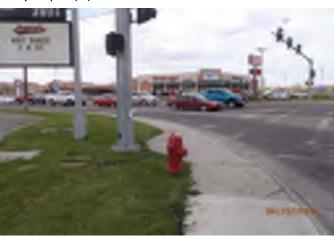
Hydrant ID:	L16-013
Manufacturer:	Pacific S
Year:	1978
Bury Depth (ft):	

3 States

В



Hydrant ID: Manufacturer: Year: Bury Depth (ft): L16-020 Pacific States 1977





# Appendix B: System Reference Information

- National Primary and Secondary Drinking Water Regulations
- Consumer Confidence Reports
- 2001 Source Water Assessment
- Water Rights
- Operation and Maintenance Budget
- Cross Connection Control Ordinance
- 2014 Sanitary Survey







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GROWING POSSIBILITIES



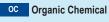
# National Primary Drinking Water Regulations

Contaminant	MCL or TT <sup>1</sup> (mg/L) <sup>2</sup>	Potential health effects from long-term <sup>3</sup> exposure above the MCL	Common sources of contaminant in drinking water	Public Health Goal (mg/L) <sup>2</sup>
OC Acrylamide	TT <sup>4</sup>	Nervous system or blood problems; increased risk of cancer	Added to water during sewage/ wastewater treatment	zero
OC Alachlor	0.002	Eye, liver, kidney or spleen problems; anemia; increased risk of cancer	Runoff from herbicide used on row crops	zero
R Alpha/photon emitters	15 picocuries per Liter (pCi/L)	Increased risk of cancer	Erosion of natural deposits of certain minerals that are radioactive and may emit a form of radiation known as alpha radiation	zero
IOC Antimony	0.006	Increase in blood cholesterol; decrease in blood sugar	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder	0.006
IOC Arsenic	0.010	Skin damage or problems with circulatory systems, and may have increased risk of getting cancer	Erosion of natural deposits; runoff from orchards; runoff from glass & electronics production wastes	0
Asbestos (fibers >10 micrometers)	7 million fibers per Liter (MFL)	Increased risk of developing benign intestinal polyps	Decay of asbestos cement in water mains; erosion of natural deposits	7 MFL
OC Atrazine	0.003	Cardiovascular system or reproductive problems	Runoff from herbicide used on row crops	0.003
IOC Barium	2	Increase in blood pressure	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	2
OC Benzene	0.005	Anemia; decrease in blood platelets; increased risk of cancer	Discharge from factories; leaching from gas storage tanks and landfills	zero
OC Benzo(a)pyrene (PAHs)	0.0002	Reproductive difficulties; increased risk of cancer	Leaching from linings of water storage tanks and distribution lines	zero
IOC Beryllium	0.004	Intestinal lesions	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries	0.004
R Beta photon emitters	4 millirems per year	Increased risk of cancer	Decay of natural and man-made deposits of certain minerals that are radioactive and may emit forms of radiation known as photons and beta radiation	zero
DBP Bromate	0.010	Increased risk of cancer	Byproduct of drinking water disinfection	zero
IOC Cadmium	0.005	Kidney damage	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints	0.005
OC Carbofuran	0.04	Problems with blood, nervous system, or reproductive system	Leaching of soil fumigant used on rice and alfalfa	0.04
<b>OC</b> Carbon tetrachloride	0.005	Liver problems; increased risk of cancer	Discharge from chemical plants and other industrial activities	zero
<b>D</b> Chloramines (as $Cl_2$ )	MRDL=4.0 <sup>1</sup>	Eye/nose irritation; stomach discomfort; anemia	Water additive used to control microbes	MRDLG=41
OC Chlordane	0.002	Liver or nervous system problems; increased risk of cancer	Residue of banned termiticide	zero
<b>D</b> Chlorine (as $Cl_2$ )	MRDL=4.0 <sup>1</sup>	Eye/nose irritation; stomach discomfort	Water additive used to control microbes	MRDLG=41
<b>D</b> Chlorine dioxide $(as ClO_2)$	MRDL=0.81	Anemia; infants, young children, and fetuses of pregnant women: nervous system effects	Water additive used to control microbes	MRDLG=0.81
DBP Chlorite	1.0	Anemia; infants, young children, and fetuses of pregnant women: nervous system effects	Byproduct of drinking water disinfection	0.8
<b>OC</b> Chlorobenzene	0.1	Liver or kidney problems	Discharge from chemical and agricultural chemical factories	0.1
IOC Chromium (total)	0.1	Allergic dermatitis	Discharge from steel and pulp mills; erosion of natural deposits	0.1
IOC Copper	TT <sup>5</sup> ; Action Level = 1.3	Short-term exposure: Gastrointestinal distress. Long-term exposure: Liver or kidney damage. People with Wilson's Disease should consult their personal doctor if the amount of copper in their water exceeds the action level	Corrosion of household plumbing systems; erosion of natural deposits	1.3
M Cryptosporidium	TT <sup>7</sup>	Short-term exposure: Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste	zero

D Disinfectant DBP Disinfection Byproduct

LEGEND





R Radionuclides

ontaminant	MCL or TT <sup>1</sup> (mg/L) <sup>2</sup>	Potential health effects from long-term <sup>3</sup> exposure above the MCL	Common sources of contaminant in drinking water	Public Healt Goal (mg/L)
IOC Cyanide (as free cyanide)	0.2	Nerve damage or thyroid problems	Discharge from steel/metal factories; discharge from plastic and fertilizer factories	0.2
<b>OC</b> 2,4-D	0.07	Kidney, liver, or adrenal gland problems	Runoff from herbicide used on row crops	0.07
OC Dalapon	0.2	Minor kidney changes	Runoff from herbicide used on rights of way	0.2
OC 1,2-Dibromo-3- chloropropane (DBCP)	0.0002	Reproductive difficulties; increased risk of cancer	Runoff/leaching from soil fumigant used on soybeans, cotton, pineapples, and orchards	zero
o-Dichlorobenzene	0.6	Liver, kidney, or circulatory system problems	Discharge from industrial chemical factories	0.6
OC p-Dichlorobenzene	0.075	Anemia; liver, kidney or spleen damage; changes in blood	Discharge from industrial chemical factories	0.075
<b>OC</b> 1,2-Dichloroethane	0.005	Increased risk of cancer	Discharge from industrial chemical factories	zero
<b>OC</b> 1,1-Dichloroethylene	0.007	Liver problems	Discharge from industrial chemical factories	0.007
OC cis-1,2-Dichloroethylene	0.07	Liver problems	Discharge from industrial chemical factories	0.07
OC trans-1,2- Dichloroethylene	0.1	Liver problems	Discharge from industrial chemical factories	0.1
OC Dichloromethane	0.005	Liver problems; increased risk of cancer	Discharge from drug and chemical factories	zero
0C 1,2-Dichloropropane	0.005	Increased risk of cancer	Discharge from industrial chemical factories	zero
Di(2-ethylhexyl) adipate	0.4	Weight loss, liver problems, or possible reproductive difficulties	Discharge from chemical factories	0.4
Di(2-ethylhexyl) phthalate	0.006	Reproductive difficulties; liver problems; increased risk of cancer	Discharge from rubber and chemical factories	zero
Dinoseb	0.007	Reproductive difficulties	Runoff from herbicide used on soybeans and vegetables	0.007
Dioxin (2,3,7,8-TCDD)	0.00000003	Reproductive difficulties; increased risk of cancer	Emissions from waste incineration and other combustion; discharge from chemical factories	zero
OC Diquat	0.02	Cataracts	Runoff from herbicide use	0.02
C Endothall	0.1	Stomach and intestinal problems	Runoff from herbicide use	0.1
OC Endrin	0.002	Liver problems	Residue of banned insecticide	0.002
Epichlorohydrin	$TT^4$	Increased cancer risk; stomach problems	Discharge from industrial chemical factories; an impurity of some water treatment chemicals	zero
OC Ethylbenzene	0.7	Liver or kidney problems	Discharge from petroleum refineries	0.7
Ethylene dibromide	0.00005	Problems with liver, stomach, reproductive system, or kidneys; increased risk of cancer	Discharge from petroleum refineries	zero
M Fecal coliform and <i>E. coli</i>	MCL <sup>6</sup>	Fecal coliforms and <i>E. coli</i> are bacteria whose presence indicates that the water may be contaminated with human or animal wastes. Microbes in these wastes may cause short term effects, such as diarrhea, cramps, nausea, headaches, or other symptoms. They may pose a special health risk for infants, young children, and people with severely compromised immune systems.	Human and animal fecal waste	zero <sup>6</sup>
OC Fluoride	4.0	Bone disease (pain and tenderness of the bones); children may get mottled teeth	Water additive which promotes strong teeth; erosion of natural deposits; discharge from fertilizer and aluminum factories	4.0
M Giardia lamblia	TT <sup>7</sup>	Short-term exposure: Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste	zero
Glyphosate	0.7	Kidney problems; reproductive difficulties	Runoff from herbicide use	0.7
Haloacetic acids (HAA5)	0.060	Increased risk of cancer	Byproduct of drinking water disinfection	n/a <sup>9</sup>
OC Heptachlor	0.0004	Liver damage; increased risk of cancer	Residue of banned termiticide	zero
OC Heptachlor epoxide	0.0002	Liver damage; increased risk of cancer	Breakdown of heptachlor	zero
M Heterotrophic plate count (HPC)	TT <sup>7</sup>	HPC has no health effects; it is an analytic method used to measure the variety of bacteria that are common in water. The lower the concentration of bacteria in drinking water, the better maintained the water system is.	HPC measures a range of bacteria that are naturally present in the environment	n/a

LEGEND

D Disinfectant DBP Disinfection Byproduct



Organic Chemical



ontaminant	MCL or TT <sup>1</sup> (mg/L) <sup>2</sup>	Potential health effects from long-term <sup>3</sup> exposure above the MCL	Common sources of contaminant in drinking water	Public Health Goal (mg/L) <sup>2</sup>
OC Hexachlorobenzene	0.001	Liver or kidney problems; reproductive difficulties; increased risk of cancer	Discharge from metal refineries and agricultural chemical factories	zero
OC Hexachlorocyclopentadiene	0.05	Kidney or stomach problems	Discharge from chemical factories	0.05
IOC Lead	TT5; Action Level=0.015	Infants and children: Delays in physical or or mental development; children could show slight deficits in attention span and learning abilities; Adults: Kidney problems; high blood pressure	Corrosion of household plumbing systems; erosion of natural deposits	zero
M Legionella	TT7	Legionnaire's Disease, a type of pneumonia	Found naturally in water; multiplies in heating systems	zero
OC Lindane	0.0002	Liver or kidney problems	Runoff/leaching from insecticide used on cattle, lumber, gardens	0.0002
IOC Mercury (inorganic)	0.002	Kidney damage	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills and croplands	0.002
OC Methoxychlor	0.04	Reproductive difficulties	Runoff/leaching from insecticide used on fruits, vegetables, alfalfa, livestock	0.04
IOC Nitrate (measured as Nitrogen)	10	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	10
<b>IOC</b> Nitrite (measured as Nitrogen)	1	Infants below the age of six months who drink water containing nitrite in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue-baby syndrome.	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	1
OC Oxamyl (Vydate)	0.2	Slight nervous system effects	Runoff/leaching from insecticide used on apples, potatoes, and tomatoes	0.2
OC Pentachlorophenol	0.001	Liver or kidney problems; increased cancer risk	Discharge from wood-preserving factories	zero
OC Picloram	0.5	Liver problems	Herbicide runoff	0.5
OC Polychlorinated biphenyls (PCBs)	0.0005	Skin changes; thymus gland problems; immune deficiencies; reproductive or nervous system difficulties; increased risk of cancer	Runoff from landfills; discharge of waste chemicals	zero
R Radium 226 and Radium 228 (combined)	5 pCi/L	Increased risk of cancer	Erosion of natural deposits	zero
IOC Selenium	0.05	Hair or fingernail loss; numbness in fingers or toes; circulatory problems	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines	0.05
OC Simazine	0.004	Problems with blood	Herbicide runoff	0.004
OC Styrene	0.1	Liver, kidney, or circulatory system problems	Discharge from rubber and plastic factories; leaching from landfills	0.1
OC Tetrachloroethylene	0.005	Liver problems; increased risk of cancer	Discharge from factories and dry cleaners	zero
IOC Thallium	0.002	Hair loss; changes in blood; kidney, intestine, or liver problems	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories	0.0005
OC Toluene	1	Nervous system, kidney, or liver problems	Discharge from petroleum factories	1
M Total Coliforms	5.0 percent <sup>8</sup>	Coliforms are bacteria that indicate that other, potentially harmful bacteria may be present. See fecal coliforms and <i>E. coli</i>	Naturally present in the environment	zero
DBP Total Trihalomethanes (TTHMs)	0.080	Liver, kidney or central nervous system problems; increased risk of cancer	Byproduct of drinking water disinfection	n/a <sup>9</sup>
OC Toxaphene	0.003	Kidney, liver, or thyroid problems; increased risk of cancer	Runoff/leaching from insecticide used on cotton and cattle	zero
<b>0C</b> 2,4,5-TP (Silvex)	0.05	Liver problems	Residue of banned herbicide	0.05
<b>OC</b> 1,2,4-Trichlorobenzene	0.07	Changes in adrenal glands	Discharge from textile finishing factories	0.07
<b>OC</b> 1,1,1-Trichloroethane	0.2	Liver, nervous system, or circulatory problems	Discharge from metal degreasing sites and other factories	0.2
<b>OC</b> 1,1,2-Trichloroethane	0.005	Liver, kidney, or immune system problems	Discharge from industrial chemical factories	0.003
OC Trichloroethylene	0.005	Liver problems; increased risk of cancer	Discharge from metal degreasing sites and other factories	zero

LEGEND

D Disinfectant

DBP Disinfection Byproduct



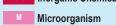
Organic Chemical

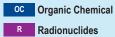
R Radionuclides

Contaminant	MCL or TT <sup>1</sup> (mg/L) <sup>2</sup>	Potential health effects from Common sources of contaminant in drinking water		Public Health Goal (mg/L) <sup>2</sup>
M Turbidity	TT <sup>7</sup>	Turbidity is a measure of the cloudiness of water. Soil runoff It is used to indicate water quality and filtration effectiveness (e.g., whether disease-causing organisms are present). Higher turbidity levels are often associated with higher levels of disease-causing microorganisms such as viruses, parasites and some bacteria. These organisms can cause short term symptoms such as nausea, cramps, diarthea, and associated headaches.		n/a
R Uranium	30µg/L	Increased risk of cancer, kidney toxicity	Erosion of natural deposits	zero
OC Vinyl chloride	0.002	Increased risk of cancer Leaching from PVC pipes; discharge from plastic factories		zero
M Viruses (enteric)	$TT^7$	Short-term exposure: Gastrointestinal illness (e.g., diarrhea, vomiting, cramps)	Human and animal fecal waste	zero
OC Xylenes (total)	10	Nervous system damage	Discharge from petroleum factories; discharge from chemical factories	10

D Disinfectant DBP Disinfection Byproduct







#### NOTES

#### 1 Definitions

- Maximum Contaminant Level Goal (MCLG)—The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety and are non-enforceable public health goals.
- Maximum Contaminant Level (MCL)—The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology and taking cost into consideration. MCLs are enforceable standards.
- Maximum Residual Disinfectant Level Goal (MRDLG)—The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
- Maximum Residual Disinfectant Level (MRDL)—The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
- Treatment Technique (TT)—A required process intended to reduce the level of a contaminant in drinking water.
- 2 Units are in milligrams per liter (mg/L) unless otherwise noted. Milligrams per liter are equivalent to parts per million (ppm).
- 3 Health effects are from long-term exposure unless specified as short-term exposure.
- 4 Each water system must certify annually, in writing, to the state (using third-party or manufacturers certification) that when it uses acrylamide and/or epichlorohydrin to treat water, the combination (or product) of dose and monomer level does not exceed the levels specified, as follows: Acrylamide = 0.05 percent dosed at 1 mg/L (or equivalent); Epichlorohydrin = 0.01 percent dosed at 20 mg/L (or equivalent).
- 5 Lead and copper are regulated by a Treatment Technique that requires systems to control the corrosiveness of their water. If more than 10 percent of tap water samples exceed the action level, water systems must take additional steps. For copper, the action level is 1.3 mg/L, and for lead is 0.015 mg/L.
- 6 A routine sample that is fecal coliform-positive or *E. coli*-positive triggers repeat samples--if any repeat sample is total coliform-positive, the system has an acute MCL violation. A routine sample that is total coliform-positive and fecal coliform-negative or *E. coli*-negative triggers repeat samples--if any repeat sample is fecal coliform-positive or *E. coli*-positive, the system has an acute MCL violation. See also Total Coliforms.
- 7 EPA's surface water treatment rules require systems using surface water or ground water under the direct influence of surface water to (1) disinfect their water, and (2) filter their water or meet
- criteria for avoiding filtration so that the following contaminants are controlled at the following levels:
   Cryptosporidium: 99 percent removal for systems that filter. Unfiltered systems are required to include Cryptosporidium in their existing watershed control provisions.
- Giardia lamblia: 99.9 percent removal/inactivation

- · Viruses: 99.99 percent removal/inactivation
- · Legionella: No limit, but EPA believes that if Giardia and viruses are removed/inactivated according
- to the treatment techniques in the surface water treatment rule, *Legionella* will also be controlled.
  Turbidity: For systems that use conventional or direct filtration, at no time can turbidity (cloudiness of water) go higher than 1 nephelolometric turbidity unit (NTU), and samples for turbidity must be less than or equal to 0.3 NTU in at least 95 percent of the samples in any month. Systems that use filtration other than conventional or direct filtration must follow state limits, which must include turbidity at no time exceeding 5 NTU.
- · HPC: No more than 500 bacterial colonies per milliliter
- Long Term 1 Enhanced Surface Water Treatment; Surface water systems or ground water systems under the direct influence of surface water serving fewer than 10,000 people must comply with the applicable Long Term 1 Enhanced Surface Water Treatment Rule provisions (e.g. turbidity standards, individual filter monitoring, *Cryptosporidium* removal requirements, updated watershed control requirements for unfiltered systems).
- Long Term 2 Enhanced Surface Water Treatment; This rule applies to all surface water systems or ground water systems under the direct influence of surface water. The rule targets additional *Cryptosporidium* treatment requirements for higher risk systems and includes provisions to reduce risks from uncovered finished water storages facilities and to ensure that the systems maintain microbial protection as they take steps to reduce the formation of disinfection byproducts. (Monitoring start dates are staggered by system size. The largest systems (serving at least 100,000 people) will begin monitoring in October 2006 and the smallest systems (serving fewer than 10,000 people) will not begin monitoring until October 2008. After completing monitoring and determining their treatment bin, systems generally have three years to comply with any additional treatment requirements.)
- Filter Backwash Recycling: The Filter Backwash Recycling Rule requires systems that recycle to
  return specific recycle flows through all processes of the system's existing conventional or direct
  filtration system or at an alternate location approved by the state.
- 8 No more than 5.0 percent samples total coliform-positive in a month. (For water systems that collect fewer than 40 routine samples per month, no more than one sample can be total coliform-positive per month.) Every sample that has total coliform must be analyzed for either fecal coliforms or *E. coli*. If two consecutive TC-positive samples, and one is also positive for *E. coli* or fecal coliforms.
- system has an acute MCL violation.
- 9 Although there is no collective MCLG for this contaminant group, there are individual MCLGs for some of the individual contaminants:
- Haloacetic acids: dichloroacetic acid (zero); trichloroacetic acid (0.3 mg/L)
- Trihalomethanes: bromodichloromethane (zero); bromoform (zero); dibromochloromethane (0.06 mg/L)

# National Secondary Drinking Water Regulation

National Secondary Drinking Water Regulations are non-enforceable guidelines regarding contaminants that may cause cosmetic effects (such as skin or tooth discoloration) or aesthetic effects (such as taste, odor, or color) in drinking water. EPA recommends secondary standards to water systems but does not require systems to comply. However, some states may choose to adopt them as enforceable standards.

Contaminant	Secondary Maximum Contaminant Level
Aluminum	0.05 to 0.2 mg/L
Chloride	250 mg/L
Color	15 (color units)
Copper	1.0 mg/L
Corrosivity	noncorrosive
Fluoride	2.0 mg/L
Foaming Agents	0.5 mg/L
Iron	0.3 mg/L
Manganese	0.05 mg/L
Odor	3 threshold odor number
рН	6.5-8.5
Silver	0.10 mg/L
Sulfate	250 mg/L
Total Dissolved Solids	500 mg/L
Zinc	5 mg/L

# For More Information

EPA's Safe Drinking Water Web site: http://www.epa.gov/safewater/

EPA's Safe Drinking Water Hotline: (800) 426-4791

To order additional posters or other ground water and drinking water publications, please contact the National Service Center for Environmental Publications at : (800) 490-9198, or email: nscep@bps-Imit.com.



EPA 816-F-09-004 May 2009

#### Is my water safe?

We are pleased to present this year's Annual Water Quality Report (Consumer Confidence Report) as required by the Safe Drinking Water Act (SDWA). This report is designed to provide details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies. This report is a snapshot of last year's water quality. We are committed to providing you with information because informed customers are our best allies.

#### Where does my water come from?

The City of Ammon has eight deep water wells throughout the city. Four of these are back-up or emergency wells and are only used when needed.

#### Why are there contaminants in my drinking water?

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

TERM	DEFINITION
ug/L	ug/L : Number of micrograms of substance in one liter of water
ppm	ppm: parts per million, or milligrams per liter (mg/L)
ppb	ppb: parts per billion, or micrograms per liter (μg/L)
pCi/L	pCi/L: picocuries per liter (a measure of radioactivity)
NA	NA: not applicable
ND	ND: Not detected
NR	NR: Monitoring not required, but recommended.
MCLG	MCLG: Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
MCL	MCL: Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
TT	TT: Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.
AL	AL: Action Level: The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
Variances and Exemptions	Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment tech- nique under certain conditions.
MRDLG	MRDLG: Maximum residual disinfection level goal. The level of a drinking water disinfectant be- low which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
MRDL	MRDL: Maximum residual disinfectant level. The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
MNR	MNR: Monitored Not Regulated
MPL	MPL: State Assigned Maximum Permissible Level



# ANNUAL WATER QUALITY REPORT

Water Testing Performed In 2015

For more information please contact: Nathan Riblett 2135 S Ammon RD Ammon, ID 83406 208-612-4031



# Water Quality Data Table

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of contaminants in water provided by public water systems. The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. Although many more contaminants were tested, only those substances listed below were found in your water. All sources of drinking water contain some naturally occurring contaminants. At low levels, these substances are generally not harmful in our drinking water. Removing all contaminants would be extremely expensive, and in most cases, would not provide increased protection of public health. A few naturally occurring minerals may actually improve the taste of drinking water and have nutritional value at low levels. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not vary significantly from year to year, or the system is not considered vulnerable to this type of contamination. As such, some of our data, though representative, may be more than one year old. In this table you will find terms and abbreviations that might not be familiar to you. To help you better understand these terms, we have provided the definitions on the back of this sheet.

	MCLG or	MCL, TT, or	Your	Ra	nge	Sample		
Contaminants	MRDLG	MRDL	Water	Low	High	Date	Violation	Typical Source
Inorganic Contai	minants							
Arsenic (ppb)	0	10	2	2	2	2013	No	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics pro- duction wastes
Barium (ppm)	2	2	.154	.112	.154	2013	No	Erosion of natural deposits
Chromium (ppb)	100	100	1	1	2	2013	No	Erosion of natural deposits
Fluoride (ppm)	4	4	.4	.3	.4	2013	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	2.57	0	2.57	2015	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radioactive Con	taminants							
Alpha emitters (pCi/L)	0	15	5.5	.5	5.5	2013	No	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	4.9	.98	4.9	2012	No	Erosion of natural deposits
Uranium (ug/L)	0	30	3.1	2.8	3.1	2012	No	Erosion of natural deposits
Synthetic organi	c contamin	ants inclue	ding pestici	des and	l herbic	ides		
Di (2-ethylhexyl) phthalate (ppb)	0	6	.832	NA	.832	2013	No	Discharge from rubber and chemical factories
Idaho requires mo	onitoring AD	DITIONAL	CONTAMIN	ANTS n	ot requir	ed by Fede	ral regulatio	ons. Of those contaminants only the ones listed below were found in your water.
Contaminants	State	MCL	Your Wa	ater	Vic	olation		Explanation and Comment
Nickel	.1 m	g/L	.002 mg	g/L		No		the potential to cause the following health effects at long term exposure above the MCL: body weight, heart and liver damage, and dermatitis.

#### Is my water safe?

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# ANNUAL WATER QUALITY REPORT

Water Testing Performed In 2016

For more information please contact: Nathan Riblett 2135 S Ammon RD Ammon, ID 83406 208-612-4031



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Barium (ppm)	2	2	.154	.112	.154	2013	No	Erosion of natural deposits
Chromium (ppb)	100	100	2	NA	2	2016	No	Erosion of natural deposits
Fluoride (ppm)	4	4	.3	.2	.3	2016	No	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
Nitrate [measured as Nitrogen] (ppm)	10	10	2.81	1.95	2.81	2016	No	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Radioactive Con	taminants							
Alpha emitters (pCi/L)	0	15	3.8	1.2	3.8	2016	No	Erosion of natural deposits
Radium (combined 226/228) (pCi/L)	0	5	3.01	.51	3.01	2016	No	Erosion of natural deposits
Uranium (ug/L)	0	30	3.6	1.8	3.6	2016	No	Erosion of natural deposits
Synthetic organi	c contamin	ants includ	ling pesticio	des and	herbic	ides		
Di (2-ethylhexyl) phthalate (ppb)	0	6	2.19	NA	2.19	2016	No	Discharge from rubber and chemical factories
Inorganic Contar	ninants we	re tested fo	or in 2016					
Contaminants	Action	Level	Your Wa	ater	Exce	eds AL		Typical Source
Copper (ppm)	1.3	3	.098			No		Corrosion of household plumbing systems; Erosion of natural deposits
Lead (ppb)	15	5	.001			No		Corrosion of household plumbing systems; Erosion of natural deposits

# **2001 Source Water Assessment**

Reports can be found at the DEQ web site via the URL below:

http://www2.deq.idaho.gov/water/swaOnline/Search







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GROWING POSSIBILITIES

Priority Date	Water Right No.	Diversion Rate (CFS)	Diversion Rate (GPM)	Volume (AFA)	Number of Days	Points of Diversion	Irrigation?
1946	25-4297	0.78	350.11			See * below	No
1952	25-4295	0.67	300.74			(same)	No
1952	25-14384	0.21	94.26	60.4	0.00	(same)	Yes
1952	25-14386	0.25	112.22	67.2	0.00	(same)	Yes
1953	25-14405	0.21	94.26	41.6	0.00	(same)	Yes
1957	25-4294	1.5	673.29			(same)	No
1966	25-14331	0.81	363.58	142	0.00	(same)	Yes
1971	25-14396	0.28	125.68	109.6	0.00	(same)	Yes
1971	25-14397	0.03	13.47	11.6	0.00	(same)	Yes
1972	25-14333	0.57	255.85	142.8	0.00	(same)	Yes
1973	25-7023	2.79	1,252.32			(same)	No
1973	25-14380	0.23	103.24	60	0.00	(same)	Yes
1973	25-14381	0.19	85.28	51.2	0.00	(same)	Yes
1979	25-7168	6.13	2,751.51			(same)	No
1980	25-14406	0.14	62.84	27.2	0.00	(same)	Yes
1989	25-7498	2.32	1,041.36			(same)	No
1995	25-7634	6.69	3,002.87			(same)	No
2001	25-13964	6.7	3,007.36			(same)	No
	Totals:	30.36	13,627	713.6			

# City of Ammon Water Rights (Municipal)

Water Rights 25-14405 and 25-14406 have a combined diversion rate of 0.21 cfs. Water right 25-14406 was removed from the total to reflect this.







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GROWING POSSIBILITIES

#### CENTRE AMON SALWARD SINEST SERIEVICHI 33 2011

#### WASER FUND

	A55215			
01-np1266	CASH- (CANDINEO FUND		5 <u>755 757 65</u>	
01-110050	WATER RECEVABLES		174,022,03	
61,169,600	FRED ADSE13 - WATEA		24523,625.91	
29-175900	ADD DEPREGATION WATER		4 6,670,310 51;	
	IDIALASSEIS			26 re0.602.65
	LINARLINES AND ELECTRY			
	10G), II U.S.			
ñ1-212290	ACCRUED INFERENT PAYABLE		779,789,09	
01-216050	ACCAUGO NAMILLA		13,475,00	
G1-220000	OEPOSI'S PAYASEZ		54157.00	
61-970100	WARE NOTE WAADLE DOG		H,351,687 99	
	TOTA UABLINES			15.001 (1) SV
	PLANE É LE LA Y			
	UNIMPROPRIATED FUND BALANCE.			
65-235666	AVAD BACARCE-BEGRARMO DA ABAR	7,580,150.43		
61-375100	RESERVED FOR IMPROVEMENTS	4,457,3-3.50		
	n frende over Expendiques - Vid	1 567 430 591		
	IVEANOR' - CURRENT DATE		10.476.555.55	
	10"AL FLAD COMPA			11,450,600.35
	TOTAL UNDERFES AND EQUITY			26,536,561.62
	TOTAL UNDER THE ARE EQUITY		-	>4,5%,54142

#### YOS NE OF THE ABOVE VEHICLASSIS CLAREFE

FLREADSPASTRATION/USE (n4/V

174769751 01174946 PAG9;20

#### CONTRACTOR AND A REVENCES WITH COMPARISON TO HURZET. HORE THE REPORTING ENDING SEPTEMBER AT, 2011

#### WASEN FOND

		PERIOD ACTUAL	110 40124	Belgel	ONEAGHED	PONT
	W47E4 REVENUE					
61-345-100	554WCE F208		1,610,490,58	1,430,000 60	( 16.456.32)	406.6
51-543-200	RECOMPCT INES	95	30,534,03	70 013 01	( 10,554.23)	152.5
51 GAO-306	FINES & HARCHEST LEES	96	25,072,89	19,009.00	( 5,326.68)	139.6
EI 346-770	CEACE REVERUE		600.00	נגו	( ME0.50)	0
	10740 MINOCH HENSPICE	¢3	1,676,965 21	1,778 520 85	( 132,951.21)	
	MSCELLANDOUS PRIVENUE					
ș1 a70-120	INTERSET EARNINGS	15	64 SL9 15	77,85540	1 6.412-191	52A S
61.270.453	WATER SUPERCONDUCTION	10	1500.00	1,950.00	1 5/2/03;	152.0
61-570 929	DEG FUMDANS	161	сс	1,500,000,00	0.500.600 56	.0
e1-270-900	NISOSLUMBOUS REVENUE	:,352,00	7 784 46	سلما. 	( 7,000 48)	a.
	for al misibiliane for reached	5,85236	63,203,65	- 571,411,43	1,486,558.37	5.U
	CONNECTION PERSING EN CHARGE					
63-343-125	CLARECTOR S DEC	*0	34,454.50	75,90060	41,815-50	44.3
ar ere in	MENER CANAGE	es .	(2.34587	4752.01	Ç.430.16	85.9 
	(-) M, CONSULTION ADDISARTER CHARGE		45.553.57	e),752.00		414
	NO LICE CHO INFORMATE	دن ډير ۸	2,692,785.20	9,410,642.00	4,455-95) 34	53.0

LAFENDITURES

POR ADMAND FRANK USE LARLY 100 K DF FAL FRANK VENA 145 KLAPSFO SAGAGOV. 01 0474 PAGE 21

#### DOM OF JAMACH HAVENUM OF SWITH COMPANSION TO BUILDED. FOR THE 13 NORTHS ENGINE SERVERSED AS 2011

WADER 1990

		*	AUCU ACTIVAL	тто 407.Wi	500GCT	V	NE-GENERAL /	тсн: 
	WATER DEPARTMENT							
				141 (15.5)		,		
CI 6(5-110	SPLAGES OVERNINE		50 7 POL: 00:	re (Va,95) 66 (PD)	115 IEG DO 7 (000.00	•	7,545 31) 2,959 15	1NG 5 57 J
	EMENDER BENEFITS		 œ	51.162.07	485)516			135.4
	SERSONAL FROITCHAY 1 GUPHENT			1 263 64	1,510,00	÷.	433.03	ÚI 3
	OFFICE SUPPLIES		AL.	20/264	3 550 00		570.37	M4
	CELL PHONE		05	1050 10	1,760:00		575.04	63.6
en e (u 135)	HEAT		03	(#ai.09	8,560,90		5,508 eA	41.2
01-510-542	PLECHIC		02	341,207.64	200620.25	ı.	0.397.54	≥n3#
51-810 355	FL61 & QL		60	15,545,18	10.500.90	ı.	7.345 14;	96.5
AV \$10.972	POSTAGE		62	5,757,52	8,000-09		247.45	55.5
G1 \$10 875	NO LOFE & MURLICATIONS		60	5622	3,500.00		2,465,58	1.2
	INSUKWOB		00	1,09# 50	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	I.	1,624,605	D.
	REFURDS & TRAVEL		00	2,456 25	7,530.42		441.05	35.4
	NEWSENSI'M COLS		00	671.54	500203 662.03		1,326 SO 650 CO	ויד
	DOCKS & SIMBORITICAS TRANNISA CERTRICATION		60 10	עע גרארגע	1,003-00	,		0 1379
	CUSTOWAL SUPPLIES		.90	(1).20		-	77 021	ц. Ц
-	CERARINESI SUFFICE		.x. 16	21,683 23	21 603 23	•	6.110.58	72.8
	VENCLÓ KĽANIH S ADMINISKÁNCE		50	543509	17,541.60		6.992.51	41.7
	CHUNCHE ASPAN & MARCEMANES		.56	3,93163	5,540.00		5,405 37	10.0
81-610-560	вы дами время в имперания.		.00	45 e33.90	32,660,66		17,000,54	-st t
61.610.590	EQUIPMENT REPAIR & MAINTENANCE		.90	16755665	126,660,60	í.	84,670 65) - 1	127 C
k1 6:0-660	OCHIFRACTS / CONSULTING			155-11	6 (2010)		560.00	56
51 M0400	CARWOR: 5 & YES (193		20	4,773.00	5 354 50		-25.55	60 T
91-610- <del>0</del> 55	WATSKASSESSMENTTEE		5	40 pt at (0	25,020.00	ſ.	5 654 66)	1176
11-510-670	MOLESSIBHAL SERVICES	<	415.90;	10,160 61		I.		331.9
61-610.660	IT INTERCOMPANY REMEMBERSENERS		92	D0,614 13	50.514.00	I.		190.9
	GERENOL MEERCONTANY REMOURSE		1.002.04	)PJ 244 PP	766,505,655		3,025 15	695
	eve realize		ee	2 338 %	8,566.00		2,075 25	36 E 8.9
	CARTAR COTON - NEW	r	1,459,074,021	175,386.57	3,123 500 99 DC		+ 505,115,43 575,955,903	2.9 J.
	DEPRECIALIZE - MATER DEEL SYRMON - NONDIWINENI		516,355.20 00	516,655 00 60	1.003,546.94	•	1 263, 146 56	 D
	WEARAST EXPENSE		.00	423.478.39			612 673.094	.5
	all a greater of					<u> </u>		
	LODAL WAYER DEFAILENEN	<u>.</u>	220 666 HOI	7,707,319.25	4,118,345.05		a,aj1,526,2€	SP.A.
	ICIAL FUND EXTENSIONS	<u>.</u>	•2187103	2,709,256,26	43 (8,849 09		2,311,436.74	27.4
	HYT HEVENLE OVER EXTENDINESS		055.218.03		4 1/307,204,001		600.250.00)   	<u>50 %</u>

IDU W CHINH HIS CHUYEAN INS CURRECT 124007011 01 (4014 - 2017)

#### Cars of AbleCol UN ANCE SHEET 55P7EW(F8.30, 26%)

#### WASSIGNORY

# ASSET

0.2040.0	CASH CONDACT ALMO	5,206,207,12	
•	WASTR RECEIVABLES	151,473 03	
	FALLAGE IS - WATER	24171,708.64	
	WATCH REAL ASSA	71.542.01	
	ACD DEFEDINATION - WALLER	[ 3,466,136.67]	
	IOLAL ASSETS		25,661,253.42
	64290705		
61-110220	ACCREED PARACEL	·4 053 60	
E1-12/100	EBROBALS HAWAREE	69,020,00	
61-220150	WATER NUTÉ MITABLE DE D	17,550,613,62	
		· ·	
	TUTAL LINER (1925		14,224,421,81
	STAND KOUTO		
	<u>ԱՏՆԻԴՅՕՈՅՆԵՍՇԱՒԸ ՅՆՆԻՇԸ</u>		
61-17-020	HAD BALARDE BROWNING OF YEAR	8,942,866,63	
81-23-9100	KUSERVED FOR ARROVENER18	6,627,215,55	
	ADVENCE OVER EMERATINES (Y)G	366.007 FG	
	SALANCE - CLARENT GATE	17.826.90101	
	1014: FERD 50041		PV.826.001.81
	TOTAL DADIESTICS ARE POSITY		73 86 ( 203 92

# ГОК АГАНАНАЛЯЛТСИК ИЗС ОМ/У 142 5 07 142 FB2 AL 47-Alt H25 FLAPSED 420425012 021644 РАОГ 76

#### CALL OF ANALYSIS REVENUES WORLD COMPARISON TO BLEDGET FOR THE 12 NEWTING GROUND SKIPTEMASE 30, 2012

#### WATER DUNC

		946600 AS-TUNU	VTD ACTURE	03821	UNEXNOLD INCR
	WATER REVENUE				
63-342-102	SERVICE YEES	90	4,324,399.21	1 (082) (Cel 06	( 33(29/26) 1253
64342-101	IKAC PATRENT	60	936,224,25	376,210 Mi	39,005 BC 57.0
67-347-102	00-010250-02	.50	455,565,55	100,040.06	3,226 3D S7 C
05343-200	HEEOVERIC AND	10	25,504.55	20.060.00	( 0.00× en) 137 S
65-049-200	OYFRAM USP FERMIT	0	250,02	.ca	( 200.005 Z
61-045-200	TINKS & THIS ARESS FEES	.00	22,345 77	16,000,00	( 0.840.97) 129.7
61-040-720	LEASE HENTIMIE		2,6000	لعد	1 2,4042006 .6
	TOTAL WATER REVENUE		2410,548.90	2,184,500,50	1 246,500 850 1669
	Insuclase Cara Revenue				
61-470-490	INTERIST CARMINGS	œ	64,054,05	96,328.09	17.726.95( 159.2
61 673 456	WATER SUPPRESSION COMPLETION	es	2 542 36	1,200,30	( ),557.00( 250.2
81 376 520	OFGEUNORG	<i></i>	00	450,300.00	150 007 00
et \$70.500	443/ELLANECUS REVENDE	.05	a,125 42		
	FOI AL 465051 10405 UNB REVENUE	30	15.572.47	147 929 00	171,0355 341
	CONNECTION PERSONNEL CAUTOR				
25-360-10G	CARACITY REPLACENEET FEE	Del	E2.156.00	22,000,00	2 67,109,001 5145
or alle year	METER CHARGE	.60	28,975-95	ब (बाह्य क्र	( дилүүнүн күзө
		•			
	TOTAL CONVECTION FEESINGTER DANKOL		507,543,96	24,800.86	1 77.342123 32223
	REITAL FLACE REVEAUE	JD	2 593 035 14	2,425,125.00	L 171.62710, 1071

CAPERINESS.

FOR AISHMASSAA (ON USE CML) KEEK CF THE ESCAL YEAR MAX BLANSED

1.65007012 0011566 PAGE-74

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#### OT / OT AMMORE EXPENSIONS WITH COMPARISON TO REPORT FOR THE 17 MONTHS ENDING SEPTEMBER RUPPLY

WATCH FLED

		۰۰	KARADA TUAL	утрасные	51.1-317	N.	NEWENCED	Кант
	AM FS 13 NADAMENT							
01-010-192	ZALANINS		5.007.000	172,022,04	575,910 10		4 667 96	37.2
61-512-111	GVERING		us	Ú, 194 63	8,035(0)		1,045,37	78.7
<1-510 253	ENRIGY OF AFEIDS		45	20.616.02	145.007.00		20,420 20	717
41,610,049	FERGOAR PROTOTAL ADDIVID		60	7,265.22	1,905.00	6	- 265 771	1.11.4
d1-610 825	CATACE ALMONIES		65	1,735,82	2,502107		>63 <i>9</i> 8	09.5
61-510-933	FEAT		63	165.05	5100100		4/1) 9V	15 ð
01-510-642	E: FCTBC		هن ا	242,200 82	250,000,00		5±36.0	97.8
61 8:0 356	PRELA DE		00	18/17/26	15 AND (A		1.567.21	91.4
61-818-576	POSTAGE		ω	6,200,61	3 000 00	ſ.	235 611	1640
618(6-275	NOTICES & FUELCATIONS		w	60	5 500 00		3,560.36	с
66- <b>91</b> 0 #10	REFERSE TOWARD		Du	1,656.25	2,000,00		741,26	69.9
Ə1 610 460	NEMNERSKY INTE		50	749.90	0 600 60		251.00	79.9
61610400	00268 8 604603047046		Şu.	66	650.00		650 26	
61-612-356	INAMING & CENTHERADICK		00	2,737,47	÷ 6243 60	ı.	1 752 871	275.5
65-612-499	CLOTTROM SCHPLIES		30	206.59	600.04		321 21	41 6
61-010-500	DORAGEMENT STEELES		30	VE,825,85	18 (55.07		818411	6V Ş
61 042-500	VENICUE REPAIR & MAINTEANAGE		66	10,963.05	7 66430	I.	3, <b>46</b> 8 06,	100-0
61-01-0-576	CHOOSE ASPAIN & NAMES AND CE		ц,	4,073.45	7 /54.20	i	1.223 48)	146.1
81-646-825	RETURNED COLORE DE PRIME & MAIN		<b>00</b>	124 (015-37	1741,959-00	:	461531)	105.5
81-642-560	SUE ONG PEPRIES MENTERARDS	<ul> <li>C</li> </ul>	8,024 143	N 240 GN	25,999.00		23 J 53 M	32.1
B1 612-500	ZOLAPAPAT AFIYAN GAMAFÉRAIKE		6,894,00	02 (17 08	20,000,00	i	2 115.08)	169.5
E14/6401	WATER RESISTS	<ul> <li>C</li> </ul>	10,572 (01)	21	Q0	I.	.26)	5
81-652-304	CARGACIAN S & FESTING		.00	8,022,00	5,320,30	i	1,606.00]	536.2
61-610-005	WATER ASSESSMENT FOR			27,294,49	96,250,35		1,929.51	25.4
61 640-615	214046-2640344, SEMACES		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	5 646 41	1,904,02		>.399 67	45.6
51 610 dH	CEDAL COCKER		,œ,	LI AGI MA	.00	۲.	13,6H3 K)	0
\$1-816-990	IT INTERCOMPANY REPAILS SEENENG		**	32,632,00	(8,967.03	ξ.,	1,650-001	107.5
41-6 (0 GTs	GEN IN INTERCOMMENT REMAINSE		92	164,04,16	(\$5.625.00		27,226 MG	47.6
en.610.690	6AD DESTS		65	6,856,34	4,062,00	0	4,850 741	225 J
01-616-700	CAPIZAL CUTUAR (NEW)		10 63 63	982,464.55	445 000 00		782.535.55	36 S
en-516/WG	CEPHECIA POA - WATER		533,740,59	\$33,740.50		ζ.	973,743 (20)	9
65-610-616	COUT SERVICE - BOHISPATMENT		00		2,033,745,00		1,003,148-50	a
G5-810-813	INTATAST FATHERSE		.06	412,928,92	<u>,</u> 22	í -	4°2,91859)	a
Go dhe ere	MECHINANEUXA PARCASE		.04	24040	.00	!	243 (6)	G
								•••••
	10176 WATER DEPARTNER		314,712.05	2,751,087.20	7,643,334.00		476,02.95	64.8
	101AL FUND EXTENSIONES		354,755,75	2,251,957.90	2, <del>4</del> 27 770 BQ		436,572.45	54.2
				• •••••		••••		
	HET ADVENDE DVER HARFEDDIEDES		34(713.02)	388.997.08	; 207,002.00;		CE8,280 M33	689-4
		<u></u> -				-	•	

FOR ADMENISTRADAWI UTLICALY 122 N OF THE FISCH, YEAR HARSEN

------157950012 S3.10MM PALE 22

#### CHY DY ADINON RAXAXIE SHOET SOMOADIN AR 8014

#### WATHIN 040

## ▲559T5

83-3 <b>5160</b> 0	CASH - CONSIDER FURL	2,457,085,73
61415500	WA: EK MECENVESES	110,520.08
81-160000	FIXED ASSS 15 - WATER	21,053,075,91
61-105000	WATER INS247 ASSET	200, viz.ús
65-172060	NOC COPREC(ALION - WATER	1 2/40/09/20
	ICTAL 455E (3	76,786,782,95
	: INNI) IT IF IS AND FOLMEY	
	12480-1248	
	•••	
\$1-31(230)	ACCORD FANIXED	14,255-60
61-220000	3F60815 P47A3-5	DC #25 E0
#1-220302	WATCH YOTE PANABLE IN O	12,3/8,558.04
	YOTA: DAMIN'ES	13 469 575 54
	PERO 20001Y	
	LANPROFFIC O DIST NA ANCE	
00222000	PUND BALANCE BECONNING (UP YOAR	T 256 617 83
01-275100	RESERVED FOR INFROVEMENTS	2,140,601.53
6: 775 ISC	WATER CARACITY DEPLACEMENT INFS	42.603.40
61-275500:	HV\$70K12D BCHDRCSDRVC	566,992.00
65-275260	ASSIGNLI) MONO RESERVE	545 BLZ 141
	NEVENUE OVER EXPENDITURES - XTR	452,662.33
	BALLANDE - COMMENT DATE	14,316 607 01
	SUMAL POND RGCRY	\7,316567.D;
	TOTAL CARLET #S AMC FUDITS	25.78 <b>1</b> .762 PA

FOR ADMINISTRATION (BE ONLY

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#### CITY OF AMAGIN REVENUES WEINCOMMANSON TO REPORT PORCINE 12 MONTHS ENDING SEPTEMBER 30, 2013

WAS PREPARE.

		ррепті Астірац	\$70 ACTEN	665000	ансарило ись) 
	WATER REVENUE				
ечныная	зение нек	24	1.360.159 72	5,540,425,00	( NI 721 27) (O.A.
05-040-155	ELMC PARAZET	24	065,307.06	659 \$10 50	4 064 OU - 25.6
61-346-142	ECAC 12 SERVE	60	. AG	105 690 60	102,566.60 0
04-340-295	DP COMMPCE PEPS	60	26,329,50	24 000 50	4 32800 - 531 G
07-040-090	HICENA (REFERENCE	60	325.00	20	( 025.05; .5
65 560 800	14488 & HATEREST FCCS	ш	\$2,100 le	20 000.61	<ul> <li>4,555,94; 525.8</li> </ul>
	RSLAN WATER REVENUE	00	2,384,715,35	2,484 324.65	60.109.6× 44.8
	NISOLUWICOJE HEVENUF				
0~376-106	INTEREST IS WORKS	ю	46.00 NB	60,417,00	15 432 15 77 5
51-376-496	WATCH SUPPRISSION CONKECTION	20	06	4,006,00	1 624 00 .5
A: 370 TIC	DQBATKD ASSETS	103,000-20	107,000/36	.00	( 163,000 00; 0
61 370 432	REAL LANCOUS REVENUE	26	10,462.77	. دف	r 5385277) E
	TOTAL MIGOEILANDONE REWERLE	07.03.025	180 003 67	BI 412.26	( 08.851.62; 266.5
	CONNECTOR (EESINELEA CIONSE				
61-389-100	CARACITY REPLACEMENT VICE	100,430.07	106,455.00	42,000-00	0 04,450 031 253 5
64/192-200	MERER CH4RCE	x0	22,223,99	10,952,00	L 27,070.001 342.5
	IC MALLONNYCH OK FERRAVE"EN CHNAGK	105 455 20	138,4/390	() R. G 40	r 4:75123 5427
	ICTAL PURCHERSON	09396,605	7,612,823 64	9,5)6,387 CP	1. 101,455 (M) 104.2

DISAGAGE CARES

2132 ADMINISTRALIASH USE DALA 100 % OF THE FREM YEAR MAS ELANDED 10/1502015 67 2040 PAGE 20

#### CITY OF AMMON PAPEMORTURES WATH COMPARISON TO 000GET POR THE VEROMEN'S ENDING SEPTEMBER 30, 2010

#### WATER AGAIN

		PE:	CODAGTISAL	10.450 LAL	0000077		MANCED	нанг
	WALLER GREATERT							
0-410-0-0			1<201-001	171,448.75	175,009,55		5,660.22	<b>96</b> 8
	CVERTRE	•	00	6,100.75	16 500.00		19.410.34	32.2
	LANDAL BASKS			4) 11T FI	102,712,00		9,561.79	90.7
	SAFETY FRIMING MIDIECTED 4P		20	1.666.85	2,900,40		230.36	43-1
-	OFACE SUPELIES		16	1.244.42	2760 60		1,666 52	03.4
61010500			LG	7,553,43	0,000 20		2,466,56	521
01010-146			50	349,055-85	250,500.00		\$44.15	99.7
	PREL & CR.		.06	15,644.01	15,300.30		54a (Si)	102.5
65618370			20	6,21041	r,800-00		1,585-30	<b>19.6</b>
	PICTISES & PUBLICATIONS		30	150.97	8,560,00		3,330 SD	45
	NEETWOR TRAVEL		66	10.56	2,269.00		1,3450,500	2.5
	MAMSERS 14-2015		.66	<b>ISA 20</b>	1,300.00		140.06	درون
	BOOKS & SURVISIONS		.19	a,	853.00		550 50	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	) SANING LIGERSIPHIATEM		.50	3,957 12	2,000,00		1,587 820	154.4
	SLS10(AV, 5994183		.90	96.53	100.00	•	80.947	10.1
	DEFACINE AL SUFPLIES		.50	24 75a ia	16,000 00		6,755,716	
	VENDLE REPAIR & MANFEMANCE			5.92343	1000000		1,470.60	CS 3
	STOCKD HEADING WARTELANDE			4.220.81	3 605 (1)		1,700 64,	\$42.7
	VATIONSTRUCTURE REPAIRS AND I		40	W6,963.73	125,022,00	-	1,636.37	ω.
	BURANG REIWA & MUNTAANAGA			\$1,957.50	22.030-02		E 142 d4	50.3
	NORTHING NE POINTS AND A LANCE		æ	21,645 10	20,005,00	:	1,645 (5)	700 J
	CENTRALINS / CONSIGNING		62	542.52	.00	÷	946.52	0
	WATER BRAMS		135,600,000	63	.00		.85	ć
	CHANCALS & TESTER	•	.00	501010	7,173-00		2 162 05	50.6
	WALDCASSESSAENT KEE			23,134,97	76.203.00		2,924 922	798-9
	2400 FKSKI44, SERVICES			5,109.05	7 642 00	•	1,892,35	72.5
	T INTERCOMPANY ROMENSING		22	125.03( 00	125,001,00		.00	100.2
	UPMERAL HISECONPART REIMOURSE		6	a10.2VF 55	210.077 <b>5</b> 0		4 265 07	25.2
	END BEHIS		60	11 000 15	4,000,00	1	4,052-151	251.5
	CAPTAL CONAY - NEW		121 (M3 03)	74 M.Q./b	351.430.30	1	381,460.26	63
	CARITAL OLI 147 - LANDONG		02	بد	175 000.00		128,600 50	
	NEPPOSIATION - WASEN		ws:227.85	\$45,507.59			\$45,007,001	۵.
	DEET SERVICE - DOWN PAYNER?			بد	542,569.00	`	\$42,589.50	
	INTEREST ENPERSE		ш и	362.744.26	41674150		30.556.74	413
	BUNDRESPAR		.06		140 \$60 \$6		100,000,000	
	REPORTATIONS & LABOR DE LA COMPANYE		 נה	)0 96		7	70 bij	٩
614610-600	RI5022044000 8 415472				<u></u>	<u> </u>		<b>_</b>
	TOTAL WARKS DEPARTMENT		971.61 <b>1</b> .00	3,520,645.54	2,858,059 00		//96/040 36	754
	10] N. FUND (XPENDOLEES		2)3,638,20	2.1906/6.74	2,685,669.00		696,040 M	سري 
	NET REVENUE OVER EKSTANTUALZ	. <u>.</u>	+5,756.000	492,005,50	•	-	660,525 50.	

FOR ADMINISTRATION INTO CARE HAS FLAPADD

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#### SEVICE AVAILABLE DALANCE SHEET SEPTEMBER 28, 2014

#### WALLS FORM

	#631*>		
5- 4010CD	COSK-CLIMENRIO (UNC	5 756,56K.74	
	WATER INCOMPANY AND TO AD	61,150,32	
	PRED ASSES - WALER	76,431,433.91	
	WATER RIGHT ASSUT	360.571.35	
	ACC (CRECUATION - VALVER	( ¥(000,00) 6'4	
1010020	200 LET COM (0.0 - 100 -	·····	
	rorat ass§fs		25,556,135.74
			······································
	LABUTES AND SOM IN		
	1381.7.7.8		
	ACCRUED NEEREST HANNAL	22.341.65	
	ACCRUCE PATRIX:	22,471.50 5.497.50	
	WATCH COPPOSITE PAYABLE	11.500 32	
	WATER ACTO PATABLE (SO	11.500 st 12,(4),51,60	
61-790100	TRUER OF LE PARASE REG		
	POTAC DAMENTES		12.856596.42
	I GND ZGIUZY		
	T WILLIAM		
	LIXWINGTED FORD BALANCE.		
61-275662	FURD SALANCE SECIENSAD OF ASAM	7,754,24311	
61-075166	RESERVED FOR INCIDENTIAL MEDICAL	2,143,601.50	
61/275100	WATER CAPACITY REPLACEMENT 1855	560,259	
01-275500	NEW186212F-ROMPMESERVE	165,002 DC	
81-235300	ASCRUMPED BOWN RESERVE	865, 202 <i>0</i> 5	
	REVENUE OVER EXPENDITURES (NTD)	364, 612 33	
	DALANCE - CLUDGENT SAFE	17,023,519 M	
	ימואר נראס נמאיז		*2 KB3 5 KB 3 *
	2039) (MÜRNIMS AND STATIS V		75 530 135 74

ACC ADAGMISTER AT AT A TEM CHILY NOV & OF THE FEDORE YEAR THE EL WESTER

EA 12/12/00/4 130/14/A FAGC: 21

#### CHIYOF ANNON DEVENUES WITH CONSIGNATION TO HEADONE. FOR THE 12 MONTHS ENDING SEPTEMBER 35, 2016

WAREN FUND

		MUNDO ACTUAL	YAS ASTEME	SLOGE!	UNEADXED	нскт
	WATER TO VENER					
81-343-460	SERVICE FEES	.00	1.2194.063 61	>042,087.00	4,323.09	60 A
51-1/0->51	BOND PAYNERT	.20	1,043,336,20	5.043 ADB (A)	66	-305
61-369-205	AFCONNECT FILS	.20	29,665.50	23,000 04	1 5.055 92;	>46.5
61 540 255	VANDAMA USE PEANIT	65	529.90	<b>x</b>	; 500.30]	.9
61-340/300	PINESS ACCESSIVEES	o:	29,661.55	14,000 G	1 2,991,691	- 1997
	JULAT WALEH BUALSET	co.	E,283,278-60	2,573,713,00	1 6,583.003	100.4
	MÁGOULARZÍÚLÁ SEVENDE					
avata 133	INTEREST EXPRINGS	10	27,777,93	90.510.20	12,752 M	14.8
01-3/0 450	WATER ALEPRESSION CONSECTION	00	500,00	1,000,00	500 50	53.0
61.375.310	LICHATED ANSETS	96,000-00	50 A00 / CC	05	( 90,20010)	U.
ava/2-566	NINGELLANEOUS NEVENJE	W	1.773 65		( ()//164)	۵.
	ICTAL MODELLARCOS IIEVANJE	95.XU.X	6)9,35* S:	51,510-00	( 17,4156	3783 
	CAPACITY REPLACEMENT OF CHANGE					
61 360-190	CARACO F FEM ADEAREN7 FEE		67,500,60	105,205 55	22,000 00	20.5
\$1-985 250	HETER GROUDE	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	20,251.56	25,4/G/BG	9,2;3,44	211
	тоты скласку негологиястся снажос	טג י	107.451.E6	101,617.02	:6718 H	76.1
	TOTAL FUND REVENUE	19,700 00	2.526,661.57	7 922129514	( 6).use.o)i	1450

\$205,000,0003

ГСП АЗИИМЕТНИТЕЗЕ СИLY (65 %. 07.1%5 FIRSTAL YEAR HAVE SUMPRED) (10.20034 - 10.14)% РАСЕ 27

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#### CITY OF ANNOW EXPERIENCE AND COMPARISON TO ADDREET FOR THE 12 MONTHS PNOISKE SEPTEMBER 30, 2214

#### W47ER F04D

•		PENCL	ACTOR	VERACTORS	300621	анелнен <b>с</b> ер	P041
	WATER LEPARIDENT						
41-610->10	SALARIES		14,561,00	716,506.05	199 20026	< c7503.000	108.6
	OVENER		00	6,60:38	3 965 84	3,285.77	87.5
	EARD OVER DEVER US		.03	163,671.45	104 632 30	600 SS	97.2
61-610 245	AGI/SOWAL PROTECTIVE FLAUPMENT		60	2.0m Bd	3)6365	546 10	65.4
61-016-220	SANK AGES AND CHARGES		60	15.508.M	\$6,413,00	< as 540	106.6
6161300	COMICS BURNLESS		60	1.206.48	2 369 60	129 52	708
41616-330	DROU		07	2236.89	L 500 00	( 6)6 (4)	123.6
£1.645.849	SUECTRIC		00	399,#16,35	313 306 60	41250.64	99.4
61-513-350	>ceratel		140	11.556.42	15 066 00	3,467.86	7e.7
64-514-3/5	PU55496		60	6,677.23	6.000 66	522 22(	164.7
41 619-175	NORDES & PUBLICARSING		60	ىعا	1.001.00	[,0;632	c
01.610 a59	HEALTH A GALEY		60	145.25	60	7 (45.00)	2
01200482	ADM0FRSH#PAUSS		.00	720.55	675 DJ	S96 20	69 A
61-510-490	600K88 80050R#30048		101	812 <b>P</b> S	65166	431.00	92 <del>0</del>
CI 613 415	TRAVERD & CERTIFICATION		ed.	2,626,72	2,002,60	371.20	6/8
e1-512-433	CRISTLETAL 2014/LES		64	51x.m	500 20	128 90	(40)
21-612 500	D7FAILTNEAT SUPPLIES		60	24,542,03	P2.000 PA	( %.orC 00)	
21 613 520	STINGLE PERMIS AGAINTENANCE		66	3,651,25	8 660 00	4,646.04	43.4
A1 610 570	GROUND REPAIR & MARITERIANLY		60	18,996.63	15,000,00		
01 <b>6</b> 10 575	неракулянствая в меня	1	70,002,001	IEG,CIM 85	116.000.00	11,26567	89.0
en-610-68¥	GUILD 45 REPAIR & MANTENANCE		60	3,54265	19100200	51,457,34	
61-510-722	ECVEDNENE REWARD MAINLEVANCE		20	16,547 (3	17 556 10	• •	
61-610-003	CONTRACTS / CONSULTING		154,539 IKG	r 184,118,205	60	P\$4.515.25	A
01-512-605	WATER 6(5) 5		03	N54.525XXX	104,150-60	23,581.00	
01-Ety (406	CHEMICALS & 1623047		Ę0	A000	4,170,00		
61-619-635	WATCH ASSESSMENT FES		60	34,076,35	30 504 60	×1.522.64	692
64-810-010	MORESSION: SERVICES		30	P) 33	7,04110	1,532.68	3.
21 810 550	I: AVENCOMPANY ASIN'SURSENIENT		10	F34,417,00	La \$11 60	56	
65 610 6015	CENTRAL & LINCONTRAT (CHURCHEE)		12	101/24.5	198,797,90	\$4,273,48	92.5
	EAD COULS		ça	8,047.03	4,004050		
4:010-005	EQUIPMENT REMITTENSE		.00	DC	5,566,50	5.56.30	ů Â
	Calsi al Cuillan - AEW	( )	86,144,00)		121,470.00	999,475 (0	~ ~
	CANTAL CUTLAY - OK GONDA		w	37,47503	146,577 60	: 16.852.03	214
	DEPRECATION- WAYER	1	20 579 hex	551073-21	20 		0
	CHBI SERVICE - CORD FAMILIAN		ين 	96. 19	642,885.00	842,845 63	
	INTERFS' EXPENSE		28,287,03	428,817 56	406,452,00		۱.0.1 للـ
01610-002	MISCELLAKÉTAN ÉXPÉRSÉ			1,21526 		1 1,000,000	- "
	(D) 4. WATER DEPARTNEM		09.997 (%	2,201508-94	2,621,814,66	<del>0</del> 07 045 <u>36</u>	33 T
	TOTAL FLAG EMPHERILINES		99,079,00		5,071,014.00		
	нся немімя; смік саренскананся		607.03		( <u>568</u> ,119.60)	: 194,931 33	

rón sónmist karkón ust ork.) – iso szer tel nisólál vőjat hátsed – isotaséte isota karsed – isotaséte 23

#### CHIVELANNON SALANIZI SALCH SEPTEMBER 36, 2012

#### WATER F0140

	ASSEIS		
44,109260	CASK- CONTRACT LIVES	5,383,105,29	
	WALLA AFCELORLES	E. DIV 15	
	ADED ASSETS - WATER	54,560,×64,95	
	WATCH ROCHT ASSET	\$60,671,50	
	ACC REPORTER FICH	( 6,045,075,61)	
51-175200	STEERED DATA DW 202 PLASE	37436.30	
-			
	12/14046561S		25,220,226.45
	LIABELI TIES AND ECENTY		
	LIVAUTICS		
		25,285 05	
	ACCHERUINPENEST PAYAGES	2,000 voite 2,000 voite	
	ACCORES PANNAL	47.A97.00	
	NET PENSION CALLED IN WATER DEPONDS PAYABLE	80,980,00 80,885 00	
	WATER MOTE PAYABLE DEQ	00,000 0.1 [2] 109 109 37	
	ELEEBADO INFLUENT FOR PERM		
01-2-5220	PD-Environment (environment		
	201AL UARLINES		27,439,354 7a
	LEND FOR Y		
	••		
	ABYALANDARY KO LAND RATAAOP		
	AIND REAKS REGIMANS OF YEAP	7.922.650.64	
	RESERVED FOR INSHOUSHENTS	2,143,401.50	
	WAREA GAPACH & REPLACENERT RES	582,456 40	
	KASTARIED BOKD KESENVE	945,127 00	
64405430	AGRICALD SEND REACHOE	956,420,00 915,173,65	
	SZYCTANE OVYMINAPENNATURES - YRC	312.110.025	
	RALANCE - CURRENT CATE	72.97(1/71 97	
	YOTAL PUNO DOUTY		12,620,147,07
	YOTAL LIAMS TICK AND EQUILY		25,350.136.26
			·

FOR ADMINISTRATION USE ONLY

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1//10/2819 10 SOAM PAGE: 23

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#### COMPRIME ANNON REVENUES WITH COMPARISON SCIENCES. FOR THE 10 MONTHS ENDING SEPTEMBER 33, 2013

#### WATER FUND

		Asiachiactual	TAUKS+CIV	(JA)(5)(T	LHALWINED	<i>еска</i>
	WATEN KEVENDE					
(a.)45.156	SEAVAGE LEEP	60	1,505 Mbs 36	4,257,547.32	1 10/040790)	104.4
-	P(04) KAYMENT	ru	955,267.50	255,030-05	.20	100.5
01-045-200	APECHARECI FEFS	.20	21.995.00	35,334.02	1 3,505,001	114.5
	ETDAMI VEE RENHT	60	675 CU	Li C	( 65.00)	υ
61-046-206	THESE REPORT FOR	ED	19,767,41	15,020,05	1, 1,227.411	109.5
61-046-120	TEASE REVENUE	Cu	5,056,05	.10	1, 1,764,10	u
					••••••	
	10TAL WATCH REVENUE	60	2 J60, 945 SE	3,265 642,03	1 15,256.585	166.5
			· · · · · · · ·			
	MSCELLANSOUR ACVENUE					
61-570-190	EFFREST EARNAGE	46	64,665.33	\$1541.05	1. 11.544,385	151.6
L4-073-850	WATER SIGTERESIDE COMMENDE	(B)	1,546-06	1,635.65	1 500.317	150.6
(4-(73.63)	465CEV MEANS REVENUE	.56	1,755,52	00	1,756.202	0
				·····		
	TOTAL MISOELLANDOUG REVENUE	.50	68,140.35	24,341,03	1 13,766,359	125.1
			·····	· · · · · · · · · · · · · · · · · · ·		
	CARACIEY REPLACED IN EPER OF AND					
61-863-565	TAPACITY REPLACEMENT (CC	8	64,144.32	102205.01	74 669 00	579
A1 880-740	NOTRE CLARKS.	.95	00-150.63	28,472.00	1 4,056,836	516.6
	COTAL CAPACITY REPLACED AND METER CHARGE	.15	1 (7,473.45	137 575.00	24,109.17	16.4
	TUTAL I'JAD HÉVĚANE.	35	2,556,542,72	24)276400	( ( <b>117</b> /2070)	104.4

EXPENSION AND

#### OTH OF ANNOW (SPERINT) ACS VERTICAREA/ROW TO BLOCK F FOR THE 12 MORTHS ENERGY SPRINGER 30, 3015

W41662040

		DENKID BOOMS	YSECARSE GAL	8.0607	UNCKARADED	PL:NT
	WHITE OF ARTICLE					
		01.70	661 <b>84</b> 3 14	11151 M 61	25/22.32	872
DI-LIC-STD		2.147 (0	664,813,644 117,72	5,027,95	-	163.2
61-612-511		22. مع صلارة	9,725-71	92,623,60	28,507,74	
	'ENPLOYET SEASTI'S ACTIVITY AND AND AND AND AND AND AND		13,456.56 59/14	3,000.05	20,507,74	20.7
	PERSONAL PROCESS INFECTION		14.5E2.50	46,04542	8,792.42	10.4
	SAMEFELS AND CHARGES			مردوره. مردوع	4,968 40 V 268 60	67.1
KI-KI9-110	OFFIC SLANUES	.05 50	1.826.40 2.620.96	7.5643.641	493.94	10.7
En-Classes		00	157,413,13	393,000 00	<1, 106 A/	847
51 610-353		00	1,457.51	:= 00>60	251231	74.6
11600.07		50 50	30121.11	1,000,00	012 43	EAD
	FOR THE REPORT OF A PUBLICATIONS	60	425.40	1 (00.00)	626.64	40.5
	HAD NOT OF TO MODAL TOMO	20 20	86.50	7010	415.00	17.6
	INSURANCE		0,0+2 20	1014.00		-32.4
	NEVEL IS IN SALS		36.30	125.00	46: LU	22.1
	BOGIS & SUBSCRIPTIONS	.00	.50	GALO	ESO LU	
	FRAMMS & CEASIFICATION	50	1,964-17	3,640,64	1.090.00	43.2
	CIGIODAL AUYOFS	.30	165.95	:00 60	194 DC	2:2
	CENATION SLEPPINS		65 #15 4>	26,006,70	( 20,404.41)	273.9
	VERSES REPAIR & WAREHANDE	.30	2,112.75	\$ 160,66	2,00102	24.6
	DEAVY VEHICLE ICHONES NOVE	1 6.0050	-	ω (	5.541.26	2
	INCOME DEPARTS NAMES AND T		1 177 25	3040.00	1,922.24	353
	MERASTRIC NUR INCOME A MUSIC	.90	(al) (475 ča	112;060.00		103.8
	KILONG BEPAK KIMANTENAKCE		5/40/41	15,060,00	0,316.55	27.2
	ESCIENCEST REPAIR & MAINTERAACE	.30	15,005 66	210046	6,654.34	62.0
	ELTAI NACI S / CONSULT: NG	.50	10.215 46		-	3
	WAISCHER 15	.00	464.02	20		
	CICIMITATION INC.	63,	4 556 63	17,725.20	12 875.97	20 G
	ANTER ASSESSMENT FLE	.40	38,971.66	28,753.00		100.1
	PROFESSIONAL GROWILS		166-03	2,040-00	1.4525.60	571
		10	در <del>در</del>			
	TINTERCONFANY REMOGRATINEN		61.567.00	61,932,72	.50	160.0
	DEVERAL ENCONANCY OF MOUNTE	.00	157,545.09	264,951,00	7,047.01	95 Y
81-613-520		.00	5,583 40	7435.92	2,001.54	62.0
	SUNGAMMANI NONCAGEAGE	60		4,000-00	4,035,03	.0
	CARITAL DUTCAT - NEW	( 197,409,051	266862	893,678,45	Eb0.bG3 1a	
	CAFIZA: QUELAY - ONEOINE		8,050.00	712,549,00	126,495.60	a :
	DEFRES/MON WATER	555,952.90	580 823.00		1 340,987,961	۵
	LEEY SERVICE - DOND BAYMENT	92	20	575,635,00	671,609.00	U
	MARKEST LAPENSE	4,229.00	351/254.35	303 GELLES	2,679-01	He ¥
				· · · · · · · · · · · · · ·		
	TOTAL WATER DEPARTNER?	\$13,43540	90,986,285,38	1 207, 20 <b>4, 60</b>	1,367,330,00	57.F
	TOTAL FLAD ENVENINGER	467 <i>419.9</i> 0		0 297,303,60	1,051,310.01	4J.2
	Het Revenue over expensiones	1 467,672,809			( 1 105 (13.83)	

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FOR ADMINISTRATION USE DWAY 103 N DY THE FORME FEAD LARGED 13 GAIN 13 GAIN 1462 (13 GAIN 1463 FEADSED

#### CITY OF AMMON BALANCE SHEET SEPTEMBER 30, 2016

#### WATER FUND

#### ASSETS =

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61-101000	CASH - COMBINED FUND	5,492,793.88	
61-115000	WATER RECEIVABLES	54,122.88	
61-160000	FIXED ASSETS - WATER	25,345,100.91	
61-165000	WATER RIGHT ASSET	360,671.00	
61-170000	ACC DEPRECIATION - WATER	( 5,636,259.61)	
61-175000	DEFERRED OUTFLOW FOR PERSI	71,207.00	

#### TOTAL ASSETS

#### 25,687,636.06

11,863,646.26

#### LIABILITIES AND EQUITY

#### LIABILITIES

61-215000	ACCRUED INTEREST PAYABLE	8,564.46	
61-216000	ACCRUED PAYROLL	9,900.00	
61-217000	NET PENSION LIABILITY	132,966.00	
61-220000	WATER DEPOSITS PAYABLE	85,400.00	
61 <b>-</b> 220100	WATER NOTE PAYABLE DEQ	11,577,710.80	
61 <b>-</b> 240000	DEFERRED INFLOW FOR PERSI	49,105.00	

#### TOTAL LIABILITIES

FUND EQUITY

	UNAPPROPRIATED FUND BALANCE:			
61-275000	FUND BALANCE-BEGINNING OF YEAR	8,198,988.07		
61-275100	RESERVED FOR IMPROVEMENTS	2,143,801.50		
61-275150	WATER CAPACITY REPLACEMENT RES	672,752.40		
61-275200	RESTRICTED BOND RESERVE	955,302.00		
61-275300	ASSIGNED BOND RESERVE	955,302.00		
	REVENUE OVER EXPENDITURES - YTD	897,843.83		
	BALANCE - CURRENT DATE		13,823,989.80	
		-		
	TOTAL FUND EQUITY			13,823,989.80
			-	
	TOTAL LIABILITIES AND EQUITY			25,687,636.06

#### CITY OF AMMON REVENUES WITH COMPARISON TO BUDGET FOR THE 12 MONTHS ENDING SEPTEMBER 30, 2016

WATER FUND

		PERIOD ACTUAL	YTD ACTUAL	BUDGET	UNEARNED	PCNT
	WATER REVENUE					
61-340-100	SERVICE FEES	.00	1,460,167.21	1,292,387.00	( 167,780.21	113.0
61-340-101	BOND PAYMENT	.00	955,302.00	955,302.00	.00	100.0
61-340-200	RECONNECT FEES	.00	21,327.39	20,000.00	( 1,327.39)	106.6
61-340-280	HYDRANT USE PERMIT	.00	625.00	.00	( 625.00	.0
61-340-300	FINES & INTEREST FEES	.00	13,028.08	18,000.00	4,971.92	72.4
	TOTAL WATER REVENUE	.00	2,450,449.68	2,285,689.00	( 164,760.68	107.2
	MISCELLANEOUS REVENUE					
61-370-100	INTEREST EARNINGS	.00	106,740.64	59,173.00	( 47,567.64)	180.4
61-370-450	WATER SUPPRESSION CONNECTION	.00	1,000.00	1,000.00	.00	100.0
61-370-710	DONATED ASSETS	297,894.00	297,894.00	.00	( 297,894.00)	.0
61-370-900	MISCELLANEOUS REVENUE	.00	272.26	.00	( 272.26	.0
	TOTAL MISCELLANEOUS REVENUE	297,894.00	405,906.90	60,173.00	( 345,733.90	674.6
	CAPACITY REPLACMT/METER CHARGE					
61-380-100	CAPACITY REPLACEMENT FEE	.00	111,608.00	109,200.00	( 2,408.00)	102.2
61-380-200	METER CHARGE	.00	35,850.26	28,470.00	( 7,380.26	125.9
	TOTAL CAPACITY REPLACMT/METER CHARGE	.00	147,458.26	137,670.00	( 9,788.26	107.1
	TOTAL FUND REVENUE	297,894.00	3,003,814.84	2,483,532.00	( 520,282.84	121.0

EXPENDITURES

#### CITY OF AMMON

#### EXPENDITURES WITH COMPARISON TO BUDGET FOR THE 12 MONTHS ENDING SEPTEMBER 30, 2016

#### WATER FUND

		PERIOD ACT	FUAL	YTD ACTUAL	BUDG	ET	UN	NEXPENDED	PCNT
	WATER DEPARTMENT								
61-610-110	SALARIES	(	420.00)	188,345.20	19	8,288.00		9,942.80	95.0
61-610-111	OVERTIME		.00	11,122.45		3,558.00	(	7,564.45)	312.6
61-610-200	EMPLOYEE BENEFITS	6,	339.00	85,296.24	10	3,195.00		17,898.76	82.7
61-610-280	PERSONAL PROTECTIVE EQUIPMENT		.00	1,153.13		2,000.00		846.87	57.7
61-610-300	BANK FEES AND CHARGES		.00	14,102.18	1	6,845.00		2,742.82	83.7
61-610-310	OFFICE SUPPLIES		.00	1,185.56		2,900.00		1,714.44	40.9
61-610-330	HEAT		.00	2,093.28		3,400.00		1,306.72	61.6
61-610-340	ELECTRIC	47,:	597.00	370,674.72	40	0,000.00		29,325.28	92.7
61 <b>-</b> 610-350	FUEL & OIL		.00	11,570.27		6,000.00	(	5,570.27)	192.8
61-610-370	POSTAGE		.00	6,342.93		6,500.00		157.07	97.6
61-610-375	NOTICES & PUBLICATIONS		.00	294.53		2,600.00		2,305.47	11.3
61 <b>-</b> 610-450	HEALTH & SAFETY		.00	165 <u>.</u> 00		500.00		335.00	33.0
61-610-460	INSURANCE		.00	12,555.88	1	2,556.00		.12	100.0
61-610-480	MEMBERSHIP DUES		.00	849.00		1,125.00		276.00	75.5
61-610-490	BOOKS & SUBSCRIPTIONS		.00	.00		500.00		500.00	.0
61-610-495	TRAINING & CERTIFICATION		.00	1,862.62		2,500.00		637.38	74.5
61 <b>-</b> 610-499	CUSTODIAL SUPPLIES		.00	1,034.85		2,420.00		1,385.15	42.8
61-610-500	DEPARTMENT SUPPLIES		.00	19,890.09	3	0,000.00		10,109.91	66.3
61-610-560	VEHICLE REPAIR & MAINTENANCE		.00	2,692.37		6,000.00		3,307.63	44.9
61-610-565	HEAVY VEHICLE REPAIR & MAINT		.00	3,945.68		4,000.00		54.32	98.6
61-610-570	GROUND REPAIR & MAINTENANCE		.00	660.12		3,000.00		2,339.88	22.0
61-610-575	<b>INFRASTRUCTURE REPAIR &amp; MAINT</b>		.00	127,123.09	15	0,000.00		22,876.91	84.8
61-610-580	BUILDING REPAIR & MAINTENANCE		.00	6,472.19	1	5,000.00		8,527.81	43.2
61-610-590	EQUIPMENT REPAIR & MAINTENANCE		.00	46,826.53	2	4,000.00	(	22,826.53)	195.1
61-610-600	CONTRACTS / CONSULTING		.00	3,871.44		.00	(	3,871.44)	.0
61-610-601	WATER RIGHTS		.00	4,517.80		.00	(	4,517.80)	.0
61-610-604	CHEMICALS & TESTING		.00	5,970.00		9,150.00		3,180.00	65.3
61-610-605	WATER ASSESSMENT FEE		.00	8,465.47	3	6,700.00		28,234.53	23.1
61-610-610	PROFESSIONAL SERVICES		.00	600.00		2,000.00		1,400.00	30.0
61-610-630	LEGAL COUNCIL		.00	123.04		.00	(	123.04)	.0
	IT INTERCOMPANY REIMBURSEMENT		.00	87,883.00	8	7,883.00		.00	100.0
61-610-661	GENERAL INTERCOMPANY REIMBURSE		.00	130,592.19		6,603.00		6,010.81	95.6
61-610-690	BAD DEBTS		.00	3,648.77		7,400.00		3,751.23	49.3
61-610-695	EQUIPMENT RENT / LEASE		.00	11,201.17		6,000.00		4,798.83	70.0
61-610-700	CAPITAL OUTLAY - NEW	( 487,9	988.00)	1,399.70		3,470.00		332,070.30	.4
	CAPITAL OUTLAY - ONGOING	(,	.00	1,125.00		3,373.00		512,248.00	.2
	DEPRECIATION - WATER	578	120.00	578,120.00		.00	(	578,120.00)	.0
	DEBT SERVICE - BOND PAYMENT	,	.00	.00	57	1,609.00		571,609.00	.0
	INTEREST EXPENSE	( 71,8	372.00)	352,195.52		3,693.00		31,497.48	91.8
	TOTAL WATER DEPARTMENT	71,	776.00	2,105,971.01	3,09	4,768.00		988,796.99	68.1
	TOTAL FUND EXPENDITURES	71,	776.00	2,105,971.01	3,09	4,768.00		988,796.99	68.1
	NET REVENUE OVER EXPENDITURES	226, ;	118.00	897,843.83	( 61	1,236.00)	(	1,509,079.83)	146.9

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	SOCKS & SUBSORPTONS				506.54		500.00	
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	CLEPOON, RUPPLES		\$2.54	4, 1652, 841	1404.00		1,263,46	48.3
	DEMONSTRATE STRATES		1,000.04	24,606,37	25,000.00	κ.	4,58,20	78.6
81410-000	ABBOYS VEDRILLE REPAY EMPLOY		404.00	4,403.17	4,500.00	ε.	400.00	744
1.40.46	HENY VENCLE REPAIR & MANY		368.34	4,575,29	4,500.00	1	237.06	104,4
- 6-69-675	CHOWD REPORT & MARKENING CO.		.34	206.87	1,600.04		1,241,83	4.8
10000	PARAGENUCIUMS REPUBLIS & ROOVE			14,406,47	100,000,00		11(Aix26	- 26.7
elet.ite	BUILDING ROTHING A MANAFEMBRICAL			2,525.70	18,000.00		12,474,32	16.6
11410-000	EQUIPMENT REFURE & WARRENAUGE			55,744,85	14,000.00	10	43,546(95)	1947
1.49466	CONTRACTS CONSULTING		CREAK	47,400,51	75,000,00		25,545,49	117
0.000	WATER REPTS		.30	1306.M	.30	10.	3.50 m	
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41410488	PARTON ASSESSMENT FEE			26,652,48	#6,796.04		12,167,62	19.8
****	PROFESSIONAL MEMORE			806.00	1,000-00		1,575.00	9.5
8-810-000	F MERCOWING REMEL/REMENT			10/75/0	18479-00	14	1.500.00	15.8
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41410-000	BHD DEBTE			8,101.08	100.00	1	10100	14.6
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GROWING POSSIBILITIES

### OFFICIAL CITY CODE OF THE CITY OF AMMON CHAPTER 3 TITLE 8 WATER SERVICE

#### 8-3-41:

#### UNLAWFUL CONTAMINATION OR CROSS-CONNECTIONS: Cross-

connection control shall be provided in accordance with adopted codes and ordinances. No person shall install any water operated equipment or mechanism, or use any watertreating chemical or substance, if it is found that such equipment, mechanism, chemical, or substance may cause pollution or contamination of the domestic water supply. Such equipment or mechanism may be permitted only when equipped with an approved backflow prevention device or assembly. Prior to installation of such equipment a permit shall be applied for and approved by the City Engineer and inspected by the City Plumbing Inspector. Failure to install said backflow prevention device as required shall be a misdemeanor and shall be subject to the penalties established in the City Code.

#### 8-3-42: BACKFLOW PREVENTION DEVICES:

(A) Backflow prevention devices shall be installed by the property owner, tenant, occupant, lessee, or other user of City water where the nature and extent of the activities conducted or the materials used or stored on the premises would present a hazard to the public health or be deleterious to the quality of the City water supply should backflow occur. Even though cross-connections may not exist at the time, backflow prevention devices shall be installed under circumstances including, but not limited to the following:

1. Premises having an auxiliary water supply;

2. Premises having internal cross-connections that are not correctable, or having intricate plumbing intricate plumbing arrangements which make it impracticable ascertain whether or not cross-connections exist;

3. Premises where entry is restricted so that inspections for crossconnections cannot reasonably be made;

4. Premises having a history of cross-connections being established or reestablished;

5. Premises on which any substance is handled under pressure so as to permit the entry of substance into the public water supply; and

6. Premises having pumps or devices which may affect the pressure within any line connected to the City water supply.

All backflow prevention devices shall be installed and maintained by the property owner at his expense, and shall be of a type commensurate with the degree of hazard which exists or which could exist as established by adopted codes. Direct connections between potable water piping and sewer connected wastes shall not exist under any condition with or without backflow protection. All backflow prevention devices and the installation thereof shall be approved by the City Water Superintendent or his duly authorized representative.

(B) The premise owner or responsible person shall have the backflow prevention assembly inspected and tested by a certified backflow assembly tester at the time of initial installation and annually thereafter, or more often if deemed necessary by the City. Access and clearance shall be provided for the required testing, maintenance and repair as set forth in adopted

codes and the manufacturer's installation instructions. Whenever a backflow prevention device is found to be defective or inoperative, it shall be repaired, or replaced at the owner's expense. The City Water Superintendent shall retain adequate records of all inspections, tests, or repairs made pursuant to this Chapter.

(C) In all cases where a backflow prevention device is required, the owner, tenant, occupant, or lessee of the property shall apply in writing to the City Building Department for a plumbing permit, specifying the type and location of such assembly or assemblies. It shall be unlawful to install, relocate, or remove a backflow prevention device or assembly without a permit. Failure to obtain the required permit to install said backflow prevention device as required shall be a misdemeanor and shall be subject to the penalties established in the City Code.



STATE OF IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY

900 North Skyline Drive, Suite B - Maho Falls, ID 83402 - (208) 528-2650

G. L. 'Butch' Otter, Governor Curl A. Prensen, Director

February 5, 2014

Rick Williams, Water Operator City of Ammon 2135 S. Ammon Road Ammon, ID. 83406

### RE: Sanitary Survey Results for the City of Ammon PWS# 7100004

Dear Rick:

On Jan. 24, 2014, Nathan Riblett, Travis Munns, Brandon Russell and I conducted a sanitary survey of the Ammon public water system. I appreciate all their help, cooperation, and support in scheduling and performing this survey.

A sanitary survey is a security and safety measure that should be performed every 5 years for groundwater sources. The purpose of the survey was to identify any area where the system does not meet the requirements of the State of Idaho Drinking Water Rules and Regulations and identify potential source of contamination.

During this inspection there were no Significant Deficiencies observed that need to be addressed in the order to comply with the Idaho Drinking Water Rules and Regulations (IDAPA). A Sanitary Deficiency is defined in IDAPA 58.01.08.003.71. that states: As identified during a sanitary survey, any defect in a system's design, operation, maintenance, or administration, as well as any failure or malfunction of any system component that the Department determines to cause, of have the potential to cause, risk to health and safety, or that could affect he reliable delivery of safe drinking water.

Recommendations were also made as items to consider in order improving the overall operations of the water system. Recommendations are not deemed as an eminent health threat, but are helpful suggestions that should be consider enhancing the overall operations of the water system. Some recommendations maybe in violation of the current Rule or not, but do not present a potential health or safety concern.

Over, the Ammon public water system is in good order. DEQ appreciates your commitment to providing adequate and responsive service, as well as supplying safe and reliable supply of drinking water to your users. If you have any questions or need any further assistance, please feel free to call me at (208) 528-2650.

Sincerely

Norbla Marcon

Rochelle Mason Drinking Water Analyst

Encl: (2) TRIM: WQ DW Compliance Document/ 2014 Sanitary Survey/ PW8# 7100004 C: Ray Ellis, City of Ammon, rellis@cityofammon.us

State of lo	laho Public W	ater Sys	tem E	nhanc	ed S	anitar	y Su	vey				_
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1 Mr. 🗌 Ms.	Nathan Riblett							Individ	uals present du	ning inspec	tion	
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yee, what:				Name: Rochelle Mason Title: Drinking Water Analyst Phone # 208-528-2650					IDEQ Health De	μ.		
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## Bureau Of Occupational Licenses Public Record Information (Detail)

Pesignated Operator in - charge

#### Public Record

Nanse;	RICK WILLDAMS
Professian:	DRINKING WATER & WASTEWATER PROFESSIONALS
Туре:	DRIGKING WATER DISTRIBUTION OPERATOR $\sim$ CLASS II
Noinber:	DWD2 - 11584-GP
Address Of Nocord:	
City/State/Elp/	104HG FALLS (\$ \$3426
Country.	USA
Busikiess Plyong:	(208) 529 - 42+1
Original Date of Issue:	
Registered/Licemed By:	Gradfathr
Status:	Current
Disciptive Status:	
Expiration Date:	5/6/2014

#### **Disclptinary Action Documents**

None

NOTE: This decument is a copy of the electronic record of the person named above and constitutes a varification of that record. If official certification of this record is required, a written request must be submitted together with a \$10.00 fee to the Bureau of Otcupational Licenses, 700 West State Street, PO Box 83720, Boise, Idaha 83720-0063.

## State of Idana Bureau Of Occupational Licenses Public Record Information (Detail)

Operator Contact #1

#### Public Record

Name:	MR. NATHAN RISLETT
Profession:	PRINKING WATER & WASTEWATER PROFESSIONALS
	DRINKING WATER DISTRIBUTION OPERATOR - CLASS IF
	DWD2 - 18495
Address Of Record:	
City/State/(tip;	IDAHO FALLS ID 85406
Country;	USA
Bussades Phone:	(509) 29) - 5755
Original Date of Issue;	2/17/2012
Registered/Liconsed By:	Endorsevat
Status	Current
Disciptine Status:	
Expiration Sate;	4/10/2014

### Disciplinary Action Documents

None

NOTE: This document is a copy of the electronic record of the person haved above and constitutes a varification of that record, if official certification of this record is required, a written request must be substituted together with a \$10.00 fee to the Bureau of Occupational Licenses, 700 West State Street, PD Box 83770, Boise, 1990e 83729-0063.

## Sanitary Survey CEUs for Drinking Water Operators

(Updated: 9/15/11)

Drinking Water Operators of Public Water Systems classified as Very Small Water Systems (VSWS) or Distribution 1 (DST3) are now eligible for Contenting Education Units (CEUs) for completion of limited "homework" activities, active participation in an enhanced sanitary survey and follow-up Corrective Action Planning associated with an enhanced sanitary servey. There is a maximum of 6 CEU hours (0.6 CEUs) that each eligible water system operators can each. To receive CEUs, each eligible water system operator must complete all tasks to be eligible for the full 0.6 CEUs. In advance of the inspector/instructor arriving onsite, the isspector/instructor will e-mail a copy of the last cover letter and inspection report conducted at the facility to the current operator. The eligible CEU breakdown is as follows:

Northan Riblett Operator's Name DWD2-18495 Operator's Name

124/14 Date of Inspection

## Pre-hispection Work

- Z Operator has reviewed the last inspection report and verified corrections to all previously identified significant (0.1 CEUs) deficiencies.
- C Operator has printed out a "Monitoring Schedule" for the "Current Year" and "Current Year +2 years". (0.025 CEUs) (This information can be found at http://www.dea.idaho.gov/wwygr-quolity/drinking-water/jwws-twitchboard.gspx}

KI Operator has printed out a copy of "Important Dates".

(This information can be found at <u>http://www.deg.idahg.gos/water-qualite/drinking-mater/pws-switchboard.usps</u>)

## Discussion and Review of Records and Pre-inspection Form

Operator conducted a pre-inspection using the "Sanitary Survey Form" and is ready with questions. (0.45 CEUs) (This information can be found at <u>http://www.deg.idabo.gov/water-guality/drinking-water/pres-awitchboard arps</u>)

This includes discussion and review of:

- water facilities inventory and records •
- distribution system plans and maps
- routine operation and maintenance records
- monitoring history and fature monitoring schedule
- source and finished water quality monitoring plan, history, and waiver status
- operator certification credentials
- additional components

### Inspection

Deretor actively participated in the sanitary survey inspection.

## Follow-up Activities

Departur submitted a Corrective Action Plan within 30 days, addressing all significant deficiencies. This CAP will

include a timeline for correction of all significant deficiencies.

(0.1 CEUs) Total = 0.6 CEUs

(0.2 CEUs)

Once the instructor/inspector has received all of the necessary CEU information, this completed form will be delivered to the DEQ State Office. The State Office will deliver a "Certificate of Completion" to the Operator. If you have questions regarding your sanitary survey or CEUs, please contact your regulating agency.

Northelle Marcon

Inspector/Instructor Signature

1/27/14

Date

(0.025 CEUs)

÷ .,

## State of Idaha Bureau Of Occupational Licenses Public Record Information (Detail)

Operator Contact #2

#### Public Record

Namo; MR. TRAVIS JI MURNS Profession: CRINKING WATER & WASTEWATER PROFESSIONALS Type: DRINKING WATER DISTRIBUTION OPERATOR - CLASS II Number: DW02 - 1830? Address Df Redord: CltW/State/Zip: TDAHO FALLS :D 8340: Country: DSA Business Phone: (208) 891 - 8205 Original Date of Resule: 7/16/2012 Registered/Licensed By: Examilipg/d Status: Corrent Discipline Status; Expiration Date: 5/6/2014

Disciplinary Action Documents

None

NOTE: This document is a copy of the electronic record of the person named above and constitutos a verification of that record. X official cort/Xcation of this record is required, a written requées must be submitted together with a \$10,00 fee to the Buzeau of Occupational Cleensos, 700 Wast State Street, PD Box 8J720, Boise, Idaho 83720-8063,

bs://sceure.ibol.idahg.egy/eIROFPublic/riggseenbukturparter under an eine

# Sanitary Survey CEUs for Drinking Water Operators

(Updated: 8/15/11)

Drinking Water Operators of Public Water Systems classified as Very Small Water Systems (VSWS) or Distribution 1 (DST1) are now eligible for Continuing Education Units (CEUs) for completion of limited "homework" activities, active participation in an enhanced sanitary survey and follow-up Corrective Action Planning associated with an enhanced sonitary survey There is a maximum of 6 CEU hours (0.6 CEUs) that each eligible water system operators can tarn. To receive CEUs, each eligible water system operator must complete all tasks to be eligible for the full 0.6 CEUs. In advance of the inspector/instructor arriving onsite, the inspector/instructor will e-mail a copy of the last cover fetter and inspection report conducted at the facility to the current operator. The eligible CEU breakdown is as follows;

<u>Travis MUMMS</u> Operator's Name OWD2-18502

1/24/14

Date of Inspection

## Pre-inspection Work

- C Operator has reviewed the last inspection report and verified corrections to all previously identified significant (0.1 CEUs) deficiencies.
- C Operator has printed out a "Monitoring Schedule" for the "Current Year" and "Current Year +2 years". (0.025 CEUs) (This information can be found at <u>http://www.deg.idaho.gov/water-guolitv/drinking-water/pws-switchboard.aspx</u>)

[] Operator has printed out a copy of "Important Dates". (This information can be found at <u>http://www.deg.idaho.gov/water-quality/drinking-upter/pws-switchboard.asp.s</u>}

## Discussion and Review of Records and Pre-inspection Form

21 Operator conducted a pre-inspection using the "Sanitary Survey Form" and is ready with questions. (6.15 CEUs) (This information can be found at <u>http://www.deg.idaho.guy/water-auglity/drinking-regter/preservitekhoard usps</u>)

This includes discussion and review of:

- water facilities inventory and records
- distribution system plans and maps
- routine operation and maintenance records
- monitoring history and future consitoring schedule ٠
- source and finished water quality monitoring plan, history, and waiver status ٠
- operator certification credentials
- additional components .

### Inspection

ET Operator actively participated in the sanitary survey inspection.

## Follow-up Activities

C Operator submitted a Corrective Action Plan within 30 days, addressing all significant deficiencies. This CAP will (0.1 CEUs)

include a tracline for correction of all significant deficiencies.

## Total = 0.6 CEUs

Once the instructor/inspector has received all of the necessary CEU information, this completed form will be delivered to the DEQ State Office. The State Office will defiver a "Certificate of Completion" to the Operator. If you have questions regarding your sanitary survey or CERis, please contact your regulating agency.

hell Monen Inspector/Instructor Signature

1/24/14

Date

(0.2 CEUs)<sup>24</sup>

(0.025 CEUs)

## State of Idatio Bureau Of Occupational Licenses Public Record Information (Detail)

### Public Record

Hame:	VR. BRANDON RUGENE RUSSENL
Profession;	DRIHEING WATER & WASTEWATER PROFESSIONNES
	DRIPATING WATER DISTRIBUTION OPERATOR - CLASS >
	DWD1 - 18649
Address Of Record;	
Crty/State/Zip;	10AH0 FALLS IZ 83401
Country;	USA The second
Business Phone:	
Original Sate of Issue;	7/16/2012
Bogistered/Cirensed By:	Exam
Status;	Cwrent
Osscipilitie Status:	
Expération Jole: 1	10/30/2974 :.

Disciplinary Action Documents

Norse

MOTE: This document is a copy of the electronic record of the person named above and constitutes a verification of that record. If official cerefication, of this record is required, a written request must be submitted together with a \$10,00 fee to the Sureau of Occupational Electron, 700 West State Street, 20 Box 83720, Boise, Idaho 83720 0063.

## Sanitary Survey CEUs for Drinking Water Operators

(Updated: 8/15/11)

Drinking Water Operators of Public Water Systems classified as Very Small Water Systems (VSWS) or Distribution 1 (DST1) are now eligible for Continuing Education Units (CEUs) for completion of limited "homework" activities, active participation in an enhanced sauitary survey and follow-up Corrective Action Planning associated with an enhanced sanitary survey. There is a maximum of 6 CEG hours (0.6 CEUs) that each eligible water system operators can carn. To receive CEUs, each aligible water system operator must complete all tasks to be eligible for the full 0.6 CEUs. In advances of the inspector/instructor arriving onsite, the inspector/instructor will e-mail a copy of the last cover letter and inspection report conducted at the facility to the current operator. The eligible CEU breakdown is as follows:

Brandon E. Russell Operator's Name DWDI-18648 Date of Juspection

## Pre-inspection Work

- $\gtrsim$  Operator has reviewed the fast inspection report and verified corrections to all previously identified significant (0.) CEUs) deficiencies.
- Departer has printed out a "Monitoring Schedule" for the "Current Year" and "Current Year +2 years". (0.025 CEUs) (This information can be found at <u>http://www.dea\_idaho.sup/water-quality/drinking-water/pres-peitchboard.aspx</u>)

Departor has printed out a copy of "Important Dates". (0.025 CEUs) (This information can be found at <u>http://www.deg.idaho.gov/water-gualitv/drinking-water/pwa-awitchhoard.aspx</u>)

## Discussion and Review of Records and Pre-inspection Form

23 Operator conducted a pre-inspection using the "Samtary Survey Form" and is ready with questions. (0.15 CEUs);; (This information can be found at <u>http://www.deg.idaho.gov/water-guality/drinking-watet/gws-twitchboard aspx</u>)

This includes discussion and review of:

- water facilities inventory and records •
- distribution system plans and maps
- routine operation and maintenance records
- monitoring history and future monitoring schedule
- surve and finished water quality monitoring plan, history, and waiver status
- operator certification credentials
- additional components 4

### Inspection

COperator actively participated in the satisfairy survey inspection.

## Follow-up Activities

ET Operator submitted a Corrective Action Plan within 30 days, addressing all significant deficiencies. This CAP will

include a timeline for correction of all significant deficiencies.

Total = 8.6 CEUs

Once the instructor/inspector has received all of the necessary CEU information, this completed form will be delivered to ... the DEQ State Office. The State Office will deliver a "Certificate of Completios" to the Operator. If you have questions regarding your sanitary survey or CBUs, please contact your regulating agency.

Marco

Inspector/Instructor Signature

1/27/14

Date

(0.2 CEUs)

(0.1 CEUs)

A supar	100 6644	ces for	m ms	st bi	filled out for each groundwater source in the I	PW8.	SURVEY DATE 1/24/2014	1 /000	weeking	PWY	
rag #:					Common Name of Source:	Source:	102412014		Source Treated	ID7100	Calledon and the second
£00071				_	Well#5	2 Well	+ D Manifold			and the second se	Yes [2] N
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Northw	est of	R065	Ave	nue	and Drookfield Lane - behind the hom	109		-			
Twn: 03	IN RO	0: 301	5.00	0.22				Troi	itment Types:	151	
									ly Treatment Train	in Comm	N/A
a there	a well	log for	the c	2000	ithwater source? [] Yas [2] No []			_	,	of Contona	Arrany .
				e vu		N/A Unit					_
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				nel):	-111.956986		_	-		_	
				1	All fiources			GOMM		_	
					1. This source is:						
					Active Proposed			# 20. D	indicate question a efficiency (Fig. 2	(neomail	
		-	1	÷.	Inactive Emergency (=60 days	a per year)		of the y	vell vent is requir	print to be	sen end
		6			Has there been a flource Water Assessmer Date: 2001	I conducted for the	eource?	streene	d, as required by	IDAPA	
			E	1 0	Has a final GWUDI determination been dene			\$8,01.0	8.511.05.	in the second se	
N/A 4	36 if s	curce i	1 0 10	rina	Date: 2002	e for this source?					
na no	ri's	sec.	not	e 1	VELL INFORMATION						
00				1	the transferrer of the second state of the second state second	with to provide a set	nimum.				
Signifi	ant	00	ficien	Ω.	ussance of 50 feet between the well and the	nearest property live	67				
					(repricable if constructed after 11/1/77)						
2 0		-	100		Are the following minimum distances from the	PWS well being m	917				
할 님		H	10	0.	- Gravity newer line						
		- H	- 11	2	Pressure newer line     Industrial terms						
		ŏ	Ē	8.	Individual home soptic task     Individual home disposal field						
0 0		Ö		0.	- Individual home seepage pit	100 FL					
				10	- Privies	100 PL					
				11	- Uvestock						
				12	<ul> <li>Canals, streams, dikihos, lakes, ponda</li> </ul>	end					
5 53		-			larks used to store nonpotable substa	D048					
10			5	10	Are posticides, herbicides, fertilizers, partabl	le containers of pate	eleum				
D		0	<b>m</b>	14	products, or other toxic or hexardous materi	ials stored on the w	ell lot?				
j Ø		čí.	н	10.	Are pesticides, herbicides, or fertilizors apple Is the well in a pit? If yes, Date construc-	ed to the well tot?					
ίÖ	1	ö	čí.	10.	a second s	thed.					
	2			17.	If pit was installed prior to 11/5/04 - Has DEC	attor 11/0/047	2012				
					does the pit have water tight construction of p	of walls and floor, a	fon and				
10	-	WK	rote		drein and an acceptable pit cover?		1001				
1 1	4	4	1	10	Is the well pretected from unautherized entry?	(Recommended)					
Significar		L.	1	19,	Does the casing extend a minimum of 18 Inch	an above the first o	reard				
1		Dank	iency 2		surface and/ or 12 inches above the pump ho	HILE BOOI?					
		-	2	20.	Is the well vented with the upon end of the value	of screened and					
				R1.	terminated downward at loast 18 inches above	o the final ground a	urface/?				
		Ē.	Ö	22	In the well provided with a senitary cap that pr in the well cased and seeled in such a manne	revents surface wai	er entry?				

Page \_\_\_\_\_\_ Of \_\_\_\_\_31\_\_\_

						Common Name	SURVEY DATE	-	PW8#
3RO	UND	WAT	ER I	SOUR	CE8 - PG. 2	Weil # 5	1/24/2014	(mm/dd//yyyy)	ID7100004
785	110	rivie .	ww	note	WELL INFORMA			COMMENTS	then montheast
2					23. Is there a smoo	oth nosed sample tap provided on	the well discharge pipe	(Please indicate ques # 26. Note: house)	the last of the la
11	-	11	-	-		ent? (Threaded tap is approved wit ocus and totalizing flow meter equ		improved upon	ceeping could be
Z	-	5	Unre	CERRENT	and the second se	ed on the pump distribution line of		# 34. (Fig. 6) Reco	mmendation: upon
	-		STITE			i working properly?	gattons	system improvement	
Ø						suge provided at all installations of	and is it maintained	floor drain and sun	
-	Ξ.	Ξ.	Ξ.	-	and working pr		Contraction of the second	installed and the ow	
1						e pumped to waste at the design o			d to eliminate further
					an approved at	ir gap at a location prior to the first	Bitatin formerers.	on an elevated core	ub.flooring. Well sits
yes	-	nia	unk	note	PUMP HOUSE (#	kny structure containing important	water system components)		well from fleoding.
1	Õ.			A 100	27. Is the source la	scaled in a pump house?			
NNNN						use kept clean and in good repair			
		0	<u> </u>			use protected from unauthorized (			
M	님	H	H			bouse have adequate lighting the role taps installed in the pump his			
Ø	ш.	ц.	ш			ckitow prevention device?			
Ъ	11	U	U	U		ntilation provided in the pump hou	se for dissipation of		
5	gnifica	et [	) Def	dency		ad moisture from the equipment?			
2		0_	0			ating provided in the pump house			
- 5	gnifica	18	0ef	dency		tion of equipment to prevent freezi use protected from Boading, have			
	2			2		face at least six (0) inches above t			24
						and surface graded so as to lead a			
					the pump hous	09			
		1				pump house floor drains closer 0			
						in connected to server, storm drain	is, chomation room		
					erains, or any	other source of contamination?			
yes	-		inte	0.044	SPRING INFORM	MATION			
ö	Ö.	2			37. Is the entire an	na within a one hundred (100) fee			
-						ent trespassing of ilvestock and vi	id of buildings, dwellings		
-	-	-	-	-		f contamination? or divarted from the 100 foot prote	ction rome around		
Ц	ш	Ø	ш	Ц	the spring?	e avenea sam en 102 not prov			
	$\square$	Ø	Π.			oused in a permanent structure en	d protected from		
-	-	-	-	-	contamination	including the entry of surface walk	er, animals and dusl?		
		×				oth nosed sample tap provided on			
-	-	100	-	-		ant? (Threaded tap is approved wi or other flow measuring device p			
ш	ш	2	ш	5	41. Is a now motor	the other ages unserving environ by	samana r		
y88.	-	n/e	unk	note	<b>BPRING BOX IN</b>	FORMATION (Not all existing to	vings have a spring biss)		
	-	2			42. Is the spring b	as equipped with a screened over	8ew?		
		2				stake located above the floer of th			
		2	ш		and the second second second second second second second second second second second second second second second	cox protected from contamination is animals, and dusi?	actuary in anay or		
ET.						pert filled with a solid water tight o	over which overlaps a		
0	-	10	-	-	framed openin	g and estended down around the	frame at least 2 inches?		
		2				port a framed opening that is at lea	est 4 inches high with a		
-	1	-	-	-	losking device		14) include above the two		
		2				port elevated at least twenty-four ( round level, whichever is higher?	sel manua anne manop		
hand a					and and plot of a				

Tag W.	are sourc	en form n	and he	URCE - PG.1 filed out for each groundwater source in the PV	-	SURVEY DATE	-			WS#
1.00.00	L	11.000	1.000	Common Name of Source:	Source:	1/24/2014	(mm	(KKY/YYY)	10	7100004
E00071	107	-		Well # 7	Wet -	b [7] Horney		Source Trea	Contraction in which the second	Yes[2] N
Physical	I Locatio	96	- 6	the second statement of the se	II Sustaine	Hamifold     Hamifold     Spring Bas	Tree	Iment Object	tive	N/A
West 6	ide of h	Aldway /	Ave. I	between Wally's Automotive and Ammo	n Office park	building)	-			
					. ende band	o and in My	Tree	Imeni Types		1.1
								Y Treatment 7		E N/A
In there a	a well to	a for the	arou	dwater source? Yes / No						innervey
	apacity			Outline in the second second	N/A 🗌 Unik	1	-			
and or	abacity i		Un		Depth (Fig.	Casing Depth (Pg		Depthon g	tatic Web	er Depth (m)
s the Ca	maing the	reened?	-	Screen Depth (FI): N/A 2 Unio	And a second second second second second second second second second second second second second second second		ni	🖂 Lini		2 Uni
	Yes 🗌	No 🖂	Unik	From:	In the Casing			Perforation	Depth (	FIJI 🔲 N/A
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-	roudu	nae (Oes		-111.970056					-	
				All Bources			COMME		-	
				Active Divergent			(Piozzo	indicate quest	los numbe	er)
yes no	o nie	unx r	ole	Inactive I Emergerscy (<60 days	our wear's					
2 🗆				Has there been a Source Water Assessment	combasteri for m	n nouver?				
C2 . C2		-		Date: 2001		e esterer				
		L 1		Has a final GWUDI determination learn done t	or this source?					
1 000 9	1:36 # soi			Oate: 2002 VELL INFORMATION						
00	1	01	Πí		Section 199					
] Signiti	Kant [	Deficia	NY I	is the well on a separate let that is large enoug distance of 50 feet between the well and the n	to provide a m	ninimaen.				
			-	(applicable if constructed after 11/1/77)	amond testerily i	ine?				
				Are the delivering minimum and						
2 🗆				We the knowing minimum distances from the I	Will well helps	2449				
		00		Are the following minimum distances from the # - Stanity sewer line		net?				
왕 몸			1 0	Grocty sower line     Pressure sower line	50 Ft.	net?				
			6 G	Sitteday server line     Pressure server line     Individual home septic tank	50 Ft.	net?				
			0 7 8	Sitted y sower line.     Pressure sower line.     Individual home septic tark.     Individual home disposal field.	50 Ft. 100 Ft. 100 Ft. 100 Ft.	net?				
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			0 7 8	Sitted y sower line.     Pressure sower line.     Individual home septic tank.     Individual home disposal field.     Individual home seepage pit.     Privies.	50 Pt. 100 Pt. 100 Pt. 100 Pt. 100 Pt. 100 Pt. 100 Pt.	nel?				
			078911	Sizesty sewer line.     Pressure sewer line.     Mitvidual home septic tank.     Individual home disposal field.     Individual home seepage pit.     Privies.     Uvestock.	50 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 50 Ft.	nel?				
			078911	Sizistity server line.     Pressure server line.     Individual home septic tark.     Individual home disposal field.     Individual home seepage pit.     Privies.     Uvestock.     Canals, streams, ditches, lakes, ponds an	50 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 50 Ft. 50 Ft.	net?				
		00000000 0	0 7 7 8 0 10 10 10 11 11	SIDDEX server line     Pressure server line     Pressure server line     Individual home septic tank     Individual home disposal field     Individual home seepage pit     Privies     Uvestock     Canals, streams, ditches, lakes, ponds an     Tanks used to store nonpolable substanc     Are peaticides, herbicides, fortilizers, pertable	50 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 50 Ft. 50 Ft. 50 Ft. 50 Ft. 50 Ft.	Indexes				
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			0 77 88 0 78 9 0 br>0 78 9 0 0 78 9 0 0 0 0 0 0 0 0 0	<ul> <li>SIXINEY server line.</li> <li>Pressure server line.</li> <li>Individual home septic tark.</li> <li>Individual home septic tark.</li> <li>Individual home seepage pit.</li> <li>Privies.</li> <li>Unvestock.</li> <li>Canals, streams, ditches, lakes, ponds an tanks used to store nonpotable substance.</li> <li>Are peaticides, herbicides, fortilizers, pertable products, or other tasks or hazardous material Are pesticides, herbicides, or fertilizers applied</li> </ul>	50 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 100 Ft. 50 Ft. 50 Ft. 100 Ft. 50 Ft. 100 Ft.	Indexes				
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Tag #.	arcee form must	he filled out for each groundwater source in the l	SURVEY D/	PYV25 W
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		<ol> <li>Has there been a Source Water Assessment</li> </ol>	conducted for the source?	or the well year is required to be
		171777. E 20175		Screened, as required by IDAPA 58.01.08.511.05.
N/A 4-36 if a	ource is a spring	3. Hes a final OWUDI datermination been done Date: 2002	for this source?	54.01.06.511.05.
en ro réa	unk note	WELL INFORMATION		
		4. Is the well on a separate lot that is fame more	White consider a sub-	
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IDAHO DEPARTMENT OF WAY WELL DRILLER'S T Use Typewriter or BURD	AEPORT 54348 TO2N R38E Sec. 22 SEXW
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yes	no	aig.	um	eale						ŀ	Į
	Ő	୍ର	ā	ū	· <u>2</u> 3	PRING INFORMAT	acha Iain a che lundrait (200) tool				ĺ
						fenced (o prevent (r	PBDassing of livestock and va	radius ar 14 of hote	i 2005 durations	ŧ	
D	zh.	151	co.			and someas (a roal	aminalion?			Į	Î
1	с.,I	E	II	LI	38	its Shifadu walar diw The spring?	erted from the 100 fout projec	tiun zang	around	f	
(0)	()		0	CI	30		i a perinarsaol sinucjuo) and			J	Í
<i></i>						contemptation inclar	ling the gebry of statage water	anusaa	and due #2	Ì	ļ
<u></u>	1.1	121	[]]	[]]	43	ve trigger à statouit os	isad sampio <u>tau provolad an</u> s	ne accino	05072004 FIRA		f
Ľ.7	C)	<u>g</u> i	Ð	D		<ul> <li>Move an endergood (3.0</li> </ul>	Foreaded tap is approved with	backBow	v preveniki)		
		•				and a state of the second second second second second second second second second second second second second s	er flow measuring device pro	vided?		Į	f
уна. (13	69 (T)	n/4 11 2 2	sok 271	ncia Con	<u>SP</u>	RING BOX INFORM	MATION (NOT all anisting gove	ngs have	9 3976 <i>9</i> 5075	Ê	ļ
Ö	C	127 (1)	000	(1) (1)	· ~e.	te me stuniå pox edn	upped with a screetled awards	w7			ſ
ΪŽ.	či -	Ö.	ŭ	ö	44	is απι suppy intake 6 IS like sonud box and	Colled above the Scor of the c	rolloellon	charroar?		ļ
						surface water, anima	neled from soniaranasion fact is, and dust?	varg lie	entry of		ĺ
[]]	L.I	2	L.	Ü	45	is the access part fill	ad with a social water light cour	ar which o	ovoriaps a		ļ
17	С	[2]	()	51		names oppracy and a	tateridee downt around the fra-	ma at laa	st 2 mebaa2		ĺ
				-	49.	is any access port a li lauking device?	anind opening that is at least	4 inches	high with a		ļ
		62	$\Box$	<u>1</u> ]	47.	Is the access port ele-	valoof al least (weaty-four (24)	Lacaes e	how the for-		ſ
						of the bax or ground (	eve; whichever is higher?				
									]		ĺ
····											

STOR/		form mi	usibe	filled out for each storage unit in	the PWS.		1/24/2014	(mm/t8/jypp) 10710000
llorage S					Storage Structure ID			COMMENTS: (Please indicate question number)
hysical L	ocation	v	-	the subscreen division of the	Date in service:	Unk	Contractor in the local division of the loca	Note: this storage tank is
ocated b	behind v	wellhos	use #	8 and Booster Station	2011	-		only fed by Well # 8
					Volume coatt:	Unk	A 4 4 4 4 4	# 1. Deficiency - (Fig. 17)
torage T		_	- 10	Construction: [] Elevated	1.5 Mittion Type of material.			The storage structure was not safety accessible to
Re Re	skivol//	Tank	ľ	Ahove Ground	C] Plastic	Weed		inspector, as required by
D 54	andpipe			Pertially Below Ground	Fiberglass	Metal     Naturally (	heatstood	IDAPA 58. 01.08.501.14.
otal Day	n Harris	u (This	altered	Below Ground ture): Date Last Inspecter	d: Unk	Cleaned:	Unk	<ul> <li>because of lack of a ladder cage. Recommend referring</li> </ul>
ounoay	a outte	A /	1	Uni				to OSHA requirements also.
tow is the	e water	tevel m	10050	red? Unk				# 7. Recommendation -
			note (	ALL STORAGE STRUCTURE	10			although storage lid is locke
yes re	i m	MAK .		1. Is the storage structure safely		7		and has an access alarm, well tot security could be
	ίÖ	Ö		2. Is the PW3 storage tank local	ed within 500 feet of any m	unicipal or		improved upon by securing
		-		Industrial wastewater treatment		spray tingate	a	chain link fence so access
0.0	10	D	D.	with wastewater or used for sh 3. Are any of the storage structure			storm drain7	can be avoided by someone
	i H	H.	D.	4. Is an overflow provided that di	scharges to daylight in a w	ay that will pre-	chude the	erawling under fence. It is also Recommended
	-	-		possibility of backflow to the m	eservoir and, where prectic	al, provided wit	ih an expanded	installing barbed wire on top
17 m		-	-	metal screen installed within th 5. Are overflews brought down to	he pipe that will exclude no an elevation between 12 (	and 24 inches	dariganiam?	of the chain link fence the
	1 11		-	the ground surface? (2)( the d	lemster of the discharge pl	oe above a ba	uin vinu	surrounds the whole well lot
			2002	6. Do overflows discharge over a	drainage inlet structure or	spinsh plato?(	storm or sanilary)	and post No Trespassing signs with City emergency #
	18	8		<ol> <li>Is the storage structure secure</li> <li>Opes the storage reservoir has</li> </ol>				(Fig. 18) Note: Source
E L	1 []	-	-	atoped to facilitate drainage?				Water Grant is available for
ØD				9. Is the storage water protected	from contamination?			this type of security - contac Flint Hall in our office for
86	18	8	8	<ol> <li>Is the storage structure struct II. Could vegetation in the area</li> </ol>	potentially second 7 potentially impact the store	ge sinusiure?/	Recommended	more information
	18	H.	H.	12. Is the storage structure desig	ned so that it can be isolat	ed from the dis	roitution	
		-	_	system without necessitating	loss of pressure in the dis	initiation system	n7	
BB	1 8	H	H	13. Is lookage evident at time of 14. Is the storage structure interi	ior coating or liner pealing of	r crackel?		
HE	10	ö	E I	15. Is the storage structure used	to alore finished water?		Second .	
DC	10			<ol> <li>Are access manhole opening surface of the real, with a series</li> </ol>	a for the storage siructure	4 inches or gro oter light, bird	ator above the	
DC	1 11			17. Are all vents extended 12 inc	thes above the roof and on	restructed to ex	clude petential	
E L		-	1.1	sources of contamination? ()				
		unk	nuin .	ABOVE GROUND STORAGE	8			
D C	ΪÖ			18. Do all vents open downward	and are they fitted with a 4	mesh nan car	rodible screen?	
244	n nia	anh.		GROUND LEVEL, PARTIAL				
EL				10. Does the overflow for the sto	rage structure have a vert			
12 F	1 12			toast 2 pipe diameters in len- 20. Is the overflow for the storeg	gin7 In structure provided with a	ther a 24 most	non-correctible	
QC	1.11	6	5	screen installed within the ph	pe when practical, or an ex	panded metal	screen installed	
1		-	1	within the pipe plus a weight	ed fogper or check?			
0	10			21. Is the area surrounding the suitace water from standing		a menner trat	and house of	
				22. Are all vents for the storage	atructure open downward v	dh the opening	g at loast	
-				24 inches above the roof or i		ed with 24 mes	h non-cerrodible	
				screen to exclude potential o				
yes no	0 0/0	unk.		PARTIALLY BURIED OR BE			or the proved	
	10			<ol> <li>Are "ALL" metholes clevale lavel, which ever is higher?</li> </ol>	a set months above the surf.	Na or the root	or and Bradero	
DE	10			24. Is there a minimum distance				
				nen-potable main, standing v	water, or other possible sou	roe of contarri	ination?	

PUMP One form	for all I	Pumps					SURVEY DAT	·	PWS #
PUMPS, I	PUMPH	ouse	S, ANC	CONTROLS			1/24/2014	(mostki/yyyy)	ID710000
Pump ID#	Phys	cal Lo	cation	1	Type of Pump:	Brand:	Model:		and the second second
	Well # 5 Well # 7				lurbine	0.0140	model:	Horsepower.	Purpose:
					turbino		-	100	distribution
_			W	8 # IfeW	turbine		-	200	distribution
			8006	ster Pump	turbine		-	400	storage
		-		ater Pump	lurbine		-	125	distribution
		_	the second second second second second second second second second second second second second second second se	ster Pump	turbine		-	125	distribution
		-	_		10.0110			125	distribution
		_	_						
	20000 0			ALL PUMPS 1. Are all pumps capable 2. Does the pump(s) cy 3. Are all pumps provid 4. Is a water pressure in connected to the dist 6. Is a standard pressure	ed with readily evailat ed with readily evailat effet valve installed w ritudion system?	Sommanded) Se spare parts and too here the pump is direct	nd of the system? In? ly	7. Deficience and of the re required to b required by 1 58.01.08.511	e screened, as DAPA .05.
	nia	ark	note	WELL PUMPS			t I	o consider p	ation - may wa lacing a screen ase of the wells
			2	<ol> <li>Is there an accessible well between the pumy</li> <li>If the system has a y rolease vacuum relief exhaust/relief piping b</li> </ol>	p and the shut-off val- titical turbing motor d valve located upstra-	7m/2	e, with	is a safety m inyone placir r near the w is running.	easure to avoi ig their hand ir ell column whe
				above the floor and co 8. If the pump(a) is foil to human consumption?	ivered with a 24 meal	thirms and a sector of the	reen? K ble for G	VA auxiliary enerator with	here is a 625 Diesel h outside diset ciated w/well #
õ		ö i		WATER PUMP5 (not w 0. Is an accessible check and the shut-off valve?	velve on the dischery	pa side between the pu	an an	<ul> <li>booster sta orage tank; (</li> </ul>	tion & 1.5 M Fig. 47) generator and
na Significar		and the second se	1	AUXILIARY POWER 10. Is there successfully pow	er on-alte?		11	soloated w/v	vell#10 kek-up
	81		2	11. Is auxiliary power test 12. If a diesel or paseline	fuoled engine is used	on the well lot; is the f	Inu	tomated SC.	weekly tested ADA
8	81	3 8	1.	<ol> <li>In the fael tank above</li> <li>Is a certified operator (</li> </ol>	double wated? ground? present during the fill				
8	88	3 6	1,	<ol> <li>In the engine as in the y</li> <li>In the engine exhaust i</li> <li>In a split containment e (Secondary containment</li> </ol>	Well house directly discharged ou dructure surrounding M - 110% fuel lank vo	iside the well house?	,		
	0		1	Community Systems ( 7. (Community Systems ) elorage provided so we	2nfx built effer 4/15/07 only der cen be treated an	) is on-site power or si	a iba		
	2 C		1	entire distribution syste 6. (Community Systems & is there a minimum of	m duting a power out will after 4/15/07 only	age for a minimum of 8	hourse		

						SURVEY DAT	E	PW/S#
UM	PIN	3 - P	G. 2			1/24/2014	(mmhhiliyyyy)	ID7100004
-							COMMENTS:	the question numb
yes	-	6%	unk	ecte	BOOSTER PUMPS 19. Is an instantaneous and totalizing flow meter installed where th	e booster	Recommend	and the second se
-	-	17	Une	oceanary	pump is directly connected to the distribution system?	00000	numbering e	ach booster
2	D	D			20. Are all in-line booster pumps supplied with an automatic cutoff	that	pump for ma reference an	
12	-				estivates when intake pressure is less than or equal to 0 pair? 21. Is the booster pump located on a suction line that is directly on	medied to	Tener tener and	o or repair
R	-	-		_	any storage reservoir?			
2					22. If yes, are all booster pumps protected by an automatic cutoff to pump damage and avoid excessive reservoir drawdown?	o preveni		
ywa I	-	10	Line I	0000	PUMP HOUSE (Only pump houses that don't centain a Groundw 23. Is the pump house kept clean and in good repair? (Ploor creck)	ater bourcey		
2			ŏ.	ö	24. Is the pump house protected from unauthorized personnel?			
2				8	<ol> <li>Does the pump house have adequate lighting throughout? (Net 26. Are all non-sample taps installed in the pump house equipped)</li> </ol>			
2	Ц	Ч	ш.	Ц	appropriate backflow prevention device?			
U.				Iciency	27. Is adequate ventilation provided in the pump house for dissipal excess heat and moisture from the equipment?	ion of		
10	ignifica				28. Is adequate heating provided in the pump house to provided so	le and		
1 8	ignifica	nt [	Def	lciency	efficient operation of equipment (prevent moisture buildup and/	or freezing)?		
2					<ol> <li>Is the pump house protected from flooding, have adequate dra is the floor surface at least six (6) inches above the final groun</li> </ol>	nage, 1 surface,		
					and is the ground surface graded so as to lead surface water a	way from		
yes	00	6/4	unk	rusia	the pump house? 30. Is the sump for pump house floor drains closer than 30 feet fro	m the well?		
H		Н	H	H	<ol> <li>Is the sump for pump house near trains catalit than 30 for its 31. Is the floor drain connected to server, sterm drains, chlorination</li> </ol>	room		
-	1	-	-		drains, or any other source of contamination?			

A separate sou	roos form r	nusi b	a filled out for each groundwater source is the PWS		5URVEY DATE 1/24/2014	1		PWS #
ing w.				fource	1/24/2014	(000	10 (verejááá	7100004
E0007189		_	Well # 3	E Well -	+ C Manifuld		Source Treated?	Yes[2] N
Physical Loca	ition)	110	Contraction of the local division of the loc	Spring-	-> C Spring the	Tro	atment Objective:	☑ N/A
ean be acca	ssed livro	ugh t	he back yard of 2765 Sawtooth St.		- Ly string to	H		
						Tree	itment Types	177.00
						(Takey)	ly Treatment Train in Ce	≥ N/A
s there a well	log for the	arou	ndwaler source? Ves (2) No N/				v reasoning subscripting	comante
Pump Capacit			and the second sec	A UNK		-		
and and and and		2 U		epth (Fig	Casing Depth (m)	Grout	Depth(m) State Wa	ter Depth (Fn
s the Casing (	creened?		00210	C UN	1 1		Ure Ure	Univ Depty (Ph)
Ves [	No 2		From:	s the Gasing			Perforation Depth (	(1): [] N/A
N/A		_	To	Ves D	ND 2	Unk	From:	Uva
La	filude (Dec	may	43.481408	C MA			Te:	
Long	phate (Dec	ime():	-111.9787			-		_
			All Sources 1. This source is:			COMM	NTD:	
			All a second sec				indicate question numb	en l
		inte .	La ricebord			4. Note	well house building	is located
000			Inactive I Emergency (<60 days per     Has there been a Source Weter Assessment co	(year)		Dolweer	two houses (not con	uldered a
-			Late 2001		source?	deficiee	ny - no action require	(br
			. Has a final GWUD! determination been done for	this arearoo?			and the second second	
N/A 4-36 if a		day part	2002					
2 10 10	Arth P		MELL INFORMATION					
Significant	Deficie		. In the well on a separate lot that is large enough	të provide a mi	inimare.			
	- CONST	by I	ensuance of bo heat between the well and the new	reat property in	ne?			1
			(applicable if constructed after 11/1/77) Are the following extension distribution					
2 🗆	0 0	3.	Are the following minimum distances from the PW - Granty sower line	13 well being m	et?			
	00	] 0	Pressure sower line	103 Ft.				
4 8		] Y	<ul> <li>menodual nomo septio tank.</li> </ul>	100.07				
			<ul> <li>Invisual nome disposal hald.</li> </ul>	100.84				
	HE	9	<ul> <li>Individual heme soepage pit</li> </ul>	100 Fb				
H H	8 8	1	• PYINTER	100 Ft				
i H	HE		· L/V0910CK					
	U C	· · ·	the second					
1 🖂		1 11	lanks used to store nonpetable substances Are posticides, herbicides, fertilizers, pertable co	50 FL				
	2.5		products, or other loxic or hazandous materials a	Mainers of pay	otecans			
	00	14	Are pesticides, harticides, or fertilizers applied to	The west loss?	64! IOT7			
		10	Is the well in a pit? If yes, Date constructed:					
		10	. Was the well that is located in a pit installed after	11/5/647				
	U U	17	If pill was installed prior to TU/0/64 Has DEO sna	rind an excess	ton and			
-	wk rate		over the perhave water tight construction of pil we	alls and floor, a	floor			
D D			orano and an acceptablo pit cover7					
00	0 0	110.	Is the well protected from unauthorized entry? (File Does the cashe extend a minimum of the	commonialita)				
Significant	Deficience		Does the casing extend a minimum of 18 inches a surface and/ or 12 inches above the pump house (	Gove the final g	prevend			
00	00	20.	Is the well vented with the open end of the vent so	Neor7				
-	28		torminated downward at least 18 inches allove the	final council	1000			
H		21.	is an wes provided with a sanilary cap that prover	de eurfare was	Ar adda 7			
0		55	the time ware caused and sould in such a manner that	surface water	a suby?			
		_	cennot enter the well?	and the second second				

Page \_\_\_\_\_ Of \_\_\_\_\_\_

						Common Name	SURVEY DATE	-	PWVS #
RO	UND	WAT	ER I	SOUP	CES - PG. 2	Well # 3	1/24/2014	(mm/tht/yyyy)	ID7100004
y#8	89	n/a	witt	note	WELL INFORMA		and the second second second second second second second second second second second second second second second	COMMENTE	
•						ofh nosed sample tap provided on		(Please indicate ques	
-	-		-			int? (Threaded tap is approved wit		28. Note - housekee	ping could be
2		4		U.		eous and totalizing flow meter equ		improved M. Note - wall rough	ce sits on a concrete
-	_	<u>_</u>	Unne	OTTHE		ed on the pump distribution line of I working property?	galione		s the source from th
Ø	<b>D</b>	-		<b>D</b>		suge provided at all installations a		potential of flooding	
rici	-	-	-	-	and working pr				use is below ground
Ø	Π.		Π.			e pumped to waste at the design of	apacity of the well via	level (not considere	and the second se
	-	-	-	-	an approved at	r gap at a location prior to the first	service connection?	action required)	or note it is the
y00	-	nie	unk	rule		kny atructure containing important	water system componants)		
N N N N						scaled in a pump hisso?	disco controls		
				8		use kept clean and in good repair? use protected from unauthorized p			
8	Η.	H	H	H		house have adequate lighting thr			
ö	H	Z	H	H		splo tape installed in the pump hou			
<b>U</b>	ч.	100	-	-		skflow prevention device?			
1d	ш	11	11	11	32. Is adequate ve	ntilation provided in the pump hour	se for dissipation of		
] 54	prifica	nt 🗌	Dof	clency		st moisture from the equipment?			
2			0	11		ating provided in the pump house			
3	prifica	nt 🗌	Don	clency		tion of equipment to prevent freezing			
	4			2		use protected from fleeding, have			
						isos et level six (6) inches above 0 rel surface graded so as to lead so			
					the pump hour		anaco mater away rom		
		171	Π.	Π.		pump house floor drains closer th	an 30 feet from the well?		
H.	H		Н	H		in connected to sewer, storm drain			
-	-			-		other source of centaminalian?			
yes	-	n/a	un.	-	SPRING INFORM				
		2				sa will in a one hundred (100) foot			
						ant trespossing of livestock and vo	id of buildings, dwellings		
-	-	-	-			contamination?	Har were strong		
	Ξ.	N.	ц.			or diverted from the 100 feet protect	tion zone around		
	-	D	m.	-	the spring?	used in a permanent structure and	d protected from		
	Ц	2		-		including the entry of surface wate	and the second sec	1	
						oth nosed sample tap provided on			
-			÷.			unt? (Threaded tap is approved wit			
		2			41. Is a flow motor	or other flow measuring device pr	evided?		
785		n/a	unk.	note		PORMATION (Not all excision up			
		2	0			ox equipped with a screened overf			
		밀		H		date located above the floor of the			
		2	LL.			ux protected from contamination in animals, and dust?	control to any or		
-	m.					port fitted with a solid water light or	wer which overlaps a		
Ш.	ш	Ø	-	-		g and extended down around the f			
		E				sort a framed operang that is at loa			
Acres 1	-	Log .	-	-	looking device				
	1000	123	-			port elevated at least twenty-four (i	4) inches above the top		
		2		ALC: N	and the state of the second se	ALL DRAWING IN PAIRS INCOME.	CALCULATE DEPARTMENT OF A		

A separat				URCE - PG.1 Med out for each groundwater source in the I		SURVEY DA	And in case of the local division of the loc	Stand Mr. 2	_	PW6#
Tag #:			-	Common Name of Source:	Source:	1/24/2014		(martery)		D7100004
E00071				Well # 2	Z Wet	+ ( ] m	ind	in this Source	and the second second second	Yes 7 N
Physical	Location			And the second se	Spring	- 1.1 ros	ing Bax	Treatment	Oldeolive:	N/A
Targhee	Street (	betwe	en B	Itern Dr and Avocet Dr)		- the open	ig non			
Twn: 02	N Rg. 3	DE Se	HG. 23	I SENW			e	Treatment	Types: mane Train in C	IZ N/A
a there a	well log	for the	grou	shwater source? Yes / No	N/A Unk		-			
	pacity (G	7	UNI		H Depth (P)	Casing Dep	th (Fi) O			wer Depth (m
	sing Scre			Screen Depth (Ft) N/A 2 UKK		g Perforated?	2 UW	- Annual -	Ung	🖂 Un
	m N	0 🖸 1	Mik	From:	Ves	No	20	tk Fram	pration Depth	
	Ay Latitud	hh (Davi		Te:	N/A		101 0	To		Unk Unk
_	Longitud	e (Deci	mary:	43.477101 -111.975304				10.		
_	Tos Strong	e (ivers		All Sources	_					
				. This source is				OMMENTS:		
				Active Proposed			0°	lease indicate	question num	(ber)
100 102	n/a i	ink 'n	100	Inactive 2 Emergency (<60 day	PER year)		4.	well is local	ted in a brick	building
0 🗆			3	<ol> <li>Has there been a Source Water Assessment</li> </ol>	t conducted for	the source?	ad	facent to a c	hurch proper	ty - there is no
				Date: 2001			00	tion requires	ll lot astabilis	hed (no
			1	Has a final CIVLIDI determination been done	for this source?	,			ndation = fee	
1 10/44	30 if source			Owle: 2002 VELL INFORMATION			00	or observical	a applied to t	illizora and
1	the second second second second second second second second second second second second second second second se	rit re					gra	ass within 50	fost of the w	ne surround
Signific		Deficien		is the well on a separate lot that is large end distance of 50 feet between the well and the	ugh to provide a	minimum	shi	ould be avoid	dedø	inen source
	-	-	-	(applicable if constructed after 11/1/77)	nonest propert	rime?			(Fig. 41)- @	the endo a
				Are the following minimum distances from the	Diam und hades		00	the well year	t is required 6	o be
	C	3 C	] 6	· Gravity sewer ino	AD F1	matr	568	eened, as rea	juired by ID/	APA
38	5	10	] 0.	<ul> <li>Pressure sewer inc</li> </ul>	100 FT		58	01.08.511.0	5.	0.02
	5		7	<ul> <li>Individual home septic tank</li></ul>	100 F	1				
코 디	- 2	1 1	8	<ul> <li>MONQUALITIONA disposal field.</li> </ul>	100.0					
응 님	- 2	1 8	0.	<ul> <li>Intrividual homo seepage pit</li> </ul>		1				
	1	i N	11	· Privide.		6				
00	Ē	i 8	18							
-				tarika used to store nonpotable substa	and					
] 🛛	C		13	Are posticidos, horibicidas, fertilizera, portabl	nces	and the second second				
-	_			products, or other toxic or hazardous mater	als slored on the	APProduction				
			14	Are pesticides, herbicides, or fertilizers appli	ed to the well in	2				
	-		15	Is the well in a pit? If yes, Date constru-	ted:					
4 8 .			16	the state of the s	after 11/5/047					
	0 0		17	If pit was installed prior to 11/5/84 - Has DEX	2 granted an exe	leption and				
	nie une	rote		does the pit have water light construction of	all walls and foo	r, a floor				
			10	drain and an acceptable pil sever? Is the well protected from unsettled acted	(Decent)					
11	0 0	- D	110.	is the well protected from unauthorized entry? Does the casing extend a minimum of the sec	of moommenday	9				
Significan		ficiency		Does the casing extend a minimum of 18 incl surface and/ or 12 inches above the pump he	use floor?	en ground				
2			20.	Is the well vented with the open end of the ve	of acreated and					
	-			terminated downward at least 10 inches abov	e the final arous	d aurfana b				
	[7]		21	is the well provided with a panitany can that an	a see to the ground	a sounday				
	2007			the states where a substance where the	events surface i	Evelor anky2				
i 🗄	2		22,	is the well provided with a senitary cap that p is the well caued and sealed in such a manne same! only the well?	wents surface w	nator entry? Itor				

Page \_\_\_\_\_\_ 0/ \_\_\_\_\_

						Common Name	SURVEY DATE		PWS #
GRO	UND	WAT	IER S	OUF	CES - 90.2	Woll # 2	1/24/2014	(mavkikiyyyy)	ID7100004
5.000	7.4	ala	10	11000	WELL INFORMA			COMMENTS	
10	[]	[]]	Ĉ.	ΕĽ	23 Is (have a sense	uth motest sempte tap provided		Please indicale qu	
						ent? (Threaded tap is approve			n provideó, water nust
TUT	11	1.1				ecos and tolalizing flow meter		5	r, welt head exacads
L		0	Çirsi Q	cessar	2	ed on the pump distribution for	<u> </u>	6 · ·	z-incles from the well
[						t working properly?	gators		s not considered w
Ľ,	Ľ		Ω	EI.		auge provide te betword egue	IIS BING III II ANNAN BU	deficiency Descensionalistics	- upap sastara unaradar
]					and wosking pr				n - upon systeers upgrades wik he installed to accuse
i CL		Ľ.J	<u>ا</u> ن	21		e pumped to waste at the desil r gap at a location precito the			uté be installed to assure feeled from may flooding.
					No Biblyoneo a	e ĝab al a localido bezt lo dis	THE POINT OF THE PROPERTY.	ane andree is piro	contraction of a monthly
			ark	data	PUMP HOUSE //	any sinucture containing impor	ant water eyelow conjannanta)	ĺ	
yana 1727	جا	wa  ``↓	ŝ	وري. [.]		Cervod graug a ni helisor			
CICEES	0000		ñ	ŝ		use kept clean and in good re	pair? (Alost cracka?)		
S S	៊	õ	Ē	0	29. 35 the pump bo	use protected from unauknusia	ed paracenel?		
E	Ď		ī.]		30. states the points	) house have accquate lighting	) faroughcus? ( <i>Recommitedad</i> )		
Ö	Ē	Ċ2		[]]		npla taps enstalled in the pump	nouse equipped with en		
				<u> </u>		ckilow provention device?	terrer des Bartandars -		
19	11	12	<u>_</u> ]f	\$		radation provided in the pump			
	gruhra	ירא <del>יין</del> וויצ		clancy		nd proisiure from the equipment			
[]2]	ų	Ľ_	ليا. سما	1.3		ialing provided in the pump ho turn of equipment to provont if			
	grufica 711	1:1L [	1 001	dency T20		use projected front docdary, t			
183	Ĵ	U	L.	23		lace at least so: (B) inches abt		t	
						aut surface graded ao as 10 ia			
					ING pump haus				
<b>D</b>	Ð	(2)	n	Ľ.		i pump house flater drains clos	er (her) 30 fect from the weil?		
Ιŏ	÷.	E	ö	ដ		in connected to sewer, \$10:10-1		Ę	
1						other source of contempation			
ŧ.								1	
22	89 	014	ank CD	uola CT1	SPRING INFORM	MATION	feet swikts of the same large	1	
[[]]	D	21	$\Box$	IJ		eo within a lone hundled (100) sol freepeesing of tresluck at		1	
1						sal irespassing of svesiuck at ComponingSori?	a tanta ananifat anani As		
l co	1>	1771	(T1)	r1		er diverted from the 100 tool o	intestion zone around		
ļΩ.	12	51	c)	i. J	ane spring?				
0	O	123	0	Ũ		overal in a permanent structor	and protocled 900		
····	0	12		<u>.</u> .,	contantination	including life entry of surface	water, animals and dusi?		
0	60	R	D	1.1	40, 28 (here a smo	uth nosod sample top provide	i on the spring discharge plp0		
						ert? (Intended lap is app/0v8			
10	C1	91	C	[]]	41. Is a flow male	r er ether flow (deasuking desh	e pravided?		
					onome ced d	CODULT TON March 10	o connas have a united host		
100	00	N/a Chin	unii 1111	rcie nati		IFORMATION (Not all existing a second with a second with a second s			
	0	2012			42. IS HE \$2400 5	ox aquipped with a screared i atake lucated above tao faor i	if the collection chamber?		
		읡	Ľ	Ë		anake recated accurs internation ax protected from contamination			
1	i]	5 <u>4</u> 1	L_i	L)		arginals, and dust?			
lo	Г٦	TÚ		[]]		port filled with a solid water tig	nt cover which overlaps a	1	
10	LI	1.7	0	<b>L</b> .,		and extended down around			
C.	Ē	E.	$\square$	Ð		port a karned opening that is a			
<u> </u>	-				locking device	7			
L CI	E.]	121	[]]	Ω		port elevatari at loast twenty-fi			
					of the luck of g	accad Sevel, whichever is high	ə:7		
1							·		

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## GROUNDWATER SOURCE - PG.1

Tag #:	L III IIII IIIII IIIIII I	e filed out for each groundwater source in the /	Will.	7/24/2014	(mmakeyyyy)	PW8 #
£0009469	-	Common Name of Gource:	Source:		is this Source Tre	107100004
Physical Loc	ation	Well#10	Z Wet	Henifold		and the second se
back-up ger	serator availabl	e (fuel tank outside building)	\$pmg—_≠		Treatment Obje	
there a well	log for the grou	ndwater source? 2 Yes No	ci den		(Identity Treatment )	E D N/A
		and the second se	A/A Unk			and the second second
ump Capacit	1 Un	Unipson Unipson	Depth (P) Car	sing Depth (m	Grout Depthern	tatio Water Depth orn
Yes [	A second second second	Bureen Depth (Ft) N/A Unk Fram 260	Is the Casing Perfe	orated??	Perforation	Depth (F1): 2 N/
the second second second second second second second second second second second second second second second se	litude (Decimal):	To: 300	N/A	L	Unk From: Tai	C uv
Lone	gilude (Decimal)	-111.0530.0			110	
		All Sources				
		1. This source is			COMMENTS	
		Active Dreposed			Please indicate quest	(on manufact)
	unk nets	Directive Emergency (<60 days	per year)		20. Deficiency (Fig.	45)- the open and
		c. Has there been a Source Water Assessment	conducted for the sour		or the well vent is ro	cuired to be
200	and the second sec				screened, as required	by IDAPA
N/A 4-36 # #	ounce is a spring	Has a fruit GWADI determination been done Date: 2013	for this source?	1	58.01.08.511.05,	
4 (t)2 (t/a		WELL INFORMATION				
		. Is the well on a separate lot that is large enoug				
Significant	Deficiency	distance of 50 feet between the well and the n	to provide a minimur	n		
		represente il construction affair 11/1/221				
	-	Are the following minimum distances from the I	Will well hains over			
		- PROPER DAMAL TAN	80 E4			
	HH:	riossure newer and	100 84			
ö		Therefore an entrop all and a large	103.00	- I		
ŏ	D H .	Individual Planto disposal faile	100 00			
ŭ		- Intervision more seepage pd	1000 00			
	*****		6.000 6.0			
	0 0 12	The second				
-	2 2 3	fanks used to store remposable substance	d			
2	0 0 13.	Pro presentes, nerocidos, farilizaris, portation	antalasce of outering			
63	ALC: 1 1	provinces, or earlier 10000 or hazanisus materials	algebra on this work to be			
	님 님 !!	recording and the second of the second and the	to the well lot?			
ñ m		is the work in a pit? If yes, Date constructs	d			
		Yous the well that is located in a pit installard at-	ALC REPORTED	- 1		
	and the the	If private instanted prior to 11/5/64 - Hes DEO a	cation on manager	ud la		
na 0/a		does the pit have water tight construction of pit drain and an ecceptable pit cover?	walls and fleor, a floor			
	and an and a second	is the well protected from unauthorized entry? (P				
00	10.	Does the casing extent a minimum of envy? (h	are commenced			
prificant	Deficiency	Does the casing extend a minimum of 18 inches surface and/ or 12 inches above the pump hous	above the finel ground			
		is the well verified with the open and of the west	internet and			
-		ermenaned downward at least 10 jordees about it	the Read and an and a second second			
8 1		the tree provided with a secondary can that need	and a second sec			
	22.1	a the well cased and sealed in such a memorr th	of the second second second	<i>"</i>		
		annot onler the weit?	STREET BOARD AND AND AND AND AND AND AND AND AND AN			

Page 13 OF 31

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	Well #10
CANN 228-7 3 IDAHO DEPARTMENT OF WATER RESOL	URGES (Well ID No
WELL DRILLER'S REPORT	Тър НдеS«с
1, WELL TAG NO. 0 4478/	12: WELL TESTS:
Water Right or Injustion Wall to. 25-4294	Anno Caster Cain Calor Alesian
2. OVINER:	3500 100 100 24 400
Nerth and an annun	
Approx 213575 Qaron Par Siake 2 2p 83406	Weise Temp. 51
3 E OCATION OF WELL by legal description:	Water Quality test or commons: stifted
You raise provide address of Lot. 04, 345 of Directions is well	Depth Frai Water Encounter Depth Frai Water Encounter
Twp System of account of the second se	13. ETTHOLOGIC LOG: (Describe topairs or abandonment) Water Bend From Ta Bernarke: Unctody, Water Ocathy & Yemperatura Y & S
Sec24	Aut of 17 and the The an
Lang Lang	24 1) 18 Nove roch & clay
Address of Woll Sive 3265 1447 Fel	24 19 48 recence 3" + nard X
Δια ματική το του δια το του του του του του του του του του	24 55 45 Dated ney land
	20 65 10 gray dates
4. USE:	20 70 72 Loone LANA NOUS
El Comestio Municipal Montor Inigition El Internal Ulnjedion Clinas	20 63 120 real loon land
	101 20 162 Carry march basel
5. TYPE OF WORK check all that apply (Ruglassinancelo) XNow Well Worky Abandarshem (Clother	20 176 200 Rand guy basalt
6. ORILL METHOD:	1 242 255 And basel + crews X
Realize Merine Stocks Must Rosary D'Califor	20 255 245 cinder
7. SEALING PROCEDURES	Ho and 390 Fractured look lava X
Lantauite 0 80 0080 pormer align	14 384 894 real hand baralt
hertoule O all metres with	16 294 300 _ CHOOLED _ L'4000 gem 2 _ A
Was drive shoe used? WY N Shoe Unpublish	11 300 302 rond & red clay
Was think shou seal restad? - Y 🕅 How?	{
8. CASHAGUINER: Manfal Careg Line Wanter Invantes	
24 -5 34 375 alee 13	5000000
20 -5 1148 315 stral	
Longer of Hatskippe	NOV 2 - 2003
Packer (37 CIN Type	
0. PERFORATIONS/SCREENS PACKER TYPE	
Screen type & Weihyd ol Yneisiaan 307 331 Course	
14 5ST 0	Complement Depth 300 (Mass.rable)
	Cals SURING 72104 23 0.8 Conditions 7 0.2, 40
	We carried that as minimum was construction standards were complied with at the
PB_FILLER_FAMILE_FAMILE_FAMILE_72	Into the rig was remarked.
	Company Name High VIAINS Developy Film 20 527
11, STATIC WATER LEVEL OF ARTESIAN PRESSURE:	Principal Carlos Marches Car 11-20-98
位子 Ji, toplow groand Aniestan pressuld Uo.	Defler an Operator II 77 MAY 7 Advate Uale 11-00 -00
Depib flow engranitored% Describe series port or comital operators	Cperator I John John Deser and Rig Operator Hospins
	Coverain: I must have signalize of Cryter/Oper/siter II

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GROUNDWATER SOURCES - PG. 2       Well # 10       SURVEY DATE         Vel       //a       rea       r	PWS # 107100004
Image: State of the state	IU7100000
the case of a many a straint noted saniple tan (Youided to the wall discharge size	
C /Disease Lange of the well glochards up a /Disease Lange of	
plan to deal hent ( ( Invegge) tables hackdown assured with her her to the second seco	siloji nurberj
Contraction and the second and th	
finance y instance by instance by the pure distribution who of the well and is it	
Manlained and working property?	
f the test car i to pressive gauge provided at all instatations and is ill mendalized	
area wasking proparty?	
2	
an approved as gap at a facation prior to the first service connection?	
29 AC INN Make agin Pilame How here an and	
Image: set in the set of the set	
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Image: Control in the property in the property in the property in the property of the property in the property	
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C1       C1 <td< td=""><td>1</td></td<>	1
the first first first first 1.27 is educively ventilation provoted in two of the first of the fi	ì
average near and Mostrae VCR Ind Appinders	
Long the second se	i
and the second operation of equipment to prover (reczion?	
CO 1.1 L.1 L.2 1.2 34. A the pump house protected from Badding, Spee Science's devices	
the five food satisface at sales siz (B) include above the final archited and the	
f the gradient striace (yeted \$4 as to load striace water away from	ł.
Contraction of the second	
Con con and the second local poster include inos class childer than 30 April from the works	
the set of the set of	
drains, or any other source of contamination?	ļ
744 92 We was using SPRING DECISION	
CO CO LE AN IN SECOND AND A CONTRACTOR	ļ
the second of the minute of the hypothesis of the second base	
fenced to provide the second of todalags, dweltags and sources of contarringson?	ļ
C II 9 II 50 Is stringer diverter from the address of the	
الله الله الله الله عنه الله عنه الله عنه الله عنه الله عنه عنه الله الله عنه عنه الله الله الله الله الله الله الله عنه الله الله الله الله الله الله الله ال	ļ
[1] [1] [2] [2] at a the spring locused in a parmament sincture and protected from	ľ
For some set of the se	
() [] [2] [] (0) 40. Is there is smooth noised sample cap truwded on the styling discharge pipe	ŀ
City constrained and a new prior to new prio	
(1) (1) (2) (2) (1) (2) (3) is a flow marel or estical flow incastiviting device provideur?	ŕ
no no sek rela SPRING BOX INFORMATION (Not all existing springs have a spring doc)	ŕ
and the set of the set	
	ł
2.7 CL3 13(1 CL1 1,) 44. IS the spring box projected from containinghon including the entry of	
CD cra into the state wards, series a, and dusts	į
which we have a support a support which considers a	
City in the contrast of the second of the second of the second se	ļ
the state case of a few accuss out a manied opening that is at least 4 litches high with a	ĺ
Contraction of the second	1
in the second state of the	ĺ
of the box or ground level, whichover is higher?	
	ŕ

<b>\$</b> ТО	RA	GE						SURVEY DATE	<u> </u>
			íorin iM	ust be	tiled out for each slorage und in live	PW5		:/24)2014	9001180707 107100004
<u>Storag</u>	o Şia	iciure	Nams			Slorage Structure	<u>ID#</u>	175500000000000000000000000000000000000	COMMENTS:
									(Pease infrate qualition number)
<u>Physic</u>	<u>a 1</u> 9	cation		. 1		Date in service.	£.1 0	14 <u>2005-2005-2005</u>	fed by Welt# 9 and 11
Bedal	ter St	alion	as\$00	ciatec		20±1 <u>Volyme (gali:</u>	-71	k (25.500000000000000000000000000000000000	# 7. Recommendation -
						2 máios			install barbed wire on top of
Stores	- Typ					Type of male((al:			the chain tax tence and
- N D22 [7]	Rase	nvolr∕ĭ	ank		[2] Abrive Groetout	[]] Pastic	_ []] we		posting No Trespassing
Ĉ	Stan				Partially Bekry Ground	Rherglass	[] Ne [] Ne		signs with City Emergency #.
<u> </u>					Below Ground	Concrete	∼ <u>L,⊢™≉</u> `[Cleane	eurally Contained	-
fotal D	Days !	Supply	y (řhis	: struc	cturg): Date Cast: <u>Insportext:</u> []] Unk	[ <u>.</u> ] Unk			55
-;ow ia	The v	A3(51.)	avel a	neasu	ured? [] trk				
	co	n/a		cele	ALL STORAGE STRUCTURES				
2	Ũ			13	5. Is fon storage synclore safely act	eestile to the ansper	ctur?		Ę
ö.	Ë.	0	8		2. IS file PNVS storage tank localed v	vijnin 560 feet of ary	, mjnigpa	ar	
					Industrial wastewaler treasmont g		h is spier	1633601	
				<b></b>	with wastewater or used for shoop	e disposal?	ladia a co	nam és éloco desta?	
0	<u>E</u>	띩	5	띮	<ol> <li>Are any of the storage situation of 4. Is an overflow provided first disch</li> </ol>	rans orecity connect arons to dweiging (0.1	a way ihati	wit crectude the	1
131	łł	-	51	L-J	Presexpany biographic management of the second s	wair and, where prat	rical, provi	ded with an expanded	
					inetsi sereon urstatled within the p	apo ¢ial will exclude	rodonts ar	nd deler vandeksm?	
0	E3	<u>(</u> ]	CL	[]]	5. Are overbows brought down to an	elevatori belween '	12 and 24	nches abrivo	
				<b>.</b>	(ite ground surface? (2X (ite sham	eter of ing discharge	s pipe ubóv s na smitułk	el a cega no) NalaZistano ur saniláry)	
51515	12	Ъ.	<u>  </u>	a	<ul> <li>6 Do overtows discharge over a dr.</li> <li>7 Is the storage structure secure from</li> </ul>	ຊາວອູຊາ ແນລະ ເປັນກໍາລັດຜູ້ ລວດ ທານ ແມ່ລະ ເປັນກໍາລັດສິດຊີ ລວດ	ran speasn ess?	P1004-1410111 21 201110131	
12	닖	닅	臣	엽	<ol> <li>B. Does the starage reserver have :</li> </ol>	waterfight root or c	aver ond is	li -	
1.7.2	L.J	1.1	0.4		sipped to sectivate drainage?				
$\square$	Ü	Ω			9. Is the storage water protected fig	ni conjanijizaon?			ł
9202	0000			į.	<ul> <li>10, is the storage structure structure</li> <li>11, Gauld vegetation in the area pot</li> </ul>	NY 301001 Adiata uncert the si	tousoe situ	crura?(Resonnieudoal	
L.	욁	H	몽	B	12. Is the storage structure designed	d eo that n can be is:	o'sted from	the dishibution	5
131	-1	L2	0	13	system without recentlating los	s of prossure in the	distribution	i system?	
[]]	Ø	Ū.	Ü	Ci	12. Is lookage evident at time of ine	paclinn?			1
		2		Q	14 Is the storage structure interior	xaajing or knei päälä 	> X0 or ⊡ack	ed7	
				님	<ol> <li>Is the storage structure used to 16. Are <u>access</u> marbox opagings fr</li> </ol>	sgaa taasned wave⇔ si ika starson si(u¢h	, ora a inche	s or greater above the	
Ċ1	0	Ð	0	L.,I	surface of the reed, with a cover	2 inches overlapping	g, water <del>k</del> ç	ni, hinged and lookod?	
91	O	[]	1.1	ίΞ	17. Are all yents extended #2 inche	s above the roof and	i çansiruclı	:u to excludo polordal	
	·	• · · ·			sources of contamination? (The	avartice eqiq wolhava	nci ba con:	ridered a venty	
you	no	p/a	urik.	oale	ABOVE OROUND STORAGE				•
173	Ð	B	ĽŰ		58. Do all vents open downward an				
pas.		162	(jak	<del>zolo</del> z	GROUND-LEVEL PARTIALLY	<u>BURIED, or BELI</u>	DW-GRO	UND STORAGE	ŧ
Ö.	0	E	Ü	[]]	19. Does for overflow for the storag	je struďuje nave a v	odical But	ion of plpa at	Ę
		~	4.11	p.55	Hasi 2 ppc diameters in Anglit 20 Te life overflow for the storage s	? In the Wouldad wa	h cithed a f	24 (Reah agn-correctible	1
61	[.]	L.I	ζ1	IJ	20 Te lite overnow for the side age s scient and hilling be pipe	when practical, or as	n expanded	metal scream asiatied	i
					within the gips plus 9 weighted	flappe: or check?			
Ū2		<u> </u>	Ð	Û	21 Is the area sendonding the sto	rage sirocture grade	d in a mary	hər təni vəli prevent	
					surface water from standing wit	hin 50 leal of 47	مراله بالأحد أمع	oggsing of least	
R	[]]	CI	[]]	[]	<ol> <li>Are all vents for the starage sin 24 lackes above lite racf or the</li> </ol>	issure oper, difatiwa ukumić jevel and tru	ra wiin 190 vered with	24 mash yan-toricd Ne	
					scraph to exclude potential 200				
YOB.	ňu.	0/2	ų tūti V T N	azia Con	PARMALLY BURIED OR BELS	A lasher shows the	ALLER OF A	ba roa( or the elayed	Ę
. C.I	["]	123	E.)	L.)	23 Are 'ALL' menticies elevaled 2	a jaçağıs above ine s	ionade or a	ing register into distribute	5
	11	20	C	r:>	level, which over is higher? 24 the those a minimum distance of	50 tayl between the	storage Bl	victore and any	]
11	ι.I	91	6.)	L	non potable (nam, standing wai	er, or allier possible		contaieination?	

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## PUMPING - PG. 1

One f	Som D	or all	Pum					SURVEY DAT	16	PWS #
PUM	PB, P	UMP	tous	IES, A	ID CONTROLS			1/24/2014	(mmassymm)	ID710000
Panip	1D#	Phys	kat	Locati	n:	Type of Pump:	Brand	here		
P1					coster Station	horizontal/turbine	overse:	Model:	Hersepower:	Purpose:
P2	-5			_	ooster Station	horizontal/turbine		-		fire support
P3-	-6				ooster Station	horizontal/lurbine		-	-	fire support
P3-	6		-		ooster Station	the second second second second second second second second second second second second second second second se				distribution
			-		Contra Granden	horizontal/turbine				distribution
P1-	3		-	HillB	coster Station	barbar to the state				
P2-	Concession in which the	-	-		poster Station	horizontal/turbine				distribution
P3-	3		-	the second second second second second second second second second second second second second second second se	Hoster Station	horizontal/turbine				distribution
P1.		-			oster Station	horizonteVlurbine				distribution
P2-		-			soster Station	horizontel/turbine				distribution
P3.	COLUMN TWO IS NOT	-			the second second second second second second second second second second second second second second second se	herizontal/turbine		200		distribution
1.0.0		-	-	FIIII DA	oster Station	horizontal/turbine		1		distribution
**	no	ri/a		k not	ALL PUMPS				COMMENTS:	Shing insurant
			Ē		1. Are al numps caoi	the of encloses in a life	And States and States	10.000	and the second se	the question m
×	0		E	1 🗆	2. Does the pump(s)	ble of providing the max syste excessively? (Reco	mum pumping deman	d of the system?	<ol><li>Deficienci</li></ol>	es - the oper
2						ded with readily evaluate			and of the re	lief piping is
2					4. Is a water pressure	rollef valve installed whe	e spare parts and tool		required to b	e screened, a
71	-	-	1	-	connected to the di	stribution system?			required by It	DAPA
रा	Ш.		5		5. Is a standard preas	ure gauge installed on th	e discharge line?		68.01.00.511	.05.
	-	-							10. (Fig. 24)	there is a 62
1	Õ.	$\square$	Ő		WELL PUMPS				KVA auxiliary Generator with	y Diesel
		-	-		well between the cur	le check valve installed	in the discharge line of	feach .	disel fuel tank	associated
]				2	7. If the system has a	np and the shut-off valve	17		w/woll # 8 - b	coster station
					release-vacuum rela	ertical turbine motor driv of valve located upstream	ren pump(s), is an air		5 1.5 M stora	ge tank: (Fin
					exhaust/relief piping	terminating is a down-tu	n from the eneck valve	, with	47) another d	iesel
	-	-			manyse me mote and o	covered with a 24 meah r	internation realistant enco	in mones	penerator and	outside fuel
1 (	1		U		<ol> <li>If the pump(s) is "oil</li> </ol>	lubricated", is the oil NSI	F approved and suitable	ta day	ank is assold	ated w/well #
					human consumption	7			0 and enothe	r associated
	-	ria -	unk	note	WATER DIMME	Sec. 1			with the Hil Bo	oster station
1 0	ΞI	$\square$	Ö.		WATER PUMPS (not	wad pumpa)	and the state of the state of the state of the state of the state of the state of the state of the state of the	6	ind 2 M stora; (5),	ge tank (Fig.
		-			<ol> <li>Is an accessible cher and the shut-off value</li> </ol>	in verve on the discharge	side between the pur	10 1		
					and the street of the			ľ	1. auto testec	weekdy
_	10 1	e/a	LTN:	15558	AUXILIARY POWER					
Firm	ficant	-	Ц.	151	10. Is there auxiliary pos	ver on-site?				
01010	L	1	Den	clency						
Ē	i i	51	Η.	H	11. Is auxiliary power ter	10d7 (Reconvended)				
1			-	-	<ol> <li>If a dissel or gasatin and connecting pipes</li> </ol>	r ruered angine is used o	in the well lot; is the fu	of tank		
E	1 0	7 1			13. In the fuel tank above	g occose water?				
- C	3 0	3 (	Э.	Ξ.	14. Is a certified operator	Distant diation the distant	of the Amilian of			
-		5.5			If the engine is in the	well house	or the feel targe?			
1	1 1	11			15. Is the engine exhaust	directly discharged outs	the wall house?			
-	1 6	11			to, is a spal containment	structure surrounding al	fool tarks adequate?			
					(oncourse), contrative	ent - 110% fuel lank volu	ame)			
		a c	1	0	Community Systems	Only				
1	6		-		17. (Community Systems	built after 4/15/07 only)	Is on-site power or sta	indity		
					errunthe trowded so A	rater can be treated and	supplied to pressurize	iha.		
	P	1 0	1		entire distribution syst	ern during a power outer	on for a minimum of a	haven 0		
_			2	-	18. (Community Systems	f 8 hours of fuel stored a	If standby power is pro	wided,		
					In there a minimum r	A B haven when the	the second second in the	reading,		

					SURVEY DAT		PWS #
UM	PIN	3 - P	6,2		1/24/2014	(mm/dd/yyyy)	ID7100004
			2.7		CONTRACTOR DURING	COMMENTS: (Please indicate	the question nu
-	11	14	+wk	nete	BOOSTER PUMPS	1	
1	-	1	Unn	constary	pump is directly connected to the distribution system?		
Z					20. Are all in-line booster pumps supplied with an automatic outoff that		
-	-	-	-	-	activates when intake pressure is less than or equal to 5 pel? 21. Is the booster pump located on a suction line that is directly connected to		
7		0		ц.	any storage reservolr?		
2					22. If yes, are all booster pumps protected by an automatic outoff to prevent		
			-		pump damage and avoid excessive reservoir drawdown?		
			-		PUMP HOUSE (Only pump houses that don't contain a Groundwater Source)		
1	ñ	<i>n</i>			23. Is the pump house kept clean and in good repair? (Floor crecks?)		
2	ö.	b.			24. Is the pump house protected from unauthorized personnel?		
X				9	25. Does the pump house have adequate lighting throughout? (Recommanded)		
2				U	20. Are all non-sample taps installed in the pump house equipped with an appropriate back/low prevention device?		
7	T	U	U		27. Is adequate ventilation provided in the pump house for dissipation of		
1 8	gnifica	int [	Def	ficiency	excess heat and moisture from the equipment?		
2		0			28. Is adequate heating provided in the pump house to provided safe and efficient operation of equipment (prevent moisture buildup and/or freezing)?		
panet a	ignifica	nt	De	Idency	29. Is the pump house protected from flooding, have adequate drainage,		
2	Ш.	υ.	5	-	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		
yes	00	nia	unk	nate	the pump house?		
	V			8	30. Is the sump for pump house floor drains closer than 30 feet from the well? 31. Is the floor drain connected to sewer, atorm drains, chlorination room		
Ц	E)	5	-	Ц	drains, or any other source of contamination?		
					Charles and the state of the st		

PUMP One form	for all	Pumpi					SURVEY DA	and a second sec	PW/S #
PUMPS, /	PUMPI	lousi	18, AN	D CONTROLS	the second second		1/24/2014	(mmiks)	ID710000
Pump ID#	Phys	icat L	ocatio	10 C	Type of Pump:	Brand:	Model:	and the second se	and the second s
_	-	_	-	Well # 5	lurbine	50.00.00	impoor:	Horsepower	Perpose:
_	_	_		Well # 7	turbine		-	100	distribution
_	_	_		Well # 8	turbine		-	200	distribution
	-	_	Boo	ster Pump	turbine		-	400	storage
	_	_	800	ster Pump	lurbine		-	125	distribution
	-	_	Boo	ater Pump	turbine		-	125	distribution
		_					-	126	distribution
-	_	_		Vell # 3	turbine		-		
-	_	_	V	Vell # 2	turbine				distribution
_	_	_	N	fell # 10	lurbine		-		distribution
	_	_	_					400	distribution
	-								
	1	Link C	note	ALL PUMPS	and the second second			(Piease Indicate	the question num
		Ĭ	Ö	2. Does the owneds)	able of providing the me	iximum pumping dema	nd of the system?	7. Deficience	ies - the open
2 0				3. Are at sumos rere	cycle excessively? (Rev Ided with readily evailab	commended)		end of the re	lief piping is
				4. Is a water pressur	a relief valve installed w	ote spare parts and too	497	required to b	e screened, as
	-	-	-	connected to the c	ist/ibulion system?		uX.	required by I	DAPA
				5. Is a standard pres	sure gaupe installed on	the discharge line?		58.01.08.511	.05.
a no	040		-			and a second sec		Recommend	ation - may wa
Π	$\square$	õ	1000	WELL PUMPS				around the bu	acing a screek
	-		-	well between the or	ble check valve installer mp and the stut-off val-	I in the discharge line i	ofeach	09 a safety m	easure to avoi
			2	7. If the system has a	vertical turbine motor d	187		anyone placin	g their hand in
				release-vacuum rel	of valve located upstrea	men pump(s), is an all		or near the w	all column whe
				any management D-D456	terminating in a down-	lumini manifian at teach	e, with	t is running.	
	m.	m.	-	annova me noor and	COVIMENT WITH B 24 march	chesteral and states of the	0.000	10. (Fig. 24) (	here is a 625
		ц.	ш.	n. is me pump(ii) is -or	advicated", is the of N	SF approved and suite	66 6 F	KVA auxilliary	Diesel
				human consumption	17			eenerator with	outside disel
no	*/#	ink	note	WATER PUMPS (no	and an and		i.	- booster sta	ciated w/well #
				9. Is an accessible che	ok valve on the dischart			torage tank; (	Ela 47)
				and the shut-off value	e7	to size between the pu	mp a	nother diesel	generator and
	1		50				0	utside fuel tar	1K is
10	6/4	_	10%	AUXILIARY POWER			a	ssoicated wy	vell # 10
Significan	t 🗆 '	Defici		10. Is there auxiliary po	wer on-site?		1	1. Note: all be	ick-up
		1	1	11. In musiliary never to	ated? (Recommended)		9	enerators are	weekly tested
				12. If a disset or gasole	o fueled engine is used	on the well lab is the		utomated SC/	NDA
-	_	1		and commenting julie	ng double walles?	on one well lot; is the f	uel tank		
81	9,	- 1		13. Is the fuel lank abov	e ground?				
ш.		1	_	14. In a certified operate	r present during the fills	19 of the fuel tank?			
		1.0		in the endine is in th	e well house				
ΠÌ	ы i	i i	5.	15. Is the engine exhau	d directly discharged ou	iside the well house?			
-				<ol> <li>Is a spill containment (Secondary costator)</li> </ol>	nevit - 110% had lank vo	all fuel lanks adequate	2		
-				Community Systems	Donty	Nume)			
00	2 0	1 [		7. (Community System	I built after 4/15/07 out-	la mante comercia el f			
				mousifie blowded eo	water can be treated an	I manofied to monourie	a the		
	a r	1.6	÷ .	entitle distribution sys	tem during a power out	note for a relation of i	No. of Concession, Name		
0 0	2 0	1.1	1.1	or (comounty ayanway	front etter 4/15/07 only	) If standing means is or	Ovident		
-	_	-	_	is there a minimum	of 8 hours of fuel stored	Rod Incelering an elect			

	DIN	0				SURVEY DAT	
-00	PIN	G -	PG. 2			1/24/2014	(mm/dd/y)yy/ ID7100004 COMMENTS:
Y**			1.000	rete	BOOSTER PUMPS		(Please indicate the question num
-	ω.	E	Uhit	HORYSAN	<ol> <li>Is an instantaneous and totalizing flow meter installed where pump is directly connected to the distribution system?</li> </ol>	the booster	Recommendation - numbering each booster
Ø					20. Are all in-line booster pumps supplied with an automatic cuto		pump for maintenance
2					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 of		reference and or repair
Ø		-			any storage reservoir? 22. If yes, are all booster pumps protected by an automatic cutof		
	-	-	-	-	pump damage and avoid excessive reservoir drawdown?	In proven	
	<sup>60</sup>	~	unk		PUMP HOUSE (Only pump houses that don't contain a Ground 23. Is the pump house kept clean and in good repair? (Floor crac		
-	ŏ.	ğ	ğ	Н	24. Is the pump house protected from unauthorized personnel?		
	Н	Н	Н	Н	25. Does the pump house have adequate lighting throughout? (R 20. Are all non-sample taps installed in the pump house equipped		
2		U			appropriate backflow prevention device? 27. Is edequate ventilation provided in the pump house for dissip.	tion of	
1 20	gnifica		Der	kiency	excess heat and moisture from the equipment? 28. Is allequate heating provided in the pump house to provided i	afe and	
-	prifica	nt	Defi	ciency	efficient operation of equipment (prevent moleture buildup and	for freezing)?	
~	-	-	Ч	-	<ol> <li>Is the pump house protected from flooding, have adequate dri is the floor surface at least six (5) inches above the final group</li> </ol>		
-	-	-	unia	note	and is the ground surface graded so as to lead surface water the pump house?	away from	
	N N	Ö.			30. In the sump for pump house floor drains closer than 30 feet fro		
-		ш	<u> </u>	ш.	31. Is the Boar drain connected to server, storm drains, chlorinatio drains, or any other source of contamination?	n room	

					RCE - PG.1 ed out for each groundwater source in the PS	-	SURVEY DA	_			PWIS #
Tag #					Common Name of Source:	Source:	1/24/2014			Assigned Treated?	7100004
E000930	1	_	_		Well # 9	2 Well -	the LT Mar	Nifeld		a second s	Yes Z
Physical I		301			1110111	Sering-	the second second second second second second second second second second second second second second second se	ing Box	Trea	ament Objective:	C N/A
QUAIL R			ATES					-			
			_							Iment Types: y Treatmant Train in Ci	(2) N/A
ts there a	well b	g for i	he gr	und	water source? 2 Yes No	N/A Unk	~				
Pump Cay 1500	00/100	2011	0.	Jm2	0 Uni2001 Unisco	Depth (Ft)	Casing Dep	th or ŋ		Depith(P) Static We	ter Depth (Pg
is the Cas					areen Depth (F1): N/A Unk		pPerforated?			Perforation Depth	
		No [	] Uni	T	ion:	Yes [	] No		hik	From:	[] UN
		table (I	Declara	_	3.478631					Tei	
_				_	11.915117						
	and the	1.000	a contraction of the	A company	Il Bources			L	OMM		_
					This source is:					INTE: Indicate question num	(100
					Active Proposed					ficiency (Fig. 60)- #	
yes ro	rs/e	unk	note		Inactive [] Emergency (-c60 days			li	he wel	I vent is required to I	be open end o
2 🗆				5	Has there been a Gource Water Assessmen	conducted for t	he source?		e requi	ired by IDAPA 58.0	1.08.511.05.
(7) (7)	-	-	-	1	Date: 2002						
		Ц	Ц		Has a final GWUDI determination been done	for this source?	,	- 1			
yes no	36 if se	NICE B	- a sprin		Date: 2002 ELL INFORMATION						
DD	10.00	T		ЪŰ	Is the well on a separate lot that is large eno	and in passion and	and a designed				
] Signific	ant E	De	Dilenty		distance of 50 feet between the well and the	ign to provide a	King 2				
					(applicable if constructed after 11/1/77)	owness testeri	Y MENU Y				
					Are the following minimum distances from the	PWS well heirs	iner?				
0 0				6.	- Gravity newer line.						
임님				6	- Pressure sewer inc						
				7.	<ul> <li>Individual home septic tank</li> </ul>		1.				
				8.	- Individual home disposal field		L				
				. 8.	- Individual home seepage pit		τ.				
		н	H	10	- Privice						
		H	H	11							
<u>ш</u> ц		-	-		<ul> <li>Genels, streams, ditches, lakes, pands tanks used to store nonpotable substa</li> </ul>						
00				12.	Are postkides, herbicides, fertilizers, portab						
		-	band (		products, or other toxic or hazardous mater						
				14	Are posticides, herbicides, or fertilizers appli						
	1.2				is the well in a pit? If yes, Date constru						
					Was the well that is located in a pit installed						
	2			17.	If pil was installed prior to 11/5/64 - Has DE						
20. 10.	5.0	1.0	100		does the pit have water light construction of	pit walts and its	or, a floor				
		UNR I	1000		drain and an acceptable pil cover?		S				
	++-	++-	++-		Is the well protocted from unauthorized entry						
] significa	IN F	Det	clency	1.6	Does the casing oxiend a minimum of 18 inc surface and/ or 12 inches above the pump h	nes above the fi	nal ground				
			T	20.	is the well vented with the open and of the ve						
-	-		-	-	terminated downward at loast 18 inches abo						
2 🗆				21.	Is the well provided with a senitary cap that p	revents surface	water entry?				
2 🗆				22.	Is the well cased and sealed in such a many	er that surface w	aler				
				121	cannot enter the wall?		and the second second				

Page \_\_\_\_\_81\_\_\_ Of \_\_\_\_31\_\_\_

Well #9

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### EDAHO DEPARTMENT OF WATER RESOURCES WELL DEDLAR'S REPORT Use Typeneties of Hollpaint pes

1.	DRIBARNG PERMITI NO. (Inter IDWR No5 ag d: 20023520	

### 2. IFWNER: Name – City of Augusta

Name. 1110, arradition,,					
Address. 2135.8 ADDRES Address.					
City: Alomou	State	ZipA1996			

### 3. LANCATION OF WEDLE by legal description:

N .	
	YWP:       2.       NovtN#       Or Smoth G         Nge:       39       East C G wast G         Suc.       30       1/4, SW 1/4, NE 1/4         Note:       40 Acres       150 Acres         Govit Lot       County:       Ennawlin.         Lat:       :       Long:       :
5 /	(d)(escal Well Step) 212 & 866(841,
	СкуАшпыя
(Gjyg af least name of	(Lugd + [Assance to Road or Edudmark)
Loc No	u Subd Name

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#### USX:

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O 'Dersol	10 Injest 645	O Olser

5. TYPE OF WORK: excel all that early (Septement on ) Mew Well 12 Modely / O Abandonment (Düther, ......

### 6. DRILL MEYHOD:

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#### 7. ABALING PROCEOUNES

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Cratto	0	116	243.5468	Tremmick)v enterr	
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### 9. PERFORATIONSSCREENS:

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.)6 <b>*</b>	0	74	Very fire seed, silty, yoslow & brows		þ
24"	τı	×13	Sill, sana, grovel, & black grave)		į,
	51	45	Drokov, kasalt (regulilli)		ļ
	15	50	Elasalı black & fracinard		5
	- XO	609	Şяқасыра-Болы		; ,
	100	372	Kiryo'ne onege-brown	×	2
	112	:19	Sill compositions		5
	1:9	721	Sih, very sticky various colors, orange- hrown, gray		;
	123	151	Silt atorge braini		2
	155	172	Sill alange-brown with based claves		,
	172	192	Sili orange-terawai wish operate chata		Ŀ
	19:1	199	Presectable, suly	х	ľ.
20	198	131	Rayubir lau	x	
	237	See	Sili biown with shyplife classs	x	
~~~~~~	2.18	275	Royofile grey, park, 64478	х	
	225	284	Decomposed repulse	x	
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			CONTINGED	<u> </u>	ľ

mapper Compreted Ocpili 504 ...... Fit. (Mousurable) Date Staned: 5/24-01 Completed: 8713.01

13. DRILLER'S CERCENCATION: 2We certify the all monitons we'l genetric (Crystender's were compliad with a the sine the rig wartheoved. KEVERS INC. VICTO: PS MC 3 Pare SIDE Firm Official 🛄 ø 1 Date. 312.03 2011 1 Supervision/Concessor: Olical & garner Sign diary ì,

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1. DRIEJENG PERMITENO. Dige IDWIL No. .... Eng.K. DOD1129

## 1. OWNER:

- Manne: - ՀՀՀ պահերորդի	1¢		
Address: 2235 S App	pote <b>Rd.</b>		
City: L. Annoent		5(str; ]dj&jc	2ip:£)52i

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	374	.187	flaveline fissioned	X	
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	47i	420	Rhysbile Itaciored	x	. 
	420	415	Yamice Inactured	x	
	935	445	Рытчев втояля	x	
	143	135	Pannice bicket	х	
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Department of Water Resources Satient Region

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							Common Name		SURVEY PATE	-	PWS #			
GRC	)UNE	WAT	rer :	SOUE	RCE	S - PG, 2	Well#9	ſ	1/24/2014	(inm/dd/yyyy)	ID7100004			
-	 70	na	cok	(ipte	<u>hi</u> te	LL INFORMA	TION (conL)			COMMENTS:				
R.	Ē	51	Ö	Ē	_		th nosed satisfies lap provided	t on the w	ioli discharge pipo	(Please Invicate g:	( <del>vadinio poilae</del> e			
'						pilor to treatmo	nt7 (foreaded lap is approved	d willt bac	sifew prevention)		·_····			
10	30	i.		<u> </u>	724.	is an Iuslantau	aola and losalizing Sow mater	equipped	wén nervolatile					
1 m		- Ü	Uaga	cessa:			ed un Pre pomp d'elsbolion lie							
					ч	-	alulained and working property?							
123	CD.	CD.	$\square$	["]	25.		suge provided at all installatio							
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ула	02	n/a	ors	nain	PIJ	MP HOUSE (A	ny structure containing Import	tent watar	r system conjuncants)	1				
I	Ē.		[]	C)			called fill & pump house?							
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<u>SSSS</u>	Ē	ē	ñ	ĉ			plo taps instated at the purify			ł				
į 🦾	L	5		<b>1</b> 1	2		χδηνη ριγγοπήση dource?			[				
रि	L	13	<u> </u>	τr	32		nitation provided in the purpo	house for	diasipalion ež					
1	ian r Igailiaga		Ucfi	clency.	•	•	d moissure from the equipment							
	11	13	<u>'</u>	<u>"["]</u>	-		along provided in the party ho		whigh sala and					
	ignfika	'``	Cefi	ciency.		•	on of equipment to prevent fre							
निंग	<u>1.1</u>	11	7	· [ · ] ·	<b>-</b> 34		use protected from fooding, h	-	uate drainago,					
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Tag #.	Turn must	he filled out for each groundwater source in the	PW6. 5/24/2014	PAVS 0
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		3. Has a final GWUCH determination been done	for this source?	
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2		WELL INFORMATION		
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and the second division of the second		distance of 50 feet between the well and the (applicable if constructed after 11/1/77)	nearest property line?	
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2 🗆		5 <u>Qrinity</u> sewer ine	PWS well being met?	
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00		Is the well protected from unauthorized entry? (	Песоптонники)	
Spriftcant	Deficiency	Does the casing extend a minimum of 18 inche surface and/ or 12 inches above the pump has	is above the final ground	
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-	-	territration downward at least 18 inches alaisse	the final course and and	
	D D 81	the one were provided with a sandary cap that are	Anterio acceleration and a design of	
U 1		the one must called and second in such a manner	that autiace water	
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Well # 11

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				AND	ONTROLS	possible course	1012 CO. CO.		1	
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				W	ell # 9	turbine			200	distribution/storage
				Boos	ler Pump	horizontal/turbine				distribution
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H	음	×	H	H	<ol> <li>Does the pump(s) (</li> <li>Are all pumps provided)</li> </ol>			Look?		elief piping is be screened, as
뜅	H	H	H	H.	4. Is a water pressure				required by	
10.4	-	-	-	-	connected to the di				58.01.08.51	
2					5. Is a standard press	ure gauge installed on	the discharge line?	,		dation - may wan placing a screen
yes	00	rvie .	unk	noie	WELL PUMPS				around the	base of the wells
$\mathbf{Z}$					6. Is there an accessit		and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second sec	line of each		measure to avoid
1					7. If the system has a		driven pump(s), is i			oing their hand in well column when
						lef valve located upsize terminating in a down			it is running 10. (Fig. 63	
						covered with a 24 me				esel Generator
9					<ol> <li>If the pump(s) is "of human consumption</li> </ol>	I lubricated", is the oil ( n7	NSF approved and	suitable for	associated	disel fuel tank w/well # 9 (Fig.
		044		note	WATER PUMPS (m	(wall pumpe)				diesel generator
	õ				9. Is an accessible ch		arge side botween	the pump	and outside assoicated	
-	_				and the shut-off val	we?			as a second second	and a set
yes	-	r/a	unk	note	AUXILIARY POWE					
E.		ant D		1 dency	10. Is there exciliary p	ower on site?				
121			<u> </u>		11. Is auxiliary power	tested? (Recommende	0			
Ö	$\square$				12. If a diesel or gaso			is the fuel tank		
_	_					ping double walled?				
					13. Is the fuel tank ab	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second sec	and a state for the state			
	Ľ,		ш		14. Is a certified opera If the engine is in 1	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	mang of the fuel th	ner c		
					15. Is the engine exha		outside the well h	ouse?		
H	н	H.	Ξ.	Ë.	10. Is a spill containm					
	-	_	-	_		inment - 110% fuel ten		3000		
1		2.6		-	Community Syste			in a started		
					17. (Community Syste		and the second second second second second second second second second second second second second second second			
						so water can be treated				
-			E.		18. (Community Syste	system during a power				
5	Ц.					im of 8 hours of fael at				

p	JMP)	NG .	pr?	,		SURVEY DAT	2	PWS#
<b>H</b>		101		<u>F</u>		1/24/2014	(mm/daryyyy)	ID7100004
					29 Are all lu-line booster strmps supplied with an automatic outoff if activates when intake pressure is less than or equal to 5 psi?	hal	COMMENTS: (Please initical) Recontinend numbering e pump for ma reference an	ach booster Intenance
	J []]		בו []]		<ul> <li>22. Is the booster pump located on a sublick line that is directly containing storage reservoir?</li> <li>72. If yes, are all booster pumps protected by an automatic outoff to pump damage drid avoid excessive reservoir drewdown?</li> <li>82.000 MOSTER (Occurrence)</li> </ul>	prøvenl		
NOON NOON					<ul> <li>PUMP HOUSE / Only particip houses that <u>don't</u> contain a taroundwal</li> <li>23 Is the pump house kept clean and in good repair? (<i>Floot wacks?</i>)</li> <li>24. Is the pump house protected from unautharized personnel?</li> <li>25. Does the pump house have adequate lighting throughout? (<i>Recur</i>)</li> <li>26. Are at non-sample taps installed in the pump house equipped was appropriate backflow prevention device?</li> </ul>	) mmncdadi		
U	Significa Significa		1		<ul> <li>27. Is adequate ventilation provided in the pump house for dissipation excess heat and mousture from the equipmont?</li> <li>28. Is adequate heating provided in the pump house to provided safe efficient operation of equipment (prevent mousture buildup and/or to 28. Is the pump house protected from thoding, have adequate drains is the floor surface at least six (6) inches above the final ground site.</li> </ul>	and baseing)?		
	5D %	ŝ			<ul> <li>and is the ground surface grades so as to lead surface water away the pump house?</li> <li>30 Is the sump for pump house floor drains, closer than 20 foot from all 31. Is the floor drain connected to sever, storm drains, chlorination red drains, or any other source of contamination?</li> </ul>	ho well?		

DIS	TRIE	UTI	ON		SURVEY.	Y DATE	PW/S #
One fe	um for	all dis	hibutk	in syste	ma in the PWS. 1/245	2014	(mm/dd/yyyy) ID7100004
			is mad				COMMENTS:
4869	int(n);	L	Un	ĸ	Size(s): Unk		(Please indicate the question number) *majority of asbestos/coment
	Steel		IDPE (	lacio	Asbestos/Comert		piping has been replaced
0	PWC	2	weile !	Iron [	Copper		7. & 12. & 14. Note - city is in
·			ALCOHO	aron 1	1 canada		the process of developing a
	] 00	_		e mete	red? Number of Fire Hydrants:	-	written "Routine Maintenance
					I metered	-	Plan" that will include
	11		out		4576 100 +		addressing valve exercising an
Vee	10	nia	unk	nete	DISTRIBUTION		a distribution flushing program
0	Ď				1. Have there been any interruptions in service during the past year? (includi	ing	<ol> <li>Recommendation - Cross Connection Program should be</li> </ol>
			12		pressure loss)		reviewed and updated annually
		2			2. If a loss of pressure occurred (>20 psi), did the PWS provide public notice	,	18. Recommendation -
-	-	-	-	-	and disinfect the system? (Reminder)		backflow devices are required
$\square$		Π.		Ц	<ol> <li>Is the PWS able to maintain a minimum pressure of twenty (20) psi through the distribution system (including fire flow), or forty (40) psi for PWSs</li> </ol>	mout	to be tested annually it would
					constructed after 7/1/1985 (excluding fire flow), during maximum hourly		be valuable asset to the City to
					demand conditions?		have one of the City's operator
	[2]				4. Was the pressure observed at a service connection?		certified in Back-flow testing to
~		-	-	-	5. If yes: psi.		assure they are tested in a timely matter as part of the
					Location:		City's overall routine maintence
		30	1.00	1.1.1	The second second second	-	program
yes	10	n/a	usk	note	Time: A.M. P.M. 6. Do all water mains that provide fire flow have a diameter of at least 6 inste	067	
Ø	H	H	н	N	7. Are valves exercised regularly? (Recommended)		
-	0	-	1	-	If yes, how often?		
					8. Is there a leak detection program? (Recommended)		
ŏ			1		9. Is 15% or more of the water unaccounted for?		
	2				10. Is a water conservation program in effect? (Recommended)		
0	9	8			11. Is an adequate map of the distribution system maintained? (Recommand	and.	
$\overline{\mathbb{Z}}$	2	ы	H	2	<ol> <li>Does the system flush all main lines annually? (Recommended)</li> <li>Are all dead end water mains equipped with a means to flush?</li> </ol>		
Ľ.	7	10	Ξ.	1	14. If yos, are the deadends flushed at least semiannually?		
n	Ē.				15. Are there any distribution materials used that should not be in contact with	th	
-	-	-	-		the drinking water? If yes, explain in comments section.		
$\Box$					16. Is the system adequately protected from freezing?		
2				2	17. Is there a cross connection control program? (Community PWSs Cnly)		
				2	18. Is the operator trained in cross connection control? (Recommended)		
U		υ.	Ч	Ц	19. Is the operator aware of any cross connections or were any cross connections observed during the course of the survey?		
in i		EI.			20. If a separate non-potable irrigation system is provided for the consumer,		
-	-	6	5	-	are all mains, hydranis, and appurtenances easily identified as non-potat		
					(Purple Tape or other) (Recommended)		
yes	10	nha	unk	note	Air/Vacuum Relief Valves - Placed at high points in weller mains.		
U					21. Are all automatic air retief valves equipped with a means of beckflow		
					protoction?		
	_	_		_			

Page

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FIN	ANC	IAL	CA	PA	er	rv.	SURVEY DATE		PWS#
		- MAR	. OA	A	01		1/24/2014	(mm/kki/yyyy)	ID7100004
10				Ĩ	7	FINANCIAL CAPACITY 1. Is the PWS current with the payment of drinking 2. Does the PWS charge a drinking water fee to II If yes, what is the fee: \$ \$43/mont	te user?	COMMENTS: (Please indicate the g	vestion number)
	$\square$			E	3.8	. Is the PWS in the business of setting water?			
	#:	No	te: -	-	-		ion and mark	1	
2				E	3	"WA" on questions 4 - 19. Does the PWS provide and use an annual budg If applicable, is the PWS fund separate from the utility fund? (Recommanded)	el? (Recommanded) waste water/sewer		
2				E	0 0		9 (Recommended) from exceeding		
				8	0. 0.	Has an independent financial audit been comple If yes, is a copy of the must recent balance shee	led? (Recommonded)		
21					10	ovatable? (Meconwanded) Does the water system include a cash budget v	and a second second second second second second second second second second second second second second second		
2					**	budget for each flow? (Recommended) . Does the water system management review the charge, or rate system at least annually? (Reco	user too, user		
5	õ		utk IZ			Does the water system management review final	e system edjustment?		
					14. 15.	monthly? (Recommended) Does the PWS provide and use a capital budget Has this PWS produced and does it currently util improvements plan? (Recommended) If yes, when was the capital improvements budget	? (Recommended) lize a capital		
) (			2			Has the capital improvement budget been update			
1					18.	18 months? (Recommended) Does the water system budget provide funding for existing plant in service and/or for the funding of	ir depreciation of		
					19.	replacement? Are there sufficient funds for training personnel?			
						4			

Page 27 Of 31

	NAG	ERI	AL C	APAC	ITY	SURVEY DATE 01/24/2014	(mm/dd/yyyy)	PW8#
	-		uni D		ANAGERIAL CAPACITY Is a properly licensed operator available at all times? (h Is there a Drinking Water Source Protection Plan develo		COMMENTS: (Please indicate t	e question number)
2					ate: Does this PWS have a governing body or board of direc If no, please indicate: Sele Proprietorship Partnership Umited Liability Corp. Other: City Council	illore?		
				4.	How often does the board meet? N/A weekly semi-annually never monthly annually unknown bimonthly as necessary ether			
N.S.S.S.S.	2000	1000	10000	6. 6. 6. 7. 8.	<ul> <li>Are the following records maintained onsite or located ne - Bacteriological Analysis - 5 years retention.         - Chemical Analysis - 10 years retention.         - Records of actions laken to correct violations - 3 ye         - Cepies of reports, summaries or communication rel sanitary surveys - 10 years retention.         </li> </ul>	ars retention.		
				9.	Reports concerning variances or exemptions - 5 yes     Copies of public notices issued - 3 years retention			
N					does it include; daily operating instructions, operator as location of valves and other key system features, parts order form, and information for contacting the water sys	or the PWG and afety procedures, tist and parts stem operator?		
100000000	S-LUNISCUS -	2000000030	\$00000000	15. 16. 17. 19. 19. 20. 21. 23.	Nitrates Nitrates Load and Copper IOCs VOCs			
	2			24.	이 같은 것은 것 같은 것 같은 것 같은 것 같은 것 같은 것 같은 것	vallative		
				25. 26.	for review? Does the (TCR) sample sile plan meet the minimum rev Does the system have a sufficient supply of approved a bottles properly stored? (Recommended)	And a state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second state of the second		
				29.	a contract of the second second second second second second second second second second second second second s	ed electrical wiring? Recommended)		
	Ø			32.	Are there any water supply wells that are no longer bein need to be abandoned?	ng used that		

DI	SINF	ECT	ION	- PG	1 - Systems Using Unly Groundwater	Survey Date	1/0/1900	PWS#
Ase	parate	tarm a	'susi be	filled	nut for each disinfaction lukt in the PWS.	5/24/2014	(mavdd/yyyy)	ID7100004
i rrea	Inten	Facili	ify Mai	nve:	(Location)	Date Online: [_] U	nTreated Water	r (GPD): 🕌 Unk
Sale	ict all (	lisinie	ction :	lypas	Used:			
	Gasic	2 [`]	071	<u>ak (</u>	📙 Sockum Hypochlasite [ ] Calcium Nypochlarite [ 🧃	iax 🗋 Oxore 📋 Onk	viae Dioxide	Other States
) 7 yr ( (?)		ŝ	liak []]	nove []]	DISINFECTION 1. Is disinfection used on a voluntary basis to prevent back		Comments:	the question number)
1 -	i m	ce.	r1	C.3	contemination of the distribution system?		Note - (Fig. 3	11) MOX systems
		20		L_1 	<ul> <li>Z Any interruptions in disinfection in the past year? If yea,</li> <li>Have any chapter have been and to be in the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second sec</li></ul>	carament	are installed i	n a room off the
Č	iă	Ē	5	ċċ	<ol> <li>Have any changes been made to this treatment facility s</li> <li>If yee, were plans and speck submitted to DEO?</li> </ol>	ince the fas: EGS?		ons associated
					Date asproved:		wizh wed # 8 a Istozade tank :	and 1.5 million/gat i and in a separte
1	' LJ	M	11	ll	5 Does the system nave a means of measuring the residu:	a/disinfectant	room off the t	poster station
					concontrations of free obternet, combined objoine (chip), chlorine alloxide?		assoicated w/	the 2 Mistorage
	Ę,		[]	[]]	<ol> <li>is a smooth nosed sample tap provided before and after.</li> </ol>	irostmoni7		have been put
10		[2]	Ð	Ē	7. Is a chlorine residual being recorded when all compliance	a tolal coliform	on line)	
					\$3itples are boing taken?			ļ
yee	77	cia	uuk	nase	VOLUNTARY DISINFECTION			
i î î	Ő	Ũ	[]]	Õ	B 18 9 measurable free chlorina residual Maintained through	will the distribution		
		<u></u>			system? (Hecomolendad)	i		f i
	片		[] []		9. Is the five chlorine residual being measured daily? (Reco	mmended)		
LJ	1)	121	L.J	U.	<ol> <li>Is an automate properlianing chloridatar being used whe flaw is not reasonably constant?</li> </ol>	are the rate of		ļ
3	ß	$\odot$	$\square$	63	<ol> <li>Is the analysis for free children residual being made at a</li> </ol>	f@luency.lbst v		Ē
					sufficient to getect variations in chloritie demand or chan	iges in water flow?		
yes	10	nda.	urie.	<i>scle</i>	REQUIRED DISINFECTION			
Ð	63	(2)	C	[]]	12. Is the free chlorine residual being steasured daily at a kin	cation prior to the		
C1	$\mathcal{L}$	<b>1</b> 21	[]	m	fif6) 60M/ce connection?			ļ
1.7.1			£1	11	<ol> <li>Is the daily free onlyrine residual being recorded and kep minimum of 1 year?</li> </ol>	Laistike for s		ĺ
C	C,I	e:	[]]	C)	14. Is a detectable chlorino residual maintained flircughaut (r	he disirization,		
[]]	CL	(2)	C)	51	system? 15. Is an automatic proportioning chlorinator bowg used what	ra l'he late of		ļ
11	C	$\mathbb{C}^{2}$	C3	[`]	Now is not reasonably constant?			
			5.1		<ol> <li>Where phonealion is required for protection of the supply equipment of sufficient capacity available to septace the to</li> </ol>	k is lhore slandby accest unit?		
ι.,I	U,	[]	[]	[]]	<ol> <li>If pirmary discreption is accomplished using agone or so-</li> </ol>	me other onensical		l l
					that dates not provide a reactual disinfectant. IS chloring at	tdag 10 provida		
					a fasisfual disinfectant?	[		ļ
								l l
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## State of Idaho Department of Environmental Quality

Photo Log

		<b>-</b>		<u>Photo Log</u>			
Name o	f Facility:	L			_Inspection D	ate	Pws#
City of Aremon					2/24/2014	(nm/dd/yyy)	
Camera		****	933-949-26	Camera Brand	Camera Mo		Camera ID#:
<u>.C.</u> 09	<u>1891 - Ci 3</u>	Sman 🔲 Cilhes	<u>.</u>				Contractor in the second second second second second second second second second second second second second se
			Direction:		· ·····	·····	
Photo	Dato:	] Dy: (initials)	(N.S.E.W. Mc.)	File Namo:	Description:		
	1/10/2014	A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A		Antenon	Vet house # 5		······································
	3/10/2014			Ammon	vel # 5 dischargo line		
	1/10/2014			Ammon	solabon velvea - pusco to wante	And accare includion	
	1/10/2014			Amojon	samp'o 16p		·····
	1/10/2014	RM.		Аттол	Secifical panel of wolf # 5		
	1/20/2014	RM		Ammon	Sectoring a piping leading to main		··· ··· · ··· · · · ···· · ····
	1/10/2014	RM		Ammon	vell house # f		
Fig. 8	1/10/2014	RM		Ammon	veli# 7		
	1/10/2014	RM		Ammon	liacharga bho - emp cap, check v	Ne Diastrea notino	· · · · · · · · · · · · · · · · · · ·
-1g, 10 -	1/10/2014	RM		Amaxoa	181 # 7 flow mater		······
	1/10/2014	8M		Anomon	ample tap witheck flow device		·····
·ig. 12	1/10/2014	RM		Ammon	San floar dram of well house #	·····	··· · ··· · · · · · · · · · · · · · ·
ig. 13	1/10/2014	RM		Ammon	all # 7 check value	······································	······
ig. 14	1/10/2014	RM		Amimon	bandor, waji		····
lg. 15 1	1/10/2014	8.6		Amexon	.5 Million/gai storege lank	·····	· · · · · · · · · · · · · · · · · · ·
ig. 1611	1/10/2014	RM		Anymon	né over flaw	· · · · · · · · · · · · · · · · · · ·	
ig. 17 1	1/10/2014)	RM	·····	Asimon	coose ladder (un)caged)		······
	1/10/2014	RM		Ampion	ecusy income (uniced and ecusy tanging	·····	
	/10/2014	RM		Ammon	90#8		·····
	10/2014	RM		Aminon	~~~~	···· · · · · · · · · · · · ·	·····
	/10/2014	RM	···· • •	Ammon	of # 8 daltaige piping - chock v		
	/10/2014	RM	~~~ <u>į</u>		ber mebor, preusive texteer and		<u> </u>
	/10/2014	RM			w drain- an gap from presure r	eleaso velve	
	/10/2014	RM I	···· ··· · · · · · · · · · · · · · · ·		ick up generadar	····· · · · · · · · · · · · · · · · ·	·····
	/10/2014	RM	+		or dram in Bogster Primp stated	n 	
	/30/2014	RM			Nerals view of booster stalion	· <u>·····</u> ·····	
	/10/2014	RM			<u>ntiab</u>		
	/10/2014	200	· · · · · ·	Anmon	hne ougeg exitery sylev nodek	pressure convoller from	n storage tank
	/10/2014	RM			easura roducar	·····	
		·			WWW of electrical periods	······	
	/10/2014	RM	·		ax system		
	/10/2014	RM	·· ·		ak system		
	/10/2014	RM F			ck up generator in boostet stati	in building	
	/10/2014	RM		·	li#3		
	/10/2014	<u>RM</u>		Animon	ork valve, preasure switch prox	Ure gauge of well # 3	
	10/2014	RM			is A 3 flow mater		·····
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Fig. 1 – Well House # 5 (addition is for fiber optic equipment)



Fig. 2 – Well # 5 discharge line – pressure gauge, (unscreened) air release and check valve



Fig. 3 – flow meter, isolation valves and pump to waste line



Fig. 4 - source sample tap

1/10/13

Fig. 5 - well # 5, electrical panel and heater



Fig. 6 - area used for potential drainage because well house # 5 lacks a floor drain



Fig. 7 - well house # 7



Fig. 8 - well # 7

1/10/13

Fig. 9 – well # 7 sample tap, pressure gauge and pressure release



Fig. 10 - well # 7 flow meter



Fig. 11 – source sample tap equipped with a back flow device



Fig. 12 - well house # 7 clean floor drain

1/10/13



Fig. 13 – well # 7 check valve and overview of discharge line



Fig. 14 - abandon old well



Fig. 15 – 1.5 Million/gal storage tank associated with well # 8 and booster station



Fig. 16 - screened tank overflow

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Fig. 17 - storage tank access ladder



Fig. 18 - well # 8 and Booster Station well lot



Fig. 19 - well # 8 and discharge piping



Fig. 20 – well # 8 check valve, pressure release and pressure

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Fig. 21 – pressure reducer, double check valve, pressure relief, pressure gauge, source sample tap and flow meter on well # 8 discharge piping



Fig. 22 - well # B discharge line and well house view



Fig. 23 - well house # 8 floor drain



Fig. 24 - back-up generator



Fig. 25 - booster station floor drain

Sanitary Survey

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Fig. 26 - overall view of booster station



Fig. 27 – sample tap from 1.5 Million storage tank that is fed by well # 8



Fig. 28 – isolation valve, pressure gauge, pressure relief valve and pressure controller on discharge line from storage

1/10/13



Fig. 29 - pressure reducer



Fig. 30 – overall view of booster pumps and electrical panels



Fig. 31 – stand-by Miox treatment unit (not in use at time of survey)



Fig. 32 - Miox unit - pumps

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Fig. 33 – stand-by generator in booster station building



Fig. 34 - well # 3



Fig. 35 – well # 3 check valve, pressure release and pressure reducer



Fig. 36 - flow meter

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Sanitary Survey



Fig. 37 - well # 3 sample tap



Fig. 38 - well # 2



Fig. 39 - discharge piping from well # 2



Fig. 40 - well # 2 sample tap

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Sanitary Survey



Fig. 41 - well # 2 unscreened air relief



Fig. 42 - well house # 10



Fig. 43 - well # 10



Fig. 44 – discharge piping of well # 10 (check valve and air release)

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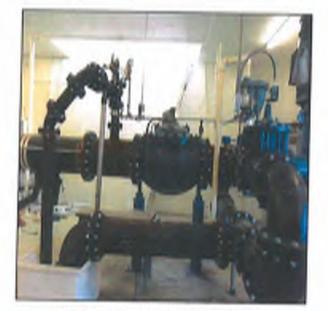


Fig. 45 - well # 10 discharge line



Fig. 46 - well # 10 flow meter and over view of discharge line



Fig. 47 -- back-up generator



Fig. 48 - diesel fuel

1/10/13



Fig. 49 – 2 million/gal storage tank (fed by well # 9 & 11)



Fig. 50 - booster station building



Fig. 51 – over view of booster station located below storage tank



Fig. 52 - sample tap after storage tank

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Fig. 53 – unscreened pressure release



Fig. 54 – stand-by Miox system (not on line)



Fig. 55 – back-up generator within the booster station



Fig. 56 – overall view of booster station and storage tank lot

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Fig. 57 - well house # 9



Fig. 58 - well # 9



Fig. 59 - well # 9 sample tap



Fig. 60 - unscreened air release

1/10/13



Fig. 61 – overall view of booster station associated with well # 9



Fig. 62 – flow meter, pressure gauge, unscreened air release



Fig. 63 - back-up generator



Fig. 64 - well house # 11

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Fig. 65 - well # 11



Fig. 66 – well # 11 discharge line (flow meter, check valve)



Fig. 67 – well # 11 sample tap and pressure gauge



Fig. 68 - back-up generator



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# Appendix C: Environmental Reference Information

- NRCS Soils Report
- Socioeconomic and Population Information







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GROWING POSSIBILITIES



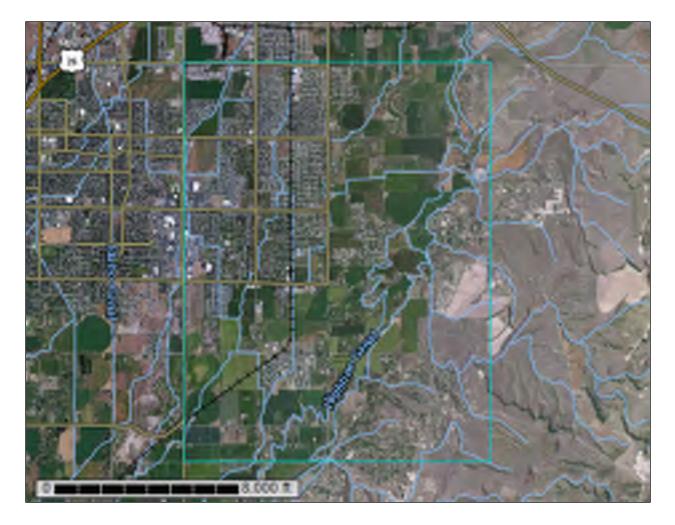
United States Department of Agriculture



Natural Resources Conservation Service A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

# Custom Soil Resource Report for Bonneville County Area, Idaho

Ammon WFPS 2017



# Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/? cid=nrcs142p2\_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

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# **How Soil Surveys Are Made**

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

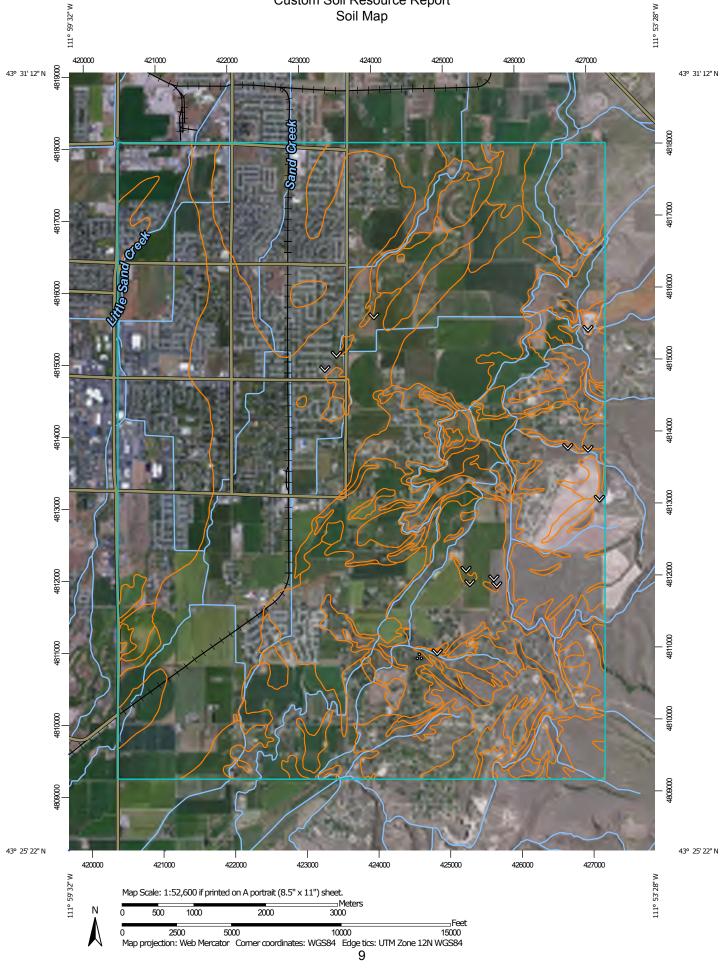
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

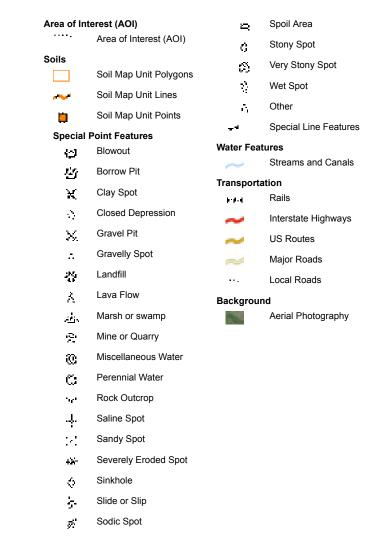
# Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

#### Custom Soil Resource Report Soil Map



## MAP LEGEND



## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Bonneville County Area, Idaho Survey Area Data: Version 12, Sep 9, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 20, 2011—Jul 21, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

# Map Unit Legend

	Bonneville County Are	ea, Idaho (ID769)	
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Ammon silt loam, 0 to 2 percent slopes	1,692.9	11.4%
2	Ammon silt loam, 2 to 4 percent slopes	156.6	1.1%
4	Araveton stony loam, 4 to 30 percent slopes, extremely stony	29.3	0.2%
6	Bannock loam	175.6	1.2%
7	Bock loam	194.3	1.3%
18	Malm fine sandy loam, 4 to 12 percent slopes	401.1	2.7%
21	Paesl silty clay loam	3,118.4	20.9%
27	Paul sandy loam	27.4	0.2%
28	Paul silty clay loam	3,604.7	24.2%
32	Pits	31.8	0.2%
33	Polatis-Rock outcrop complex, 2 to 25 percent slopes	156.6	1.1%
34	Potell silt loam, 0 to 4 percent slopes	658.0	4.4%
35	Potell silt loam, 4 to 12 percent slopes	2,910.9	19.5%
36	Potell silt loam, 12 to 20 percent slopes	503.6	3.4%
37	Potell silt loam, 20 to 30 percent slopes	34.9	0.2%
38	Potell silt loam, 30 to 60 percent slopes	11.0	0.1%
42	Ririe silt loam, 4 to 12 percent slopes	391.0	2.6%
43	Ririe silt loam, 12 to 20 percent slopes	233.2	1.6%
44	Ririe silt loam, 20 to 30 percent slopes	130.9	0.9%
49	Tetonia silt loam, 4 to 12 percent slopes	21.0	0.1%
50	Tetonia silt loam, 12 to 20 percent slopes	46.4	0.3%
51	Tetonia silt loam, 20 to 30 percent slopes	72.6	0.5%
52	Torriorthents-Rock outcrop complex, very steep	246.8	1.7%
53	Wolverine sand, 0 to 20 percent slopes	55.8	0.4%

Bonneville County Area, Idaho (ID769)				
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI	
Totals for Area of Interest		14,904.6	100.0%	

# **Map Unit Descriptions**

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities. Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

# Bonneville County Area, Idaho

### 1—Ammon silt loam, 0 to 2 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2tkn Elevation: 4,200 to 5,800 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 41 to 46 degrees F Frost-free period: 94 to 126 days Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Ammon and similar soils: 80 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Ammon**

#### Setting

Landform: Fan remnants Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium

#### **Typical profile**

A1 - 0 to 5 inches: silt loam A2 - 5 to 15 inches: silt loam C1 - 15 to 40 inches: silt loam C2 - 40 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

## 2—Ammon silt loam, 2 to 4 percent slopes

#### Map Unit Setting

National map unit symbol: 2tl0 Elevation: 4,200 to 5,800 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 41 to 46 degrees F Frost-free period: 94 to 126 days Farmland classification: Prime farmland if irrigated

#### Map Unit Composition

Ammon and similar soils: 80 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Ammon**

#### Setting

Landform: Fan remnants Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium

#### **Typical profile**

A1 - 0 to 5 inches: silt loam A2 - 5 to 15 inches: silt loam C1 - 15 to 40 inches: silt loam C2 - 40 to 60 inches: silt loam

#### Properties and qualities

Slope: 2 to 4 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: High (about 12.0 inches)

## 4—Araveton stony loam, 4 to 30 percent slopes, extremely stony

#### Map Unit Setting

National map unit symbol: 2tlq Elevation: 4,500 to 6,500 feet Mean annual precipitation: 12 to 16 inches Mean annual air temperature: 39 to 46 degrees F Frost-free period: 80 to 110 days Farmland classification: Not prime farmland

#### Map Unit Composition

*Araveton, extremely stony surface, and similar soils:* 85 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### Description of Araveton, Extremely Stony Surface

#### Setting

Landform: Hills Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess and/or mixed alluvium and/or mixed colluvium

#### **Typical profile**

A1 - 0 to 7 inches: stony loam A2 - 7 to 12 inches: stony loam Bw - 12 to 21 inches: stony loam Bk - 21 to 27 inches: stony loam Ck1 - 27 to 42 inches: stony loam Ck2 - 42 to 60 inches: stony loam

#### **Properties and qualities**

Slope: 4 to 30 percent
Percent of area covered with surface fragments: 9.0 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 20 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: Moderate (about 8.0 inches)

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7s Hydrologic Soil Group: B Ecological site: STONY LOAM 13-16 ARTRV/PSSPS (R013XY002ID) Hydric soil rating: No

# 6—Bannock loam

#### Map Unit Setting

National map unit symbol: 2tm9 Elevation: 4,200 to 5,900 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 39 to 46 degrees F Frost-free period: 90 to 130 days Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Bannock and similar soils: 75 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Bannock**

#### Setting

Landform: Flood plains Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium

#### **Typical profile**

A1 - 0 to 2 inches: loam A2 - 2 to 7 inches: loam Bw - 7 to 13 inches: silt loam Bk1 - 13 to 23 inches: gravelly loam 2Bk2 - 23 to 60 inches: extremely gravelly coarse sand

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: Low (about 5.2 inches)

#### Interpretive groups

# 7—Bock loam

#### **Map Unit Setting**

National map unit symbol: 2tmb Elevation: 3,800 to 6,600 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 39 to 45 degrees F Frost-free period: 70 to 126 days Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Bock and similar soils: 90 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Bock**

#### Setting

Landform: Flood plains Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium

#### **Typical profile**

A1 - 0 to 4 inches: loam A2 - 4 to 10 inches: fine sandy loam Bw - 10 to 24 inches: fine sandy loam Bk1 - 24 to 33 inches: fine sandy loam Bk2 - 33 to 45 inches: fine sandy loam 2Bk3 - 45 to 60 inches: very gravelly loamy sand

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: Moderate (about 8.2 inches)

#### Interpretive groups

## 18—Malm fine sandy loam, 4 to 12 percent slopes

#### Map Unit Setting

National map unit symbol: 2tky Elevation: 4,300 to 5,500 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 39 to 46 degrees F Frost-free period: 70 to 125 days Farmland classification: Prime farmland if irrigated

#### Map Unit Composition

*Malm and similar soils:* 85 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Malm**

#### Setting

Landform: Volcanic cones Landform position (two-dimensional): Footslope Down-slope shape: Linear Across-slope shape: Linear Parent material: Eolian deposits over bedrock derived from basalt

#### **Typical profile**

A - 0 to 7 inches: fine sandy loam Bw - 7 to 18 inches: fine sandy loam Bk1 - 18 to 24 inches: fine sandy loam Bk2 - 24 to 28 inches: gravelly fine sandy loam Bk3 - 28 to 38 inches: cobbly fine sand R - 38 to 48 inches: bedrock

#### **Properties and qualities**

Slope: 4 to 12 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: Low (about 4.3 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: B Ecological site: LOAMY 8-12 - Provisional (R011BY001ID) Hydric soil rating: No

# 21—Paesl silty clay loam

#### Map Unit Setting

National map unit symbol: 2tl2 Elevation: 4,000 to 4,800 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 39 to 45 degrees F Frost-free period: 100 to 130 days Farmland classification: Prime farmland if irrigated

#### Map Unit Composition

*Paesl and similar soils:* 90 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

### **Description of Paesl**

#### Setting

Landform: Flood plains Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium

#### **Typical profile**

Ap1 - 0 to 5 inches: silty clay loam Ap2 - 5 to 10 inches: silty clay loam Bk1 - 10 to 17 inches: silty clay loam Bk2 - 17 to 25 inches: silty clay loam 2Bk3 - 25 to 60 inches: very gravelly loamy coarse sand

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: Moderate (about 6.2 inches)

#### Interpretive groups

# 27—Paul sandy loam

#### Map Unit Setting

National map unit symbol: 2tl8 Elevation: 4,500 to 5,000 feet Mean annual precipitation: 10 to 12 inches Mean annual air temperature: 41 to 45 degrees F Frost-free period: 90 to 120 days Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

*Paul and similar soils:* 90 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Paul**

#### Setting

Landform: Flood plains Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium

#### **Typical profile**

Ap1 - 0 to 5 inches: sandy loam Ap2 - 5 to 13 inches: sandy loam Bk1 - 13 to 45 inches: silty clay loam Bk2 - 45 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 8.0
Available water storage in profile: High (about 10.9 inches)

# 28—Paul silty clay loam

#### **Map Unit Setting**

National map unit symbol: 2tl9 Elevation: 4,500 to 5,000 feet Mean annual precipitation: 10 to 12 inches Mean annual air temperature: 41 to 45 degrees F Frost-free period: 90 to 120 days Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

*Paul and similar soils:* 90 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Paul**

#### Setting

Landform: Flood plains Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium

#### **Typical profile**

Ap1 - 0 to 5 inches: silty clay loam Ap2 - 5 to 13 inches: silty clay loam Bk1 - 13 to 45 inches: silty clay loam Bk2 - 45 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 8.0
Available water storage in profile: High (about 10.9 inches)

## Interpretive groups

#### 32—Pits

#### Map Unit Composition Pits, gravel: 100 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Pits, Gravel**

#### Typical profile

C - 0 to 60 inches: gravel, cobbles

### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8 Hydric soil rating: Unranked

### 33—Polatis-Rock outcrop complex, 2 to 25 percent slopes

#### Map Unit Setting

National map unit symbol: 2tlh Elevation: 4,600 to 6,000 feet Mean annual precipitation: 8 to 11 inches Mean annual air temperature: 39 to 45 degrees F Frost-free period: 95 to 120 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

Polatis and similar soils: 65 percent Rock outcrop: 25 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Polatis**

#### Setting

Landform: Lava fields Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess over bedrock derived from basalt

#### **Typical profile**

A - 0 to 6 inches: silt loam Bw - 6 to 9 inches: silt loam Bk1 - 9 to 22 inches: silt loam Bk2 - 22 to 31 inches: silt loam R - 31 to 41 inches: bedrock

#### **Properties and qualities**

*Slope:* 2 to 25 percent *Depth to restrictive feature:* 20 to 40 inches to lithic bedrock

#### Custom Soil Resource Report

Natural drainage class: Well drained Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr) Depth to water table: More than 80 inches Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 30 percent

Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum in profile: 13.0 Available water storage in profile: Moderate (about 6.2 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Ecological site: LOAMY 8-12 - Provisional (R011BY001ID) Hydric soil rating: No

#### **Description of Rock Outcrop**

#### **Typical profile**

R - 0 to 60 inches: bedrock

#### **Properties and gualities**

Slope: 2 to 25 percent Depth to restrictive feature: 0 inches to lithic bedrock

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8 Hydric soil rating: Unranked

## 34—Potell silt loam, 0 to 4 percent slopes

#### Map Unit Setting

National map unit symbol: 2tlj *Elevation:* 4,500 to 6,500 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 41 to 45 degrees F Frost-free period: 80 to 100 days Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Potell and similar soils: 90 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Potell**

Setting

Landform: Hillslopes

*Down-slope shape:* Linear *Across-slope shape:* Linear *Parent material:* Loess

#### **Typical profile**

Ap - 0 to 6 inches: silt loam Bk1 - 6 to 10 inches: silt loam Bk2 - 10 to 20 inches: silt loam Bk3 - 20 to 43 inches: silt loam Bk4 - 43 to 60 inches: silt loam

#### Properties and qualities

Slope: 0 to 4 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 13.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: B Ecological site: LOAMY 8-12 - Provisional (R011BY001ID) Hydric soil rating: No

#### 35—Potell silt loam, 4 to 12 percent slopes

#### **Map Unit Setting**

National map unit symbol: 2tlk Elevation: 4,500 to 6,500 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 41 to 45 degrees F Frost-free period: 80 to 100 days Farmland classification: Not prime farmland

#### Map Unit Composition

Potell and similar soils: 90 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Potell**

#### Setting

Landform: Hillslopes Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess

#### **Typical profile**

Ap - 0 to 6 inches: silt loam Bk1 - 6 to 10 inches: silt loam Bk2 - 10 to 20 inches: silt loam Bk3 - 20 to 43 inches: silt loam Bk4 - 43 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 4 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 13.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: B Ecological site: LOAMY 8-12 - Provisional (R011BY001ID) Hydric soil rating: No

#### 36—Potell silt loam, 12 to 20 percent slopes

#### Map Unit Setting

National map unit symbol: 2tll Elevation: 4,500 to 6,500 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 41 to 45 degrees F Frost-free period: 80 to 100 days Farmland classification: Not prime farmland

#### Map Unit Composition

Potell and similar soils: 90 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Potell**

#### Setting

Landform: Hillslopes Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess

#### **Typical profile**

Ap - 0 to 6 inches: silt loam Bk1 - 6 to 10 inches: silt loam Bk2 - 10 to 20 inches: silt loam Bk3 - 20 to 43 inches: silt loam Bk4 - 43 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 12 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 13.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: B Ecological site: LOAMY 8-12 - Provisional (R011BY001ID) Hydric soil rating: No

#### 37—Potell silt loam, 20 to 30 percent slopes

#### Map Unit Setting

National map unit symbol: 2tlm Elevation: 4,500 to 6,500 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 41 to 45 degrees F Frost-free period: 80 to 100 days Farmland classification: Not prime farmland

#### Map Unit Composition

Potell and similar soils: 90 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Potell**

#### Setting

Landform: Hillslopes Down-slope shape: Concave Across-slope shape: Linear Parent material: Loess

- Ap 0 to 6 inches: silt loam Bk1 - 6 to 10 inches: silt loam Bk2 - 10 to 20 inches: silt loam Bk3 - 20 to 43 inches: silt loam Bk4 - 43 to 60 inches: silt loam
- Properties and qualities

Slope: 20 to 30 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 13.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 7e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: B Ecological site: LOAMY 8-12 - Provisional (R011BY001ID) Hydric soil rating: No

#### 38—Potell silt loam, 30 to 60 percent slopes

#### Map Unit Setting

National map unit symbol: 2tln Elevation: 4,500 to 6,500 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 41 to 45 degrees F Frost-free period: 80 to 100 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

Potell and similar soils: 90 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Potell**

#### Setting

Landform: Hillslopes Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess

- Ap 0 to 6 inches: silt loam Bk1 - 6 to 10 inches: silt loam Bk2 - 10 to 20 inches: silt loam Bk3 - 20 to 43 inches: silt loam
- $Bk3 = 20 \ 10 \ 43 \ inches$ . Silt loam
- Bk4 43 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 30 to 60 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 25 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 13.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7e Hydrologic Soil Group: B Ecological site: LOAMY 8-12 - Provisional (R011BY001ID) Hydric soil rating: No

#### 42—Ririe silt loam, 4 to 12 percent slopes

#### Map Unit Setting

National map unit symbol: 2tlt Elevation: 4,600 to 7,000 feet Mean annual precipitation: 12 to 18 inches Mean annual air temperature: 39 to 46 degrees F Frost-free period: 70 to 100 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Ririe and similar soils:* 70 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Ririe**

#### Setting

Landform: Hillslopes Down-slope shape: Linear Across-slope shape: Linear Parent material: Silty alluvium and/or loess

A - 0 to 8 inches: silt loam Bw - 8 to 15 inches: silt loam Bk1 - 15 to 29 inches: silt loam Bk2 - 29 to 42 inches: silt loam Bk3 - 42 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 4 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 35 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 15.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 3e Hydrologic Soil Group: B Ecological site: LOAMY 12-16 - Provisional (R013XY001ID) Hydric soil rating: No

#### 43—Ririe silt loam, 12 to 20 percent slopes

#### Map Unit Setting

National map unit symbol: 2tlv Elevation: 4,600 to 7,000 feet Mean annual precipitation: 12 to 18 inches Mean annual air temperature: 39 to 46 degrees F Frost-free period: 70 to 100 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Ririe and similar soils:* 70 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Ririe**

#### Setting

Landform: Hillslopes Down-slope shape: Linear Across-slope shape: Linear Parent material: Silty alluvium and/or loess

A - 0 to 8 inches: silt loam Bw - 8 to 15 inches: silt loam Bk1 - 15 to 29 inches: silt loam Bk2 - 29 to 42 inches: silt loam Bk3 - 42 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 12 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 35 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 15.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 4e Hydrologic Soil Group: B Ecological site: LOAMY 12-16 - Provisional (R013XY001ID) Hydric soil rating: No

#### 44—Ririe silt loam, 20 to 30 percent slopes

#### Map Unit Setting

National map unit symbol: 2tlw Elevation: 4,600 to 7,000 feet Mean annual precipitation: 12 to 18 inches Mean annual air temperature: 39 to 46 degrees F Frost-free period: 70 to 100 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Ririe and similar soils:* 70 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Ririe**

#### Setting

Landform: Hillslopes Down-slope shape: Linear Across-slope shape: Linear Parent material: Silty alluvium and/or loess

A - 0 to 8 inches: silt loam Bw - 8 to 15 inches: silt loam Bk1 - 15 to 29 inches: silt loam Bk2 - 29 to 42 inches: silt loam Bk3 - 42 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 20 to 30 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 35 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 15.0
Available water storage in profile: High (about 12.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 7e Land capability classification (nonirrigated): 6e Hydrologic Soil Group: B Ecological site: LOAMY 12-16 - Provisional (R013XY001ID) Hydric soil rating: No

#### 49—Tetonia silt loam, 4 to 12 percent slopes

#### Map Unit Setting

National map unit symbol: 2tm1 Elevation: 5,500 to 7,000 feet Mean annual precipitation: 13 to 18 inches Mean annual air temperature: 37 to 41 degrees F Frost-free period: 50 to 100 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Tetonia and similar soils:* 70 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Tetonia**

#### Setting

Landform: Mountain slopes Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess

Ap - 0 to 8 inches: silt loam Bw1 - 8 to 15 inches: silt loam Bw2 - 15 to 22 inches: silt loam Bk1 - 22 to 36 inches: silt loam Bk2 - 36 to 60 inches: silt loam

#### Properties and qualities

Slope: 4 to 12 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: High (about 11.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 6c Land capability classification (nonirrigated): 6c Hydrologic Soil Group: B Ecological site: LOAMY 12-16 - Provisional (R013XY001ID) Hydric soil rating: No

#### 50—Tetonia silt loam, 12 to 20 percent slopes

#### Map Unit Setting

National map unit symbol: 2tm3 Elevation: 5,500 to 7,000 feet Mean annual precipitation: 13 to 18 inches Mean annual air temperature: 37 to 41 degrees F Frost-free period: 50 to 100 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Tetonia and similar soils:* 70 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Tetonia**

#### Setting

Landform: Mountain slopes Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess

Ap - 0 to 8 inches: silt loam Bw1 - 8 to 15 inches: silt loam Bw2 - 15 to 22 inches: silt loam Bk1 - 22 to 36 inches: silt loam Bk2 - 36 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 12 to 20 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: High (about 11.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: B Ecological site: LOAMY 12-16 - Provisional (R013XY001ID) Hydric soil rating: No

#### 51—Tetonia silt loam, 20 to 30 percent slopes

#### Map Unit Setting

National map unit symbol: 2tm4 Elevation: 5,500 to 7,000 feet Mean annual precipitation: 13 to 18 inches Mean annual air temperature: 37 to 41 degrees F Frost-free period: 50 to 100 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Tetonia and similar soils:* 70 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Tetonia**

#### Setting

Landform: Mountain slopes Down-slope shape: Concave Across-slope shape: Linear Parent material: Loess

Ap - 0 to 8 inches: silt loam Bw1 - 8 to 15 inches: silt loam Bw2 - 15 to 22 inches: silt loam Bk1 - 22 to 36 inches: silt loam Bk2 - 36 to 60 inches: silt loam

#### **Properties and qualities**

Slope: 20 to 30 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 30 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 5.0
Available water storage in profile: High (about 11.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 6e Land capability classification (nonirrigated): 6e Hydrologic Soil Group: B Ecological site: LOAMY 12-16 - Provisional (R013XY001ID) Hydric soil rating: No

#### 52—Torriorthents-Rock outcrop complex, very steep

#### Map Unit Setting

National map unit symbol: 2tm5 Elevation: 4,700 to 6,200 feet Mean annual precipitation: 10 to 13 inches Mean annual air temperature: 43 to 46 degrees F Frost-free period: 60 to 90 days Farmland classification: Not prime farmland

#### **Map Unit Composition**

*Torriorthents and similar soils:* 60 percent *Rock outcrop:* 30 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Torriorthents**

#### Setting

Landform: Canyons, mountain slopes Down-slope shape: Convex Across-slope shape: Convex *Parent material:* Mixed colluvium over bedrock from igneous rock and/or sedimentary rock

#### **Typical profile**

- A 0 to 6 inches: very cobbly loam
- C 6 to 50 inches: stratified silt loam to extremely stony clay
- *R 50 to 60 inches:* bedrock

#### **Properties and qualities**

Slope: 35 to 65 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Natural drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 2.0
Available water storage in profile: Low (about 4.1 inches)

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 7e Hydrologic Soil Group: C Hydric soil rating: No

#### **Description of Rock Outcrop**

#### Typical profile

R - 0 to 60 inches: bedrock

#### **Properties and qualities**

*Slope:* 35 to 65 percent *Depth to restrictive feature:* 0 inches to lithic bedrock

#### Interpretive groups

Land capability classification (irrigated): None specified Land capability classification (nonirrigated): 8 Hydric soil rating: Unranked

#### 53—Wolverine sand, 0 to 20 percent slopes

#### Map Unit Setting

National map unit symbol: 2tm6 Elevation: 4,400 to 5,500 feet Mean annual precipitation: 8 to 13 inches Mean annual air temperature: 39 to 45 degrees F Frost-free period: 90 to 120 days Farmland classification: Not prime farmland

#### Map Unit Composition

*Wolverine and similar soils:* 95 percent *Estimates are based on observations, descriptions, and transects of the mapunit.* 

#### **Description of Wolverine**

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Eolian deposits

#### **Typical profile**

*A* - 0 to 6 inches: sand *C* - 6 to 60 inches: sand

#### **Properties and qualities**

Slope: 0 to 20 percent Depth to restrictive feature: More than 80 inches Natural drainage class: Excessively drained Capacity of the most limiting layer to transmit water (Ksat): Very high (20.00 in/hr) Depth to water table: More than 80 inches Frequency of flooding: None Frequency of ponding: None Calcium carbonate, maximum in profile: 5 percent Available water storage in profile: Low (about 4.2 inches)

#### Interpretive groups

Land capability classification (irrigated): 7s Land capability classification (nonirrigated): 7s Hydrologic Soil Group: A Ecological site: SAND 8-12 ARTRT-PUTR2/HECOC8 (R011BY016ID) Hydric soil rating: No

# **Soil Information for All Uses**

## Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

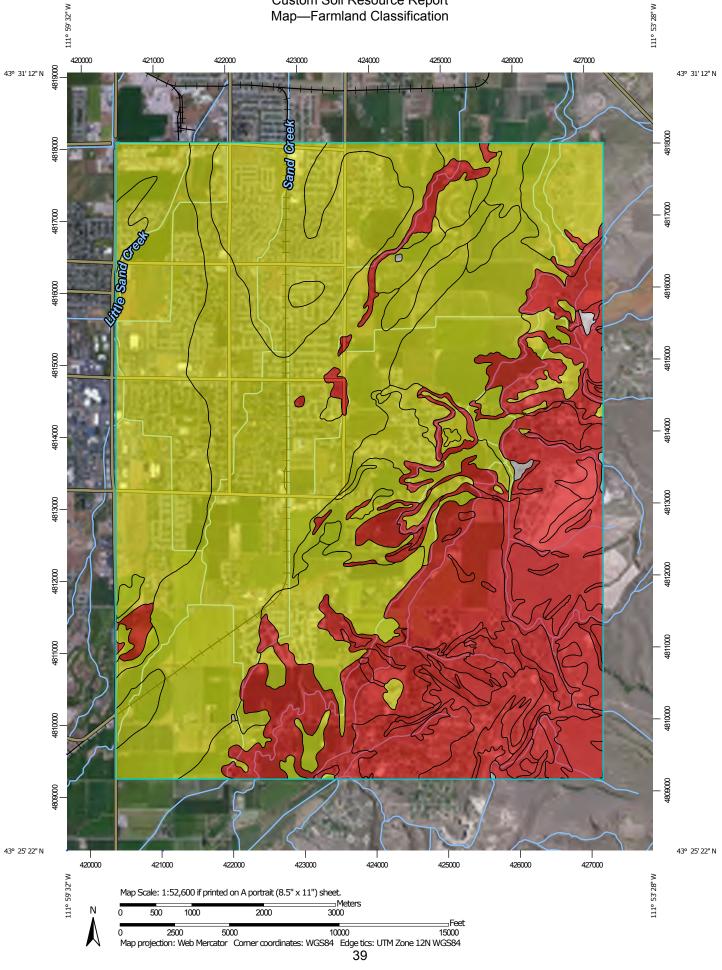
## Land Classifications

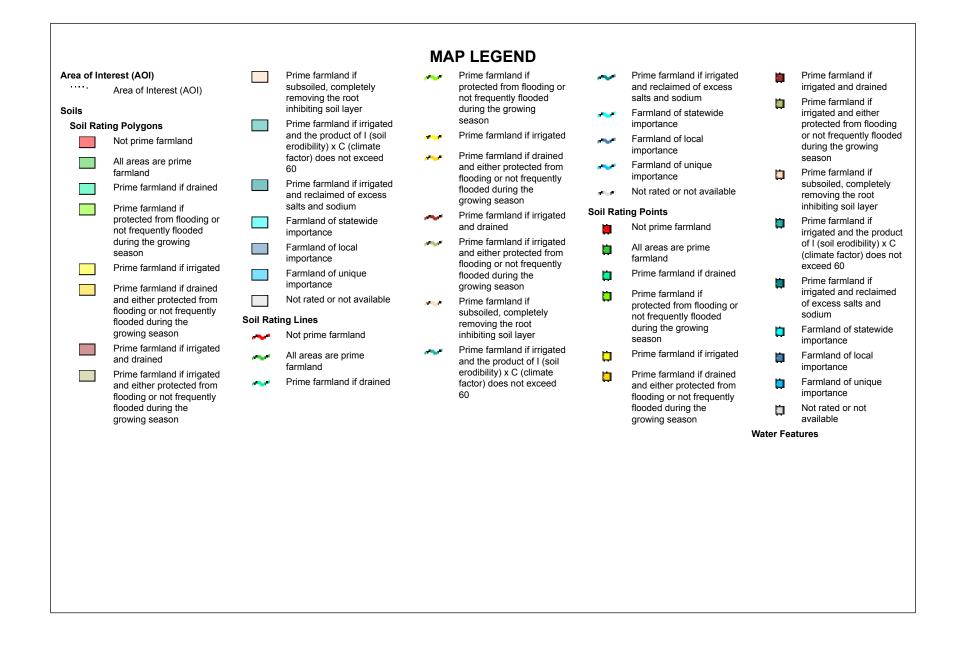
Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

### **Farmland Classification**

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

#### Custom Soil Resource Report Map—Farmland Classification





	Streams and Canals	The soil surveys that comprise your AOI were mapped at
Transpo	rtation	1:24,000.
e e e e	Rails	Please rely on the bar scale on each map sheet for map
~	Interstate Highways	measurements.
~	US Routes	Our of Mary Nickers' December Occurrentian Occ
~	Major Roads	Source of Map: Natural Resources Conservation Service Web Soil Survey URL:
	Local Roads	Coordinate System: Web Mercator (EPSG:3857)
Backgro		Maps from the Web Soil Survey are based on the Web Mercar projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as t Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.
		This product is generated from the USDA-NRCS certified data of the version date(s) listed below. Soil Survey Area: Bonneville County Area, Idaho
		Survey Area Data: Version 12, Sep 9, 2015 Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.
		Date(s) aerial images were photographed: Jul 20, 2011—Jul 2011
		The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

### Table—Farmland Classification

			eville County Area, Idaho (II	
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Ammon silt loam, 0 to 2 percent slopes	Prime farmland if irrigated	1,692.9	11.4%
2	Ammon silt loam, 2 to 4 percent slopes	Prime farmland if irrigated	156.6	1.1%
4	Araveton stony loam, 4 to 30 percent slopes, extremely stony	Not prime farmland	29.3	0.2%
6	Bannock loam	Prime farmland if irrigated	175.6	1.2%
7	Bock loam	Prime farmland if irrigated	194.3	1.3%
18	Malm fine sandy loam, 4 to 12 percent slopes	Prime farmland if irrigated	401.1	2.7%
21	Paesl silty clay loam	Prime farmland if irrigated	3,118.4	20.9%
27	Paul sandy loam	Prime farmland if irrigated	27.4	0.2%
28	Paul silty clay loam	Prime farmland if irrigated	3,604.7	24.2%
32	Pits			0.2%
33	Polatis-Rock outcrop complex, 2 to 25 percent slopes	Not prime farmland	156.6	1.1%
34	Potell silt loam, 0 to 4 percent slopes	to 4 Prime farmland if 658.0 irrigated		4.4%
35	Potell silt loam, 4 to 12 percent slopes	Not prime farmland	2,910.9	19.5%
36	Potell silt loam, 12 to 20 percent slopes	Not prime farmland	503.6	3.4%
37	Potell silt loam, 20 to 30 percent slopes	Not prime farmland	34.9	0.2%
38	Potell silt loam, 30 to 60 percent slopes	Not prime farmland	11.0	0.1%
42	Ririe silt loam, 4 to 12 percent slopes	Not prime farmland	391.0	2.6%
43	Ririe silt loam, 12 to 20 percent slopes	Not prime farmland	233.2	1.6%
44	Ririe silt loam, 20 to 30 percent slopes	Not prime farmland	130.9	0.9%
49	Tetonia silt loam, 4 to 12 percent slopes	Not prime farmland	21.0	0.1%
50	Tetonia silt loam, 12 to 20 percent slopes	Not prime farmland	46.4	0.3%
51	Tetonia silt loam, 20 to 30 percent slopes	Not prime farmland	72.6	0.5%

Farmland Classification— Summary by Map Unit — Bonneville County Area, Idaho (ID769)									
Map unit symbol	Map unit symbol         Map unit name         Rating         Acres in AOI								
52	Torriorthents-Rock outcrop complex, very steep	Not prime farmland	246.8	1.7%					
53	Wolverine sand, 0 to 20 percent slopes	Not prime farmland	55.8	0.4%					
Totals for Area of Intere	est	14,904.6	100.0%						

### **Rating Options—Farmland Classification**

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

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GROWING POSSIBILITIES

# U.S. Census Bureau



QT-P11

Households and Families: 2010

2010 Census Summary File 1

NOTE: For information on confidentiality protection, nonsampling error, and definitions, see http://www.census.gov/prod/cen2010/doc/sf1.pdf.

#### Geography: Ammon city, Idaho

Subject	Number	Percent
HOUSEHOLD TYPE		
Total households	4,476	100.0
Family households [1]	3,352	74.9
Male householder	2,613	58.4
Female householder	739	16.5
Nonfamily households [2]	1,124	25.1
Male householder	473	10.6
Living alone	371	8.3
Female householder	651	14.5
Living alone	584	13.0
HOUSEHOLD SIZE		
Total households	4,476	100.0
1-person household	955	21.3
2-person household	1,259	28.1
3-person household	685	15.3
4-person household	588	13.1
5-person household	471	10.5
6-person household	307	6.9
7-or-more-person household	211	4.7
Average household size	3.05	(X)
Average family size	3.61	(X)
FAMILY TYPE AND PRESENCE OF RELATED AND OWN CHILDREN		
Families [3]	3,352	100.0
With related children under 18 years	2,055	61.3
With own children under 18 years	1,948	58.1
Under 6 years only	420	12.5
Under 6 and 6 to 17 years	615	18.3
6 to 17 years only	913	27.2
Husband-wife families	2,749	100.0
With related children under 18 years	1,616	58.8
With own children under 18 years	1,555	56.6
Under 6 years only	339	12.3
Under 6 and 6 to 17 years	535	19.5
6 to 17 years only	681	24.8
Female householder, no husband present families	450	100.0
With related children under 18 years	335	74.4
With own children under 18 years	299	66.4

Subject	Number	Percent
Under 6 years only	58	12.9
Under 6 and 6 to 17 years	61	13.6
6 to 17 years only	180	40.0

X Not applicable.

[1] A household that has at least one member of the household related to the householder by birth, marriage, or adoption is a "Family household." Same-sex couple households are included in the family households category if there is at least one additional person related to the householder by birth or adoption. Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households. Responses of "same-sex spouse" were edited during processing to "unmarried partner."

[2] "Nonfamily households" consist of people living alone and households which do not have any members related to the householder.

[3] "Families" consist of a householder and one or more other people related to the householder by birth, marriage, or adoption. They do not include same-sex married couples even if the marriage was performed in a state issuing marriage certificates for same-sex couples. Same-sex couples are included in the families category if there is at least one additional person related to the householder by birth or adoption. Responses of "same-sex spouse" were edited during processing to "unmarried partner." Same-sex couple households with no relatives of the householder present are tabulated in nonfamily households.

Source: U.S. Census Bureau, 2010 Census.

Summary File 1, Tables P17, P18, P28, P29, P37, P38, and P39.

#### 2010 Census Interactive Population Search - ID - Ammon city

12.016
12.017
13,816
4,747
4,476
3,205
10,454
1,271
3,217
2,078
271
87
74

#### **Population by Sex/Age**

Male	6,750
Female	7,066
Under 18	5,019
18 & over	8,797
20 - 24	734
25 - 34	2,031
35 - 49	2,555
50 - 64	1,794
65 & over	1,360

#### **Population by Ethnicity**

Hispanic or Latino		884
Non Hispanic or Latino		12,932

#### **Population by Race**

White	13,002
African American	73
Asian	113
American Indian and Alaska Native	<b>Ammon 2018 WFPS</b> 67





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GROWING POSSIBILITIES

# **Chapter 2 Summary**

General Category	Description	Area (acres)	% of Total Area	Subtotal (acres)	Subtotal %
	RE	58.75	1%		
	RP	756.72	16%		
	RP-A	1074.40	23%		
	<b>R</b> -1	1151.05	24%		76%
Residential	R-1A	284.03	6%	3604.01	
Residential	R-2	99.53	2%	5004.01	
	R-2A	35.56	1%		
	R-3	8.98	0%		
	R-3A	86.53	2%		
	RMH	48.45	1%		
Industrial	IM-1	162.27	3%	162.27	3%
Park	PSC	288.31	6%	288.31	6%
	C-1	131.79	3%		
Commercial	CC-1	135.50	3%	697.61	15%
Commercial	GC-1	94.36	2%	077.01	1570
	HC-1	335.97	7%		



Ammon 2018 WFPS





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GROWING POSSIBILITIES



## Appendix D: Hydraulic Modeling

- ISRB Fire Flow Requirements
- Calibration: Hydrant Flow Test Results
- Calibration: Field vs Model Performance Comparison
- Results: Operational Changes at The Cottages and Quail Ridge
- Results: Supply From Top of Quail Ridge
- Results: Hydraulic Grade Contours at Woodland Hills and 1<sup>st</sup> Street
- Results: Optimal Location of Woodland Hills Tank and Booster Station
- Results: Well 11 Pumping Savings







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GROWING POSSIBILITIES

## Needed Fire Flows for P Code 010

Stories	N.F.F.	PPC & W	OWNER	Address	
1	3,500	04	PEARL HEALTH CLINIC	2705 E 17TH ST	AMMON
1	3,500	04	AMMON TOWN SQUARE	1779 1851 HITT RD	AMMON
2	3,500	04	KEVIN DONOHUE	1675 CURLEW DR	AMMON
There are	(is) 3 in thi	is group			
2	3,000	04	SCHOOL DISTRICT #93	2900 CENTRAL ST	AMMON
There are	(is) 1 in thi	is group			
1	2,500	04	SUNNYSIDE TESORO	2523 E SUNNYSIDE RD	AMMON
2	2,500	04	SKIDMORE MILLWORK, INC.	3920 E SUNNYSIDE	AMMON
1	2,500	04	AMMON POINT SHOPPING CENTER	3320 3350 E 17TH ST	AMMON
There are	(is) 3 in thi	is group			
2	2,000	04 P-1	TRUSSWORKS INC	1362 TERRILL DR	AMMON
2	2,000	04	WALKER PRODUCE	3965 E SUNNYSIDE RD	AMMON
2	2,000	04	SCOTT HINSHENBERGER BLDG.	3544 E 17TH ST	AMMON
2	2,000	04	UTILITY TRAILER SALES OF IDAHO	4306 ANDCO DR	IDAHO FALLS
1	2,000	04	DOUG AND BECKY TOLBERT	2901 E 14TH N	AMMON
There are	(is) 5 in thi	is group			
1	1,750	04	TGI FRIDAYS	2665 HITT	AMMON
There are	(is) 1 in thi				
2	1,500		INTERMOUNTAIN ERECTORS	1552 N 25TH E	IDAHO FALLS
2	1,500	04	INTERMOUNTAIN ERECTORS	1546 N 25TH E	IDAHO FALLS
1	1,500	04	INTERMOUNTAIN ERECTORS	1542 N 25TH E	IDAHO FALLS
There are	(is) 3 in thi				
1	1,250		KVO CABINETS	8968 E SUNNYSIDE RD	AMMON
2	1,250		INTERMOUNTAIN ERECTORS	1397 E 24TH	IDAHO FALLS
1	1,250		RICH HARDY-ID TRAFFIC SAFETY	3400 E SUNNYSIDE RD	AMMON
2	1,250	04	INTERMOUNTAIN ERECTORS	1478 N TRELLIS LN	IDAHO FALLS
	(is) 4 in thi				
1	1,000		JOHN GONZALES	3160 DAL AVE	AMMON
There are	• •				
1	750		RICH HARDY-ID TRAFFIC SAFETY	3400 E SUNNYSIDE RD	AMMON
1	750		RICH HARDY-ID TRAFFIC SAFETY	3400 E SUNNYSIDE RD	AMMON
2	750		YANCY WHIPPLE	3968 E SUNNYSIDE RD	AMMON
	(is) 3 in thi	• •		020 G 25711 F	
1		04 P-1	SANDCREEK PLAZA	939 S 25TH E	AMMON
1		04 P-1	SCHOOL DIST 93	3100 1ST ST	AMMON
2		04 P-1	THE CELLAR	3520 E 17TH ST	AMMON
1		04 P-1	AMMON INVESTMENTS LLC	2625 2647 S 25TH EAST AVE	AMMON
2		04 P-1	SPORTSMANS WAREHOUSE	2909 S 25TH EAST (HITT RD)	AMMON
1		04	RICH HARDY-ID TRAFFIC SAFETY	3400 E SUNNYSIDE RD	AMMON
1		04 P-1	OSCAR & MARYA STEIN TRUST	3015 3047 S 25TH ST E	AMMON
1		04 P-1	GOLDS GYM	2363 EAGLE DR	AMMON
2		04 P-1	BONNEVILLE SCHOOL DISTRICT #93	2800 OWEN ST	AMMON
1	0	04 P-1	GABLES OF AMMON	1405 S CURLEW DR	AMMON
2	0	04 P-1	SCHOOL DIST 93	2955 OWEN ST	AMMON
1	0	04 P-1	DICK SKIDMORE	3500 AMMON RD	AMMON
3	0	04 P-1	LIBERTY SQUARE ID, LLC	2475 S AMMON RD	AMMON
There are	(is) 13 in tl	his group			

AMMON

# Needed Fire Flows for P Code 010 AMMON

Stories N.F.F. PPC & W OWNER

Average Needed Fire Flow is

1,230

Address





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GROWING POSSIBILITIES

	Hydrant		Static	Static Pressure	Residual	Residual	Pressure
	Number	Location	Time	(psi)	Time	Pressure (psi)	Drop (psi)
	Hydrant A	Founders Pointe Boulder Creek	10:32 AM	70	10:45 AM	50	20
1	Flow Hydrant	Boulder Creek Hillsdale	10:32 AM		10:45 AM	28	
	Hydrant B	Tower Castle Loop	10:32 AM	81	10:45 AM	57	24
	Hydrant A	Sage Hen cir Sage Hen Dr	11:27 AM	90	11:33 AM	68	22
2	Flow Hydrant		11:27 AM		11:33 AM	50	
	Hydrant B	Quail Ridge Bob White	11:27 AM	73	11:33 AM	52	21
	Hydrant A	Stafford Dr	12:14 PM	79	12:21 PM	73	6
3	Flow Hydrant	Stafford Dr Stafford Ct	12:14 PM		12:21 PM	37	
	Hydrant B	Stafford Dr Bungalow	12:14 PM	72	12:21 PM	65	7
	Hydrant A	17th Street Cabellaro	2:16 PM	82	2:23 PM	76	6
4	Flow Hydrant	Cabellaro Senoma	2:16 PM		2:23 PM	44	
	Hydrant B	Del Rio Cabellaro	2:16 PM	79	2:23 PM	70	9
	Hydrant A	1st Street Red Fox Dr	2:52 PM	66	2:57 PM	48	18
5	Flow Hydrant	1st Street	2:52 PM		2:57 PM	36	
	Hydrant B	1st Street (Storage Units)	2:52 PM	72	2:57 PM	49	23
	Hydrant A	Lakefield Cotton Tree	3:45 PM	85	3:51 PM	56	29
6	Flow Hydrant	Lakefield Millcreek	3:45 PM		3:51 PM	35	
	Hydrant B	Millcreek Autumnwood	3:45 PM	83	3:51 PM	61	22
	Hydrant A	Newgate Eastwood	4:25 PM	77	4:32 PM	70	7
7	Flow Hydrant	Newgate Journee Cir	4:25 PM		4:32 PM	47	
	Hydrant B	Newgate Greenwald	4:25 PM	75	4:32 PM	69	6

Calibration of Guages for Hydrants A and B: A = 80 psi B = 77 psi





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GROWING POSSIBILITIES

Initial model run before calibration:			Pressure Hyd. A		Pressure Hyd. B		Static Error (psi)		Residual Error (psi)	
			Static	Residual	Static	Residual	Hyd. A	Hyd. B	Hyd. A	Hyd. B
Test 1	Flow (gpm)	Field (psi)	70	50	81	57	-9	-5	10	14
	888	Model (psi)	61	60	76	71				
Test 2	Flow (gpm)	Field (psi)	90	68	73	52	-2	3	14	19
	1187	Model (psi)	88	82	76	71				
Test 3	Flow (gpm)	Field (psi)	79	73	72	65	-8	-5	-6	-3
	1021	Model (psi)	71	67	67	62				
Test 4	Flow (gpm)	Field (psi)	82	76	79	70	-5	-2	-4	-2
	1113	Model (psi)	77	72	77	68				
Test 5	Flow (gpm)	Field (psi)	66	48	72	49	5	- 1	-5	-8
	1007	Model (psi)	71	43	71	41				
Test 6	Flow (gpm)	Field (psi)	85	56	83	61	-8	-3	1	0
	993	Model (psi)	77	57	80	61				
Test 7	Flow (gpm)	Field (psi)	77	70	75	69	-4	-3	-6	-4
	1151	Model (psi)	73	64	72	65				

Calibration of gauges for hydrants A and B: A = 80 psi when B = 77 psi (no adjustments have been made to field values shown here)



#### CITY OF AMMON Water Facilities Planning Study

Performance after calibration:		tion:	Pressure	e Hyd. A	Pressure	e Hyd. B	Static (p	: Error si)	Residual	Error (psi)		
			Static	Residual	Static	Residual	Hyd. A	Hyd. B	Hyd. A	Hyd. B		
Test 1	Flow (gpm)	Field (psi)	70	50	84	60	0	0	0	-2	1	-2
	888	Model (psi)	70	51	82	58						
Test 2	Flow (gpm)	Field (psi)	90	68	76	55	-3	-3	1	0		
	1187	Model (psi)	87	69	73	55						
Test 3	Flow (gpm)	Field (psi)	79	73	75	68	-3	-4	-4	-4		
	1021	Model (psi)	76	69	71	64						
Test 4	Flow (gpm)	Field (psi)	82	76	82	73	-1	-1	0	-1		
	1113	Model (psi)	81	76	81	72						
Test 5	Flow (gpm)	Field (psi)	66	48	75	52	8	0	1	-3		
	1007	Model (psi)	74	49	75	49						
Test 6	Flow (gpm)	Field (psi)	85	56	86	64	-5	-5	-4	1	-2	
	993	Model (psi)	80	57	82	62						
Test 7	Flow (gpm)	Field (psi)	77	70	78	72	0	0	-2	0	-2	
	1151	Model (psi)	77	70	76	70						

Calibration of Guages for Hydrants A and B: A = 80 psi B = 77 psi

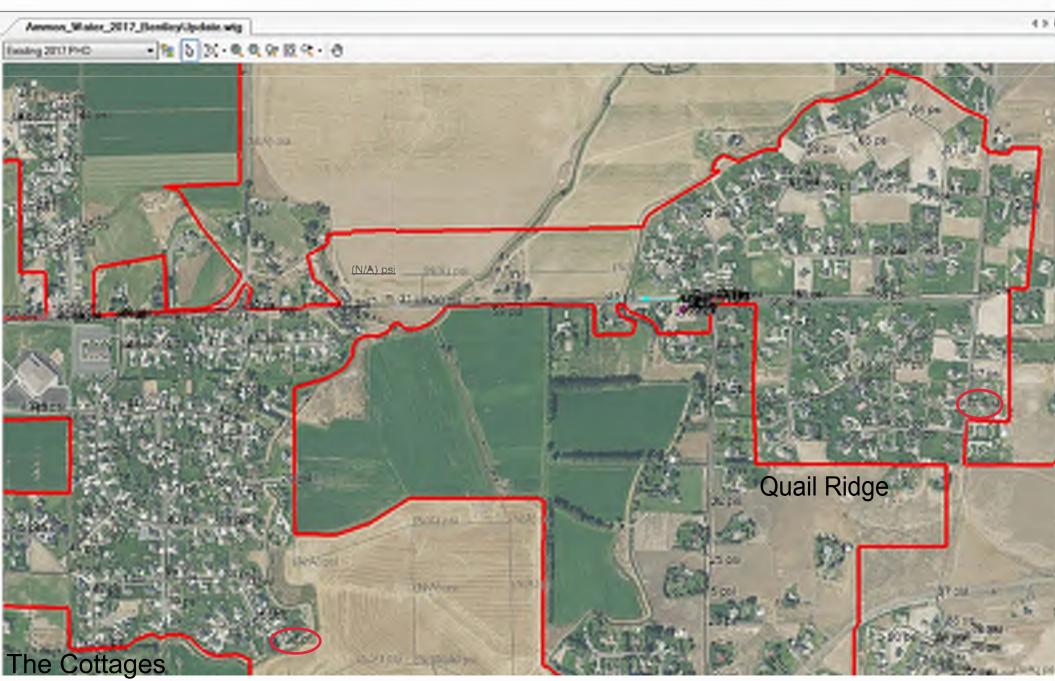
\*\*Adjusted All of Hydrant B Field Measurements Up 3 PSI on 9-13-2017 Test 5 static Hydrant A discrepancy is believed to be a measurement error



**Operational Changes at The Cottages and Quail Ridge** 

Well 11 Bypass: Closed 21st Street Valve: Open Well 9 Interconnet None

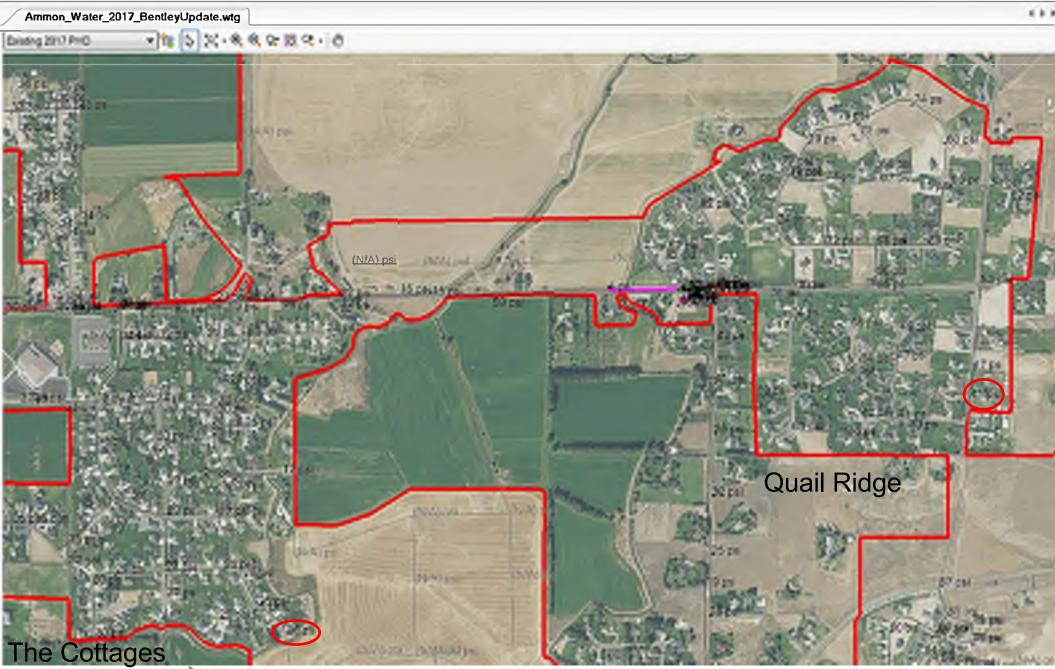
PHD Scenario # 1





Well 11 Bypass: Closed 21st Street Valve: Closed Well 9 Interconnect: None

PHD Scenario #2

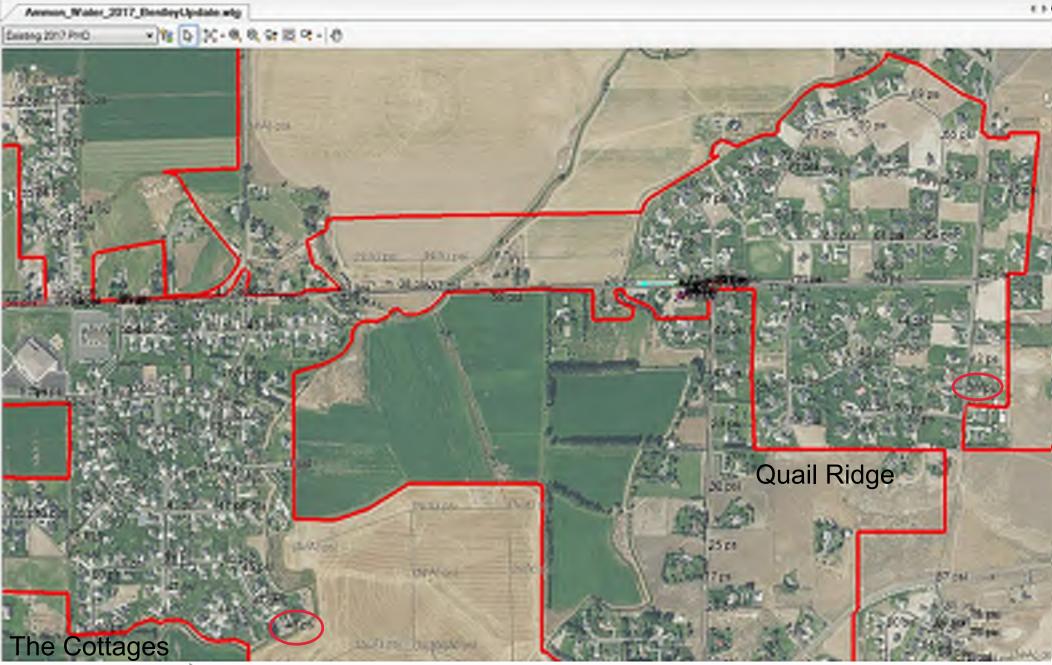




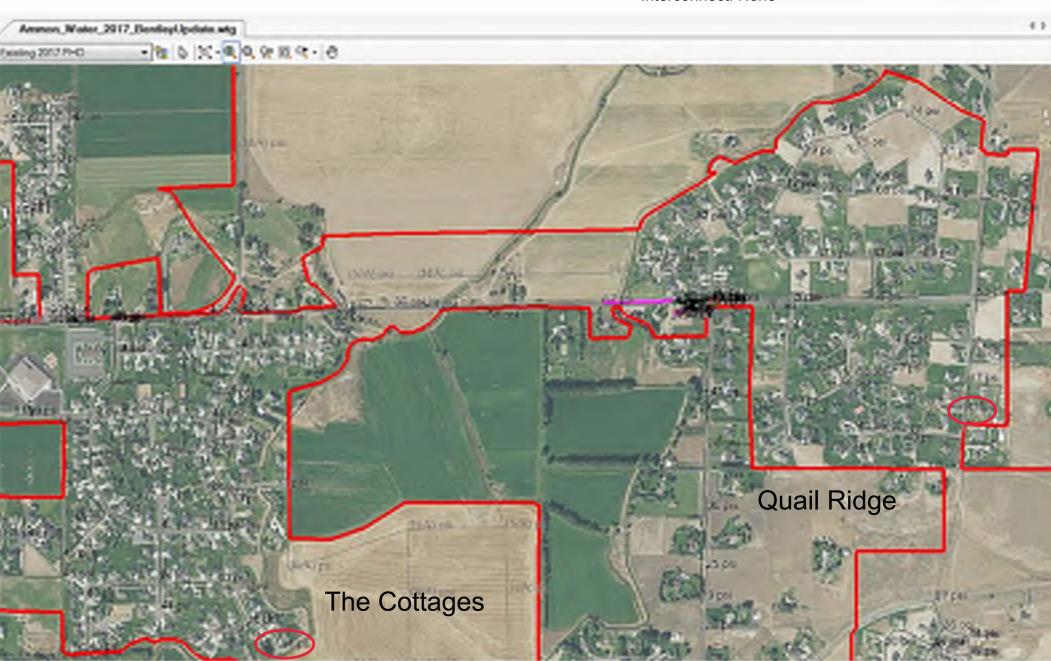
**Operational Changes at The Cottages and Quail Ridge** 

Well 11 Bypass: Active 21st Street: Open Well 9 Interconnect: None

PHD Scenario # 3





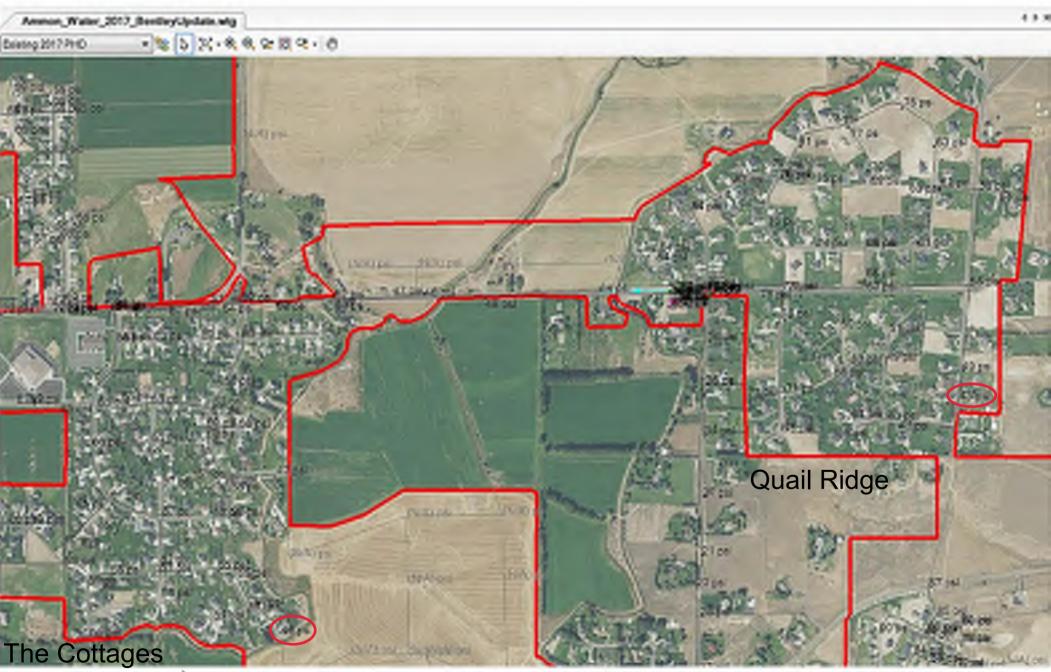




# **Operational Changes at The Cottages and Quail Ridge**

Well 11 Bypass: Active 21st Street: Closed Well 9 Interconnect: None

PHD Scenario # 4

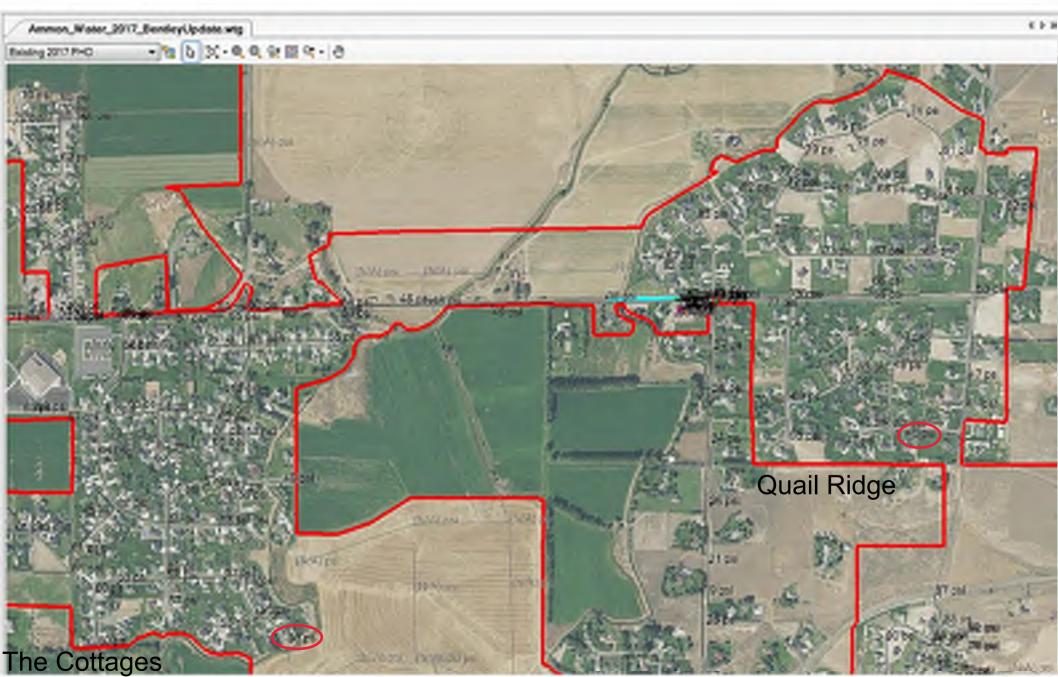




# **Operational Changes at The Cottages and Quail Ridge**

Well 11 Bypass: Full Open 21st Street Valve: Open Well 9 Interconnect: None

PHD Scenario # 5





### **Operational Changes at The Cottages and Quail Ridge**

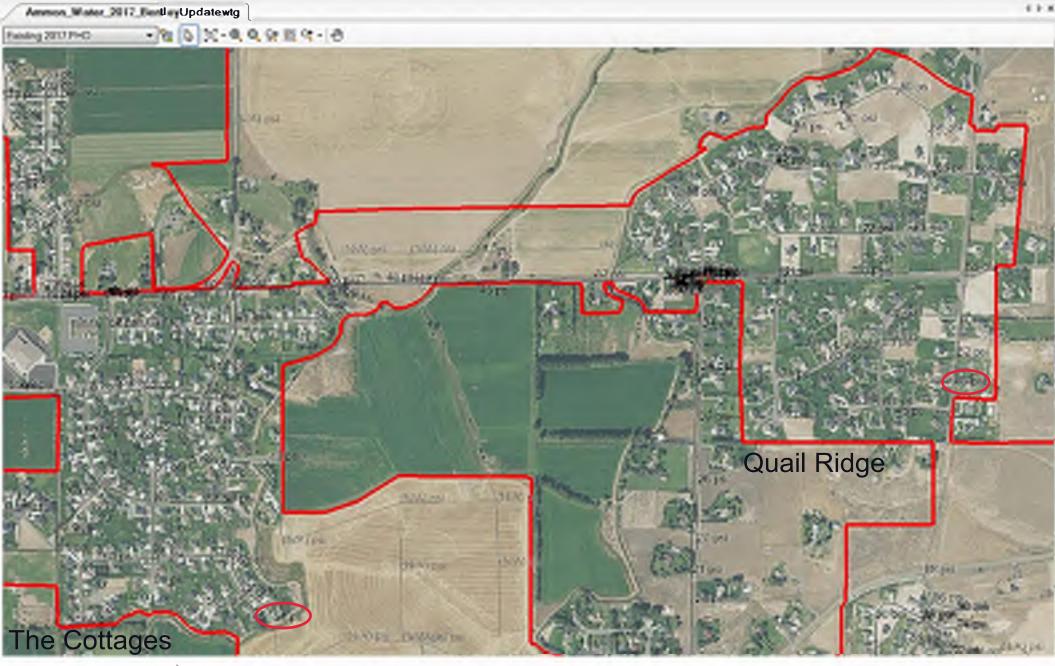
Well 11 Bypass: Full Open 21st Street Valve: Closed Well 9 Interconnect None

PHD Scenario # 6

# **Operational Changes at The Cottages and Quail Ridge**

Well 11 Bypass: Full Open 21st Street Valve: Open Well 9 Interconnect: Present

PHD Scenario # 7

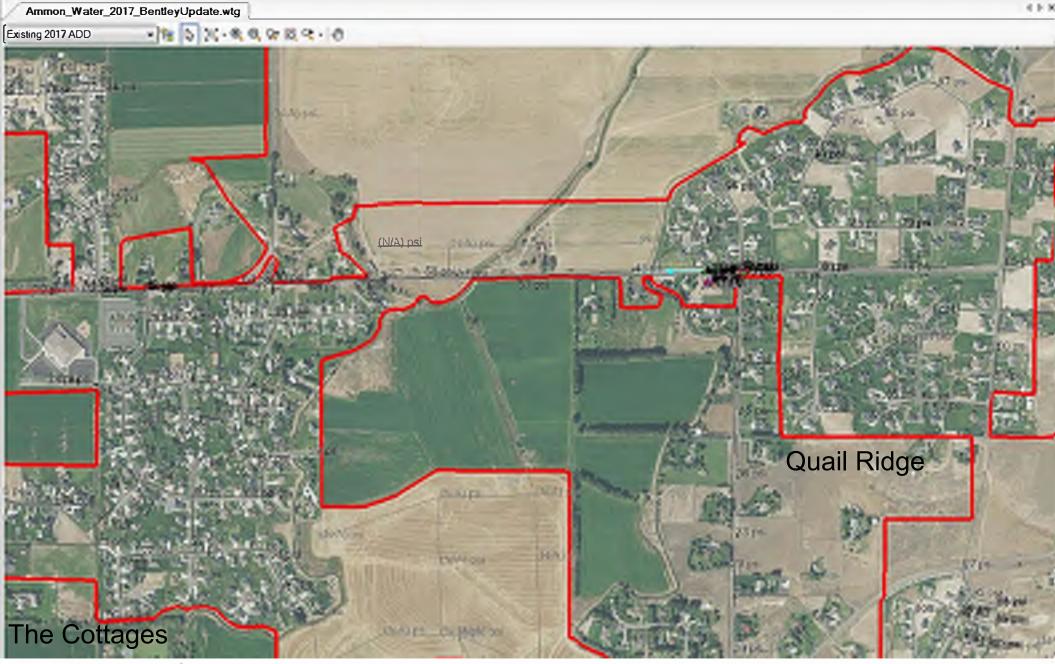




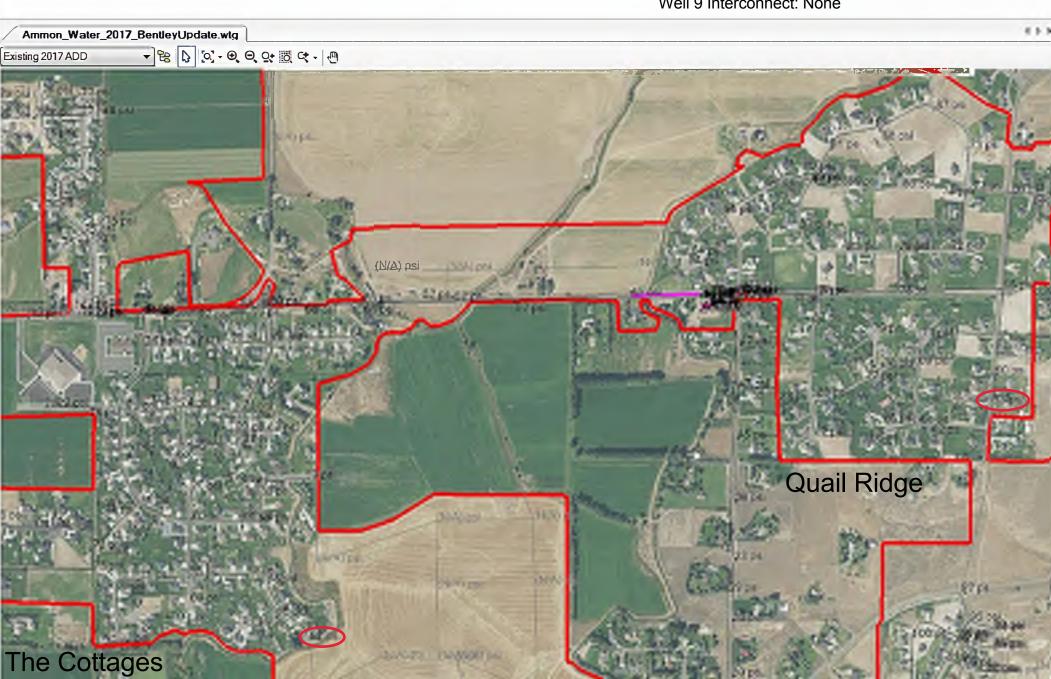
**Operational Changes at The Cottages and Quail Ridge** 

Well 1 Bypass: Closed 21sr Street Valve: Open Well 9 Interconnect: None

ADD Scenario









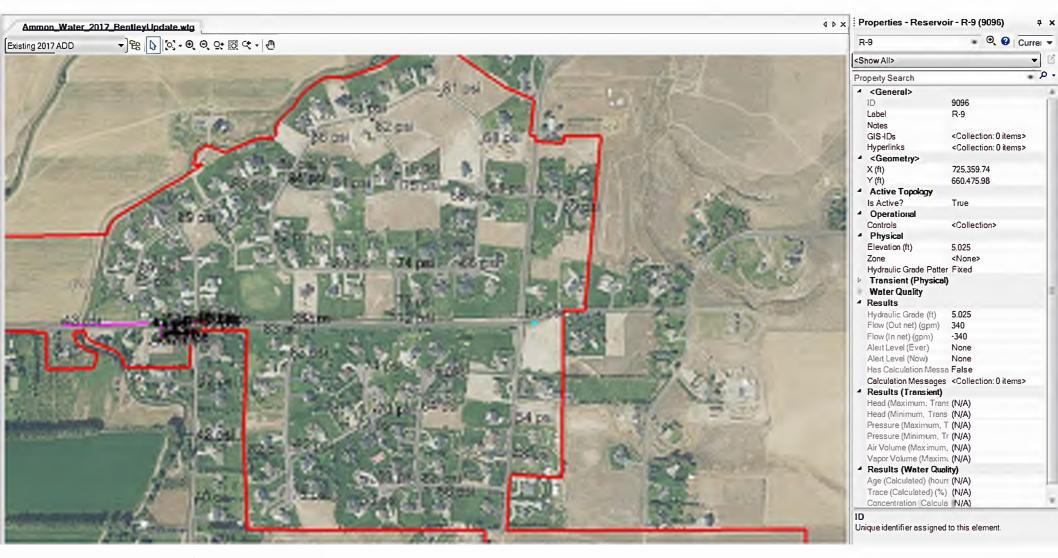
#### **Operational Changes at The Cottages and Quail Ridge**

Well 11 Bypass: Active 21st Street Valve: Closed Well 9 Interconnect: None

ADD Scenario

# Supply from the Top of Quail Ridge - ADD

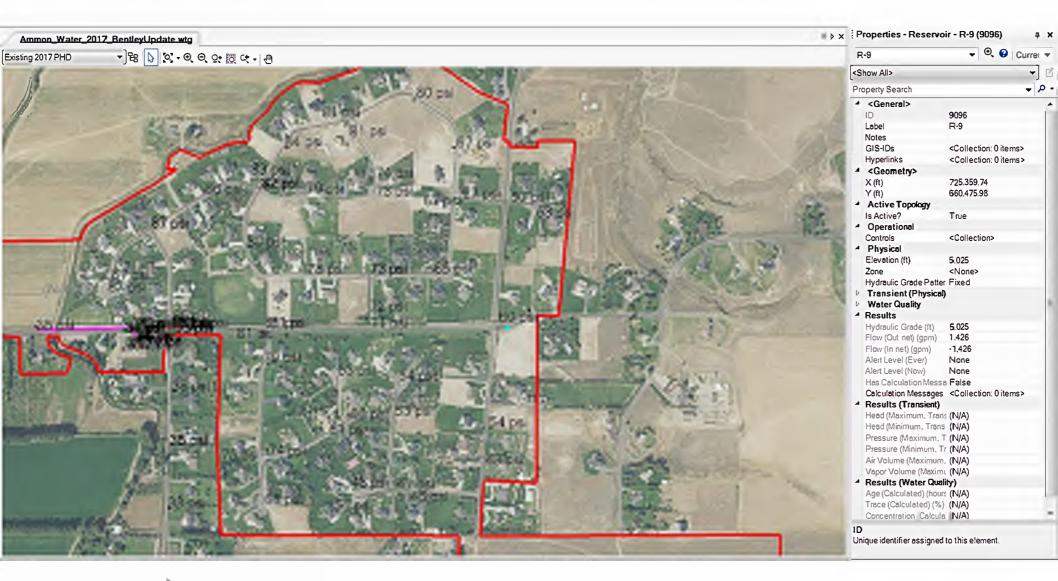
#### Well 11 Bypass: Active 21st Street Valve: Closed Well 9 Interconnect: None





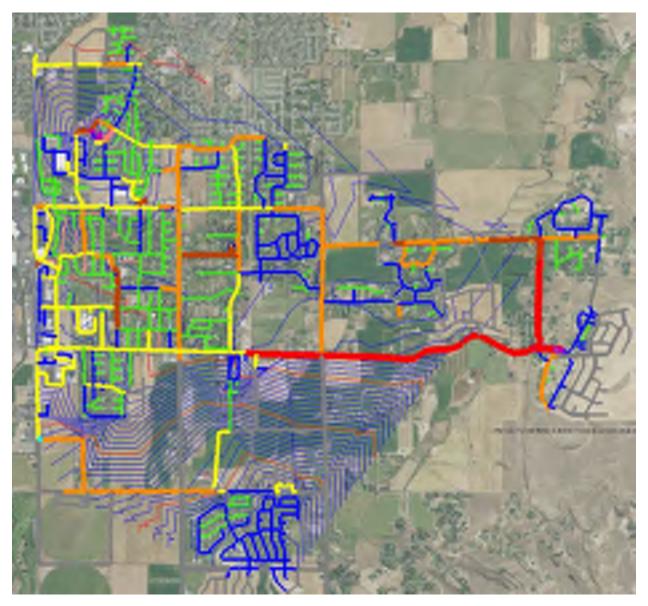
Supply from tha Top of Quail Ridga - PHD

Wall 11 Bypass: Activa 21st Straat Valva: Closad Wall 9 Intarconnact: Nona





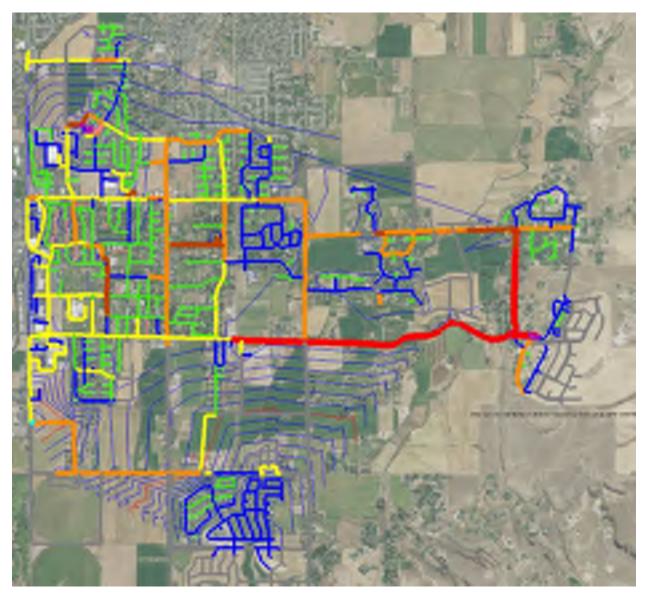
Zone 1 MDD Hydraulic Contours: Well 10 Off



Contours map the hydraulic grade in Zone 1 when Well 10 is turned off (any pump offline requirement). Each blue contour crossed represents a pressure drop of 1 psi. Red contours represent 10 psi drop. The losses felt by the system in trying to feed Woodland Hills are evident.



Zone 1 MDD Hydraulic Contours: All Wells On



Contours map the hydraulic grade in Zone 1 with all wells on. Each blue contour crossed represents a pressure drop of 1 psi. Red contours represent 10 psi drop. Even with Well 10 operating, only one significant transmission line to Woodland Hills results in significant head losses.



#### 1<sup>st</sup> Street Bottleneck During PHD



Hydraulic contours show the bottleneck resulting from having only a single 8-inch line feeding the demands at Fox Hollow and 1<sup>st</sup> Street. Blue contours represent a 1 psi drop, red contours represent a 10 psi drop.



#### **Determination of Optimal Location For:** Woodland Hills Tank and Booster Station

Booster stations were modeled as reservoir at the locations and surface elevations shown. Well 10 off for all scenarios.

		No Im	proveme	ent			12" on	Ammor	n Rd	only	
Node	FF Demand	MDD	PHD		MDD+FF	FF Available	MDD	PHD		MDD+FF	FF Available
J-127 (hydrant at Millcreek and Lakefield)	1500		46	1	38	201	!	59	26	37	809
J-171 (hydrant on Hitt Rd north of Well 10)	1500		66	35	56	498		73	49	45	2,112
J-548 (hydrant at Summerwood and Taylorview)	1500		71	46	37	1,352		72	48	25	1,696
J-841 (Ross Avenue)	1500		66	40	46	564		71	50	25	1,333
J-1068 (Morning Mist and Frontier)	1500		69	49	58	1,607	6	59	48	58	1,596
J-1581 (5980 S Dry Ridge)	1500	:	33	-12	25	180	4	17	13	25	623
J-AmmonTownSquare	3500		68	46	46	1,788	6	59	46	38	2,213

		New Boo	ster at To	wnship &	Sweetwater	New Boo	ster 300'	south of Ta	awzer Way
	FF Demand	MDD	PHD	MDD+FF	FF Available	MDD	PHD	MDD+FF	FF Available
J-127 (hydrant at Millcreek and Lakefield)	1500	65	58	37	1,564	58	54	30	3,000
J-171 (hydrant on Hitt Rd north of Well 10)	1500	76	72	52	3,000	71	60	38	3,000
J-548 (hydrant at Summerwood and Taylorview)	1500	75	67	25	1,903	73	58	25	1,769
J-841 (Ross Avenue)	1500	74	71	25	1,515	70	60	25	1,378
J-1068 (Morning Mist and Frontier)	1500	71	63	53	2,467	70	57	56	1,936
J-1581 (5980 S Dry Ridge)	1500	52	45	25	981	46	45	25	1,525
J-AmmonTownSquare	3500	71	63	25	3,231	69	56	25	2,975
		Res Elev.	: 4880			Res Elev.	: 4850		
		New Boo	ster at To	wnship &	Sweetwater	New Boo	ster 300'	south of Ta	awzer Way
w/ looping lines around Section	FF Demand	MDD	PHD	MDD+FF	FF Available	MDD	PHD	MDD+FF	FF Available
J-127 (hydrant at Millcreek and Lakefield)	1500	64	59	37	1,733	58	54	32	3,000
J-171 (hydrant on Hitt Rd north of Well 10)	1500	75	70	50	3,000	70	60	38	3,000
J-548 (hydrant at Summerwood and Taylorview)	1500	74	66	25	1,884	72	58	25	1,766
J-841 (Ross Avenue)	1500	73	69	25	1,493	69	60	25	1,377
J-1068 (Morning Mist and Frontier)	1500	71	62	55	2,277	70	57	56	1,922
J-1581 (5980 S Dry Ridge)	1500	51	45	25	1,010	46	45	25	1,526
J-AmmonTownSquare	3500	70	62	25	3,194	69	56	25	2,973

Res Elev.: 4874

Res Elev.: 4849



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GROWING POSSIBILITIES



# Appendix E: Alternative Development/Capital Improvement Plan

- Capital Improvement Plan Detail Sheets
- Rate Impact Evaluation
- Water Rights Purchase Summary







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GROWING POSSIBILITIES

#### City of Ammon, Idaho Water Facilities Planning Study Capital Improvement Plan

ID#	Item	Cost	Need Addressed
		COSI	Neeu Adulesseu
Contracted Improven	nents (Start in 2018)		
WH TANK AND BS	2.0 MG Tank and 3,000 GPM Booster Station	\$ 3,849,000	Storage and Delivery
ZONE 2 Split	Split Zone 2 into upper and lower subzones	\$ 632,000	Low Pressure, Fire Flow
QL RDG LOOP	8-inch loop from Foothill Rd to Sharptail Rd	\$ 69,000	Low Pressure, Fire Flow
FALCON		\$ 294,000	Undersized and Leaking Lines
EAGLE		\$ 355,000	Undersized and Leaking Lines
DOVE		\$ 388,000	Undersized and Leaking Lines
CURLEW		\$ 496,000	Undersized and Leaking Lines
BITTERN		\$ 381,000	Undersized and Leaking Lines
AVOCET		\$ 443,000	Undersized and Leaking Lines
HILLAM		\$ 83,000	Undersized and Leaking Lines
SAWTOOTH		\$ 279,000	Undersized and Leaking Lines
TETON	Replace undersized and deteriorating water lines and	\$ 196,000	Undersized and Leaking Lines
	service lines in the Hillview and Original Townsite		
SALMON		\$ 247,000	Undersized and Leaking Lines
RAWSON	neighborhoods. Improve fire flows.	\$ 369,000	Undersized and Leaking Lines
OWEN		\$ 318,000	Undersized and Leaking Lines
MOLEN		\$ 309,000	Undersized and Leaking Lines
WESTERN	]	\$ 427,000	Undersized and Leaking Lines
ROSEDALE	]	\$ 273,000	Undersized and Leaking Lines
ROMRELL	]	\$ 367,000	Undersized and Leaking Lines
CENTRAL	]	\$ 353,000	Undersized and Leaking Lines
MEADOW	]	\$ 268,000	Undersized and Leaking Lines
TARGHEE	1	\$ 105,000	Undersized and Leaking Lines
WELL 6	Well, Tank, and Booster Station Improvements	\$ 1,015,000	Supply, Storage, and Delivery
W6 STORAGE	Additional 0.5 MG Storage at Well 6	\$ 1,457,000	Storage
	Total Priority 1 Improvements	\$ 12,973,000	•

The cost estimate herein's based on our perception or current conditions at the project location. This estimate renets our opprior or provided by others, contractor's methods of determining prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

#### City of Ammon, Idaho Water Facilities Planning Study Capital Improvement Plan

ID#	Item	Cost	Need Addressed
Contracted Improveme	nts (Start in 2018)		
WH TANK AND BS	2.0 MG Tank and 3,000 GPM Booster Station	\$ 3,849,000	Storage and Delivery
ZONE 2 SPLIT	Split Zone 2 into lower and upper subzones	\$ 632,000	Low Pressure, Fire Flow
QL RDG LOOP	8-inch loop from Foothill Rd to Sharptail Rd	\$ 69,000	Low Pressure, Fire Flow
ORIGINAL TOWNSITE	Replace undersized and failing water lines	\$ 5,951,000	Undersized and Leaking Lines
WELL 6*	Well, Tank, and Booster Station Improvements	\$ 1,015,000	Supply, Storage, and Delivery
W6 STORAGE*	Additional 0.5 MG Storage at Well 6	\$ 1,457,000	Storage
	Total Contracted Improvements	\$ 12,973,000	

ID#	Item	Cost	Need Addressed
City Improvements (St	art in 2018)		
ASPEN LN	Replace 2-inch line with new 8-inch line and hydrant	\$ 63,000	Undersized Line
1st ST LOOP	12-inch loop from Curlew to 1st St.	\$ 294,000	Looping and Fire Flow
LDY HK LOOP	8-inch loop to Crowley Rd	\$ 80,000	Looping and Fire Flow
SOUTH LOOP	16-inch loop from Sunnyside to Township	\$ 888,000	Looping to South Side
COTTAGES LOOP**	12-inch connection from Sunnyside to Tildy Ln	\$ 183,000	Low Pressure, Fire Flow
	Total City Improvements	\$ 1,508,000	

ID#	Item		Cost	Need Addressed					
Developer Improvemer	eveloper Improvements (Start in 2018)								
WH WELL	16-inch dia. X 350-foot, 2,600 gpm Well	\$	257,000	Supply on south side					
WH WELLHOUSE	15' X 30' Wellhouse w/generator	\$	777,000	Supply on south side					
FOX HLW LOOP**	8-inch loop in Fox Hollow Subdivision	\$	149,000	Looping and Fire Flow					
	Total Developer Improvements	\$	1,183,000						

#### Total All Improvements \$ 15,664,000

\*Improvements at Well 6 are not required to meet immediate deficiencies but should be pursued as system demands warrant. \*\*To be completed only if developer activities (Fox Hollow) or optimization efforts (The Cottages) do not address these distribution issues.

#### Water Capital Improvements Project

#### Project Identifier: ASPEN LN

# **Objectives:** Replace undersized 2-inch galvenized line with new 8-inch ductile iron line. Include hydrant at the east end for flushing.

Potential Issues:



**Project Location:** Aspen Lane off of Ross Avenue

General Line Items	Unit	Unit Price	Estimated Quantity	2017 Cost
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	500	\$ 30,000
Existing Utility Protection	LF	\$ 4	500	\$ 2,000
Traffic Control - Without Flagging	LF	\$ 4	500	\$ 2,000
1/2 Lane Pavement Repair	LF	\$ 20	50	\$ 1,000
Gravel Repair	LF	\$ 8	450	\$ 3,600
Valley Gutter	SY	\$ 110	3	\$ 330
1" Service w/o Asphalt Patch	EA	\$ 2,700	3	\$ 8,100
Subtotal				\$ 47,030
Mobilization - Percent of Item Cost Sum	%	6%		\$ 2,822
Contingency - % of construction costs	%	10%		\$ 4,703
Total Construction Costs				\$ 54,555
Engineering and CMS - % of construction costs	%	15%		\$ 8,183
Total Project Cost (rounded)		\$6	3,000	

Water Capital Improvements Project		Project Lo 1st Street to			
Project Identifier:       1st ST LOOP         Objectives:       Provide fire flow and loop         Potential Issues:       Easement for waterline		0			
-	the second	(thermal	E	1	17
	F	7 1	14	41	- 1 -
General Line Items	Unit		Estimated Quantity	41	2017 Cost
	Unit	Unit Price \$ 80	Estimated Quantity 2470	\$	2017 Cost 197,600
12-inch Pipe - Excavation, Backfill, Valves, Hydrants					
12-inch Pipe - Excavation, Backfill, Valves, Hydrants HWY Repair (Full Lane, Deep Base)	LF	\$ 80	2470	\$	197,600
12-inch Pipe - Excavation, Backfill, Valves, Hydrants HWY Repair (Full Lane, Deep Base)	LF LF	\$ 80 \$ 52	2470 40	\$ \$	197,600 2,080 20,100
12-inch Pipe - Excavation, Backfill, Valves, Hydrants HWY Repair (Full Lane, Deep Base) 8-inch Pipe - Excavation, Backfill, Valves, Hydrants Subtotal	LF LF	\$ 80 \$ 52	2470 40	\$ \$ \$	197,600 2,080 20,100 219,780
12-inch Pipe - Excavation, Backfill, Valves, Hydrants HWY Repair (Full Lane, Deep Base) 8-inch Pipe - Excavation, Backfill, Valves, Hydrants Subtotal Mobilization - Percent of Item Cost Sum	LF LF LF	\$ 80 \$ 52 \$ 60	2470 40	\$ \$ \$ \$	197,600 2,080 20,100
12-inch Pipe - Excavation, Backfill, Valves, Hydrants HWY Repair (Full Lane, Deep Base) 8-inch Pipe - Excavation, Backfill, Valves, Hydrants Subtotal Mobilization - Percent of Item Cost Sum	LF LF LF %	\$ 80 \$ 52 \$ 60 	2470 40	\$ \$ \$ \$ \$	197,600 2,080 20,100 219,780 13,187
12-inch Pipe - Excavation, Backfill, Valves, Hydrants HWY Repair (Full Lane, Deep Base) 8-inch Pipe - Excavation, Backfill, Valves, Hydrants Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF LF LF %	\$ 80 \$ 52 \$ 60 	2470 40	\$ \$ \$ \$ \$ \$	197,600 2,080 20,100 <b>219,780</b> 13,187 21,978

Water Capital Improvements Project	Lac		Project Location: Lady Hawk Lane to Crowley Road							
Project Identifier: LDY HK LOOP Objectives: Looping, Fire Flows - Potential Issues: -				LAV	OK EN					
	12	w.hest		P S S S S S						
General Line Items	Unit	Unit Price		2	017 Cost					
	Unit	Unit Price \$ 60	Estimated Quantity 730	20 \$	017 Cost 43,800					
8-inch Pipe - Excavation, Backfill, Valves, Hydrants										
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing	LF	\$ 60	730	\$	43,800					
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing 1/2 Lane Pavement Repair	LF LS	\$ 60 \$ 15,000	730 1	\$ \$ \$	43,800 15,000 800					
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing 1/2 Lane Pavement Repair Subtotal	LF LS LF	\$ 60 \$ 15,000 \$ 20	730 1	\$ \$ \$ <b>\$</b>	43,800 15,000 800 <b>59,600</b>					
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF LS LF %	\$ 60 \$ 15,000 \$ 20 	730 1	\$ \$ \$ \$	43,800 15,000 800 <b>59,600</b> 3,576					
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF LS LF	\$ 60 \$ 15,000 \$ 20	730 1	\$ \$ \$ <b>\$</b> \$ \$ \$	43,800 15,000 800 59,600 3,576 5,960					
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF LS LF %	\$ 60 \$ 15,000 \$ 20 	730 1	\$ \$ \$ \$	43,800 15,000 800 <b>59,600</b> 3,576					

#### Water Capital Improvements Project **Project Location:** Sunnyside Rd to Township Rd SOUTH LOOP **Project Identifier:** Objectives: Provide fire flow and additional supply to south end of town by constructing a new transmission line between Sunnyside Rd. and Township Rd. This could occur on either Ammon Rd. (possibility to team with county on road repair costs) or on Crowley Rd. (reduces supply vulnerability by supply Woodland Hills from the other side). Our recommendation is for Crowley .0.0 0 = Rd. as it is the most advantageous from a circulation standpoint. Potential Issues: **General Line Items Unit Price Estimated Quantity** 2017 Cost Unit 16-inch Pipe - Excavation, Backfill, Valves, Hydrants LF 593,750 \$ 95 6250 \$ 1/2 Lane Pavement Repair 1 F \$ 20 1000 \$ 20,000 LF \$ 5 5250 \$ 26,250 Miscellaneous Surface Repair Traffic Control - Without Flagging LF \$ 4 6250 \$ 25,000 Subtotal \$ 665,000 Mobilization - Percent of Item Cost Sum % 6% \$ 39,900 10% Contingency - % of construction costs % \$ 66,500 **Total Construction Costs** \$ 771,400 Engineering and CMS - % of construction costs 15% % \$ 115,710 Total Project Cost (rounded) \$888,000

#### Water Capital Improvements Project

#### Project Identifier: SOUTH LOOP ALTERNATE - AMMON RD

**Objectives**: Alternate version of the SOUTH LOOP Improvements on Crowley Rd. The City may have the opportunity to partner with the County on road repair if located on Ammon Rd.

Potential Issues:



**Project Location:** 

General Line Items	Unit	Unit Price	Estimated Quantity	2	017 Cost
16-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 95	5150	\$	489,250
1/2 Lane Pavement Repair	LF	\$ 20	1000	\$	20,000
Traffic Control - Without Flagging	LF	\$ 4	5150	\$	20,600
Miscellaneous Surface Repair	LF	\$ 5	4150	\$	20,750
Subtotal				\$	550,600
Mobilization - Percent of Item Cost Sum	%	6%		\$	33,036
Contingency - % of construction costs	%	10%		\$	55,060
Total Construction Costs				\$	638,696
Engineering and CMS - % of construction costs	%	15%		\$	95,804
Total Project Cost (rounded)		\$73	5,000	•	

Water Capital Improvements Project	Su		Project Lo de Road a	cation: above Cottage	S	
Project Identifier: Cottages Looping Line		,		3		
Objectives: Provide additional flow into The Cottages by connecting them to the gravity line on Sunnyside Rd. Potential Issues: This improvement may not be necessary immediately if operational changes are made such that flow availability from the lines on 21st St is increased.				GES	shit a	and the second second
	500	100	1	J	R	
General Line Items		利用		Estimated Quantity	1	2017 Cost
General Line Items 12-inch Piping to Connect to Cottages	Unit		Unit Price 50	Estimated Quantity 2200		2017 Cost 110.000
12-inch Piping to Connect to Cottages		\$ \$			\$ \$	2017 Cost 110,000 10,000
12-inch Piping to Connect to Cottages Canal Crossing	LF	\$	50	2200	\$	110,000
12-inch Piping to Connect to Cottages Canal Crossing 1/2 Lane Pavement Repair	LF LS	\$ \$	50 10,000	2200 1	\$ \$	110,000 10,000
General Line Items           General Line Items           12-inch Piping to Connect to Cottages           Canal Crossing           1/2 Lane Pavement Repair           Gravel Repair           Traffic Control - Without Flagging	LF LS LF	\$ \$ \$	50 10,000 20	2200 1 25	\$ \$ \$	110,000 10,000 500
12-inch Piping to Connect to Cottages Canal Crossing 1/2 Lane Pavement Repair Gravel Repair	LF LS LF LF	\$ \$ \$ \$	50 10,000 20 8	2200 1 25 75	\$ \$ \$ \$	110,000 10,000 500 600
12-inch Piping to Connect to Cottages Canal Crossing 1/2 Lane Pavement Repair Gravel Repair Traffic Control - Without Flagging	LF LS LF LF	\$ \$ \$ \$	50 10,000 20 8	2200 1 25 75	\$ \$ \$ \$ \$	110,000 10,000 500 600 5,000
12-inch Piping to Connect to Cottages Canal Crossing 1/2 Lane Pavement Repair Gravel Repair Traffic Control - Without Flagging Subtotal	LF LS LF LF LS	\$ \$ \$ \$	50 10,000 20 8 5,000	2200 1 25 75	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	110,000 10,000 500 600 5,000 126,100
12-inch Piping to Connect to Cottages Canal Crossing 1/2 Lane Pavement Repair Gravel Repair Traffic Control - Without Flagging Subtotal Mobilization - Percent of Item Cost Sum	LF LS LF LF LS	\$ \$ \$ \$	50 10,000 20 8 5,000 6%	2200 1 25 75	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	110,000 10,000 500 600 5,000 <b>126,100</b> 7,566
12-inch Piping to Connect to Cottages Canal Crossing 1/2 Lane Pavement Repair Gravel Repair Traffic Control - Without Flagging Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF LS LF LF LS	\$ \$ \$ \$	50 10,000 20 8 5,000 6%	2200 1 25 75	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	110,000 10,000 500 5,000 5,000 126,100 7,566 25,220

Water Capital Improvements Project	Haz			cation: Woodland Hill	ls	
Project Identifier: Woodland Hills Well	1000	State of	-	THE PARTY NAME	-	
<b>Objectives</b> : Increase Zone 1 supply, storage, and delivery	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s					
Potential Issues: Land Aquisition			K -		市政を行け、	
General Line Items	Unit	Uni	it Price	Estimated Quantity		2017 Cost
Mobilization	LS	\$	10,000	1	\$	10,000
	23	Ŷ	10,000			
	LF	\$	70	350		24,500
8-inch Test/Pilot Hole			,	350 13	\$	
8-inch Test/Pilot Hole Grout seal	LF	\$	70		\$ \$	6,500
8-inch Test/Pilot Hole Grout seal 24-inch drill and case (Remove temp casing)	LF CY	\$ \$	70 500	13	\$ \$	6,500 15,000
8-inch Test/Pilot Hole Grout seal 24-inch drill and case (Remove temp casing) 24-inch drill 20-inch casing	LF CY LF	\$ \$ \$ \$ \$	70 500 250	13 60	\$ \$ \$	6,500 15,000 12,000
8-inch Test/Pilot Hole Grout seal 24-inch drill and case (Remove temp casing) 24-inch drill 20-inch casing	LF CY LF LF LF LF	\$ \$ \$ \$ \$ \$	70 500 250 200	13 60 60	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6,500 15,000 12,000 11,520
8-inch Test/Pilot Hole Grout seal 24-inch drill and case (Remove temp casing) 24-inch drill 20-inch casing 20-inch drill and case	LF CY LF LF LF LF LF	\$ \$ \$ \$ \$ \$ \$ \$	70 500 250 200 96	13 60 60 120	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6,500 15,000 12,000 11,520 10,200 11,200
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch drill and case       20-inch drill and case         20-inch drill       20-inch casing         20-inch drill and case       20-inch drill and case         20-inch drill       20-inch drill	LF CY LF LF LF LF LF LF LF	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	70 500 250 200 96 170 140 68	13 60 60 120 60 80 260	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6,500 15,000 12,000 11,520 10,200 11,200 17,680
8-inch Test/Pilot Hole Grout seal 24-inch drill and case (Remove temp casing) 24-inch drill 20-inch casing 20-inch drill and case 20-inch drill 16-inch casing 16-inch drill	LF CY LF LF LF LF LF LF LF	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	70 500 250 200 96 170 140 68 140	13 60 60 120 60 80 260 90	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6,500 15,000 12,000 11,520 10,200 11,200 17,680 12,600
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch drill and case       20-inch drill and case         20-inch drill       16-inch casing         16-inch drill       14-inch SS Screen	LF CY LF LF LF LF LF LF LF LF	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	70 500 250 200 96 170 140 68 140 160	13 60 60 120 60 80 260 90 90	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$	6,500 15,000 12,000 11,520 10,200 11,200 17,680 12,600 14,400
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch drill and case       20-inch drill and case         20-inch drill       16-inch casing         16-inch drill       14-inch SS Screen         Well Development       10-10000000000000000000000000000000000	LF CY LF LF LF LF LF LF LF LF LF HR	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	70 500 250 96 170 140 68 140 160 300	13 60 60 120 60 80 260 90 90 8	•         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •	6,500 15,000 12,000 11,520 10,200 11,200 17,680 12,600 14,400 2,400
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch casing       20-inch drill and case         20-inch drill and case       20-inch drill         16-inch casing       16-inch drill         14-inch SS Screen       Well Development         Pump Test Mob       10-1000	LF CY LF LF LF LF LF LF LF LF HR LS	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	70 500 250 96 170 140 68 140 160 300 10,000	13 60 60 120 60 80 260 90 90 8 1	(b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b)         (b) <td>6,500 15,000 12,000 11,520 10,200 11,200 17,680 12,600 14,400 2,400 10,000</td>	6,500 15,000 12,000 11,520 10,200 11,200 17,680 12,600 14,400 2,400 10,000
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch drill and case       20-inch drill and case         20-inch drill       16-inch casing         16-inch casing       16-inch drill         14-inch SS Screen       Well Development         Pump Test Mob       Pump Test (2,500 gpm)	LF CY LF LF LF LF LF LF LF LF HR LS HR	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	70 500 250 96 170 140 68 140 160 300 10,000 300	13 60 60 120 60 80 260 90 90 90 8 1 24	•         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •	6,500 15,000 12,000 11,520 10,200 11,200 17,680 12,600 14,400 2,400 10,000 7,200
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch casing       20-inch drill and case         20-inch drill       16-inch casing         16-inch casing       16-inch drill         14-inch SS Screen       Well Development         Pump Test Mob       Pump Test (2,500 gpm)         Discharge Piping       10-10-10-10-10-10-10-10-10-10-10-10-10-1	LF CY LF LF LF LF LF LF LF LF HR LS HR LF	\$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$	70 500 250 96 170 140 68 140 160 300 10,000 300 20	13 60 60 120 60 80 260 90 90 90 8 1 24 500	•         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •         •	6,500 15,000 12,000 11,520 10,200 11,200 17,680 12,600 14,400 2,400 10,000 7,200 10,000
Notified of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of the set of t	LF CY LF LF LF LF LF LF LF LF HR LS HR	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	70 500 250 96 170 140 68 140 160 300 10,000 300	13 60 60 120 60 80 260 90 90 90 8 1 24	S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S	24,500 6,500 15,000 11,500 11,520 10,200 11,200 17,680 12,600 14,400 2,400 10,000 7,200 10,000 200 3,000
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch drill and case       20-inch drill and case         20-inch drill       16-inch casing         16-inch casing       16-inch drill         14-inch SS Screen       Well Development         Pump Test Mob       Pump Test (2,500 gpm)         Discharge Piping       Well Permit         Water Quality Testing       14-inch State	LF CY LF LF LF LF LF LF LF LF HR LS HR LF LF	\$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$	70 500 250 96 170 140 68 140 160 300 10,000 300 20 200	13 60 60 120 60 80 260 90 90 90 8 1 24 24 500 1	w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w	6,500 15,000 12,000 11,520 10,200 17,680 12,600 14,400 2,400 10,000 7,200 10,000 200 3,000
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch casing       20-inch drill and case         20-inch drill       16-inch casing         16-inch casing       16-inch drill         14-inch SS Screen       Well Development         Pump Test Mob       Pump Test (2,500 gpm)         Discharge Piping       Well Permit         Water Quality Testing       Subtotal	LF CY LF LF LF LF LF LF LF LF LS HR LF LS	\$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$	70 500 250 96 170 140 68 140 160 300 10,000 300 20 200 3,000	13 60 60 120 60 80 260 90 90 90 8 1 24 24 500 1	S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S	6,500 15,000 12,000 11,520 10,200 17,680 12,600 14,400 2,400 10,000 7,200 10,000 200 3,000
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch casing       20-inch drill and case         20-inch drill       16-inch casing         16-inch casing       16-inch drill         14-inch SS Screen       Well Development         Pump Test Mob       Pump Test (2,500 gpm)         Discharge Piping       Well Permit         Water Quality Testing       Subtotal         Contingency - % of construction costs       Subtotal	LF CY LF LF LF LF LF LF LF LF HR LS HR LF LF	\$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$	70 500 250 96 170 140 68 140 160 300 10,000 300 20 200	13 60 60 120 60 80 260 90 90 90 8 1 24 24 500 1	w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w         w	6,500 15,000 12,000 11,520 10,200 17,680 12,600 14,400 2,400 10,000 7,200 10,000 200 3,000 <b>178,400</b> 35,680
8-inch Test/Pilot Hole       Grout seal         24-inch drill and case (Remove temp casing)       24-inch drill         24-inch drill       20-inch casing         20-inch casing       20-inch drill and case         20-inch drill       16-inch casing         16-inch casing       16-inch drill         14-inch SS Screen       Well Development         Pump Test Mob       Pump Test (2,500 gpm)         Discharge Piping       Well Permit         Water Quality Testing       Subtotal	LF CY LF LF LF LF LF LF LF LF LS HR LF LS	\$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$       \$	70 500 250 96 170 140 68 140 160 300 10,000 300 20 200 3,000	13 60 60 120 60 80 260 90 90 90 8 1 24 24 500 1	S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S         S	6,500 15,000 12,000 11,520 10,200 11,200 17,680 12,600 14,400 2,400 10,000 7,200 10,000 2,000 3,000

## Water Capital Improvements Project

Project Identifier: WH Wellhouse

Objectives: Increase Zone 1 supply at south end

Potential Issues: Land Aquisition

# Hazelwood Way in Woodland Hills

**Project Location:** 

General Line Items	Unit		Unit Price	Estimated Quantity	2017 Cost
Mobilization	LS	\$	10,000	1	\$ 10,000
Underground Piping/Connect to Existing	LS	\$	50,000	1	\$ 50,000
Wellhouse Structure - CMU Construction	SF	\$	150	450	\$ 67,500
Pump and Motor	LS	\$	60,000	1	\$ 60,000
Wellhouse Mechanical	LS	\$	45,000	1	\$ 45,000
Wellhouse Electrical	LS	\$	90,000	1	\$ 90,000
Sitework/Landscaping	LS	\$	100,000	1	\$ 100,000
Generator	LS	\$	80,000	1	\$ 80,000
Generator Enclosure	LS	\$	50,000	1	\$ 50,000
Fencing	LF	\$	25	400	\$ 10,000
Subtotal		-			\$ 562,500
Contingency - % of construction costs	%		20%		\$ 112,500
Total Construction Costs					\$ 675,000
Engineering and CMS - % of construction costs	%		15%		\$ 101,250
Total Project Cost (rounded)				\$777,000	

Water Capital Improvements Project           Project Identifier:         FOX HLW LOOP		Project Lo 1st Street to			
Objectives: Provide fire flow and looping improvements to the area. Current development taking place to the west of proposed line may tie into Fox Hollow and eliminate the need for this improvement. Potential Issues: Easement for waterline	FO	K HOL			
	1		_ <b>H</b>	State of the second	The second
General Line Items	Unit	Unit Price	Estimated Quantity	100 A	2017 Cost
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants	Unit	Unit Price \$ 60		\$	2017 Cost 96,000
			1600		
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing	LF	\$ 60	1600	\$ \$	96,000 15,000
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing Subtotal	LF LS	\$ 60 \$ 15,000	1600	\$ \$ <b>\$</b>	96,000 15,000 <b>111,000</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing Subtotal Mobilization - Percent of Item Cost Sum	LF LS %	\$ 60 \$ 15,000 6%	1600	\$ \$ \$ \$	96,000 15,000 <b>111,000</b> 6,660
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing  Subtotal  Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF LS	\$ 60 \$ 15,000	1600	\$ \$ \$ \$ \$ \$	96,000 15,000 <b>111,000</b> 6,660 11,100
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing  Subtotal  Mobilization - Percent of Item Cost Sum Contingency - % of construction costs  Total Construction Costs	LF LS % %	\$ 60 \$ 15,000 6% 10%	1600	\$ \$ \$ \$ \$ \$ \$	96,000 15,000 <b>111,000</b> 6,660 11,100 <b>128,760</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants Canal Crossing  Subtotal  Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF LS %	\$ 60 \$ 15,000 	1600	\$ \$ \$ \$ \$ \$	96,000 15,000 <b>111,000</b> 6,660 11,100

Water Capital Improvements Project Project Identifier: Woodland Hills Tank and Booster Station Objectives: Increase Zone 1 storage, supply, and delivery. Provide a infrastructure redundancy for the south end of Ammon's water system. Potential Issues: Land Aquisition	Haz	Project La telwood Way i	ocation: n Woodland Hil	Is
General Line Items	Unit	Unit Price	Estimated Quantity	2017 Cost
Land Acquisition	AC	\$ 30,000	1.5	\$ 45,000
Convert Wellhouse to Booster Station	LS	\$ 405,000	1	\$ 405,000
2.0 MG Water Storage Tank	LS	\$ 1,800,000	1	\$ 1,800,000
Sitework and Piping	LS	\$ 265,000	1	\$ 265,000
Generator and Enclosure Upsize	LS	\$ 75,000	1	\$ 75,000
Electrical Service	LS	\$ 20,000	1	\$ 20,000
SCADA System	LS	\$ 20,000	1	\$ 20,000
Fencing	LF	\$ 25	1050	\$ 26,250
Subtotal				\$ 2,656,250
Mobilization - Percent of Item Cost Sum	%	6%		\$ 159,375
Contingency - % of construction costs	%	20%		\$ 531,250
Total Construction Costs				\$ 3,346,875
Engineering and CMS - % of construction costs				
Engineering and CMS - 76 of construction costs	%	15%		\$ 502,031

Water Capital Improvements Project		Project Lo Wel			
Project Identifier: Well 6 Improvements Objectives: Increase Zone 1 supply, storage, and delivery Potential Issues:				the set of the set	the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s
General Line Items	Unit	Unit Price	Estimated Quantity		2017 Cost
		Onit Price	Estimated Quantity		
		¢ 100.000	1	¢	100.000
Repair Existing Well (2,000 gpm target)	LS	\$ 100,000 \$ 120,000	1	\$	100,000
Repair Existing Well (2,000 gpm target) Nater Storage Tank Improvements	LS LS	\$ 120,000	1	\$	120,000
Repair Existing Well (2,000 gpm target) Water Storage Tank Improvements Booster Station w/Generator	LS LS LS	\$ 120,000 \$ 440,000	1 1	\$ \$	120,000 440,000
Repair Existing Well (2,000 gpm target) Water Storage Tank Improvements Booster Station w/Generator Electrical Service	LS LS	\$ 120,000	1	\$	120,000
Repair Existing Well (2,000 gpm target) Water Storage Tank Improvements Booster Station w/Generator Electrical Service	LS LS LS LS	\$ 120,000 \$ 440,000 \$ 20,000	1 1 1 1	\$ \$ \$	120,000 440,000 20,000
Repair Existing Well (2,000 gpm target) Water Storage Tank Improvements Booster Station w/Generator Electrical Service SCADA System Subtotal	LS LS LS LS	\$ 120,000 \$ 440,000 \$ 20,000	1 1 1 1	\$ \$ \$ \$	120,000 440,000 20,000 20,000 700,000 42,000
Repair Existing Well (2,000 gpm target) Water Storage Tank Improvements Booster Station w/Generator Electrical Service SCADA System Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LS LS LS LS LS	\$ 120,000 \$ 440,000 \$ 20,000 \$ 20,000	1 1 1 1	\$ \$ \$ \$ \$ \$ \$ \$	120,000 440,000 20,000 20,000 <b>700,000</b> 42,000 140,000
Repair Existing Well (2,000 gpm target) Water Storage Tank Improvements Booster Station w/Generator Electrical Service SCADA System Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs Total Construction Costs	LS LS LS LS LS %	\$ 120,000 \$ 440,000 \$ 20,000 \$ 20,000 	1 1 1 1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	120,000 440,000 20,000 20,000 700,000 42,000 140,000 882,000
Repair Existing Well (2,000 gpm target) Water Storage Tank Improvements Booster Station w/Generator Electrical Service SCADA System SUbtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LS LS LS LS LS % %	\$ 120,000 \$ 440,000 \$ 20,000 \$ 20,000 	1 1 1 1	\$ \$ \$ \$ \$ \$ \$ \$	120,000 440,000 20,000 20,000 <b>700,000</b> 42,000 140,000

Water Capital Improvements Project		I	Project Lo Well			
Project Identifier: Well 6 Additional Storage Objectives: Increase Zone 1 supply storage Potential Issues:					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
		1	15	we have		E
General Line Items	Unit	14	Unit Price	Estimated Quantity		2017 Cost
	Unit LS	\$	Unit Price 865,000	Estimated Quantity	\$	
0.5 MG Water Storage Tank		\$			-	865,000
0.5 MG Water Storage Tank 18-inch Piping	LS		865,000	1	\$	2017 Cost 865,000 50,000 30,000
0.5 MG Water Storage Tank	LS LF	\$	865,000 100	1 500	\$ \$	865,000 50,000
0.5 MG Water Storage Tank 18-inch Piping Connect to Existing	LS LF LS	\$ \$	865,000 100 30,000	1 500	\$ \$ \$	865,000 50,000 30,000
0.5 MG Water Storage Tank 18-inch Piping Connect to Existing Tank Appurtenances	LS LF LS LS	\$ \$ \$	865,000 100 30,000 50,000	1 500 1 1	\$ \$ \$	865,000 50,000 30,000 50,000
0.5 MG Water Storage Tank 18-inch Piping Connect to Existing Tank Appurtenances Fencing	LS LF LS LS	\$ \$ \$	865,000 100 30,000 50,000	1 500 1 1	\$ \$ \$ \$ \$	865,000 50,000 30,000 50,000 10,500
0.5 MG Water Storage Tank 18-inch Piping Connect to Existing Tank Appurtenances Fencing Subtotal	LS LF LS LS LS LF	\$ \$ \$	865,000 100 30,000 50,000 25	1 500 1 1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	865,000 50,000 30,000 50,000 10,500 <b>1,005,500</b>
0.5 MG Water Storage Tank 18-inch Piping Connect to Existing Tank Appurtenances Fencing Subtotal Mobilization - Percent of Item Cost Sum	LS LF LS LS LS LF %	\$ \$ \$	865,000 100 30,000 50,000 25 6%	1 500 1 1	\$ \$ \$ \$ \$ \$ \$	865,000 50,000 50,000 10,500 <b>1,005,500</b> 60,330
0.5 MG Water Storage Tank 18-inch Piping Connect to Existing Tank Appurtenances Fencing Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LS LF LS LS LS LF %	\$ \$ \$	865,000 100 30,000 50,000 25 6%	1 500 1 1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	865,000 50,000 30,000 50,000 10,500 <b>1,005,500</b> 60,330 201,100

Water Capital Improvements Project		Project L Zon			
Project Identifier: Zone 2 Split - Inline Pumps on 21st Street	1	aparts.	-		
<b>Objectives</b> : Create an Upper and Lower pressure zones within Zone 2 to provide better top and bottom pressures to residents. Use inline pumps (no building) at the zone boundary to boost pressures supplied by PS 9.		己		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Potential Issues: Possibility of rock or other issues crossing gully between Zones 2 and 3. Five borderline homes on Bobwhite and Pinehen will have service brought through back yards to Foothill or 21st St to bring them onto upper zone. Looping line from Foothill Dr to Sharptail is a separate project.	1 6 9 9	A Selection		No. 1	
General Line Items	Unit	Unit Price	Estimated Quantity		2017 Cost
1,000 GPM Baker Monitor Booster Station (two 15 hp pumps)	LS	\$ 200,000	) 1	\$	200,000
8-inch Piping to Connect to Zone 3	LF	\$ 60	1384	\$	83,040
8-inch Piping within Zone 2	LF	\$ 60	) 729	\$	43,740
PRV w/ Vault	LS	\$ 10,000	) 4	\$	40,000
SCADA System	LS	\$ 10,000	) 1	\$	10,000
1/2 Lane Pavement Repair	LF	\$ 20	469	\$	9,380
				\$	8,220
Miscellaneous Surface Repair	LF	\$	5 1,644	φ	
Miscellaneous Surface Repair Disconnect Service w/ Asphalt Patch	LF EA	\$ 5 \$ 1,000	1-	э \$	5,000
			) 5		,
Disconnect Service w/ Asphalt Patch	EA EA LS	\$ 1,000	) 5 ) 5	\$	15,000
Disconnect Service w/ Asphalt Patch 1" Service w/ Asphalt Patch	EA EA	\$ 1,000 \$ 3,000	5           0         5           0         5           0         1	\$ \$	
Disconnect Service w/ Asphalt Patch 1" Service w/ Asphalt Patch Land Purchase Fencing Subtotal	EA EA LS	\$ 1,000 \$ 3,000 \$ 20,000	5           0         5           0         5           0         1	\$ \$ \$	15,000 20,000 1,500
Disconnect Service w/ Asphalt Patch 1" Service w/ Asphalt Patch Land Purchase Fencing	EA EA LS	\$ 1,000 \$ 3,000 \$ 20,000	5           0         5           0         5           0         1	\$ \$ \$ \$	15,000 20,000 1,500
Disconnect Service w/ Asphalt Patch 1" Service w/ Asphalt Patch Land Purchase Fencing Subtotal	EA EA LS LF	\$ 1,000 \$ 3,000 \$ 20,000 \$ 25	5           0         5           0         5           0         1	\$ \$ \$ \$ \$ \$ \$	15,000 20,000 1,500 <b>435,880</b> 26,153
Disconnect Service w/ Asphalt Patch  1" Service w/ Asphalt Patch Land Purchase Fencing  Mobilization - Percent of Item Cost Sum Contingency - % of construction costs  Total Construction Costs	EA EA LS LF % %	\$ 1,000 \$ 3,000 \$ 20,000 \$ 25 6% 20%	5           0         5           0         5           0         1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	15,000 20,000 1,500 <b>435,880</b> 26,153 87,176 <b>549,209</b>
Disconnect Service w/ Asphalt Patch  1" Service w/ Asphalt Patch Land Purchase Fencing  Subtotal  Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	EA EA LS LF %	\$ 1,000 \$ 3,000 \$ 20,000 \$ 229 6% 20% 15%	5           0         5           0         5           0         1	\$ \$ \$ \$ \$ \$ \$ \$	15,000 20,000 1,500 <b>435,880</b> 26,153

Water Capital Improvements Project			<b>_ocation:</b> ne 2		
Project Identifier: Zone 2 Split - Pumps at Well 9	1	233334		2	
<b>Objectives</b> : Create an Upper and Lower pressure zones within Zone 2 to provide better top and bottom pressures to residents. This alternative was ruled out as the alternate version, which includes an inline pump on 21st St. proved to be more cost effective (see Zone 2 Split-Inline tab).		U		No No	
Potential Issues: Possibility of rock or other issues crossing gully between Zones 2 and 3. Five borderline homes on Bobwhite and Pinehen will have service brought through back yards to Foothill or 21st St to bring them onto upper zone. Looping line from Foothill Dr to	1000	D		3. W. 1	
	100		100		
General Line Items	Unit	Unit Price	Estimated Quantity		2017 Cost
General Line Items Site Piping and Valves	Unit LS	Unit Price \$ 50,00		\$	
General Line Items Site Piping and Valves 1,000 GPM Booster Station (two 26 hp pumps)	LS EA	\$ 50,00 \$ 40,00	00 1	\$ \$	50,000 80,000
General Line Items           Site Piping and Valves           1,000 GPM Booster Station (two 26 hp pumps)           8-inch Piping to Connect to Zone 3	LS EA LF	\$ 50,00 \$ 40,00 \$ 6	00         1           00         2           60         1384	\$ \$ \$	50,000 80,000
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2	LS EA LF LF	\$ 50,00 \$ 40,00 \$ 6 \$ 6	00 1 00 2	\$ \$ \$ \$	50,000 80,000 83,040
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault	LS EA LF LF LS	\$ 50,00 \$ 40,00 \$ 6 \$ 6 \$ 6 \$ 10,00	00         1           00         2           50         1384           50         2427           00         4	\$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault         SCADA System	LS EA LF LF LS LS	\$ 50,00 \$ 40,00 \$ 6 \$ 6 \$ 10,00 \$ 10,00	00         1           00         2           60         1384           60         2427           00         4           00         1	\$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault         SCADA System         1/2 Lane Pavement Repair	LS EA LF LF LS LS LS	\$ 50,00 \$ 40,00 \$ 6 \$ 6 \$ 10,00 \$ 10,00 \$ 22	00         1           00         2           50         1384           50         2427           00         4           00         1           20         635	\$ \$ \$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000 12,700
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault         SCADA System         1/2 Lane Pavement Repair         Miscellaneous Surface Repair	LS EA LF LS LS LS LF LF	\$ 50,00 \$ 40,00 \$ 6 \$ 6 \$ 10,00 \$ 10,00 \$ 2 \$	00         1           00         2           50         1384           50         2427           50         4           50         4           50         1           50         635           5         3,176	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000 12,700 15,880
General Line Items         Site Piping and Valves       1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3       8         8-inch Piping within Zone 2       PRV w/ Vault         SCADA System       1/2 Lane Pavement Repair         Miscellaneous Surface Repair       Disconnect Service w/ Asphalt Patch	LS EA LF LS LS LS LF LF EA	\$ 50,00 \$ 40,00 \$ 6 \$ 6 \$ 10,00 \$ 10,00 \$ 22 \$ 2 \$ 2 \$ 1,00 \$ 2 \$ 2 \$ 2 \$ 1,00 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2 \$ 2	00         1           00         2           00         1384           00         2427           00         4           00         1           20         635           5         3,176           00         5	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000 12,700 15,880 5,000
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault         SCADA System         1/2 Lane Pavement Repair         Miscellaneous Surface Repair	LS EA LF LS LS LS LF LF	\$ 50,00 \$ 40,00 \$ 6 \$ 6 \$ 10,00 \$ 10,00 \$ 2 \$	00         1           00         2           00         1384           00         2427           00         4           00         1           20         635           5         3,176           00         5	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000 12,700 15,880
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault         SCADA System         1/2 Lane Pavement Repair         Miscellaneous Surface Repair         Disconnect Service w/ Asphalt Patch         1" Service w/ Asphalt Patch         Subtotal	LS EA LF LS LS LS LF LF EA EA	\$ 50,00 \$ 40,00 \$ 6 \$ 10,00 \$ 10,00 \$ 2 \$ \$ 10,00 \$ 2 \$ 2 \$ 2 \$ 2 \$ 3,00 \$ 3,00 \$ 3,00	00         1           00         2           00         1384           00         2427           00         4           00         1           20         635           5         3,176           00         5	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000 12,700 15,880 5,000 15,000 457,240
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault         SCADA System         1/2 Lane Pavement Repair         Miscellaneous Surface Repair         Disconnect Service w/ Asphalt Patch         1" Service w/ Asphalt Patch         Mobilization - Percent of Item Cost Sum	LS EA LF LS LS LS LF LF EA EA K	\$ 50,00 \$ 40,00 \$ 0 \$ 0 \$ 10,00 \$ 10,00 \$ 10,00 \$ 22 \$ 2 \$ 2 \$ 0 \$ 10,00 \$ 10,00 \$ 20 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$	00         1           00         2           00         1384           00         2427           00         4           00         1           20         635           5         3,176           00         5	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000 12,700 15,880 5,000 15,000 <b>457,240</b> 27,434
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault         SCADA System         1/2 Lane Pavement Repair         Miscellaneous Surface Repair         Disconnect Service w/ Asphalt Patch         1" Service w/ Asphalt Patch         Mobilization - Percent of Item Cost Sum         Contingency - % of construction costs	LS EA LF LS LS LS LF LF EA EA	\$ 50,00 \$ 40,00 \$ 6 \$ 10,00 \$ 10,00 \$ 2 \$ \$ 10,00 \$ 2 \$ 2 \$ 2 \$ 2 \$ 3,00 \$ 3,00 \$ 3,00	00         1           00         2           00         1384           00         2427           00         4           00         1           20         635           5         3,176           00         5	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000 12,700 15,880 5,000 15,000 457,240 27,434 91,448
General Line Items         Site Piping and Valves         1,000 GPM Booster Station (two 26 hp pumps)         8-inch Piping to Connect to Zone 3         8-inch Piping within Zone 2         PRV w/ Vault         SCADA System         1/2 Lane Pavement Repair         Miscellaneous Surface Repair         Disconnect Service w/ Asphalt Patch         1" Service w/ Asphalt Patch         Mobilization - Percent of Item Cost Sum	LS EA LF LS LS LS LF LF EA EA K	\$ 50,00 \$ 40,00 \$ 0 \$ 0 \$ 10,00 \$ 10,00 \$ 10,00 \$ 22 \$ 2 \$ 2 \$ 0 \$ 10,00 \$ 10,00 \$ 20 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$ 0 \$	00         1           00         2           00         1384           00         2427           00         4           00         1           20         635           5         3,176           00         5	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	50,000 80,000 83,040 145,620 40,000 10,000 12,700 15,880 5,000 15,000 <b>457,240</b> 27,434

## City of Ammon, Idaho Water Master Plan: Capital Improvement Project Details

Water Capital Improvements Project		Project Lo Foothill Rd to			
Project Identifier: QL RDG LOOP Objectives: Provide fire flow and loop Potential Issues:		Footnill Rd to s			
		P	TE:	b	
General Line Itoms	lloit	Interior	Estimated Quantity	2017	Cost
General Line Items 8-inch Pipe - Excavation Backfill Valves Hydrants	Unit	Unit Price	Estimated Quantity 690	2017 \$	
General Line Items         Image: Second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second	Unit LF LF	Unit Price           \$         60           \$         20	Estimated Quantity 690 485	2017 \$ \$	Cost 41,400 9,700
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	690	\$	41,400 9,700
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1/2 Lane Pavement Repair	LF	\$ 60	690	\$	41,400
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1/2 Lane Pavement Repair Subtotal	LF	\$ 60 \$ 20	690	\$ \$ \$	41,400 9,700 <b>51,100</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF LF %	\$ 60 \$ 20	690	\$ \$ \$ \$	41,400 9,700 <b>51,100</b> 3,066 5,110
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF LF %	\$ 60 \$ 20	690	\$ \$ \$ \$ \$ \$	41,400 9,700 <b>51,100</b> 3,066

Water Capital Improvements Project	Falcon Dr.	Project Lo between Salmo		vtoo	oth St.
Project Identifier: FALCON Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues: -				States of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local division of the local di	
			-4-1		-
General Line Items	Unit	Unit Price	Estimated Quantity		2017 Cost
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants	Unit LF	Unit Price \$ 60	Estimated Quantity 1332	\$	2017 Cost 79,920
				\$ \$	
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	1332	•	79,920
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA	\$ 60 \$ 2,700	1332 38	\$	79,920 102,600
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA LF	\$ 60 \$ 2,700 \$ 4	1332 38 1332	\$ \$	79,920 102,600 5,328
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF	\$         60           \$         2,700           \$         4           \$         4	1332 38 1332 1332	\$ \$ \$	79,920 102,600 5,328 5,328
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF	\$         60           \$         2,700           \$         4           \$         4	1332 38 1332 1332	\$ \$ \$ \$	79,920 102,600 5,328 5,328 26,640
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	1332 38 1332 1332	\$ \$ \$ \$ <b>\$</b>	79,920 102,600 5,328 5,328 26,640 <b>219,816</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	1332 38 1332 1332	\$ \$ \$ \$ \$ \$ \$	79,920 102,600 5,328 5,328 26,640 <b>219,816</b> 13,189
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	1332 38 1332 1332	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	79,920 102,600 5,328 5,328 26,640 219,816 13,189 21,982

Water Capital Improvements Project	Eagle Dr. b	Project Lo etween Salmo	ocation: on St. and Saw	tooth	n St.
Project Identifier: EAGLE Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues:					
	hh				
General Line Items	Unit	Unit Price	Estimated Quantity		2014 Cost
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants	Unit LF	Unit Price \$ 60	Estimated Quantity 1643	2 \$	2014 Cost 98,580
8-inch Pipe - Excavation, Backfill, Valves, Hydrants		\$ 60			98,580
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	1643	\$	
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA	\$         60           \$         2,700           \$         4	1643 45	\$ \$ \$	98,580 121,500 6,572
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA LF	\$         60           \$         2,700           \$         4	1643 45 1643	\$ \$	98,580 121,500
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF	\$         60           \$         2,700           \$         4           \$         4	1643 45 1643 1643	\$ \$ \$	98,580 121,500 6,572 6,572
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF	\$         60           \$         2,700           \$         4           \$         4	1643 45 1643 1643	\$ \$ \$ \$ \$	98,580 121,500 6,572 6,572 32,860
8-inch Pipe - Excavation, Backfill, Valves, Hydrants  1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	1643 45 1643 1643	\$ \$ \$ \$ \$ \$ \$	98,580 121,500 6,572 6,572 32,860 266,084
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	1643 45 1643 1643	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	98,580 121,500 6,572 6,572 32,860 <b>266,084</b> 15,965
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	1643 45 1643 1643	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	98,580 121,500 6,572 6,572 32,860 <b>266,084</b> 15,965 26,608

Water Capital Improvements Project Project Identifier: DOVE	Dove Dr.			ocation: n St. and Sawt	ooth	St.
Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues: - Easements may be necessary for some of the pipeline work not in the public right of way. - Coordination with local and state roadway authorities. - Canal crossings?		A STATISTICS			and the second second	
	圖		王			
General Line Items	Unit	Ur	ait Price	Estimated Quantity		2014 Cost
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants	Unit LF	Ur S	ait Price 60	Estimated Quantity 2260	\$	2014 Cost 135,600
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$	60	2260	\$	135,600
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA	\$	60	2260 34	\$ \$	135,600 91,800
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA LF	\$ \$ \$	60 2,700 4	2260 34 2260	\$ \$ \$	135,600 91,800 9,040
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF LF	\$ \$ \$ \$	60 2,700 4 4	2260 34 2260 2260	\$ \$ \$ \$	135,600 91,800 9,040 9,040
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF LF	\$ \$ \$ \$	60 2,700 4 4	2260 34 2260 2260	\$ \$ \$ \$ \$	135,600 91,800 9,040 9,040 45,200

 Total Construction Costs
 \$ 337,189

 Engineering and CMS - % of construction costs
 % 15%
 \$ 50,578

 Total Project Cost (rounded)
 \$ 388,000

### City of Ammon, Idaho Water Master Plan: Capital Improvement Project Details

#### Water Capital Improvements Project **Project Location:** Curlew Dr. between Teton St. and 17th St. **CURLEW Project Identifier:** Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues: **General Line Items** Unit **Unit Price Estimated Quantity** 2014 Cost LF 8-inch Pipe - Excavation, Backfill, Valves, Hydrants \$ 60 785 \$ 47,100 LF 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 80 1723 137,840 \$ \$ Service w/o Asphalt Patch ¢ 2 700 ¢ 116.100 1" 43

Total Project Cost (rounded)			\$49	6,000		
Engineering and CMS - % of construction costs	%		15%		\$	64,600
Total Construction Costs					\$	430,666
Contingency - % of construction costs	%		10%		\$	37,126
Mobilization - Percent of Item Cost Sum	%		6%		\$	22,276
Subtotal					\$	371,264
1/2 Lane Pavement Repair	LF	\$	20	2508	\$	50,160
Traffic Control - Without Flagging	LF	\$	4	2508	\$	10,032
Existing Utility Protection	LF	\$	4	2508	\$	10,032
i Service w/o Aspitali Fatch	LA	φ	2,700	43	φ	110,100

### City of Ammon, Idaho Water Master Plan: Capital Improvement Project Details

## Water Capital Improvements Project

Project Identifier: BITTERN

**Objectives:** Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow

Potential Issues: - Use existing casings under runway.





General Line Items	Unit		Unit Price	Estimated Quantity	2014 Cost
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$	60	1943	\$ 116,580
12-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$	80	130	\$ 10,400
1" Service w/o Asphalt Patch	EA	\$	2,700	37	\$ 99,900
Existing Utility Protection	LF	\$	4	2073	\$ 8,292
Traffic Control - Without Flagging	LF	\$	4	2073	\$ 8,292
1/2 Lane Pavement Repair	LF	\$	20	2073	\$ 41,460
Subtotal		_			\$ 284,924
Mobilization - Percent of Item Cost Sum	%		6%		\$ 17,095
Contingency - % of construction costs	%		10%		\$ 28,492
Total Construction Costs					\$ 330,512
Engineering and CMS - % of construction costs	%		15%		\$ 49,577
Total Project Cost (rounded)		·	\$38	1,000	

Water Capital Improvements Project	Avocet	Project Lo Dr. between Te		7th St	
Project Identifier: AVOCET Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues:					
General Line Items	Unit	Unit Price	Estimated Quantity	2	014 Cost
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants	Unit	Unit Price	Estimated Quantity 2482	<b>2</b> (	<b>014 Cost</b> 148,920
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	2482	\$	148,920
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA	\$ 60 \$ 2,700	2482 42	\$ \$	148,920 113,400
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA LF	\$ 60 \$ 2,700 \$ 4	2482 42 2482	\$ \$ \$	148,920 113,400 9,928
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF	\$         60           \$         2,700           \$         4           \$         4	2482 42 2482 2482 2482	\$ \$ \$ \$	148,920 113,400 9,928 9,928
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF	\$         60           \$         2,700           \$         4           \$         4	2482 42 2482 2482 2482	\$ \$ \$ \$	148,920 113,400 9,928 9,928 49,640
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	2482 42 2482 2482 2482	\$ \$ \$ \$ \$ \$ \$ \$ \$	148,920 113,400 9,928 9,928 49,640 <b>331,816</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF %	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	2482 42 2482 2482 2482	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	148,920 113,400 9,928 9,928 49,640 <b>331,816</b> 19,909
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF %	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	2482 42 2482 2482 2482	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	148,920 113,400 9,928 9,928 49,640 <b>331,816</b> 19,909 33,182

Water Capital Improvements Project	Hillam Dr	Project Lo		eton S	St.
Project Identifier: HILLAM Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues:	D				「「「「「「「」」」
	15.22	. Ris		1	
General Line Items	Unit	Unit Price	Estimated Quantity	20	014 Cost
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants	Unit LF	Unit Price \$ 60	Estimated Quantity 460	20 \$	014 Cost 27,600
8-inch Pipe - Excavation, Backfill, Valves, Hydrants					
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	460	\$	27,600
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA	\$ 60 \$ 2,700	460 8	\$ \$	27,600 21,600
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA LF	\$ 60 \$ 2,700 \$ 4	460 8 460	\$ \$ \$	27,600 21,600 1,840
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4	460 8 460 460	\$ \$ \$ \$	27,600 21,600 1,840 1,840
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4	460 8 460 460	\$ \$ \$ \$	27,600 21,600 1,840 1,840 9,200
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	460 8 460 460	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,600 21,600 1,840 1,840 9,200 62,080
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	460 8 460 460	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,600 21,600 1,840 9,200 62,080 3,725
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	460 8 460 460	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	27,600 21,600 1,840 9,200 <b>62,080</b> 3,725 6,208

## Water Capital Improvements Project

## Project Identifier: SAWTOOTH

**Objectives**: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas.

-Provide adequate Fire Flow

Potential Issues:

**Project Location:** Sawtooth St. between Falcon Dr. and Avocet Dr.



General Line Items	Unit	Unit Price	Estimated Quantity	2	2014 Cost
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	1634	\$	98,040
1" Service w/o Asphalt Patch	EA	\$ 2,700	24	\$	64,800
Existing Utility Protection	LF	\$ 4	1634	\$	6,536
Traffic Control - Without Flagging	LF	\$ 4	1634	\$	6,536
1/2 Lane Pavement Repair	LF	\$ 20	1634	\$	32,680
Subtotal				\$	208,592
Mobilization - Percent of Item Cost Sum	%	6%		\$	12,516
Contingency - % of construction costs	%	10%		\$	20,859
Total Construction Costs				\$	241,967
Engineering and CMS - % of construction costs	%	15%		\$	36,295
Total Project Cost (rounded)		\$2	79,000		

#### Water Capital Improvements Project Teton St. between Dove Dr. and Western Ave. TETON **Project Identifier:** Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues: **Estimated Quantity General Line Items** Unit **Unit Price** 2014 Cost 8-inch Pipe - Excavation, Backfill, Valves, Hydrants LF 60 1209 72,540 \$ \$ 1" Service w/o Asphalt Patch ΕA \$ 2,700 15 \$ 40,500 LF \$ 1209 \$ 4,836 Existing Utility Protection 4 Traffic Control - Without Flagging LF \$ 4 1209 4,836 \$ LF \$ 20 1209 \$ 1/2 Lane Pavement Repair 24,180 Subtotal \$ 146,892 \$ Mobilization - Percent of Item Cost Sum % 6% 8,814 Contingency - % of construction costs 14,689 % 10% \$ **Total Construction Costs** \$ 170,395 Engineering and CMS - % of construction costs % 15% \$ 25,559 Total Project Cost (rounded) \$196,000

Water Capital Improvements Project	Salmon S		oject Lo	cation: con Dr. and Bit	tern	Dr
Project Identifier: SALMON	Gainion C					D1.
<b>Objectives</b> : Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues:		C. L. L. Summer			and the second	I
	a la ll			DÓ		
General Line Items	Unit		nit Price	Estimated Quantity		2014 Cost
	Unit LF		nit Price 60	Estimated Quantity 279	2 \$	2014 Cost 16,740
8-inch Pipe - Excavation, Backfill, Valves, Hydrants						
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$	60	279	\$	16,740
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ \$	60 70	279 910	\$ \$	16,740 63,700
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF LF LF	\$ \$ \$	60 70 80	279 910 331	\$ \$ \$	16,740 63,700 26,480
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF LF LF EA	\$ \$ \$ \$	60 70 80 2,700	279 910 331 13	\$ \$ \$	16,740 63,700 26,480 35,100
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF LF LF EA LF	\$ \$ \$ \$ \$	60 70 80 2,700 4	279 910 331 13 1520	\$ \$ \$ \$	16,740 63,700 26,480 35,100 6,080
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF LF LF EA LF LF	\$ \$ \$ \$ \$ \$	60 70 80 2,700 4 4	279 910 331 13 1520 1520	\$ \$ \$ \$ \$ \$	16,740 63,700 26,480 35,100 6,080 6,080
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF LF EA LF LF LF LF %	\$ \$ \$ \$ \$ \$	60 70 80 2,700 4 4	279 910 331 13 1520 1520	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	16,740 63,700 26,480 35,100 6,080 6,080 30,400
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1* Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF LF EA LF LF LF LF	\$ \$ \$ \$ \$ \$	60 70 80 2,700 4 4 20	279 910 331 13 1520 1520	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	16,740 63,700 26,480 35,100 6,080 6,080 30,400 <b>184,580</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1* Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair           Subtotal           Mobilization - Percent of Item Cost Sum           Contingency - % of construction costs	LF LF EA LF LF LF % %	\$ \$ \$ \$ \$ \$	60 70 80 2,700 4 4 20 6%	279 910 331 13 1520 1520	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	16,740 63,700 26,480 35,100 6,080 6,080 30,400 <b>184,580</b> 11,075
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 10-inch Pipe - Excavation, Backfill, Valves, Hydrants 12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF LF EA LF LF LF LF %	\$ \$ \$ \$ \$ \$	60 70 80 2,700 4 4 20 6%	279 910 331 13 1520 1520	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	16,740 63,700 26,480 35,100 6,080 6,080 30,400 <b>184,580</b> 11,075 18,458

Water Capital Improvements Project	Rawson St. b		roject Lo en Weste	cation: ern ave. and A	mm	on Rd.
Project Identifier: RAWSON Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow " Potential Issues:		and the second second	Contraction of the second			
General Line Items	Unit	l	Jnit Price	Estimated Quantity		2014 Cost
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$	60	183	\$	10,980
12-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$	80	2274	\$	181,920
1" Service w/o Asphalt Patch	EA	\$	2,700	29	\$	78,300
Existing Utility Protection	LF	\$	4	183	\$	
						732
Traffic Control - Without Flagging	LF	\$	4	183	\$	732
1/2 Lane Pavement Repair	LF LF	\$ \$	4 20	183 183	\$ \$	-
		•	-		•	732
1/2 Lane Pavement Repair		•	-		\$	732 3,660
1/2 Lane Pavement Repair Subtotal	LF	•	20		\$ \$	732 3,660 <b>276,324</b>
1/2 Lane Pavement Repair  Subtotal Mobilization - Percent of Item Cost Sum	LF %	•	20 6%		\$ \$ \$ \$	732 3,660 <b>276,324</b> 16,579
1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF % % %	•	20 6% 10% 15%		\$ \$ \$ \$	732 3,660 <b>276,324</b> 16,579 27,632

Water Capital Improvements Project	Owen St. be	Project Lo tween Wester	<b>ocation:</b> rn Ave. and An	nmo	n Rd.
Project Identifier: OWEN Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues: -Is west 6" line behind the sidewalk? -If sewer replaced, will road be redone (reduced asphalt patch cost)?		「「たい」	のため	「「「「「」」	
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General Line Items	Unit	Unit Price	Estimated Quantity		2014 Cost
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	2276	\$	136,560
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA	\$ 60 \$ 2,700	2276 14	\$ \$	136,560 37,800
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA LF	\$ 60 \$ 2,700 \$ 4	2276 14 2276	\$ \$ \$	136,560 37,800 9,104
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF	\$     60       \$     2,700       \$     4       \$     4	2276 14 2276 2276	\$ \$ \$	136,560 37,800 9,104 9,104
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA LF	\$ 60 \$ 2,700 \$ 4	2276 14 2276	\$ \$ \$	136,560 37,800 9,104
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF	\$     60       \$     2,700       \$     4       \$     4	2276 14 2276 2276	\$ \$ \$	136,560 37,800 9,104 9,104
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF	\$     60       \$     2,700       \$     4       \$     4	2276 14 2276 2276	\$ \$ \$ \$ \$	136,560 37,800 9,104 9,104 45,520
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	2276 14 2276 2276	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	136,560 37,800 9,104 9,104 45,520 <b>238,088</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF LF %	\$ 60 \$ 2,700 \$ 4 \$ 2 \$ 20 	2276 14 2276 2276	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	136,560 37,800 9,104 9,104 45,520 <b>238,088</b> 14,285
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF LF %	\$ 60 \$ 2,700 \$ 4 \$ 2 \$ 20 	2276 14 2276 2276	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	136,560 37,800 9,104 9,104 45,520 <b>238,088</b> 14,285 23,809

Water Capital Improvements Project	Molen St. b	Project Lo etween Weste	ocation: rn Ave. and An	nmc	on Rd.
Project Identifier: MOLEN Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues: -May be able to share road repair costs with sewer		A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A CONTRACT OF A		という ころうちやく ろう	のないが見た
			Estimated Quantity		
General Line Items	Unit	Unit Price	Estimated Quantity		2014 Cost
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	2262	\$	<b>2014 Cost</b> 135,720
				\$ \$	
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	2262		135,720
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA	\$ 60 \$ 2,700	2262 12	\$	135,720 32,400
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA LF	\$ 60 \$ 2,700 \$ 4	2262 12 2262	\$ \$	135,720 32,400 9,048
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4	2262 12 2262 2262	\$ \$ \$	135,720 32,400 9,048 9,048
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4	2262 12 2262 2262	\$ \$ \$	135,720 32,400 9,048 9,048 45,240
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	2262 12 2262 2262	\$ \$ \$ \$ <b>\$</b>	135,720 32,400 9,048 9,048 45,240 <b>231,456</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 20 	2262 12 2262 2262	\$ \$ \$ \$ \$ \$ \$	135,720 32,400 9,048 9,048 45,240 <b>231,456</b> 13,887
8-inch Pipe - Excavation, Backfill, Valves, Hydrants  1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging  1/2 Lane Pavement Repair  Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 20 	2262 12 2262 2262	\$ \$ \$ \$ <b>\$</b> \$ \$ \$ \$	135,720 32,400 9,048 9,048 45,240 <b>231,456</b> 13,887 23,146

Water Capital I	mprovements Project	/estern Ave I	Project Lo between Rawso		unnv	vside Rd
Project Identifier: Objectives: Upgrade d -Provide adequate supp areas. -Provide adequate Fire Potential Issues:	WESTERN eteriorating lines to bly to high density housing				The second second	
				2		
	General Line Items	Unit	Unit Price	Estimated Quantity	and and a	2014 Cost
	General Line Items n, Backfill, Valves, Hydrants	Unit LF	Unit Price \$ 88	Estimated Quantity 2270	\$	2014 Cost 199,760
	n, Backfill, Valves, Hydrants					
14-inch Pipe - Excavation	n, Backfill, Valves, Hydrants h	LF	\$ 88	2270	\$	199,760
14-inch Pipe - Excavation 1" Service w/o Asphalt Patcl	n, Backfill, Valves, Hydrants h on	LF EA	\$ 88 \$ 2,700	2270 21	\$ \$	199,760 56,700
14-inch Pipe - Excavation 1" Service w/o Asphalt Patcl Existing Utility Protection	n, Backfill, Valves, Hydrants h on it Flagging	LF EA LF	\$ 88 \$ 2,700 \$ 4	2270 21 2270	\$ \$ \$	199,760 56,700 9,080
14-inch Pipe - Excavation 1" Service w/o Asphalt Patcl Existing Utility Protection Traffic Control - Withou	n, Backfill, Valves, Hydrants h on it Flagging	LF EA LF LF	\$ 88 \$ 2,700 \$ 4 \$ 4	2270 21 2270 2270 2270	\$ \$ \$ \$	199,760 56,700 9,080 9,080
14-inch Pipe - Excavation 1" Service w/o Asphalt Patcl Existing Utility Protection Traffic Control - Withou	n, Backfill, Valves, Hydrants h on it Flagging ipair <b>Subtotal</b>	LF EA LF LF	\$ 88 \$ 2,700 \$ 4 \$ 4	2270 21 2270 2270 2270	\$ \$ \$ \$	199,760 56,700 9,080 9,080 45,400
14-inch Pipe - Excavation 1" Service w/o Asphalt Patcl Existing Utility Protection Traffic Control - Withou 1/2 Lane Pavement Re	n, Backfill, Valves, Hydrants h on it Flagging ipair <b>Subtotal</b> of Item Cost Sum	LF EA LF LF LF	\$     88       \$     2,700       \$     4       \$     4       \$     20	2270 21 2270 2270 2270	\$ \$ \$ \$ \$ \$ \$ \$	199,760 56,700 9,080 9,080 45,400 320,020
14-inch Pipe - Excavation 1" Service w/o Asphalt Patcl Existing Utility Protection Traffic Control - Withou 1/2 Lane Pavement Re Mobilization - Percent of	n, Backfill, Valves, Hydrants h on it Flagging ipair <b>Subtotal</b> of Item Cost Sum	LF EA LF LF LF S S S S S S S S S S S S S S S	\$ 88 \$ 2,700 \$ 4 \$ 4 \$ 20 	2270 21 2270 2270 2270	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	199,760 56,700 9,080 9,080 45,400 <b>320,020</b> 19,201
14-inch Pipe - Excavatio 1" Service w/o Asphalt Patcl Existing Utility Protectio Traffic Control - Withou 1/2 Lane Pavement Re Mobilization - Percent of Contingency - % of cor	n, Backfill, Valves, Hydrants h on it Flagging ipair <b>Subtotal</b> of Item Cost Sum istruction costs	LF EA LF LF LF S S S S S S S S S S S S S S S	\$ 88 \$ 2,700 \$ 4 \$ 4 \$ 20 	2270 21 2270 2270 2270	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	199,760 56,700 9,080 9,080 45,400 <b>320,020</b> 19,201 32,002

## City of Ammon, Idaho Water Master Plan: Capital Improvement Project Details

Water Capital Improvements Project	Rosedale Ln.	Project Lo		to cul	desac
Project Identifier: ROSEDALE Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues:				いいろうというないないない	N. Rue Bank and
General Line Items	Unit	Unit Price	Estimated Quantity	20	)14 Cost
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	1862	\$	
1" Service w/o Asphalt Patch	EA	\$ 2.700	15		111,720
				\$	111,720 40,500
Existing Utility Protection	LF	\$ 4	1862	\$ \$	,
Existing Utility Protection Traffic Control - Without Flagging		¥ 7		•	40,500
	LF	\$ 4	1862	\$	40,500 7,448
Traffic Control - Without Flagging	LF LF	\$ 4 \$ 4	1862 1862	\$ \$	40,500 7,448 7,448
Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF LF	\$ 4 \$ 4	1862 1862	\$ \$ \$	40,500 7,448 7,448 37,240
Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF LF LF	\$ 4 \$ 4 \$ 20	1862 1862	\$ \$ \$ <b>\$</b>	40,500 7,448 7,448 37,240 <b>204,356</b>
Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF LF LF 	\$ 4 \$ 4 \$ 20	1862 1862	\$ \$ \$ <b>\$</b> \$	40,500 7,448 7,448 37,240 <b>204,356</b> 12,261
Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF LF LF 	\$ 4 \$ 4 \$ 20	1862 1862	\$ \$ \$ \$ \$ \$	40,500 7,448 7,448 37,240 <b>204,356</b> 12,261 20,436

Water Capital Improvements Project	Romrell Ln. b	Project L between E Sun	ocation: nyside Rd. and	Rav	vson St.
Project Identifier: ROMRELL Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues: -				のこのとこのでいたの	No. of Lot And And And And And And And And And And
	STREET, STREET,	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	al model and		
General Line Items	Unit	Unit Price	Estimated Quantity		2014 Cost
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants	Unit LF	Unit Price \$ 60		\$	<b>2014 Cost</b> 136,020
8-inch Pipe - Excavation, Backfill, Valves, Hydrants			2267		
8-inch Pipe - Excavation, Backfill, Valves, Hydrants	LF	\$ 60	2267 28	\$	136,020
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA	\$ 60 \$ 2,700	2267 28 2267	\$ \$	136,020 75,600
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA LF	\$ 60 \$ 2,700 \$ 4	2267 28 2267 2267	\$ \$ \$	136,020 75,600 9,068
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4	2267 28 2267 2267	\$ \$ \$	136,020 75,600 9,068 9,068
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4	2267 28 2267 2267	\$ \$ \$ \$ \$	136,020 75,600 9,068 9,068 45,340
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 600 \$ 2,700 \$ 4 \$ 4 \$ 200	2267 28 2267 2267	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	136,020 75,600 9,068 9,068 45,340 <b>275,096</b>
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF % %	\$ 600 \$ 2,700 \$ 4 \$ 4 \$ 200 	2267 28 2267 2267	\$ \$ \$ \$ \$ \$ \$	136,020 75,600 9,068 9,068 45,340 <b>275,096</b> 16,506
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF % %	\$ 600 \$ 2,700 \$ 4 \$ 4 \$ 200 	2267 28 2267 2267	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	136,020 75,600 9,068 9,068 45,340 <b>275,096</b> 16,506 27,510

Water Capital Improvements Project	Centra	ll Ave. b	Project Lo etween E Sun	ocation: nyside Rd. and	Rav	wson St.
Project Identifier:       CENTRAL         Objectives:       Upgrade deteriorating lines to         -Provide adequate supply to high density housing areas.       -Provide adequate Fire Flow         Potential Issues:			A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF A STATE OF		and the state of the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	「「「「「「」」」」」
General Line Items		Unit	Unit Price	Estimated Quantity		
8-inch Pipe - Excavation, Backfill, Valves, Hydrants						2014 Cost
		LF	\$ 60	2265	\$	2014 Cost 135,900
1" Service w/o Asphalt Patch		LF EA	\$ 60 \$ 2,700	2265 24		
1" Service w/o Asphalt Patch			+		\$	135,900
		EA	\$ 2,700	24	\$ \$	135,900 64,800
1" Service w/o Asphalt Patch Existing Utility Protection		EA	\$ 2,700 \$ 4	24 2265	\$ \$ \$	135,900 64,800 9,060
1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	al	EA LF LF	\$ 2,700 \$ 4 \$ 4	24 2265 2265	\$ \$ \$	135,900 64,800 9,060 9,060
1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	al	EA LF LF	\$ 2,700 \$ 4 \$ 4	24 2265 2265	\$ \$ \$ \$	135,900 64,800 9,060 9,060 45,300
Service w/o Asphalt Patch     Existing Utility Protection     Traffic Control - Without Flagging     1/2 Lane Pavement Repair     Subtote	al	EA LF LF LF	\$ 2,700 \$ 4 \$ 4 \$ 20	24 2265 2265	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	135,900 64,800 9,060 9,060 45,300 <b>264,120</b>
Service w/o Asphalt Patch     Existing Utility Protection     Traffic Control - Without Flagging     1/2 Lane Pavement Repair     Subtote     Mobilization - Percent of Item Cost Sum		EA LF LF LF	\$ 2,700 \$ 4 \$ 4 \$ 20 	24 2265 2265	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	135,900 64,800 9,060 9,060 45,300 <b>264,120</b> 15,847
Service w/o Asphalt Patch     Existing Utility Protection     Traffic Control - Without Flagging     1/2 Lane Pavement Repair     Subtota     Mobilization - Percent of Item Cost Sum     Contingency - % of construction costs		EA LF LF LF	\$ 2,700 \$ 4 \$ 4 \$ 20 	24 2265 2265	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	135,900 64,800 9,060 45,300 <b>264,120</b> 15,847 26,412

## City of Ammon, Idaho Water Master Plan: Capital Improvement Project Details

Project Identifier:MeadowObjectives:Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire FlowPotential Issues:	Meadow Ln.	Project Lo between E Sur		O b	wen St.
		an C			
General Line Items	Unit	Unit Price	Estimated Quantity		2014 Cost
	Unit LF	Unit Price \$ 60	Estimated Quantity 1508	\$	2014 Cost 90,480
General Line Items 8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch					
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF	\$ 60	1508	\$	90,480
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA	\$ 60 \$ 2,700	1508 25	\$ \$	90,480 67,500
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA LF	\$ 60 \$ 2,700 \$ 4	1508 25 1508	\$ \$ \$	90,480 67,500 6,032
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4	1508 25 1508 1508	\$ \$ \$ \$	90,480 67,500 6,032 6,032
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4	1508 25 1508 1508	\$ \$ \$ \$	90,480 67,500 6,032 6,032 30,160
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20	1508 25 1508 1508	\$ \$ \$ \$ \$ \$ \$ \$	90,480 67,500 6,032 6,032 30,160 200,204
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF %	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20 	1508 25 1508 1508	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	90,480 67,500 6,032 30,160 <b>200,204</b> 12,012
8-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF %	\$ 60 \$ 2,700 \$ 4 \$ 4 \$ 20 	1508 25 1508 1508	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	90,480 67,500 6,032 30,160 200,204 12,012 20,020

Water Capital Improvements Project	Targhee St.	Project Lo between Bitte	cation: ern Dr. and Wil	liam	s St.
Project Identifier: TARGHEE Objectives: Upgrade deteriorating lines to -Provide adequate supply to high density housing areas. -Provide adequate Fire Flow Potential Issues:					
	Circle 1	1.00			- 1
General Line Items	Unit	Unit Price	Estimated Quantity		2014 Cost
General Line Items 12-inch Pipe - Excavation, Backfill, Valves, Hydrants	Unit LF	Unit Price \$ 80	Estimated Quantity 676	\$	2014 Cost 54,080
12-inch Pipe - Excavation, Backfill, Valves, Hydrants					
	LF	\$ 80	676	\$	54,080
12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch	LF EA	\$         80           \$         2,700	676 2	\$ \$	54,080 5,400
12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection	LF EA LF	\$         80           \$         2,700           \$         4	676 2 676	\$ \$ \$	54,080 5,400 2,704
12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging	LF EA LF LF	\$         80           \$         2,700           \$         4           \$         4	676 2 676 676	\$ \$ \$	54,080 5,400 2,704 2,704
12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair	LF EA LF LF	\$         80           \$         2,700           \$         4           \$         4	676 2 676 676	\$ \$ \$ \$ \$	54,080 5,400 2,704 2,704 13,520
12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal	LF EA LF LF LF	\$ 80 \$ 2,700 \$ 4 \$ 4 \$ 20	676 2 676 676	\$ \$ \$ \$ \$ \$ \$ \$	54,080 5,400 2,704 2,704 13,520 <b>78,408</b>
12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum	LF EA LF LF LF %	\$ 80 \$ 2,700 \$ 4 \$ 2 \$ 4 \$ 20 	676 2 676 676	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	54,080 5,400 2,704 13,520 <b>78,408</b> 4,704
12-inch Pipe - Excavation, Backfill, Valves, Hydrants 1" Service w/o Asphalt Patch Existing Utility Protection Traffic Control - Without Flagging 1/2 Lane Pavement Repair Subtotal Mobilization - Percent of Item Cost Sum Contingency - % of construction costs	LF EA LF LF LF %	\$ 80 \$ 2,700 \$ 4 \$ 2 \$ 4 \$ 20 	676 2 676 676	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	54,080 5,400 2,704 13,520 <b>78,408</b> 4,704 7,841

## Ammon WFPS Rate Impact Scenarios

Prepared By: Last Updated:	Ke	ller Associates, Inc 6/5/2018	All Scenarios are for the Priority	<u>y 1 Improvemer</u>	nts Only (De	signated Belov	<u>ப</u>		Use	er Rate Increase Base	ed on D	DEQ Loan Paym	ent (Base Scenario	)\$16.77	/conr	nection/montl	h			
Current Rates	\$	45.75 /month for Large Lot	2016	Connections	4,248															
	\$	38.25 /month for Small Lot	2016	6 Population	14,125			Scenar	rio 1					Scenario 2						
			Connection	ns per Capita	0.30			Base loai	n scenario	1				If phased-fee	is saved dur	ing constructi	on and applied to ve	ar 5 constru	ction	
			Inf	flation Rate:	3%			DEQ Loa	n	Interest		2.75%		DEQ Loan		Interest	2.75%			
			,						_	thly Rate Increase		\$16.7	77		Monthly	Rate Increase		514.06		
								Principle	2					Revenue from	n Fee Princ	iple				
					P	opulation C	onnections	Reimbur	sed Ar	nnual Payment In	nterest	Accrued Ba	lance	Increase	Reim	bursed	Annual Payment	Interest Acc	crued Bala	ance
Projects				0	2018	14,663	4,410	\$ 2,5	72,000			\$	2,572,000	\$148,	758.12 \$	2,572,000			\$	2,572,000
Priority 1 Needed Now				_ 1	2019	14,900	, -		49,160	ç		70,730.00 \$	5,291,890.00		324.29 \$	2,649,160			70,730.00 \$	5,291,890.00
WH WELL	\$	257,000 16-inch dia. X 350-foc		2	2020	15,141	4,554		28,635	ç		145,526.98 \$	8,166,051.78		306.71 \$	2,728,635		•	45,526.98 \$	8,166,051.78
WH WELLHOUSE	\$	777,000 15' X 30' Wellhouse w		3	2021	15,385	4,627		10,494	ç		224,566.42 \$	11,201,112.04		315.71 \$	2,810,494			24,566.42 \$	11,201,112.04
WH TANK AND BS	\$			4	2022	15,633	, -	\$ 2,8	94,809	ç		308,030.58 \$	14,403,951.28		963.84 \$	565,640	· · · · · · · · · · · · · · · · · · ·	•	08,030.58 \$	12,074,782.62
ASPEN LN	\$	63,000 Replace galvenized 2-		5	2023	15,968	4,802			(\$945,932.41) \$		396,108.66 \$	13,854,127.54				(\$792,971.87		32,056.52 \$	11,613,867.27
1st ST LOOP	\$	294,000 12-inch loop from Cu		6	2024	16,310	4,905			(\$945,932.41) \$		380,988.51 \$	13,289,183.63				(\$792,971.87		19,381.35 \$	11,140,276.75
ORIGINAL TOWNSITE	\$	5,951,000 Replace undersized a		/	2025	16,659	5,010			(\$945,932.41) \$		365,452.55 \$	12,708,703.78				(\$792,971.87		06,357.61 \$	10,653,662.49
ZONE 2 SPLIT QL RDG LOOP	\$ \$	632,000 Zone split to address 69,000 8-inch loop from Foot		8	2026 2027	17,015 17,378	5,117 5,226			(\$945,932.41) (\$945,932.41)		349,489.35 \$ 333,087.17 \$	12,112,260.72 11,499,415.48				(\$792,971.87 (\$792,971.87		.92,975.72 \$ .79,225.82 \$	10,153,666.34 9,639,920.29
	ş Ş	80,000 8-inch loop to Crowle		10	2027	17,578	5,220			(\$945,932.41)		316,233.93 \$	10,869,717.00				(\$792,971.87		.79,225.82 \$ .65,097.81 \$	9,112,046.23
SOUTH LOOP	ڊ s	888,000 16-inch loop from Sur	,	10	2028	18,126	5,358			(\$945,932.41)		298,917.22 \$	10,809,717.00				(\$792,971.87		.05,097.81 \$ .50,581.27 \$	8,569,655.63
Priority 2 Needed by 20				12	2025	18,511	5,567			(\$945,932.41)		281,124.30 \$	9,557,893.70				(\$792,971.87		35,665.53 \$	8,012,349.29
WELL 6		1,015,000 Well, Tank, and Boost	ter Station Improvements	13	2031	18,904	5,685			(\$945,932.41)		262,842.08 \$	8,874,803.37				(\$792,971.87		20,339.61 \$	7,439,717.02
W6 STORAGE		1,457,000 Additional 0.5 MG Sto		14	2032	19,305	5,806			(\$945,932.41)		244,057.09 \$	8,172,928.05				(\$792,971.87		04,592.22 \$	6,851,337.37
		ment or Potentially Avoidable		15	2033	19,713	5,929			(\$945,932.41)		224,755.52 \$	7,451,751.17				(\$792,971.87		.88,411.78 \$	6,246,777.27
COTTAGE LOOP	\$	183,000 Loop from Sunnyside	to Tildy Ln	16	2034	20,130	6,054			(\$945,932.41)		204,923.16 \$	6,710,741.92				(\$792,971.87		.71,786.37 \$	5,625,591.77
FOX HLW LOOP	\$	149,000 8-inch loop in Fox Hol	llow Subdivision	17	2035	20,556	6,182			(\$945,932.41)	\$1	184,545.40 \$	5,949,354.91				(\$792,971.87	\$ 1	.54,703.77 \$	4,987,323.68
				18	2036	20,989	6,313			(\$945,932.41)	\$1	163,607.26 \$	5,167,029.76				(\$792,971.87	\$1	.37,151.40 \$	4,331,503.21
Best Performed by Con	tracto	r		19	2037	21,432	6,446			(\$945,932.41)	\$1	142,093.32 \$	4,363,190.67				(\$792,971.87	\$1	.19,116.34 \$	3,657,647.67
Possible City Crew Proj	ect			20	2038	21,883	6,581			(\$945,932.41) \$		119,987.74 \$	3,537,246.01				(\$792,971.87	\$1	.00,585.31 \$	2,965,261.11
Developer Supported				21	2039	22,344	6,720			(\$945,932.41) \$	\$	97,274.27 \$	2,688,587.86				(\$792,971.87		81,544.68 \$	2,253,833.92
				22	2040	22,813	6,861			(\$945,932.41) \$		73,936.17 \$	1,816,591.62				(\$792,971.87		61,980.43 \$	1,522,842.48
				23	2041	23,292	7,005			(\$945,932.41)		49,956.27 \$	920,615.48				(\$792,971.87		41,878.17 \$	771,748.78
Assumes growth cor	ntinue	s at forecasted rate. Changes to pop	pulation growth would	24	2042	23,781	7,152			(\$945,932.41)	\$	25,316.93 \$	0.00				(\$792,971.87	\$	21,223.09 \$	0.00
		you-go scenarios. While "Revenue f		25	2043	24,279	7,302							I						
number of connection	ons fo	recased for each year, monthly rate	increases are based on the							(\$18,918,648.17)	ş 5,2	263,550.86					(\$15,859,437.43	Ş 4,5	33,508.79	
		nections in year 2022 (final year of o	-						Cł	heck		\$0.00 = \$	0.00?				Check		\$0.00 = \$0	0.00?
		oesn't account for payback of WH w	-																	
		tential city crew projects are bid to								Total Cost \$							Total Cos		38,530.88	
		F debt reserve as it is assumed that								Interest Cost	\$ 5,2	263,550.86					Interest Cos		33,508.79	
CIP projects.	ue to	cover this. Assumes that no other c	ity reserves would be applied to							s to Project Finish		5					ears to Project Finis		5	14.002
CIP projects.									wont	thly Rate Increase		\$16.77				M	onthly Rate Increase		\$14.06 = \$	14.06?



# City of Ammon

Scei	nario 3						Sce	enario 4							Sc	enario 5								
lf pha	ased-fee is sa	aved during construc	tion an	d made as ex	xtra p	ayment on loa	in.																	
DEQ	<u>Loan</u>	Interest		2.75%			Pay	As You Go - Ra	ise all	at once					Ра	y As You Go - 5-	•							
	М	onthly Rate Increase	2	\$10	6.77			M	onthly	Rate Increase		\$16.7	77			Mo	onthl	ly Rate Increase		\$1	.6.77			
Princ	iple						Rev	enue from Fee					Inflat	ed Project	Re	venue from Fee	Tot	al			Inflate	d Project		
Reim	bursed	Annual Payment	Intere	st Accrued	Bala	nce	Incr	ease	Total	Accumulated	2017	Project Costs	Costs		Inc	crease	Acc	cumulated	2017	Project Costs	Costs			
\$	2,572,000				\$	2,572,000	\$	887,468.39		630,468.39	- C	257,000		257,000	\$	177,493.68	\$	177,493.68					0	20:
\$	2,649,160		\$	70,730.00		5,291,890.00		901,810.46		731,968.84	\$	777,000	\$	800,310	\$	360,724.18		273,507.86	\$	257,000	\$	264,710	1	203
\$	2,728,635			145,526.98		8,166,051.78		916,367.66		1,648,336.50					\$	549,820.60		823,328.46					2	202
\$	2,810,494		\$			11,201,112.04		931,143.22		2,579,479.72					\$	744,914.58		719,194.15	\$	777,000	\$	849,049	3	202
\$	2,894,809		\$			14,403,951.28		946,140.42		3,525,620.14					\$	946,140.42		1,665,334.57					4	202
		(\$3,725,025.86)				1,075,034.09		966,436.62		30,010.85	- C	3,849,000		4,462,046		966,436.62		2,631,771.19					5	202
		(\$945,932.41)		,		10,433,665.11		987,138.75		590,872.93	\$	357,000	\$	426,277		987,138.75		3,618,909.94					6	20
		(\$945,932.41)		286,925.79		9,774,658.50		1,008,254.92		1,599,127.84					\$	1,008,254.92		4,627,164.85					7	20
		(\$945,932.41)		268,803.11		9,097,529.20		1,029,793.41		2,628,921.25					Ş	1,029,793.41		328,923.30	Ş	4,206,000	Ş	5,328,035	8	20
		(\$945,932.41)		250,182.05		8,401,778.84	\$	1,051,762.67	•	3,680,683.92					\$	1,051,762.67		1,380,685.97					9	202
		(\$945,932.41)		231,048.92		7,686,895.35		1,074,171.32		756,032.06	Ş	2,975,500	Ş	3,998,823		1,074,171.32		2,454,857.29					10	202
		(\$945,932.41)		211,389.62		6,952,352.57		1,097,028.14		1,853,060.20		Original Townsi	ite bro	ken	\$	1,097,028.14		3,551,885.44	~	2 075 500	~	4.949.959	11	20
		(\$945,932.41)		191,189.70		6,197,609.85	\$	1,120,342.10		2,973,402.30		into two projec	ts.		\$	1,120,342.10		429,876.02	Ş	2,975,500	\$	4,242,352	12	20
		(\$945,932.41)		170,434.27		5,422,111.72		1,144,122.34		4,117,524.64	~	2.075.500	~	4 500 714	Ş	1,144,122.34		1,573,998.36		Original To	wnsite ł	oroken	13	20
		(\$945,932.41)		149,108.07		4,625,287.38		1,168,378.18	•	785,192.09	- C	2,975,500		4,500,711		1,168,378.18		2,742,376.53		into two pr	ojects.		14	20: 20:
		(\$945,932.41) (\$945,932.41)		127,195.40 104,680.14		3,806,550.37 2,965,298.10	\$ \$	1,193,119.14 1,218,354.91		761,538.68 554,914.27		781,000 888,000		1,216,773 1,424,979		1,193,119.14 1,218,354.91		3,935,495.67 379,046.58	è	2,975,500	ć	4,774,804	15 16	203
		(\$945,932.41)		81,545.70		2,965,298.10		1,218,354.91		1,799,009.68	Ş	888,000	Ş	1,424,979	ş S	1,218,354.91		332,267.98	- C	781,000		4,774,804 1,290,874	10	203
		(\$945,932.41)				1,212,754.04	ې \$	1,244,095.41		3,069,360.39					Ş	1,244,095.41		90,858.14		888,000	1 C C C C C C C C C C C C C C C C C C C	1,290,874	17	203
		(\$945,932.41)		33,350.74		300,172.37	ې \$	1,270,330.71	·	31,824.55	ć	2,472,000	ć	4,334,667	Ŷ			90,858.14 1,387,989.26	Ş	888,000	Ş	1,511,701	18	203
		(\$308,427.11)		8,254.74		(0.00)		1,324,447.14		,	- C	nest Well 6 Comp			Ş	1,297,151.12	Ş	1,567,969.20					20	203
		(\$508,427.11)	Ş	0,234.74	Ş	(0.00)	ş Ş	1,352,309.48				pleted. Not inclu											20	203
							Ļ	1,332,303.40	Ļ	2,708,381.10	con	ipieteu. Not inclu	ueu ii	totals.									22	20
								City ma	ay be r	estricted from	offer	ing a Will Serve t	0			C	Citv n	nay be restricted	d from	offering a W	/ill Serve	2	23	20-
								develo	pment	until DEQ com	pliar	nce in 2023.						velopment until		•		-	24	204
											-							•		•			25	204
		(\$17,276,506.69)	\$ 3	.621.409.38			I				Ś	12,860,000.00	\$17	086.918.37	1				\$ 12	2,860,000.00	\$ 18	ا 8,261,583.93		_0
		Check	Ϋ́	\$0.00		.00?					Ŷ	12,000,000,000	φ±,	000,010.00					¥	.,,	φ <u>-</u>	5,202,000.00		
				<i>ç</i> 00	ΨŪ																			
		Total Cost	· ¢ 17	,276,506.69						Total Cost	¢	17,086,918.37						Total Cost	\$ 19	3,261,583.93				
		Interest Cost	•						In	flation "Cost"		4,226,918.37						Inflation "Cost"	•					
	V	ears to Project Finish	•	,021,409.38 5				Va		Project Finish	Ŷ	4,220,918.37				Ve		o Project Finish	Υ J	,401,585.55 18				
		onthly Rate Increase		\$16.77						Rate Increase		\$16.77						ly Rate Increase		\$16.77				



# City of Ammon

## "Irrigation Only" Water Right Summary City of Ammon

	Water Rights Summary of Costs         Volume Limitation       Acreage Limitation       Cost Per Acre-       Cost Per Acre-											
Water Right	Diversion Rate (cfs)	ersion Rate (cfs) Volume Limitation (AFA) Acreage Limitation Total Cost										
25-14405	0.21	64	16	\$89,675	\$1,401	\$427,024						
25-14406	0.21	04	10	<i><b>40</b>5,075</i>	Υ <b>1,</b> 401	7727,027						
25-14381	0.19	51.2	12.8	\$38,780	\$757	\$204,105						
35-14162/ 25-14380	0.23	60	15	\$45,000	\$750	\$195,652						
35-7192A/ 25-14396	0.28	109.6	27.4	\$87,680	\$800	\$313,143						
35-9069/ 25-14397	0.03	11.6	2.9	\$9,280	\$800	\$309,333						
Subtotal	0.94	296.4	74.1	\$270,415	Average:	\$289,851						

	Additional Irrigation Water Rights										
Water Right	Diversion Rate (cfs)	Volume Limitation (AFA)	Acreage Limitation (acres)								
25-14331	0.81	142	40.7								
25-14333	0.57	142.8	37.8								
25-14386	0.25	67.2	16.8								
25-14384	0.21	60.4	15.1								
Subtotal	1.84	412.4	110.4								
Total	2.78	708.8	184.5								

Allowed Period of Use	4/1/2017	10/31/2017	213 days
Diversion rate based on volume limitation over allowed	ed period of use:		1.68 cfs





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GROWING POSSIBILITIES



## Appendix F: Environmental Determination

Will be added after DEQ Environmental Determination is made







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GROWING POSSIBILITIES



## Appendix G: Meetings and Public Participation

- 01-25-2017 Citizen Water Committee Meeting
- 10-19-2017 Ammon City Council Meeting
- 11-30-2017 Citizen Water Committee Meeting
- 12-14-2017 Ammon City Council Work Session
- 02-14-2018 Preliminary Information Provided for City Website







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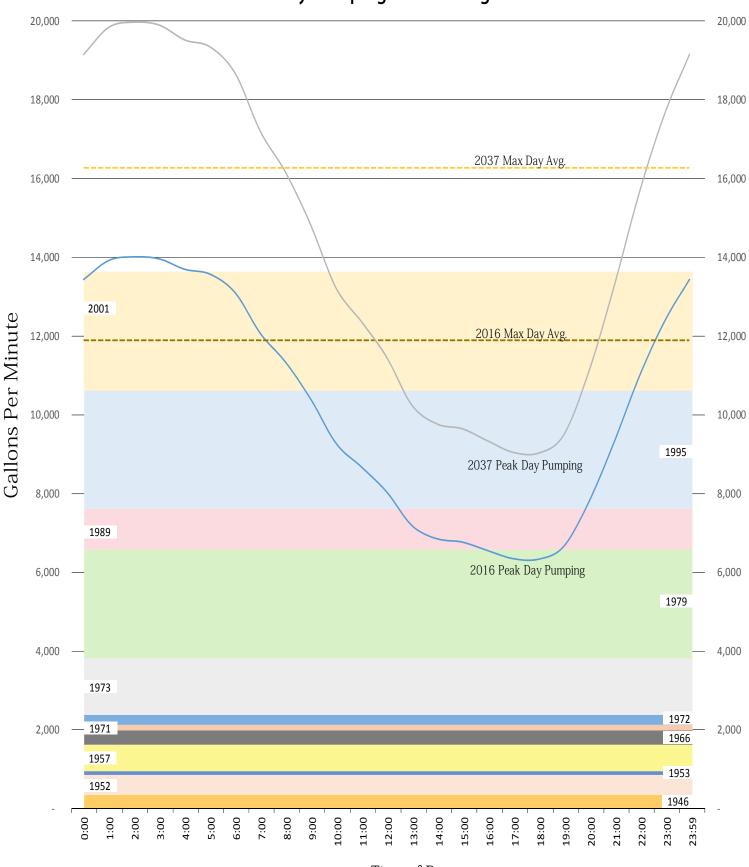
GROWING POSSIBILITIES

## 01-25-17

**Citizen Water Committee Meeting** 

# **City of Ammon**

# Peak Day Pumping vs Water Rights



Time of Day

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	6	er Capita Water	Per Capita Water Usage Comparison		
	Ammon	Rigby	Rexburg	Chubbuck	Ashton <sup>2</sup>
Rate Structure	Flat - RP/RPA/RE Zones \$45.75/mo All Others \$38.25/mo	Flat \$19/mo	Flow-based \$15.87/mo/6,000 + \$0.918/1,000 thereafter	Flow-based \$24/mo + \$1.15/1,000	Flow-based \$42.62/mo + \$1.15/1,000
Population	15,259	4,043	30,000	14,428	1,100
Avg. Day <sup>1</sup>	376	540	219	205	271
Max. Day <sup>1</sup>	1,039	1,476	514	457	1,055
Peak Hour <sup>1</sup>	1,257	2,214	843	958	1,446
1 - Reported in Gallons	1 - Reported in Gallons Per Capita Daily (GPCD)				

2 - These numbers for Ashton do not reflect the completion of a recent water project which reduced overall flows by approximately 20%

1/30/2017 KA Project No. 216102

-

"Irrigation Only" Water Right Summary City of Ammon

		Water Rights S	Water Rights Summary of Costs	ts		
Water Right	Diversion Rate (cfs)	Volume Limitation	Acreage Limitation	Total Cost	Cost Per Acre- foot	Cost Per cfs
25-14405		()	(calca)	400 011	44 404	
25-14406	1.2.0	64	Ib	د/0,684	\$1,4UI	\$427,024
25-14381	0.19	51.2	12.8	\$38,780	\$757	\$204,105
35-14162/		Q	L	¢ 1 000	ÇΊΓΟ	¢101 CTJ
25-14380	0.23	00	C	000,C4¢		700,071¢
35-7192A/	86.0	100 5	V 2C	697 680	UUB J	C11210
25-14396	0.20	0.2U1	4.72	٥٥٥،/٥٢	nnø¢	<b>7515,145</b>
35-9069/	200	11 6	0 C	60 JB0	ÇOQQ	
25-14397	0.03	0.11	2.4	79,280	UU&¢	<b>4309,333</b>
Subtotal	0.94	296.4	74.1	\$270,415	Average:	\$289,851

	Additional Irriga	Additional Irrigation Water Rights	ts
Water Right	Diversion Rate (cfs)	Volume Limitation (AFA)	Acreage Limitation (acres)
25-14331	0.81	142	40.7
25-14333	0.57	142.8	37.8
25-14386	0.25	67.2	16.8
25-14384	0.21	60.4	15.1
Subtotal	1.84	412.4	110.4
Total	2.78	708.8	184.5

4/1/2017	Diversion rate based on volume limitation over allowed period of use:
Allowed Period of Use	Diversion rate based on volum

213 days 1.68 cfs

10/31/2017

1/30/2017 KA Project No. 216102

Ammon Water Committee

2

		Monthly Water Usage Per Connection by Neighborhood (gallons)	age Per Connecti	on by Neighbo	rhood (gallor	ls)	
	Cortland Ridge	Hillview Village	Eagle Pointe	Founders Pointe	Woodland Hills	Bit O Heaven	Cottonwood Hills
	1/4 Acre	1/4 Acre	1/2 to 1/3 Acre	1/2 Acre	1/2 Acre	1.5 Acre	1 to 4 Acres
January	9,205	5,462	6,148	056'6	7,128	18,043	9,285
February	9,167	5,120	2'247	9,373	6,355	15,668	6,505
March	9,732	5,573	5,813	9,150	6,757	18,335	7,660
April	13,069	6,723	7,457	11,599	9,626	16,952	22,913
Мау	31,064	25,525	14,643	84,076	43,038	84,108	155,715
June	40,012	52,656	31,311	118,927	58,245	125,925	236,695
July	54,246	61,693	44,922	158,531	69,996	173,361	370,156
August	52,844	61,550	41,205	163,186	82,961	161,034	470,334
September	56,057	53,978	33,250	141,826	74,465	87,711	319,049
October	20,617	7,659	10,693	48,538	21,738	21,797	74,918
November	10,481	46,657	6,120	10,145	8,238	20,866	7,548
December	9,212	5,088	8,461	10,951	6,704	13,717	7,548

		Flow-based Rate Scenario	Scenario	
	Total Annual Usage (gal)	Avg. Daily Usage (gal)	Yearly Bill if base \$38.25/month+ \$1.15/1,000 gal	Average Monthly Bill
Cortland Ridge	315,706	865	\$822.06	\$68.51
Hillview Village	337,684	925	\$847.34	\$70.61
Eagle Pointe	215,570	291	\$706.91	\$58.91
Founder Pointe	776,252	2,127	\$1,351.69	\$112.64
Woodland Hills	395,251	1,083	\$913.54	\$76.13
Bit O Heaven	757,517	2,075	\$1,330.14	\$110.85
Cottonwood Hills	1,688,326	4,626	\$2,400.57	\$200.05

Cortland Ridge         Hillview Village         Eagle Pointe         1           1/4 Acre         1/4 Acre         1/2 to 1/3 Acre         1/2 to 1/3 Acre           January         \$48.49         \$44.53         \$45.32           January         \$48.79         \$44.53         \$44.63           January         \$48.79         \$44.14         \$44.63           March         \$49.44         \$44.66         \$44.63           March         \$49.44         \$44.66         \$44.63           March         \$53.28         \$44.66         \$44.63           March         \$53.28         \$44.56         \$44.63           March         \$53.28         \$51.09         \$55.09           June         \$53.28         \$51.97         \$55.09           June         \$51.30         \$51.91         \$56.46           June         \$100.63         \$109.03         \$57.49           August         \$100.63         \$109.03         \$57.69           August         \$100.63         \$100.32         \$76.49           October         \$61.96         \$410.03         \$76.49           November         \$50.30         \$50.55         \$76.49           December <td< th=""><th>Flow-based Rate by Month</th><th>by Month</th><th></th><th></th><th></th></td<>	Flow-based Rate by Month	by Month			
1/4 Acre         1/4 Acre           \$48.84         \$44.53           \$48.84         \$44.53           \$48.79         \$44.14           \$48.79         \$44.14           \$48.79         \$44.14           \$48.79         \$44.14           \$53.28         \$44.14           \$53.28         \$45.66           \$53.28         \$57.60           \$53.28         \$57.60           \$53.28         \$57.60           \$53.28         \$50.00           \$100.63         \$109.20           \$100.63         \$109.03           \$100.63         \$100.32           \$100.72         \$100.32           \$5102.72         \$100.32           \$5103.03         \$91.91           \$50.30         \$91.91           \$543.06         \$91.91           \$543.06         \$91.91		Founders Pointe	Woodland Hills	Bit O Heaven	Cottonwood Hills
\$48.84     \$44.53       \$48.79     \$44.14       \$48.79     \$44.14       \$49.44     \$44.66       \$53.28     \$45.66       \$53.28     \$45.66       \$53.28     \$57.60       \$53.28     \$57.60       \$53.28     \$57.60       \$53.28     \$57.60       \$53.28     \$57.60       \$50.00     \$98.80       \$50.01     \$109.03       \$50.02     \$109.03       \$5102.72     \$100.32       \$5102.72     \$100.32       \$5102.72     \$100.32       \$5103     \$51.01       \$50.30     \$91.91       \$50.30     \$91.91       \$50.30     \$91.91       \$542.06     \$847.34		1/2 Acre	1/2 Acre	1.5 Acre	1 to 4 Acres
\$48.79       \$44.14         \$49.44       \$44.66         \$53.28       \$45.66         \$53.28       \$45.66         \$57.3.97       \$67.60         \$53.28       \$57.60         \$53.28       \$57.60         \$53.28       \$57.60         \$53.29       \$57.60         \$50.00       \$38.80         \$50.00       \$38.80         \$50.00       \$109.03         \$5100.63       \$109.03         \$5100.63       \$100.32         \$5102.72       \$100.32         \$5103.03       \$91.91         \$50.30       \$91.91         \$50.30       \$91.91         \$547.06       \$44.10         \$847.34       \$		\$49.69	\$46.45	\$59.00	\$48.93
\$49.44       \$44.66         \$53.28       \$45.98         \$73.97       \$67.60         \$73.97       \$67.60         \$84.26       \$98.80         \$100.63       \$109.20         \$100.63       \$109.20         \$100.63       \$109.03         \$50.00       \$100.32         \$5102.72       \$100.32         \$61.96       \$47.06         \$50.30       \$91.91         \$50.30       \$91.91         \$847.34       \$847.34		\$49.03	\$45.56	\$56.27	\$45.73
\$53.28     \$45.98       \$73.97     \$67.60       \$73.97     \$67.60       \$84.26     \$98.80       \$100.63     \$109.20       \$99.02     \$109.20       \$102.72     \$100.32       \$61.96     \$47.06       \$50.30     \$91.91       \$54.84     \$47.06       \$50.30     \$91.91       \$50.30     \$91.91       \$50.30     \$91.91       \$847.34     \$		\$48.77	\$46.02	\$59.34	\$47.06
\$73.97       \$67.60         \$84.26       \$98.80         \$100.63       \$109.20         \$100.72       \$109.03         \$50.02       \$100.32         \$102.72       \$100.32         \$67.66       \$47.06         \$50.30       \$91.91         \$50.30       \$91.91         \$847.34       \$47.06		\$51.59	\$49.32	\$57.74	\$64.60
•     \$84.26     \$98.80       •     \$100.63     \$109.20       •     \$100.63     \$109.03       •     \$50.02     \$100.32       •     \$102.72     \$47.06       •     \$50.30     \$91.91       •     \$50.30     \$91.91       •     \$48.84     \$44.10       •     \$847.34     \$		\$134.94	\$87.74	\$134.97	\$217.32
\$100.63         \$109.20           \$99.02         \$109.03           \$59.02         \$109.03           \$102.72         \$100.32           \$61.96         \$47.06           \$50.30         \$91.91           \$48.84         \$44.10           \$847.34         \$847.34		\$175.02	\$105.23	\$183.06	\$310.45
\$99.02     \$109.03       \$102.72     \$100.32       \$61.96     \$47.06       \$50.30     \$91.91       \$48.84     \$44.10       \$847.34     \$847.34		\$220.56	\$118.75	\$237.62	\$463.93
\$102.72     \$100.32       \$61.96     \$47.06       \$50.30     \$91.91       \$48.84     \$44.10       \$847.34     \$847.34		\$225.91	\$133.66	\$223.44	\$579.13
\$61.96         \$47.06           \$50.30         \$91.91           \$48.84         \$44.10           \$847.34         \$847.34		\$201.35	\$123.88	\$139.12	\$405.16
\$50.30         \$91.91           \$48.84         \$44.10           \$822.06         \$847.34		\$94.07	\$63.25	\$63.3 <b>2</b>	\$124.41
\$48.84         \$44.10           \$822.06         \$847.34		\$49.92	\$47.72	\$62.25	\$46.93
\$822.06 \$847.34		\$50.84	\$45.96	\$54.02	\$46.93
		\$1,351.69	\$913.54	\$1,330.14	\$2,400.57
Average \$68.51 \$70.61 \$58.91		\$112.64	\$76.13	\$110.85	\$200.05

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GROWING POSSIBILITIES

## 10-19-17

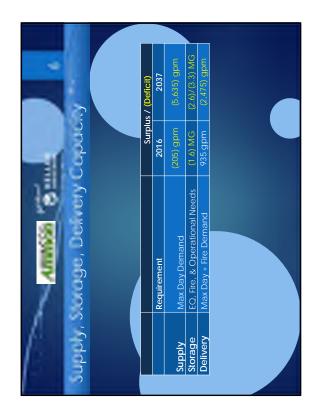
Ammon City Council Meeting

















Capital http		
ltem	Description	Cost
City Improveme	City Improvements (Start in 2018)	
1st ST LOOP	12-inch loop from Curlew to 1st St.	\$ 294,000
грү нк Loop	8-inch loop to Crowley Rd	\$ 79,000
AM RD LOOP	16-inch loop from Sunnyside to Township \$	\$ 680,000
	Total City Improvements \$	\$ 1,053,000

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10 M	a statist	
WIIV/	ement	
1	Capital Improvement Plan	

/	Amilia "Gund		
	ipital Improvement Plan		
ltem	Description	Cost	
Developer Impr	Developer Improvements (Start as needed)		
MH WELL	16-inch dia. X 350-foot, 2,600 gpm Well	\$ 257,000	
WH WELLHOUSE	15' X 30' Wellhouse w/generator	\$ 590,000	
FOX HLW LOOP	FOX HLW LOOP 8-inch loop in Fox Hollow Subdivision	\$ 129,000	
COTTAGES BPS	3,000 gpm Booster Station for Additional Supply	\$ 1,055,000	
	Total Developer Improvements	\$ 2,031,000	

	Amilia "Gumuk	2	
capital hr	capital Improvement Plan		
#C	Description	Coet	
lieii	Description	CON	
Contracted Imp	Contracted Improvements (Start in 2018)		
WH TANK AND BS	WH TANK AND BS 2.0 MG Tank and 3,000 GPM Booster Station	\$ 2,734,000	
COTTAGE PZ	PRV's to create a new pressure zone	\$ 31,000	
WELL 9 BPS	BPS upgrade to improve pressure in Quail Ridge	\$ 500,000	
OL RDG LOOP	8-inch loop from Foothill Rd to Sharptail Rd	\$ 69,000	
CMP	Replace undersized and failing water lines	\$ 5,951,000	
WELL 6	Well, Tank, and Booster Station Improvements	\$ 1,015,000	
W6 STORAGE	Additional 0.5 MG Storage at Well 6	\$ 1,457,000	
	Total Contracted Improvements	\$ 11,757,000	



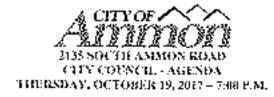






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CITA OF AMOUNT CONTRACTOR (0.100) (0.100) TRUENDAR, 18 20(5) (0.101)

## CATTOR ON INC. MICH Para National Strephysics

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MINPLES: September 7,2017

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Wear Newsmantel Network Academic <u>.</u>

## MINUTES

City Officians Present	Mayna Data Nijilisha jan jeni (1779-188)
	Council Prezident (Sping Peored
	Counted Semilar Rep. (19 opping)
•	Conductivening Rossell Stick
	Connectories: Hyper, Wesconder
•	City Attorney Scott BaD
	City Administrator-Pianning Opportunition for Topone
•	City Engineer Tracy Borgi
	Deputy City (Tesk Shori Ockerman
City Officials Absent:	Condinential South-Mar
	City Trassocr Jonalder Gebürge

USy Clork Bachael Services

Coulded President Provide Busices in Mayor Russian's inserve opened the moving in of 7:00 pon, write Annaon Cros Hall Indiang located at 7735 South Annaon Rean, Connectinguidae Winnershe (ed.) e Pitdge of Adaptated Counciliantiber Thumpson offered a payor.

September 7, 2017: Countrimenture: Datapasa mayor tertable (in September 7, 2017 resource, MIAURES since the City Clerk was answellable and the numeros were not acadanic for Causelt (rolew Coorer)member stack stewarded, Roll Chill Voice Connectionsmoot, therappeor - Yes, Caute (Jusquiter Stack -- Yes, Verschmander-Wisconter - Vectoral Counted opposer Proven. The meson parced

### FEERING FINANA MANYARY Note

COMMENT AGENDA: 😢 Accenti Payatik - Extelio A - Counciliograder Desupson nerved to approve the Account Payada - Eshibit A, as presented. Control-member Wexturds scrowad. Righ Call Vine: Countshapetter. Featpoint - Yes, Californian Wescander - Yes, Conststance ter shale- Yes, and Consequences (Power) Yes, the manear proved.

PEBLIK ADMARTER REGARDING OF MENDING AN ALCOURS IS Minute University - West

## CORPORED NO. 1000 (CONTRACTOR OF MARCON CONTRACTOR CONTRACTON CONTRA

# ACTION REPAILS:

 Etail Plat -- Warten Kint Division 1.1<sup>48</sup> Approduct: Statistic enter Wiscond table to approve the ideal Plat - Warten Kint Division in the Amended Contrologication Statistic economy. Rel: Cut Vice: Contrologication Wiscomber- Yes, Comparisonaber She's Yes, Contrologication (Society), Yes and Contrologication Poundit, The matter payor.

 Appliere patebase order WW-760-0019 - Used sewer Vac Bruck: 100 Conteinantee black naved to approve Uniting Order WW-760-007 (as a local better Vac Trick in the approve of \$222350). Conteinantee Wiscontee seconded, Stati C20 Neter Conteinantee Statk - Yes, Conteinantee Wiscontee - Sec. Evalution met Distrigate - Yes, and Conteinantee Forstill - Yes, Chemistre passed.

 Approve particulare order ST-760-1017 - 33 Sauder body welftewei system: ED Constituenter Steck Saved to approve the Approve particle order S1-760-1017 - 10 sender body a peaker system. Constitutional Economics State Approve Ref. Coll Vein Constituenter State - Yes, Constituenter Stampson -Yes, Containtenter Wiscondo - Yes, and Constituenter Procedo - Yes, for more proved.

4. PERey 65-002-1 - Anicading some ermoval pulity 68-002: ES: Conscionantes Rosell and estal approve the Policy E0-002-1 - Anicading Social Reprints Policy 66-002. Consciences were submitted: Kall Call Vale, Consciences and Novell – Yes, Consciences Visionale - Yes, Consciences were Stack - Yes, 224 Losin threather Isamplet - Yes, The pulser possed.

 Resolution 2017-004 -: Adopting snow errors points, 65-002-1; 22 Contribution for Fewell owned to approve Resolution 2017-014 -: Waterbies, book Reported Folge 63-002-1; Contribution for the waterbies, book Resolution (Contribution) -: Yes, Contribution for Without Contribution Mark -: Yes, and Contribution (Contribution) -: Yes, Contribution for Without Contribution (Straighton -: Yes, Leancharenter Mark -: Yes, and Contribution) (Contribution) -: Yes, Contribution (Contribution)

# DISCUSSION THOMS:

1. Water Protection - Meller & Associates wher study to thus to be fraued help explained for the reason behaviory to be and has a proposation of the water study to thus to be fraued help explained for the reason behaviory to be and water proposation of the distribution of the general influences are needs for the Aspetal Take Site. If there is the Hilberto even which are the total patients in the fraued help explained for the Aspetal Take Site. If there is the Hilberto even which are the total patients of Aspetal helps are influences of the test of the fraue site. If there is the the for the test of the is stark, well and houser states the net currently balley allower repleted to flow the total there is stark, well and houser states the view they were here presenting interaction for the constants specified bits were in Ries (sole when they were here presenting interaction for the constants specified bits were in Ries (sole when they are here presenting interaction for the constants of the bits were as a star for the specified train we performed second performed how for the avery this now and as we go to ward, we have a test set of adjuster in make here the second second performance here a start the source are designed on work, we have a test set of adjuster in make here the second second performing the where start, the start start were the long terms to be any wide transparation meda, but we derive the constant start, the size war to be long terms to be as a proposed of the performing the where start, the size of both is not a possible interfag, the second are the perpendent of the performing the profile.

\$3k) stated dval the estimated grand and the identified papers precises \$304,046,0000 how of the staty was to consider their different foregraphic first was water rights, the second was downed with expecting, and the first was Philos an accounting takate of how tasch capacity the edg has god boar much demate we have allow envertee the when rights, how may are each and the basis of water shysted for support, (City, explained the water area in 20/7 is the buger phototog exercise, they are taking about a greethe population, so if (sing) grew sower she areas with arise Dier, or of geometic concretation, the models will subserving out, to key said the Oily with he prove tanks strart in twenty years. biorage is important to a system, because if you don't have ony storage to help performing performance increasion. the well's take to provide adduct the entertaily derived of vester by renoting at 2 has a flow more include include rights. place a cap on the maximum that rate presented for peneting weter out of the ground ( ) inving some sycage situate the this in shoe since order shring for demond lates can partic saved white the system during past demond. using reducing the total develop water rights and note needed with expansive whole also powheley for york demands. witteet folding the documents legal peoplag rate to attitude to equilatize aconge, tions () presides arranged of vidance ter usale for fighting free, and the test is operation storage. Recause Appropriate programs in the programs of Annuen dasself need to have a standby volume is namely. I have with the a suggifieren definition for only one places, har relations, the world when the web 5 motion exclusion congrity is that, it size, there exist for perception of this and is advice is doubled for operational manage, and if the new tanks require the segar 50 percent, by 2000 we will need as additional 3-3 million gallens suspected in speciency, with the water deputation insufficient shorage is attendy being fölle Movie Mirkham stated trus repairing soch afs wordt sokte dar geschere lagabse mell so is der a large eadage with to fix this deficit.

Riley sold the hydrautic woodd scentifies the flow and park hom denoted deficiencies, for much takes the flow powers, and flow is the biggest draft on the system. Riley reflected to the backet effects and explained some particles areas with investigated for flow. For Hallow and list Starst are fed from the well of betweens, to essentially it have goed shock the which entries log problems for the flow expressibly with shifts here exploring the stars going to accound there. For motion correct providence 1,000 policies per remote. You there have a been explored to be updated by our theory is also accurate providence 1,000 policies per remote. You the hydrautic analysis, they together there is no be availed the system and a because where they perfects a hydrautic analysis, they together there is no be availed the system and a back to make work over security where you they a parts have the the other any parts the system and allows and over security where you repeat a parts have the there is nothing too for any part of the first start of the first of the rest of the rest parts that the start whom the there is nothing too for the system of the first of an area with the rest part space by a parts to part the start of the first of the start of the parts by the start of the start of the start of the start of the start of the start of the start of the parts by the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start of the start o ite (Ne fine without desepting previous in the system, with all of the biggest conditioner to fire dows in any particuof part over

Capacit reprovements to start to 7025 would be 2x. For Sister Koppaking a 12-meb pipe for the sector of for long from the work and of Contrastic to consent at 2 and of XOM 560, the Lody Howk Leep addition of an Soriel, pipe for the sector of one may trend Lody Howk to Contrast of XOM 560, the Lody Howk Leep addition of an Soriel step addition of a Sector reproduced to the Startest Found with a new of \$050,000. A Developer Improvement that will be provided when needed a 2 new themes demostry. We done deep Weedoper Hepper Web wild a 1.000 galaxies per officient and a 10 X100 well hunde with a galaxiest of XOM 500 best oper Improvements well as 8 deck hop in the free for bodies set always, and a 1.000 galaxies per minute because during for some supply. The twei developer aggregation to the are proported at \$2,000 (200).

53 There is a very high procedular for third local hundring with a Repear or near 2.75 percent for Cast staggers. unit use ODQ finaling. The addressing to identify would be justiced configurations. Discussion respectivementing fitteen Alayer hirstant such she would like the Gionard to pail together a year. We have a supply issue particularly in the summer. We all know the answer to this, we all resurt it, but you know if we preter we will get a 35 percent to increase in outer usage. The Water Constantial wanted a 5 year plan and she drints that is wonderful, but dees not think it is realised. Not would encourage the Council of they are going to meter you make the decision this year sodouyou can give use elifzens mair wea year vo 3018. Councilmender, Powel) askee it als writte meters can be finished by text year. The above weather Rowsend is been as there is a plan in place for metering, then metering, con pagin in more that have meners installed. Moyer Xirkham said six feels this reads to be addressed non-arfore four ally or give the contents the tanners to say what they are using they can some to make more adjustments in diere bulgers. Nieger Kerklaas vand die Woodlaas Helk vank großbeeven voorko fer sore volge ene majoney of die problem in our reserves we have \$2.0 definer available (plus \$700,600 day a end correction the correct decemper who would record the one one one years. Convertmenther Sinck and elemently we want to make our higgest problems first, well is 8.008 geting to pash much water to where it is needed. Mayor Richman well well in fax 2000 fends watches to be used, but the Compil needs to and treamd erast thate DOO family are used we will use an increase in the water the basily can Contemporate Shuk asked if the DEQ (sees could be new reportantian project, takey sted yes in cooler to hamped itted Ashing for one ham for all of its Simuch test and near approved the web all three. apply for the as one famp payeet, the loss promotioners board and the project is completed. Rus asked in the Ci málach avalá te slálltet ta Wandlage Light Ríley said is wegid tata a enter al agresnean web, steat presidenter Completionsher Portuli suid the vilugene would for ele Studio per month ferrense et the writer suit. Mayer Kjulpon send we cannot continue to be reveloping, withere to per should of this, so there are do not be a plan as decading busithis weaking to be resolved on the areal 3, 5, 7 years where has to be a plan that can be per enough elements pith for strategic planning. Consolinement Poweli such it we could begin metering, we would only only by 35parents. Billey stated where you would be writer hatters at their state theps by one defail. Allor everything stateback the first drop in woles using its 20 percent. Discussion cristical togarding tasks, that is writer using with tractoring Mayor Kuthani slated the site https://www.owe of the issues the Connell will stranggle with in the original soon overly. that in 2005 where the first bond was present, the tests there was a solvent reption that they prover related all effort problems for 50 years. The times a hage periods to denote that, that to say these improvements fixed everywhere and give instructive growth is a constant optime the original town site is poing to say 5 post for that, and get no benefit. Woolf gut whencid, but redifit, exceptibling, Caugadinapping Mirel, and the water pressure to the source in a problem, we is the discovering industructure scatte angue? Solar site. We have got to figure on here as get more two buy ployes taken onto of collection doe to by range to pass rate inversors every year to special more of an time. propositions to tokeny, and a later. Observation denotes regarding writes processing reservant Consocilitationher black send as small ratios be preserve to sprog menter for project with small incrumental incrusion ratios data tening the vitizmes with a large rate answerse. Messer Kinkhows and we deed \$5.5 mighting to get advect of this with Warneland Blds with the houses. More 4 NEW relation is research and \$1 million of DHO fields. She would recomposed translation for DEQ funds to die Wonstern FOR wall tank teing for Worst Component ingerser non-tene stas serie present/0375 from Keller Associates in Nacendary sky Treassion size Council acods to make the retreating decision, ad-prior by ordinance. Kerter Associates will task into 1074) funding. Such should start cratters are residence to go Longeners.

See instructed the characteridance the broughter Wath, the City Council Memory will be judging the displays on Starray at 9,66 and.

Score Field reported on the LifeWWA (Freedon leador Regional Water West) Actively (meeting, with informative Council that the Frankryky Story) with the finalized new works.

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# 11-30-17

**Citizen Water Committee Meeting** 





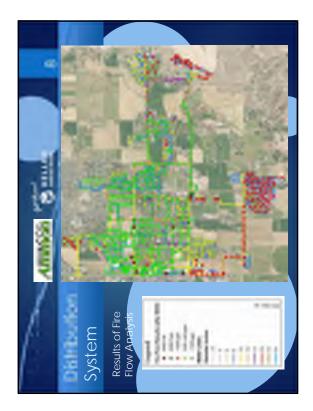












	pital improvement Plan	
ltem	Description	Cost
ity Improveme	City Improvements (Start in 2018)	
1st ST LOOP	12-inch loop from Curlew to 1st St.	\$ 294,000
гру нк Loop	8-inch loop to Crowley Rd	\$ 79,000
AM RD LOOP	16-inch loop from Sunnyside to Township \$	\$ 680,000
	Total City Improvements	\$ 1,053,000

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10. WW	- Carlo	
1	сарна Improvement Plan	
	Lupin Improv Plan	

Item     Description       Developer Improvements (Start as needed)       WH WELL       WH WELL       WH WELL       15' X 30' Wellhouse w/generator	ription seded)	Cost
Item     Description       Developer Improvements (Start as needed)       WH WELL       WH WELL       15' X 30' Wellhouse w/generator	ription seded)	Cost
Item     Description       Developer Improvements (Start as needed)       WH WELL       16-inch dia. X 350-foot, 2,600 gpm W       WH WELL       15' X 30' Weilhouse w/generator	ription seded)	Cost
Developer Improvements (Start as needed)       WH WELL     16-inch dia. X 350-foot, 2,600 gpm W       WH WELL     15' X 30' Weilhouse w/generator	eded)	
	2,600 gpm Well \$	257,000
	jenerator \$	590,000
FOX HLW LOOP 8-inch loop in Fox Hollow Subdivision	w Subdivision	129,000
COTTAGES BPS 3,000 gpm Booster Station for Additional Supply	ion for Additional Supply \$	1,055,000
Total Developer Impr	Total Developer Improvements	2,031,000

2	Cost		\$ 2,734,000	\$ 31,000	\$ 500,000	\$ 69,000	\$ 5,951,000	\$ 1,015,000	\$ 1,457,000	\$ 11,757,000	
apital Ingrovement Plan	Description	Contracted Improvements (Start in 2018)	WH TANK AND BS 2.0 MG Tank and 3,000 GPM Booster Station	PRV's to create a new pressure zone	BPS upgrade to improve pressure in Quail Ridge	8-inch loop from Foothill Rd to Sharptail Rd	Replace undersized and failing water lines	Well, Tank, and Booster Station Improvements	Additional 0.5 MG Storage at Well 6	Total Contracted Improvements	
	ltem	Contracted Im	WH TANK AND BS	COTTAGE PZ	Well 9 BPS	OL RDG LOOP	CMP	WELL 6	W6 STORAGE		







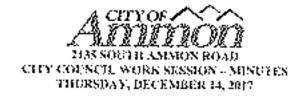


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# 12-14-17

Ammon City Council Work Session



AGENDAS

CITE OF ASTMICS AGENZIA - WORK SIDSTON DRUGSDAA, SECENDER DA SIST - 420 P.M.

## DISCUSSION CONSERVATION

- HAR ODDA 2000 A BARADOLLES CARLENIN
- Mkitterp Water
   Neur Centar
- 5. Mac

## MINUTES

- Cuy Difficials Pressure: Mayor these Kickleps.
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😢 — Mayor Kiskhan, openeoʻche natsizig oʻr 4 36 p. m. mette Asnaone ding 1120 qaplijing beened in 2006 Steelt Anorwo Raudi

# DISCONSION (TEMS:

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property dwarm goes two years particles, level for contacted Geode and they have a matche specify work perfectly, for a subsystem of the level of a subsystem of the level of the property owner rate (2) manually is subsystem of the property owner rate (2) manually is subsystem with the property of the analysis ended.

2. Matering Water: El Mayor Kirkjons replanted the for Capita Water brage Consemption biorstoce and informed the Capital fine Maryin Maryin Maryin Calify from Keller Associates an province to antiwer parameter. Discussion course regarding other course from and Railly from Keller Associates are prevent to antiwer parameter. Discussion for from the first of the course from the marking through the value and then go have to be the other through the test of the test of the test of the state of the test of the state of the test of the test of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the test of the state of the state of the state of the test of the state of the state of the state of the test of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the

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3. NELLE Center: Why of Kirklass presented Country with the risk ended and planning the converte of the basis Center. Michael Wright has Strated two acres of land latand by the Mayorik on humpy due and Aramat, full. The countries humby needs is \$1.5 allow based on an (1.00) ap. 0 building. Mayor Kirklash sublined one ray (1.00) ap. 0 building. Mayor Kirklash sublined one ray (1.00) ap. 0 building. Mayor Kirklash sublined one ray (1.00) ap. 0 building. Mayor Kirklash sublined one ray of the building count, a reading area a first and the fact that have be provided and for the fact one for an indication of the building count, a reading area a 1.00 priority of the building. Under the building of the building of the building count and there is a potential count the fact building. Underside the Countries for any provide and there is a potential count the fact building. Undersided the Countries for any fact building count of the building and equiption. Discussion counter, Mayor (1.00) ap. 1 for the angeorg optimized of the building and equiption. Discussion counter, Mayor (1.00) ap. 1 for the angeorg optimized of the building and equiption. Discussion counter, Mayor (1.00) ap. 1 for the angeorg optimized of the building and equiption.

Cip Counce Misses (2.14.2017

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4. Mises: 🙆 Mised Baccos decreader regarding grans fix signal lighting on Sorrywide and Annuen Sead. and a particle grant for a bridge

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	н	Per Capita Water l	Capita Water Usage Comparison		
	Ammon	Rigby	Rexburg	Chubbuck	Ashton <sup>3</sup>
	Flat - RP/RPA/RE Zones \$45.75/m0	Flat \$19/mo	Flow-based \$15.87/mo/6.000 +	Flow-based \$24/mo + \$1_15/1_000	Flow-based \$42_67/mo +
Rate Structure	All Others \$38.25/mo		\$0.918/1,000 thereafter		\$1.15/1,000
Population <sup>1</sup>	14,430	4,043	30,000	14,428	1,100
Avg. Day <sup>2</sup>	406	540	219	205	271
Max. Day <sup>2</sup>	1,180	1,476	514	457	1,055
Peak Hour <sup>2</sup>	1,702	2,214	843	958	1,446

1 - Ammon population is that portion of residents estimated to be on Ammon's water system, rather than Falls Water

2 - Reported in Gallons Per Capita Daily (GPCD)

3 - These numbers for Ashton do not reflect the completion of a recent water project which reduced overall flows by approximately 20%

Water/Sewer/Property Tax

\$75,000 Taxable Value & 25,000 Gal/Month Water Use

Chubbuck         Amount         (Pop 13,922)           Water (Yr)         \$ 633.00           Sewer (Yr)         \$ 532.08	Operty Taxes (Yr)       \$ 745.03         Total \$ 1,910.11       4 Idaho Falls         Water (Yr)       Sewer (Yr)	Rigby         Amount         (Pop 3,945)         City Property laxes (Yr)         X / 1/.14           Water (Yr)         \$ 228.00         Sewer (Yr)         \$ 1,324.34           Sewer (Yr)         \$ 816.00         Total \$ 1,799.62         Total \$ 1,799.62           City Property Taxes (Yr)         \$ 755.62         Mater (Yr)         \$ 504.18           Sewer (Yr)         \$ 7,799.62         Mater (Yr)         \$ 504.18           Blackfoot         Amount         (Pop 11,899)         City Property Taxes (Yr)         \$ 569.76	xy Taxes (Yr) \$ 454.44 \$ 360.48 Protal \$ 1,646.42 Total \$ 1,646.42	City Property Taxes are based on 2016 rates. Ammon water rate
Chubbuc Water (Yr) Sewer (Yr)	City Proper	<ul> <li>2 Rigby</li> <li>Water (Yr)</li> <li>Sewer (Yr)</li> <li>City Proper</li> <li>3 Blackfoot</li> </ul>	Water (Yr) Sewer (Yr) City Properi	

survey.

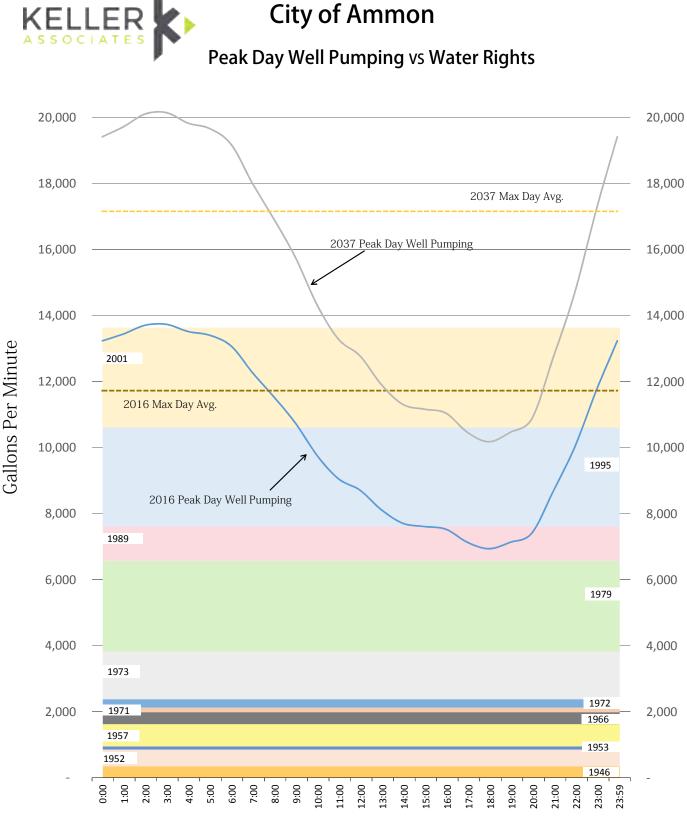
# 2-14-18

Preliminary Information Provided for City Website



# Supply, Storage, Delivery Capacity

		Surplu	Surplus / (Deficit)
	Requirement	2016	2037
Supply	Max Day Demand	(205) gpm	(5,635) gpm
Storage	EQ, Fire, & Operational Needs	(1.6) MG	(2.6)/(3.3) MG
Delivery	Max Day + Fire Demand	935 gpm	(2,475) gpm



Time of Day

"Colored bars represent water rights owned by the City of Ammon and are labeled with their year of seniority. Younger water rights are restricted first in the event of a water call. Ammon currently exceeds its existing water rights during the heaviest demands of the year."



Capital Improvement Plan City of Ammon, Idaho

ID#	Item	Cost	Need Addressed
City Improvements (S	Start in 2018)		
1st ST LOOP	12-inch loop from Curlew to 1st St.	\$ 294,000	294,000 Looping and Fire Flow
ГДҮ НК LOOP	8-inch loop to Crowley Rd	\$ 79,000	79,000 Looping and Fire Flow
AM RD LOOP	16-inch loop from Sunnyside to Township	\$ 680,000	680,000 Looping to South Side
	Total City Improvements \$	\$ 1,053,000	

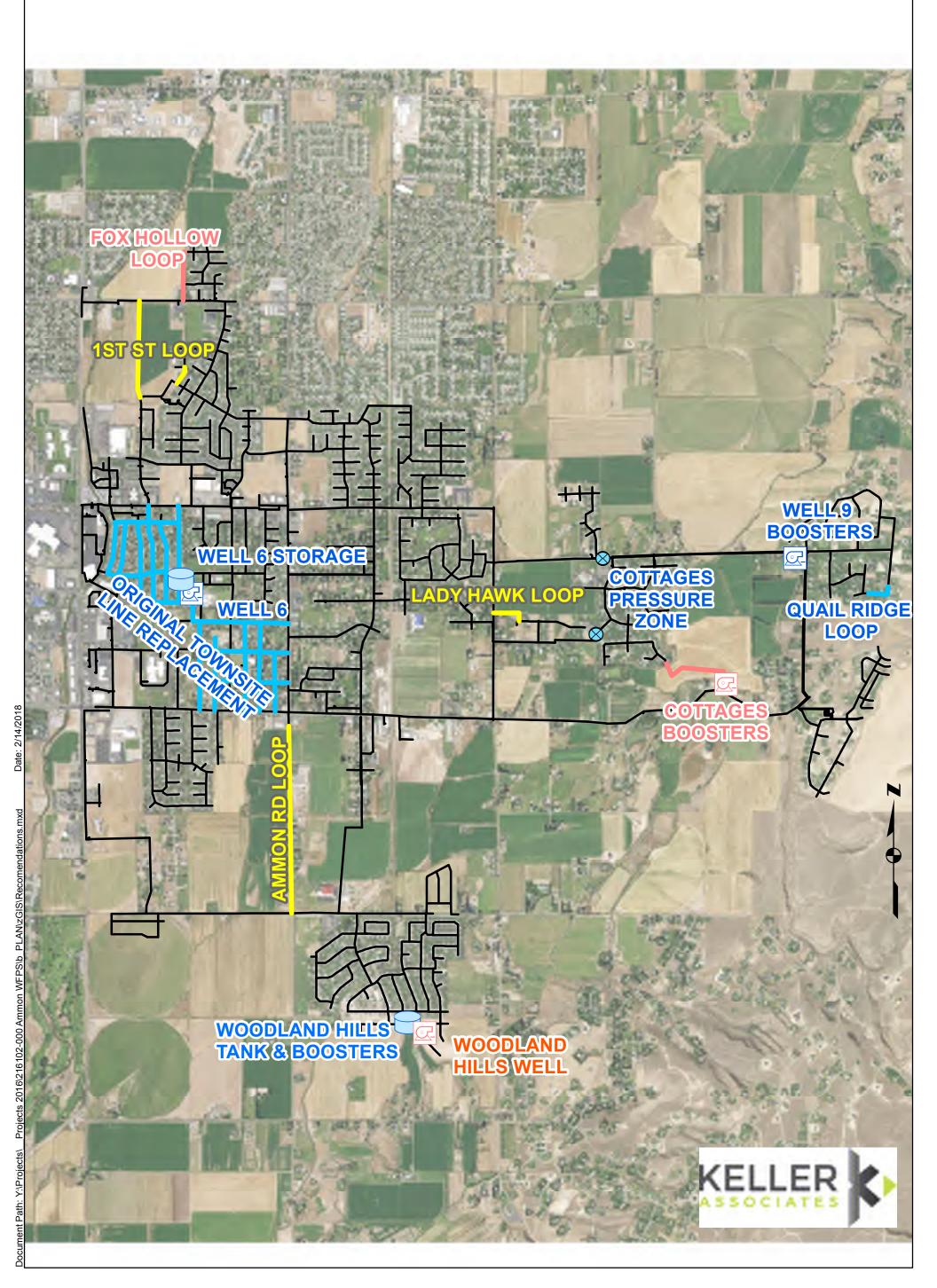
ID#	ltem	Cost	Need Addressed
Developer Improveme	ents (Start as needed)		
WH WELL	16-inch dia. X 350-foot, 2,600 gpm Well	\$ 257,000	257,000 Supply on south side
WH WELLHOUSE	15' X 30' Wellhouse w/generator	\$ 590,000	590,000 Supply on south side
FOX HLW LOOP	8-inch loop in Fox Hollow Subdivision	\$ 129,000	129,000 Looping and Fire Flow
COTTAGES BPS	3,000 gpm Booster Station for Additional Supply	\$ 1,055,000 Delivery	Delivery
	Total Developer Improvements \$	\$ 2,031,000	

ID#	ltem	Cost	Need Addressed
<b>Contracted Improvemen</b>	its (Start in 2018)		
WH TANK AND BS 2.	.0 MG Tank and 3,000 GPM Booster Station	\$ 2,734,000	2,734,000 Storage and Delivery
COTTAGE PZ PI	RV's to create a new pressure zone	\$ 31,000	31,000 Low Pressure, Fire Flow
MELL 9 BPS B	PS upgrade to improve pressure in Quail Ridge	\$ 500,000	500,000 Low Pressure, Fire Flow
QL RDG LOOP 8-	8-inch loop from Foothill Rd to Sharptail Rd	\$ 69,000	69,000 Low Pressure, Fire Flow
ORIGINAL TOWNSITE R	eplace undersized and failing water lines	\$ 5,951,000	5,951,000 Undersized and Leaking Lines
MELL 6	/ell, Tank, and Booster Station Improvements	\$ 1,015,000	1,015,000 Supply, Storage, and Delivery
W6 STORAGE A	dditional 0.5 MG Storage at Well 6	\$ 1,457,000 Storage	Storage
	Total Contracted Improvements \$	\$ 11,757,000	

# 14,841,000 Total All Improvements \$

as the project design matures. Keller Associates has no control over variances in the cost of labor, materials, equipment, services provided by others, contractor's methods of determining The cost estimate herein is based on our perception of current conditions at the project location. This estimate reflects our opinion of probable costs at this time and is subject to change prices, competitive bidding or market conditions, practices or bidding strategies. Keller Associates cannot and does not warrant or guarantee that proposals, bids, or actual construction costs will not vary from the cost presented herein.

# City of Ammon Water Facilities Planning Study Capital Improvement Plan



# City of Ammon

# **SUMMARY OF CURRENT AND FUTURE SYSTEM DEFICIENCIES**

# Water Rights:

- 1. Need additional water rights
- 2. Flow-based billing, city is about 70% metered: meter pits already purchased

# Water Supply:

- 1. Current Needs: 200 gpm of additional source capacity
- 2. Redundant supply needed on south side of town
- 3. 2037 Needs: 5,600 gpm of additional source capacity
- 4. Equivalent to adding a new 2,200 gpm well for every 3,000 people added to the system
- 5. Potential new well sites: rehab of Well 6, Woodland Hills

# Water Storage Needs:

- 1. Current Needs: Additional 1.6 MG needed to allow for operational, equalization, and fire storage
- 2. 2037 Needs: Additional 2.6 MG needed to satisfy equalization storage needs if operational storage can be reduced to 25%. 3.3 MG if operational storage remains at 50%
- 3. 2.6 MG is equivalent to adding 1.1 MG of new storage for every 3,000 people added to the system
- 4. Potential tank locations: existing tank at Well 6, additional tank at Well 6, Woodland Hills, second hill tank

# Water Delivery Needs:

- 1. Current Needs: Surplus of 900 gpm delivery capacity
- 2. Improved delivery to Quail Ridge, Cottages, Woodland Hills for fire flow and pressure
- 3. 2037 Needs: Will need 2,500 gpm additional delivery capacity
- 4. Equivalent to adding 1,000 gpm of delivery capacity for every 3,000 people added to the system
- 5. Potential booster station locations: Rebuild booster station at Well 6, Woodland Hills, Cottages, upgrades to existing booster stations

# Water Distribution Needs:

- 1. Water line deterioration in Original Townsite identified in Communities Master Plan
- 2. Looping in various locations to improve fire flow and pressure
- 3. Parallel connection to south side of town
- 4. Ongoing maintenance and replacement of aging lines

# Assumptions

- Assumes per capita usage over the past three years remains unchanged. Addition of high-usage industrial or commercial customers, high vs low density development, and conservation efforts all affect per capita usage
- Reference to the year 2037 is a reference to the forecasted population of 22,567. If growth occurs more rapidly these targets will occur sooner and vice versa







End of Document





3153 McNeil Drive Idaho Falls, ID 83402 208.542.6120 www.kellerassociates.com