

Special Town Council Meeting

June 26, 2020

11:30 AM

Town Council Chambers

Don't forget to complete the census! www.My2020census.gov

NOTICE: THE VIDEO AND AUDIO FOR THIS MEETING ARE STREAMED TO THE PUBLIC VIA THE INTERNET AND MOBILE DEVICES.

I. WEBEX LINK FOR PUBLIC PARTICIPATION

To join, click on the link or copy it to your browser:

<https://townofjacksonwy.webex.com/townofjacksonwy/onstage/g.php?MTID=e26f2b6c6642f6e09560e8e50c3a59151>

If the link does not work, join at webex.com with Meeting ID **146 663 5950** Password: **toj**

II. CALL TO ORDER AND ROLL CALL

III. DISCUSSION/ACTION ITEMS

- A. **Resolution 20-20:** A Resolution Authorizing the Filing of a Ground Water Exploratory Grant Application to the Wyoming Water Development Commission (Floren Poliseo)

IV. ADJOURN

Please note that at any point during the meeting, the Chairman or Mayor may change the order of items listed on this agenda. In order to ensure that you are present at the time your item of interest is discussed, please join the meeting at the beginning to hear any changes to the schedule or agenda.



TOWN OF JACKSON

AGENDA DOCUMENTATION

SUBMITTING DEPARTMENT: Public Works

PRESENTER: Floren Poliseo, Public Works Director

MEETING DATE: July 26, 2020

SUBJECT: Resolution for Grant Application for New Water Well

STATEMENT/PURPOSE

The purpose of this item is for the Town Council to review, approve, and sign a resolution for a Ground Water Exploratory Grants (GWEG) application from the Public Works Department to the Wyoming Water Development Commission (WWDC) to aid in funding feasibility exploration drilling for a new water well for Zone 3 (west Jackson) of the Town's water supply system.

BACKGROUND/ALTERNATIVES

At the June 15 Regular Town Council Meeting, Council voted in favor of staff completing and submitting a GWEG application. Please refer to the attached agenda item packet from that meeting for more detailed information. The grant application requirements include a signed resolution, which was not drafted or provided in that prior meeting agenda item packet, nor was completion of one mentioned in the suggested motion. Applications for this grant are due June 30, 2020. Staff (Floren Poliseo, PW Director) apologizes profusely and thanks Council for finding a special time to convene and formally execute the resolution in time for grant submittal.

COMPREHENSIVE PLAN ALIGNMENT

Please reference 6/15 meeting agenda item packet.

STAKEHOLDER ANALYSIS

Please reference 6/15 meeting agenda item packet.

FISCAL IMPACT

Please reference 6/15 meeting agenda item packet.

STAFF IMPACT

Please reference 6/15 meeting agenda item packet.

LEGAL REVIEW

Please reference 6/15 meeting agenda item packet.

ATTACHMENTS

- Resolution 20-20 (presented for approval/signature)
- June 15, 2020 Town Council Regular Meeting agenda documentation (staff report only; attachment previously included is superseded with the updated attachment herein)
- (completed) Ground Water Exploratory Grants Application and related submittal documents

RECOMMENDATION

Staff recommends approving Resolution 20-20 in order to complete the grant application, in hopes of securing a portion of project funding from WWDC.

SUGGESTED MOTION

I move to approve Resolution 20-20 as presented.

RESOLUTION # 20-20

**A RESOLUTION AUTHORIZING THE FILING OF A GROUND WATER
EXPLORATORY GRANT APPLICATION
TO WYOMING WATER DEVELOPMENT COMMISSION (WWDC)**

WHEREAS, the Town of Jackson operates seven wells in three pressure zones with sixty-seven miles of water mains plus wells, storage facilities, booster stations and fire hydrants; and

WHEREAS, the Town of Jackson's water supply system currently serves other communities in the region outside the Town boundary; and

WHEREAS, the current Town of Jackson infrastructure experiences low pressure during periods of peak demand, requiring elevated storage; and

WHEREAS, the Town's existing water supply wells are not sufficient to serve the entire zone at an adequate pressure and fill the supply tank; and

WHEREAS, the Town of Jackson seeks to construct a new well and water tank to serve existing domestic and fire suppression needs; and

WHEREAS, the Wyoming Water Development Commission has grants available for Groundwater Exploration Programs; and

WHEREAS, the total project cost for this feasibility exploration is estimated at \$135,000; and

WHEREAS, the Town of Jackson desires to apply under said Program for seventy-five percent of the project cost (\$101,250), with a required match of twenty-five percent (\$33,750) from the Town of Jackson for exploration drilling to locate proposed locations for a new Zone 3 water well to improve water supply to accommodate peak summer demands and fire suppression needs.

NOW, THEREFORE, be it resolved by the Town Council of the Town of Jackson, Wyoming that the Town of Jackson is authorized to file the Ground Water Exploratory Grant Application to the Wyoming Water Development Commission for the purpose of exploration drilling for proposed locations of a new water well in Zone 3 (West Jackson) of the Town's water supply system.

PASSED, APPROVED, AND ADOPTED this ____ day of June 2020.

**TOWN OF JACKSON, WY
TOWN COUNCIL**

ATTEST:

Pete Muldoon, Mayor

Sandra P. Birdyshaw, Town Clerk

State of Wyoming }
 } ss
County of Teton }

The foregoing instrument was acknowledged before me by Pete Muldoon as Mayor and Sandra P. Birdyshaw as Town Clerk of the Town of Jackson, who are personally known to me, this ____ day of June 2020.
Witness my hand and official seal.

Notary Public

My commission expires:



TOWN OF JACKSON

AGENDA DOCUMENTATION

SUBMITTING DEPARTMENT: Public Works

PRESENTER: Floren Poliseo, Public Works Director

MEETING DATE: June 15, 2020

SUBJECT: Grant Application for New Water Well

STATEMENT/PURPOSE

The purpose of this item is for the Town Council to review and approve a Ground Water Exploratory Grants application from the Public Works Department to the Wyoming Water Development Commission (WWDC) to aid in funding feasibility exploration drilling for a new water well for Zone 3 (west Jackson) of the Town's water supply system.

BACKGROUND/ALTERNATIVES

The FY21 recommended budget includes design of a new water well (Well 9) in zone 3, west Jackson, under the water enterprise fund. This project has been identified in the current, ongoing Capacity Study as a necessary capital improvement for the Zone 3 area of Jackson, in order to provide for future capacity of water production. Currently, Zone 3 is fed from three wells (6,7,8) producing just enough water to meet demand during peak summer usage. The new well 9 will also provide for future demand in conjunction with a new Zone 3 water tank project, which is currently undergoing feasibility analysis.

Ground water exploration grants are promulgated by statute (W.S. 41-2-119. Groundwater studies), governed by WWDC Rules and Regulations, and managed according to program guidelines. Website: http://wwdc.state.wy.us/groundwater_grant/groundwater_grant_projects.html

The Town's Ground Water Exploratory Grants application form is attached, with some of the required information included as of the date this Council meeting agenda packet was due. Remaining information not yet filled in will be completed and included in the submittal. Applications for this grant are due June 30, 2020.

COMPREHENSIVE PLAN ALIGNMENT

This project supports the Town Comprehensive Plan under Common Value #2- Growth Management.

- Principle 3.1: Direct growth out of habitat, scenery, and open space
- Principle 3.3: Manage growth predictably and cooperatively
- Principle 3.5: Manage local growth with a regional perspective
- Principle 4.1: Maintain Town as the central Complete Neighborhood

This project supports the Town Comprehensive Plan under Common Value #3- Quality of Life.

- Principle 8.1: Maintain current, coordinated service delivery
- Principle 8.2: Coordinate the provision of infrastructure and facilities needed for service delivery

STAKEHOLDER ANALYSIS

Stakeholders of this well include the Town of Jackson, residents, and visitors, particularly in west Jackson.

FISCAL IMPACT

There is no cost to apply for the grant, other than the required staff time to coordinate and submit the application and (if awarded) administering use of funds and compliance with the terms of the grant. The well feasibility exploration this grant would support is included in the FY21 recommended budget as a Water Enterprise fund capital project cost estimate for design; therefore, any award will reduce the necessary budget funding to complete this portion of the project.

The total project cost for this feasibility exploration is estimated at \$135,000. Staff is requesting funding by this grant for 75% of project cost (\$101,250) with a required Town match of 25% (\$33,750).

STAFF IMPACT

The grant application and (if awarded) administration, tracking, and reporting will require a moderate amount of time from the Public Works Director and Water and Engineering staff including coordination with the engineering design consultants working on the feasibility study for the west Jackson water tank and this associated new well.

LEGAL REVIEW

The Legal Department has not yet reviewed this grant application but will be engaged once the application is complete and for any subsequent related needs.

ATTACHMENTS

- Ground Water Exploratory Grants Application and related submittal documents

RECOMMENDATION

Staff recommends submitting this application because, if awarded, it will offset budget expenditures for the project by securing a portion of project funding from WWDC.

SUGGESTED MOTION

I move to approve staff completion and submittal of the Ground Water Exploratory Grants application to help fund feasibility exploration for a new zone 3 water well.



PUBLIC WORKS DEPARTMENT

450 West Snow King Ave. | ph: (307) 733-3079
P.O. Box 1687 | fax: (307) 734-1664
Jackson, WY 83001 | www.jacksonwy.gov

25 June 2020

Wyoming Water Development Commission
6920 Yellowtail Road
Cheyenne, WY 82002

ATTN: Wyoming Water Development Commission

RE: Water Development Program Application - Groundwater Exploration Grant for Well #9
in Zone 3 of the Town of Jackson, WY Water System

To Whom it May Concern:

Please find enclosed the application and associated documents for this request for ground water exploration grant funding for the Town of Jackson (ToJ). In accordance with the attached application, the Town of Jackson seeks funding for a hydro-geologic analysis/well siting study, well permitting, well bidding and contractor procurement, well construction, aquifer testing, water quality analysis, and completion of final report.

The completed application includes the following attachments:

- Exhibit A: Notarized Town Resolution supporting the application (original)
- Exhibit B: Water system map indicating the proposed location of Well #9, as well as water quality testing report from a water sample taken from a residential well at 1500 S. Park Loop Road. Results of water quality testing indicates source water at the proposed well site is likely to be adequate for public use.
- Exhibit C: Title 13 – Utilities of the ToJ Municipal Code including current water tap, base and use fees (highlighted).
- Exhibit D: Historical and projected ToJ Water Fund revenues, expenditures and changes to working capital.
- Exhibit E: WWDC Public Water Supply Survey

The Town water system has experienced water supply deficiencies in Zone 3 during peak demand summer months. The system also lacks necessary fire suppression capacity and will soon be unable to meet average summer day demands in the event one of the existing large capacity wells supplying Zone

3 is out of service. The Town finds additional supply to Zone 3 (Well #9) as critical and necessary to providing reliable public water supply.

It is the Town's hope that funding may be granted in order to commence well exploration activities this fall. Please do not hesitate to contact me if you have questions or concerns regarding the application or materials submitted.

Sincerely,

A handwritten signature in blue ink, appearing to read "Floren Poliseo". The signature is fluid and cursive, with the first name "Floren" being more prominent than the last name "Poliseo".

Floren Poliseo, PE

Public Works Director

PH: 307-733-3932 x1401

Email: fpoliseo@jacksonwy.gov



THE STATE OF WYOMING

Water Development Commission

6920 YELLOWTAIL ROAD TELEPHONE: (307) 777-7626 CHEYENNE, WY 82002



WATER DEVELOPMENT PROGRAM APPLICATION

GROUND WATER EXPLORATORY GRANTS

Grant funding for ground water studies is based on WWDC recommendations and is sourced from block appropriations by the legislature from the Water Development Accounts. The WWDC authorizes ground water grant expenditures as a maximum 75% project cost share to eligible entities before project work can begin. Applications to fund new or continuing groundwater studies **must** be submitted at least **45 days prior** to scheduled WWDC meetings for consideration. Ground water exploration grants are promulgated by statute (W.S. 41-2-119. Groundwater studies), governed by WWDC Rules and Regulations, and managed according to program "Guidelines:" http://wwdc.state.wy.us/groundwater_grant/groundwater_grant_projects.html

Applicants seeking ground water exploration grant funding must be an incorporated municipality, water district, water & sewer district, or service & improvement district with taxing and/or assessment authority. Private corporations, individuals, and other special districts are not eligible for assistance. Use of grant funds is limited to feasibility study of and/or exploration for the use of ground water for municipal and rural domestic purposes. The WWDC grants for groundwater studies are not to exceed \$400,000 for any one study and/or exploration program. The sponsor receiving the grant shall provide at least 25% of the cost of the feasibility study and/or exploration program from its own funds. **The sponsor is solely responsible for acquiring access, easements, or rights-of-way necessary for exploration.** All grants terminate 24 months from the date of the award.

Note: If you are seeking Level II or Level III funding for a ground water source supply project, this is the wrong application. You must complete a Planning or Construction program application for Municipal or Rural Domestic System projects.

APPLICATION REQUIREMENTS

- The person signing the application must have authority to commit the entity to a binding contract.
- A notarized copy of a resolution supporting this application passed by the board or other governing body of the entity must be provided.
- A project area map (8.5" x 11" preferred) showing corporate boundaries, project location and features should be provided. Include any reports or other supporting information available.
- The project sponsor must govern a system that includes a minimum of 15 taps with meters on each tap.

I. ENTITY INFORMATION

Town of Jackson Public Works

1. Applicant – Name of Entity				
Municipality			1918	
2. Type of Entity (Municipality, Joint Powers Board, etc.)				
450 W Snow King Ave			3. Year of Formation	
4. Physical Address (Street Address)				
Jackson	Teton	WY	83001	307-733-3932
5. City	6. County	7. State	8. Zip Code	9. Phone

PO Box 1687, Jackson, WY 83001

10. Mailing Address (If Different From Above)

Floren Poliseo

307-733-3932 x1401

fpoliseo@jacksonwy.gov

11. Primary Contact Person (Type or Print Name)

12. Phone

13. Email

M-F 9-5

14. Best Time(s) to Reach Contact Person

Pete Muldoon, Mayor

15. Authorized Official (Type or Print Name)

16. Signature of Authorized Official

17. Date

Before applying for project funding, the Wyoming Water Development Commission strongly recommends completion of a Public Water System Survey or Irrigation System Survey available through the link on the website located here: <http://wwdc.state.wy.us/surveys/surveys.html>

18. Has the application entity completed this survey? ☒ Yes ☐ No

If the application was prepared by someone other than the contact person, please provide the following:

Josh Kilpatrick

Engineering Consultant

307-690-2086

jkilpatrick@nelsonengineering.net

19. Name

20. Affiliation

21. Phone

22. Email

II. PURPOSE AND NEED

1. Provide a brief statement describing the project for which funding is sought, and include the reasons the project is needed. Describe the current situation with the water supply that will be improved by the project. What is the factor that is presently limiting the system supply capacity (e.g., treatment, storage, transmission, etc.)? Attach additional information if needed:

Town seeks to construct a new well to satisfy existing and future domestic and fire suppression needs in Zone 3 of the water system. The current infrastructure in Zone 3 experiences low pressures during periods of peak demands and lacks adequate fire suppression capability to protect larger public and commercial buildings in Zone 3 that require a maximum fire flow capability of 3250 gpm. The current summer average day, maximum day and peak hour demands for Zone 3 are 1,600, 1,900 and 2,480 gpm, respectively. Estimated future (2080 buildout) summer average day, maximum day and peak hour demands are 2,670, 3,160 and 4,130 gpm, respectively. Wyoming DEQ Chpt. 12, Section 13, (a), (i), (D), requires systems with two or more wells to provide average day demand with the largest producing well out of service. According to this criteria, the existing supply wells #6, #7 & #8 are limited to 1800 gpm capacity, which does not meet current max. day, or future average day needs.

2. Is the applicant entity under any federal (EPA) mandates to improve the water system (e.g., administrative orders, violations, actions taken, etc.)?

No

3. Operating Criteria of the Wyoming Water Development Program advocates prioritization of projects that may serve more than one entity or purpose and those that provide water to a larger, more regional area. Is the applicant entity currently served by a regionalized water supply system? If so please specify. Or will the applicant entity consider regional solutions to the purpose and needs of its water supply system?

The Town of Jackson water supply system currently serves other communities/entities in the region that are outside the Town boundary, those including Teton Science School, the Classical Academy and Saddle Butte, Indian Springs Ranch and 3 Creek Subdivisions. The Town of Jackson is open to considering additional opportunity to regionalize.

4. List any previous work (studies) completed by or for the entity:

2020 - Level I / II Study for Town of Jackson Zone 3 Water Storage Tank (draft)

1993 - Jackson Groundwater Exploration Program

1984 - Jackson Feasibility Study

5. Provide a brief description of the water system operations. Identify the public works director. Identify any system automation within the operations (e.g., SCADA) and existence of any hydraulic models of the system. Describe existing mapping (e.g., paper, map books, GIS). Attach additional information if needed:

Town of Jackson operates 7 wells in 3 pressure zones with 67 miles of water mains plus wells, storage facilities, booster stations and fire hydrants. Water is treated by chemical disinfection. The Town of Jackson Public Works Director is Floren Poliseo (applicant). The Town's water supply system has a SCADA component, but is not fully automated. The Town owns hydraulic models of the water supply system, portions of which were updated and analyzed for the referenced reports. Additionally, we have a GIS map of the system, though some portions require updates based on recent capital improvement projects and field verification.

III. PERTINENT INFORMATION

The intention of this section is to gather information on your existing water supply facilities. Answer all questions as completely and accurately as possible. Do not leave any questions blank. If questions are not applicable to your system, respond, "N/A." If an answer to a question is unknown, respond, "Unknown." If you need help, please call the Water Development Office at 307-777-7626.

* Blue Text Specific to Zone 3 of the Water System

1. Existing Water Supply System

A. EPA Public Water System (PWS) Identification Number: WY5600213

B. Groundwater (1) Number of Wells: 7 total w/ Wells #6, #7 and #8 serving Zone 3

(2) Primary Supply Aquifer(s) or Formation(s): alluvial aquifers

(3) Total Average Production Yield of All Wells (GPM): 8,220 gpm (3000 gpm for Zone 3)

C. Surface Water

(1) Source Name(s): N/A

(2) Type of Diversion(s) (Headgate, Infiltration Gallery, Pumps, Etc.):

(3) Total Average Diversion Yield (CFS or GPM): _____

D. Springs

(1) Name of Spring(s): N/A

(2) Total Average Production Yield of All Springs (GPM): _____

E. Water Rights

(1) For the water source supply (or supplies) described above, does the applicant entity possess valid and/or adjudicated water rights?

Yes, Jackson Water Wells 1, 2, 3, 5, 6, 7, & 8 are permitted through the State w/ a total adjudicated water right of 11,150 gpm.

F. Transmission Pipeline

(1) Maximum Capacity of the Transmission Pipeline(s) (Gallons per Day): 1800 gpm for TOJ Zone 3 Wells 7 - 8

(2) Increased Capacity Needed (If Known) (Gallons per Day): 1450 gpm (per DEQ Chpt. 12. Sec/ 13.(a),(i), (D))

(3) Approximate Distance from Source(s) to Distribution System: 8,270 L.F.

(4) Transmission Pipe Diameter(s): 14"

(5) Type of Transmission Pipe Material(s): Ductile Iron Pipe

(6) Age of Transmission Pipeline(s): 25-yrs

(7) Condition of Transmission Pipeline(s): good

G. Water Storage ***Zone 3 does not have water storage**

(1) Raw (Volume and Tank Description): Three tanks: 2 MG, 1.3 MG, 0.13 MG

(2) Treated (Volume and Tank Description): 3.43 MG underground concrete tank

H. Treatment

(1) Specify Water Treatment (None, Chlorination, Filtration, Etc.): chlorination

2. Existing Water Distribution System

A. Is the water use metered? yes B. Are the billings based on meter readings? yes

C. Identify unmetered usage (e.g., irrigation of parks, cemeteries, fire protection, etc.):

With exception to probable system leakage (<10%), there is no unmetered usage.

***Items D through F below based on Town population of 10,500 w/ 4,000 in Zone 3**

D. Average Summer Day Demand Water Usage (Gallons per Capita per Day): 581 gpcd / 576 gpcd

E. Maximum Summer Day Demand Water Usage (Gallons per Capita per Day): 657 gpcd / 684 gpcd

F. Peak Summer Hourly Demand Water Usage (Gallons per Capita per Day): 949 gpcd / 893 gpcd

G. Distribution Pipe Diameter(s): 4" to 14" dia.

H. Type of Distribution Pipe Material(s): PVC or DIP

I. Age of Distribution Pipeline(s): 1960s to present

J. Condition of Distribution Pipeline(s): good

K. Estimated System Water Losses (Percentage): <10%

L. Describe any fire flow protection that the system provides:

Fire flow protection is provided throughout the system within the Town limits. Supply is provided from existing supply wells and storage facilities and delivered through system fire hydrants.

M. What water conservation measures are employed?

Well production and system users are metered for the purpose of identifying unaccounted for water.

The Town is currently exploring the implementation of a tiered rate structure.

N. Is there an independent raw water irrigation system? no

(1) Source: _____

(2) Raw Water System Capacity (Gallons per Day): _____

(3) Average Annual Raw Water Usage (Gallons per Year): _____

3. Demographic Information and Existing Water Service Area

A. Population (2010 Census): 9,577 B. Current Population Estimate: 10,500

C. Does the applicant have a comprehensive planning boundary? yes

(1) If so, what is the estimated additional population that may be served in the future? 17,500

D. How many taps are served within the service area? 4,045 w/ 1631 in Zone 3

E. How many taps are served outside of the service area? 0 - note, five entities served outside Town limits.

F. Identify names of other water systems served:

The Town is not connected to separate water systems that provide additional system supply or storage.

G. Identify any existing planning reports (municipal or county) that address growth management in the project area. Provide titles and how copies of the reports could be obtained:

Jackson Teton County Comprehensive Plan:

<https://www.jacksonwy.gov/403/Development-Regulations-Comprehensive-PI>

4. Financial Information

A. Rates - Reference ToJ Municipal Code (Title 13) attached as Exhibit B

(1) Tap Fee(s) – ~~Residential~~: Fees Range from \$981 (3/4" Meter & Service) to \$45,753 (6" Meter & Service)

(2) Tap Fee(s) – ~~Commercial~~: Same as above.

(3) Average ~~Residential~~ Monthly Water Bill and ~~Corresponding Gallons Used~~:

\$53.00/service - Base charge ranges from \$7.22 (3/4" meter) to \$159.34 (6" meter) per month plus use charge of \$2.12/1000gal

(4) Water Rates (Provide rates for all tiers and categories of use. Attach additional pages if needed.):

From ToJ Municipal Code (Title 13) attached as Exhibit C

User Charges

Volume charge per 1,000 gallons \$ 2.12

Base Charges

Monthly fixed charge based on meter size

¾ inch	\$ 7.22
1 inch	9.93
1 ½ inch	17.41
2 inch	25.31
3 inch	57.54
4 inch	86.26
6 inch	159.34

(5) Identify any local conditions that affect the water rates (e.g., flow-through for frost prevention, etc.):

None

B. Financial Statement (of Water Utility) * Financials based on budgeting for FY 2020 per Exhibit D

(1) Revenues

a. Annual Revenues Generated from Water Sales:	\$2,458,987
b. Annual Revenues from Tap Fees:	\$45,451
c. Annual Revenues from Other Sources:	\$462,183
d. Total Annual Revenues:	\$2,966,621

(2) Expenditures

a. Annual Budget for Operation and Maintenance Expenses:	\$1,926,274
b. Annual Payments for Debt Retirement:	\$153,220
c. Annual Payments to a Repair and Replacement Fund:	\$719,219
d. Annual Payments to an Emergency Fund:	\$100,000
e. Annual Payments for Other Purposes:	\$0
f. Total Annual Payments:	\$2,898,713

(3) Other

a. Balance in Repair and Replacement Fund:	\$4,766,359
b. Balance in Emergency Fund:	same as above
c. Annual Cost of Water Quality Testing:	\$11,990

(4) Is the operation of the water system self-supporting in terms of revenues offsetting costs for operation, maintenance, debt retirement, replacement funds, emergency funds, etc.? yes

a. If not, how is the difference subsidized?

ToJ is planning to fund the sponsor cost share through fiscal budget expenditure. The estimated cash on hand for FY 2020 is expected to be in excess of \$4M.

Use the following format in calculating project cost estimates. (An alternative format may be prepared and submitted, but it must be clearly itemized and show total project cost for determining WWDC grant).

[1] Including, but not limited to: Mobilization, Bonds & Insurance, Drill-Furnish-Install Casing/Screen, Furnish-Install Filter Pack/Seal, Rig Time, Standby Time, Geophysical/Video Log, Development, Disinfection, Plugging and Abandonment, De-Mobilization, Reclamation. Any inflation costs, as determined by the WWDC, will be applied to the Total Project Cost.

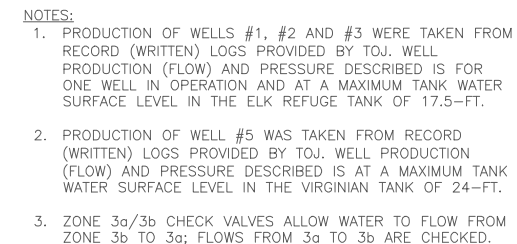
Exhibit A

Town Resolution

insert town resolution

Exhibit B

Town Water Map w/ Well #9 Location
& Water Quality Testing



DRAWING NO EX. A	JOB TITLE FEASIBILITY STUDY FOR TOJ WATER SYSTEM ZONE 3 WATER STORAGE TANK, JACKSON, WYOMING	DRAWING TITLE EXHIBIT A - WELL NO. 9	 NELSON ENGINEERING P.O. BOX 1599, JACKSON WYOMING (307) 733-2087						14 JAN 2020	REV.
			DATE	SURVEYED	ENGINEERED	DRAWN	CHECKED	APPROVED		
JOB NO										
19-330-01										



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Page ____ of ____

Account Information (Billing information)

Company/Name <u>Town of Jackson</u>		
Contact <u>John Ryan</u>		
Phone <u>307 690-0118</u>		
Mailing Address <u>PO Box 1687</u>		
City, State, Zip <u>Jackson WY. 83014</u>		
Email <u>jryan@jacksonwy.gov</u>		
Receive Invoice ☐ Hard Copy ☒ Email	Receive Report ☐ Hard Copy ☒ Email	
Purchase Order	Quote	Bottle Order <u>60571</u>

Report Information (if different than Account Information)

Company/Name <u>Town of Jackson</u>		
Contact <u>John Ryan</u>		
Phone <u>307-690-0118</u>		
Mailing Address <u>PO Box 1687</u>		
City, State, Zip <u>Jackson WY. 83001</u>		
Email <u>jryan@jacksonwy.gov</u>		
Receive Report ☐ Hard Copy ☒ Email		
Special Report/Formats: ☐ LEVEL IV ☐ NELAC ☐ EDD/EDT (contact laboratory) ☐ Other _____		

Comments

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Project Information

Project Name, PWSID, Permit, etc. <u>5600213</u>	
Sampler Name <u>Tom Mason</u>	Sampler Phone <u>690-2362</u>
Sample Origin State <u>WY</u>	EPA/State Compliance ☐ Yes ☐ No
URANIUM MINING CLIENTS MUST indicate sample type. ☐ NOT Source or Byproduct Material ☐ Source/Processed Ore (Ground or Refined) **CALL BEFORE SENDING ☐ 11e.(2) Byproduct Material (Can ONLY be Submitted to ELI Casper Location)	

Matrix Codes

A - Air
W - Water
S - Soils/
Solids
V - Vegetation
B - Bioassay
O - Other
DW - Drinking
Water

Analysis Requested

A 2540C	A 2540D	E 335.4	E 353.2	E 245.1	A 2340B	A 2340B	U SDA 20B	E 200.7-8	Water quality A 1030E-A 2320B	See Attached
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All turnaround times are standard unless marked as RUSH.

Energy Laboratories MUST be contacted prior to RUSH sample submittal for charges and scheduling - See Instructions Page

Sample Identification (Name, Location, Interval, etc.)		Collection		Number of Containers	Matrix (See Codes Above)	Analysis Requested										See Attached	RUSH TAT	ELI LAB ID Laboratory Use Only
		Date	Time			A 2540C	A 2540D	E 335.4	E 353.2	E 245.1	A 2340B	A 2340B	U SDA 20B	E 200.7-8	Water quality A 1030E-A 2320B			
1	TOJ Ranch #1	4-21	09:05	1	DW	X												C 200408UD
2	TOJ Ranch #2	4-21	09:36	1	DW		X											
3	TOJ Ranch #3	4-21	09:38	1	DW				X									
4	TOJ Ranch #4	4-21	09:37	1	DW					X	X	X	X	X				
5	TOJ - Ranch #5	4-21	10:30	1	DW										X			
6																		
7																		
8																		
9																		
10																		

Custody Record MUST be signed	Relinquished by (print) <u>Tom Mason</u>	Date/Time <u>4-21</u>	Signature <u>James Mason</u>	Received by (print) _____	Date/Time _____	Signature _____			
	Relinquished by (print) _____	Date/Time _____	Signature _____	Received by Laboratory (print) <u>PL</u>	Date/Time <u>4/21/2020 10:35</u>	Signature _____			
LABORATORY USE ONLY									
Shipped By	Cooler ID(s)	Custody Seals Y N C B	Intact Y N	Receipt Temp °C	Temp Blank Y N	On Ice Y N	Payment Type CC Cash Check	Amount \$	Receipt Number (cash/check only)

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All subcontracted data will be clearly notated on your analytical report.

ELI-COC-10/18 v.3



ANALYTICAL SUMMARY REPORT

May 07, 2020

Town of Jackson
450 W Snowking Ave
Jackson, WY 83001

Work Order: C20040800 Quote ID: C5766

Project Name: Non-EPA/WY5600213

Energy Laboratories, Inc. Casper WY received the following 1 sample for Town of Jackson on 4/22/2020 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C20040800-001	TOJ Ranch	04/21/20 9:05	04/22/20	Drinking Water	Metals by ICP/ICPMS, Drinking Water Alkalinity Anion - Cation Balance Cyanide, SDWA Total Cyanide Distillation Conductivity Mercury, Drinking Water Hardness Hardness as CaCO ₃ , grains/gallon Anions by Ion Chromatography pH Check for H ₂ SO ₄ Preserved Inorganics Langelier Index Livestock Suitability; Irrigation Classification Metals pH check by the Laboratory FIRST Nitrogen, Nitrate + Nitrite pH Metals Preparation by EPA 200.2 Digestion, Mercury by CVAA Sodium Adsorption Ratio Solids, Total Dissolved Solids, Total Dissolved - Calculated

The analyses presented in this report were performed by Energy Laboratories, Inc., 2393 Salt Creek Hwy., Casper, WY 82601, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative. Any issues encountered during sample receipt are documented in the Work Order Receipt Checklist.

The results as reported relate only to the item(s) submitted for testing. This report shall be used or copied only in its entirety. Energy Laboratories, Inc. is not responsible for the consequences arising from the use of a partial report.

If you have any questions regarding these test results, please contact your Project Manager .

Report Approved By:



Trust our People. Trust our Data.
www.energylab.com

Billings, MT 800.735.4489 • Casper, WY 888.235.0515
Gillette, WY 866.686.7175 • Helena, MT 877.472.0711

CLIENT: Town of Jackson
Project: Non-EPA/WY5600213
Work Order: C20040800

Report Date: 05/07/20

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

Understanding Your Test Results

Example Test Result

LABORATORY ANALYTICAL REPORT

MCL/							
Analyses	Result	Units	Qual	RL	QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	254	mg/L		1		A2320 B	03/21/06 17:40 / qed
Chloride	27	mg/L		1		E300.0	03/22/06 19:13 / qed
Sulfate	318	mg/L		1		E300.0	03/22/06 19:13 / qed
Fluoride	1.0	mg/L		0.1		E300.0	03/22/06 19:13 / qed
Nitrogen, Nitrate+Nitrite as N	0.24	mg/L		0.05		E300.0	03/22/06 19:13 / qed

The following interpretation is based on public drinking water system standards. These standards only apply to public water systems but the health implications are the same for private well water users.

Definitions:

ND stands for no detection meaning the parameter was not detected in the sample
ppm (parts per million) is often used interchangeably with **mg/L** (milligrams per liter)
RL (reporting limit) is basically the smallest concentration a test can detect
MCL (maximum contaminant level) is a USEPA drinking water standard

Parameter Name	Possible Results	Quick Interp.	Warnings and Suggestions
Alkalinity (Total as CaCO₃) The ability of water to compensate for changes in pH. Higher alkalinity means water is less likely to experience big changes in acidity.	ND or less than 100 (mg/L)	Corrosion Potential	As alkalinity decreases below 100, if pH is lower than 6.5 there is increased potential for corrosion of pipes releasing metals into the water .
	100 to 200 (mg/L)	Satisfactory	Sufficient buffer potential to resist changes in pH and generally not significant scaling in pipes.
	200 or more (mg/L)	Scaling Potential	Possible scaling in pipes and water heaters.
Aluminum A naturally occurring metal generally found in concentrations between 0.01 and 0.3 mg/L in groundwater. The EPA secondary standard for aluminum is 0.050 to 0.2 mg/L because high concentrations can cause coloring of water.	ND or less than 0.05 (mg/L)	Satisfactory	No action necessary.
	0.05 or more (mg/L)	Objectionable	Standard based on aesthetics not health; if water discoloration is troublesome, consider treatment.
Antimony Antimony is not commonly found in nature; sources of contamination include petroleum refinery discharge, fire retardants, ceramics, electronics and solder.	ND or less than 0.006 (mg/L)	Satisfactory	Result generally shouldn't change dramatically through time, consider retesting next year if result is 0.005 or more.
	0.006 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative sources; see fact sheet for more information
Arsenic Groundwater contamination can happen from mining, pesticides and wood preservatives; contamination can also occur naturally.	ND	Satisfactory	Retesting not necessary unless a change is suspected.
	0 to 0.010 (mg/L)	Satisfactory	Ideally, drinking water should contain no detectable arsenic; consider retesting next year if result is 0.008 mg/L or more.
	0.010 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative drinking water sources; see fact sheet for more information.

Parameter Name	Possible Results	Quick Interp.	Warnings and Suggestions
Barium Found abundantly in nature and is used in the production of many household items; it can enter drinking water through industrial discharge and natural erosion.	ND or less than 2 (mg/L)	Satisfactory	Result generally shouldn't change dramatically through time, consider retesting next year if result is 1.6 mg/L or more.
	2 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative drinking water sources; see fact sheet for more information.
Beryllium A naturally occurring metal used in metal refining; coal combustion; and electrical, aerospace and defense industries.	ND or less than 0.004 (mg/L)	Satisfactory	Result generally shouldn't change dramatically through time, consider retesting next year if result is 0.003 mg/L or more.
	0.004 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative sources; see fact sheet for more information.
Bicarbonate as HCO₃ Bicarbonate is the principle alkaline constituent in drinking water. See alkalinity.	Any Value	Satisfactory (depending on alkalinity)	Bicarbonate does not pose a health risk; bicarbonate and carbonate are closely related to alkalinity.
Cadmium A metallic element that can enter drinking water through corrosion of pipes, erosion of natural deposits, metal refining and runoff from waste batteries and paints.	ND or less than 0.005 (mg/L)	Satisfactory	Result generally shouldn't change dramatically through time, consider retesting next year if result is 0.004 mg/L or more.
	0.005 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative sources; see fact sheet for more information.
Calcium A naturally occurring metal essential in the human diet and common in groundwater with concentrations ranging from zero up to several hundred mg/L. A major contributor to the hardness of water which can cause scaling problems in pipes and hot water heaters.	Any Value	Satisfactory (depending on hardness)	Calcium does not pose a health risk; calcium and magnesium together make up the hardness; see hardness.
Carbonate as CO₃ Mineral found in groundwater. See alkalinity.	Any Value	Satisfactory (depending on alkalinity)	Carbonate does not pose a health risk; carbonate and bicarbonate are closely related to alkalinity; see alkalinity.
Chloride A common natural salt in groundwater. The EPA secondary standard for chloride is 250 mg/L; higher concentrations can cause a salty taste.	ND or less than 250 (mg/L)	Satisfactory	No action necessary.
	250 or more (mg/L)	Objectionable	Standard based on aesthetics not health; if salty taste is troublesome, consider treatment.

Parameter Name	Possible Results	Quick Interp.	Warnings and Suggestions
Chromium A metallic element commonly found in nature; contamination of ground-water can happen through discharge from leather tanning, steel and pulp mills or erosion of natural deposits.	ND or less than 0.10 (mg/L)	Satisfactory	Result generally shouldn't change dramatically through time, consider retesting next year if result is 0.08 mg/L or more.
	0.10 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative sources; see fact sheet for more information.
Coliform Bacteria (Total) A type of bacteria which should not be present in groundwater; indicates potential contamination.	Absent	Satisfactory	Continue testing annually to monitor for contamination.
	Present	Objectionable	No direct health threat, but coliforms should not be present in groundwater; see fact sheet for more information.
Coliform Bacteria (E. coli) A type of bacteria found in feces of warm blooded animals which indicates fecal pollution. If <i>E. coli</i> is present in a sample, the water is unsafe to drink without treatment.	Absent	Satisfactory	Continue testing annually to monitor for contamination.
	Present	Unsatisfactory	Direct health threat; treat water for drinking and cooking; see fact sheet for more information.
Conductivity A measure of how easily electric current will pass through a water sample. This measurement is related to and often used to estimate total dissolved solids. Also used to estimate the tendency of water to corrode metal.	Any Value	Satisfactory	Conductivity does not pose a health risk; it is related to total dissolved solids and is used in calculating the corrosivity.
Corrosivity (Langelier Index) Corrosive water can mobilize metals (especially lead and copper) from pipes into drinking water and can eventually cause leaks in plumbing. While not a perfect tool, the Langelier Index is a useful guide for assessing the corrosive ability of water.	Less than -2.5	High Corrosion Potential	Corrosive water can leach metals from minerals in the earth or from pipes and fixtures; treatment and/or testing for metals is recommended.
	-2.5 to -0.5	Moderate Corrosion Potential	Corrosive water can leach metals from minerals in the earth or from pipes and fixtures; Consider treatment and/or testing for metals.
	-0.5 to 0.5	Satisfactory	Ideal range to minimize corrosion and scaling.
	0.5 to 2.5	Moderate Scaling Potential	Moderate potential for scaling in pipes and hot water heaters; consider treatment.
	More than 2.5	High Scaling Potential	High potential for scaling in pipes and hot water heaters; consider treatment.
Copper Potential health risks; copper is a metallic element that is rarely found in groundwater, but can be introduced into drinking water by corrosion of pipes.	ND or less than 1.3 (mg/L)	Satisfactory	Pipe corrosion is a common copper source; if water is corrosive, copper concentration could change through time; consider retesting next year if result is 1.0 mg/L or more. See fact sheet for more information.
	1.3 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative drinking water sources; see fact sheet for more information.

Parameter Name	Possible Results	Quick Interp.	Warnings and Suggestions
Fluoride A naturally occurring nonmetal which promotes dental health at concentrations between 0.7 and 1.5 mg/L, but can cause health problems at high concentrations.	ND or less than 0.7 (mg/L)	Satisfactory	Concentrations below 0.7 mg/L are out of the ideal range for protection of tooth enamel.
	0.7 to 1.5 (mg/L)	Satisfactory	Ideal range for development and protection of tooth enamel.
	1.5 to 2.0 (mg/L)	Satisfactory	Concentrations above 1.5 mg/L are out of the ideal range for protection of tooth enamel.
	2.0 to 4.0 (mg/L)	Objectionable	Dental fluorosis or brownish discoloration of teeth can occur; a report by the National Research Council suggests possible health effects at concentrations in this range.
	4.0 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative sources; see fact sheet for more information.
Hardness (as CaCO₃) Primarily caused by compounds of calcium and magnesium in water and can result in scaling in pipes/water heaters; it also decreases the lather and effectiveness of soaps and detergents.	ND or less than 60 (mg/L)	Corrosion Potential	Softer water can be more corrosive; see corrosivity.
	61 to 120 (mg/L)	Satisfactory	Generally a satisfactory intermediate between corrosion and scaling; see corrosivity.
	121 or more (mg/L)	Scaling Potential	Harder water can cause scaling in pipes and hot water heaters; if scaling is troublesome, consider softening.
Iron (Total) Iron is a metallic element found in nature. Aesthetic problems such as staining of clothes and pipes, as well as sediment problems in plumbing are associated with iron.	ND or less than 0.3 (mg/L)	Satisfactory	No action is necessary
	0.3 or more (mg/L)	Objectionable	High iron can cause discoloration of fixtures and/or clothing and can support iron bacteria growth leading to taste and odor problems; if troublesome, consider treatment.
Lead A metallic element that often enters drinking water through corrosion of pipes.	ND	Satisfactory	If water is corrosive, lead concentration could change through time; see corrosivity.
	0 to 0.015 (mg/L)	Satisfactory	Pipe corrosion is a common lead source; if water is corrosive, lead concentration could increase; consider retesting next year if result is 0.012 mg/L or more; see fact sheet for more information.
	0.015 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative drinking water sources; see fact sheet for more information.
Magnesium A naturally occurring metal important in human diet and common in groundwater; with calcium, magnesium is a major contributor to the hardness of water.	Any Value	Satisfactory (depending on hardness)	Magnesium does not pose a health risk; calcium and magnesium together make up the hardness; hard water can cause scaling in pipes; see hardness.
Manganese A naturally occurring metal important in the human diet; the EPA secondary standard for manganese is 0.05 mg/L; high concentrations can cause black to brown color, black staining, and a bitter taste.	ND or less than 0.05 (mg/L)	Satisfactory	No action necessary.
	0.010 or more (mg/L)	Objectionable	Standard based on aesthetics not health; if black/brown staining or bitter taste is troublesome, consider treatment.

Parameter Name	Possible Results	Quick Interp.	Warnings and Suggestions
Mercury A metallic element; sources of contamination of drinking water include erosion of natural deposits, discharge from refineries and factories and runoff from landfills and croplands.	ND or less than 0.002 (mg/L)	Satisfactory	Result generally shouldn't change dramatically through time, consider retesting next year if result is 0.0016 mg/L or more.
	0.002 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative sources; see fact sheet for more information.
Nitrate + Nitrite as N or Nitrate as N Can occur naturally, from septic tanks/wastewater treatment, or from agricultural practices and causes oxygen deficiency in infants under 6 months of age; nitrate moves easily in groundwater so increasing nitrate levels can be an early warning that other contaminants are moving toward a well.	ND or less than 1 (mg/L)	Satisfactory	Continue testing annually to monitor for contamination.
	1 to 4 (mg/L)	Possible Impairment	Potential pollution exists; continue testing annually to monitor for changes.
	4 to 10 (mg/L)	Above Normal Natural Levels	Above normal levels; possible contamination; continue monitoring annually for changes; Monitor more regularly if infants under the age of 1 year are consuming the water.
	10 or more (mg/L)	Unsatisfactory	Health risk exists, discontinue use of water for infants under 1 year of age and persons with cardiovascular conditions; see fact sheet for more information.
pH The measure of acidity of water; pH is related to the ability of water to corrode pipes and release metals into water.	6.5 to 8.5	Satisfactory	pH of groundwater does not generally change rapidly so retesting is not necessary unless a change is suspected.
	Less than 6.5 or More than 8.5	Objectionable	pH slightly out of the ideal range is not a direct health threat but can affect corrosivity which can leach metals from minerals in the earth or from pipes; consider a corrosivity test.
Potassium A common salt in groundwater-essential in the human diet; concentrations are typically less than 10 mg/L.	Any Value	Satisfactory	Tap water concentrations generally range from 0.5 to 8 mg/l; no action is necessary .
Selenium A non-metallic element found in sedimentary rocks; sources of contamination include: discharge from petroleum refineries, erosion of natural deposits, and discharge from mines.	ND or less than 0.05 (mg/L)	Satisfactory	Result generally shouldn't change dramatically through time, consider retesting next year if result is 0.04 mg/L or more.
	0.05 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative sources; see fact sheet for more information.
Sodium A common salt in groundwater which can impart a salty taste at concentrations over 250 mg/L; sodium can contribute to hypertension and high levels in drinking water should be noted by people on low sodium diets.	Any Value	Satisfactory	Sodium in drinking water supplies can range from 0.4 to 1,900 mg/l; sodium intake in drinking water should be considered by people on low sodium diets in association with reducing risk of cardiovascular disease.

Parameter Name	Possible Results	Quick Interp.	Warnings and Suggestions
Sodium Adsorption Ratio (SAR) SAR is the amount of sodium relative to calcium and magnesium in the water; high SAR can damage soil and reduce crop productivity.	Any Value	Depends on conductivity and soil type	SAR is not relevant for drinking water, but irrigation water with an SAR value above 6 can pose a risk to physical soil characteristics; SAR risk is evaluated based on its relationship to conductivity and the texture of the soil being irrigated; see fact sheet for more information.
Sulfate A common salt in groundwater which can impart a salty taste; high quantities can cause gastrointestinal distress in people unaccustomed to the water.	ND or less than 250 (mg/L)	Satisfactory	No action necessary.
	250 or more (mg/L)	Objectionable	Standard based on aesthetics not health; if salty taste is troublesome, consider treatment.
Thallium A metallic element; sources of contamination include: leaching from ore-processing sites, discharge from electronics, glass and drug factories.	ND (mg/L)	Satisfactory	No action necessary.
	0.001 to 0.002 (mg/L)	Satisfactory	Ideally, drinking water should contain less than 0.001 mg/l of thallium; consider retesting next year if result is 0.001 mg/L.
	0.002 or more (mg/L)	Unsatisfactory	Health risk exists; consider water treatment and/or alternative sources; see fact sheet for more information.
Total Dissolved Solids TDS is the sum of all minerals, metals and salts dissolved in water; high quantities can cause gastrointestinal distress in people unaccustomed to the water.	ND or less than 500 (mg/L)	Satisfactory	Total Dissolved Solids should not change significantly through time; retest if a change is suspected.
	500 or more (mg/L)	Objectionable	High total dissolved solids do not generally pose a serious health risk but can cause water to be colored, taste poor, stain, and cause diarrhea in people not accustomed to the water.
Uranium A naturally occurring metal that can be ingested through the air, water and plants. The EPA primary standard is 30 µg/L. Water can be contaminated from natural processes, mining, coal combustion, nuclear power plants and phosphate fertilizers.	ND or less than 30 (µg/L)	Satisfactory	Ideally, drinking water should not contain any uranium.; consider retesting next year if value is greater than 24 µg/L.
	30 or more (µg/L)	Unsatisfactory	Health risk exists; consider water treatment or alternative drinking water sources; see fact sheet for more information.
Zinc A naturally occurring metal essential to the human diet; the EPA secondary standard for zinc is 5 mg/L; high concentrations can cause a metallic taste.	ND or less than 5 (mg/L)	Satisfactory	No action necessary.
	5 or more (mg/L)	Objectionable	Standard based on aesthetics not health; if metallic taste is troublesome; consider treatment.

Corrosivity

What is Corrosivity?

Corrosivity is a measure of how aggressive water is at corroding pipes and fixtures. Corrosive water can mobilize lead and copper from pipes into drinking water and can eventually cause leaks in plumbing.

Corrosive potential of water is increased by:

- **pH** (lower than 6.5 or higher than 8.5)
- **water flow rate** (faster flow)
- **water temperature** (higher temp)
- **dissolved gases** (more dissolved gas)
- **conductivity** (higher conductivity)
- **dissolved solids** (high dissolved solids)
- **certain bacteria** (more bacteria)
- **suspended solids** (more sediment)
- **chlorine** (more chlorine)

Determining Corrosivity

One common index of corrosivity is the Langelier Index (LI). The LI is calculated using pH, temperature, total dissolved solids, alkalinity, and total hardness. The LI is a measure of the balance between pH and calcium carbonate (CaCO_3). As the LI value becomes more negative, the water is increasingly under-saturated with CaCO_3 and therefore has increased corrosion potential. As the LI value becomes more positive, the water is increasingly over-saturated with CaCO_3 . Over-saturation results in CaCO_3 precipitation which can coat and protect pipes from corrosion but can cause scaling in pipes, hot water heaters, and fixtures. While not a perfect analytical tool, the LI serves as a useful guide for assessing corrosive ability of well water.

<u>Langelier Index</u>	<u>Description</u>	<u>General Recommendation</u>
-4	Severe Corrosion	Treatment Recommended/Consider Lead/Copper Test
-3	Moderate Corrosion	Treatment Recommended/Consider Lead/Copper Test
-2	Moderate Corrosion	Treatment May Be Needed/Consider Lead/Copper Test
-1	Mild Corrosion	Treatment May Be Needed/Consider Lead/Copper Test
-0.5	None-Mild Corrosion	Probably No Treatment
0	Near Balanced	No Treatment
0.5	Some Faint Coating	Probably No Treatment
1	Mild Scale Coating	Treatment May Be Needed
2	Mild to Moderate Coating	Treatment May Be Needed
3	Moderate Scale Forming	Treatment Advisable
4	Severe Scale Forming	Treatment Advisable

Adapted from Wilkes University Center For Environmental Quality;
 Corrosion, Saturation Index, Balanced Water in Drinking Water Systems

Controlling Corrosion

Corrosiveness may be increased by installing water softeners, aeration devices, increasing hot water temperatures, chlorinating water or improper matching of metal pipes. Corrosion control options include pretreatment systems, installation of non-conductive unions, reducing hot water temperature, and replacing metal piping with CPVC. Pretreatment systems include neutralizing tank filters and caustic liquid treatment. These systems change the pH, hardness, and/or alkalinity to achieve a less corrosive water chemistry.

Additional Resources:

Corrosion ... in Drinking Water Systems; Wilkes University Center for Environmental Quality

<http://www.water-research.net/corrosion.htm>

Lead and Copper Fact Sheet; MSU Extension Water Quality

<http://waterquality.montana.edu/docs/homeowners.shtml> (listed under "Drinking Water")

Household Drinking Water Protection and Treatment; MSU Extension Service

<http://waterquality.montana.edu/docs/homeowners.shtml> (listed under "Drinking Water")

Northern Plains and Mountains Regional Water Program– Drinking Water Initiative

<http://region8water.colostate.edu/regional/DrinkingWater/slideshow/projects.shtml>



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Town of Jackson
Project: Non-EPA/WY5600213
Lab ID: C20040800-001
Client Sample ID: TOJ Ranch

Report Date: 05/07/20
Collection Date: 04/21/20 09:05
DateReceived: 04/22/20
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Total as CaCO ₃	228	mg/L		5		A2320 B	04/28/20 13:34 / dmb
Carbonate as CO ₃	ND	mg/L		5		A2320 B	04/28/20 13:34 / dmb
Bicarbonate as HCO ₃	278	mg/L		5		A2320 B	04/28/20 13:34 / dmb
Chloride	4	mg/L		1		E300.0	04/24/20 19:57 / dmb
Fluoride	ND	mg/L		0.2	4	E300.0	04/24/20 19:57 / dmb
Sulfate	51	mg/L		1		E300.0	04/24/20 19:57 / dmb
INORGANICS							
Cyanide, Total	ND	mg/L		0.005	0.2	E335.4	04/27/20 11:31 / eli-b
PHYSICAL PROPERTIES							
Conductivity @ 25 C	519	umhos/cm		5		A2510 B	04/23/20 14:22 / kjp
Hardness as CaCO ₃	265	mg/L		4		A2340 B	04/24/20 17:06 / jlw
Hardness as CaCO ₃ - Grains	15.5	grains/gal		0.100		A2340 B	04/24/20 17:06 / jlw
pH	7.54	s.u.	H	0.01		A4500-H B	04/23/20 14:22 / kjp
pH Measurement Temp	16	°C				A4500-H B	04/23/20 14:22 / kjp
Solids, Total Dissolved TDS @ 180 C	320	mg/L	D	10		A2540 C	04/27/20 14:52 / kjp
Sodium Adsorption Ratio (SAR)	0.2	unitless		0.1		USDA20B	04/24/20 17:06 / jlw
NUTRIENTS							
Nitrogen, Nitrate+Nitrite as N	0.38	mg/L		0.01	10	E353.2	04/24/20 11:07 / dmb
METALS, TOTAL							
Aluminum	ND	mg/L		0.03		E200.8	04/24/20 12:16 / meh
Antimony	ND	mg/L		0.001	0.006	E200.8	04/24/20 12:16 / meh
Arsenic	ND	mg/L	L	0.002	0.01	E200.8	04/24/20 12:16 / meh
Barium	0.07	mg/L		0.05	2	E200.8	04/24/20 12:16 / meh
Beryllium	ND	mg/L		0.001	0.004	E200.8	04/24/20 12:16 / meh
Cadmium	ND	mg/L		0.001	0.005	E200.8	04/24/20 12:16 / meh
Calcium	79	mg/L		1		E200.7	04/24/20 17:06 / jcg
Chromium	ND	mg/L		0.005	0.1	E200.8	04/24/20 12:16 / meh
Copper	0.01	mg/L		0.01	1.3	E200.8	04/24/20 12:16 / meh
Iron	0.03	mg/L	L	0.03		E200.7	04/24/20 17:06 / jcg
Lead	ND	mg/L		0.001	0.015	E200.8	04/24/20 12:16 / meh
Magnesium	17	mg/L		1		E200.7	04/24/20 17:06 / jcg
Manganese	ND	mg/L	L	0.002		E200.8	04/24/20 12:16 / meh
Mercury	ND	mg/L		0.0001	0.002	E245.1	04/27/20 16:56 / eli-b
Potassium	2	mg/L		1		E200.7	04/24/20 17:06 / jcg
Selenium	ND	mg/L	L	0.002	0.05	E200.8	04/26/20 00:34 / meh
Silver	ND	mg/L		0.001		E200.8	04/24/20 12:16 / meh
Sodium	8	mg/L		1		E200.7	04/24/20 17:06 / jcg
Thallium	ND	mg/L		0.0005	0.002	E200.8	04/24/20 12:16 / meh
Zinc	0.02	mg/L		0.01		E200.8	04/24/20 12:16 / meh

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
D - Reporting Limit (RL) increased due to sample matrix
L - Lowest available reporting limit for the analytical method used

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)
H - Analysis performed past the method holding time



LABORATORY ANALYTICAL REPORT

Prepared by Casper, WY Branch

Client: Town of Jackson
Project: Non-EPA/WY5600213
Lab ID: C20040800-001
Client Sample ID: TOJ Ranch

Report Date: 05/07/20
Collection Date: 04/21/20 09:05
DateReceived: 04/22/20
Matrix: Drinking Water

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
DATA QUALITY							
Solids, Total Dissolved - Calculated	300	mg/L				A1030 E	04/29/20 10:02 / jlw
A/C Balance	-0.51	%				A1030 E	04/29/20 10:02 / jlw
Anions	5.77	meq/L				A1030 E	04/29/20 10:02 / jlw
Cations	5.71	meq/L				A1030 E	04/29/20 10:02 / jlw
LANGELIER INDEX							
Langelier Index	0.4			D		A2330 B	04/29/20 10:02 / jlw

Report Definitions:
RL - Analyte Reporting Limit
QCL - Quality Control Limit
D - Reporting Limit (RL) increased due to sample matrix

MCL - Maximum Contaminant Level
ND - Not detected at the Reporting Limit (RL)

Sample ID: C20040800-001

Client ID: JCKSN-CTY-OF

Livestock Suitability

Based on the mineral content only, the water is suitable for all classes of livestock.

Irrigation Classification

Salinity Hazard	C2	Medium-Salinity Water:	can be used if a moderate amount of leaching occurs. Plants with moderate salt tolerance can be grown in most cases without special practices for salinity control.
Sodium (Alkali) Hazard	S1	Low-Sodium Water:	can be used for irrigation on almost all soils with little danger of the development of harmful levels of exchangeable sodium. However, sodium-sensitive crops such as stone-fruit trees and avocados may accumulate injurious concentrations of sodium.



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 05/04/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B Analytical Run: MANTECH_200428A										
Lab ID: ICV Initial Calibration Verification Standard 04/28/20 13:16										
pH		6.87	s.u.	0.010	100	98	102			
Method: A2320 B Batch: R257851										
Lab ID: MBLK Method Blank Run: MANTECH_200428A 04/28/20 13:20										
Alkalinity, Total as CaCO ₃		1	mg/L	1						
Lab ID: LCS Laboratory Control Sample Run: MANTECH_200428A 04/28/20 13:27										
Alkalinity, Total as CaCO ₃		257	mg/L	5.0	103	90	110			
Lab ID: C20040800-001ADUP Sample Duplicate Run: MANTECH_200428A 04/28/20 13:41										
Alkalinity, Total as CaCO ₃		230	mg/L	5.0				0.8	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 05/04/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2510 B										Analytical Run: PHSC_101-C_200423A
Lab ID: SC 100										04/23/20 11:48
Conductivity @ 25 C		Initial Calibration Verification Standard								
		101 umhos/cm		5.0	101	90	110			
Lab ID: SC 5000										04/23/20 11:51
Conductivity @ 25 C		Initial Calibration Verification Standard								
		5000 umhos/cm		5.0	100	90	110			
Lab ID: SC 20000										04/23/20 11:54
Conductivity @ 25 C		Initial Calibration Verification Standard								
		19900 umhos/cm		5.0	99	90	110			
Method: A2510 B										Batch: R257632
Lab ID: SC 50000										04/23/20 11:57
Conductivity @ 25 C		Initial Calibration Verification Standard								
		49300 umhos/cm		5.0	99	90	110			
Lab ID: MBLK										04/23/20 14:11
Conductivity @ 25 C		Method Blank								
		0.7 umhos/cm								
Lab ID: C20040796-015ADUP										04/23/20 14:18
Conductivity @ 25 C		Sample Duplicate								
		824 umhos/cm		5.0				0.4	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 05/04/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C										Batch: TDS200427B
Lab ID: MB-1_200427B		Method Blank					Run: BAL-111_200427B			04/27/20 14:51
Solids, Total Dissolved TDS @ 180 C		ND	mg/L	6						
Lab ID: LCS-2_200427B										04/27/20 14:52
Solids, Total Dissolved TDS @ 180 C		1660	mg/L	17	100	90	110			
Lab ID: C20040800-001A DUP										04/27/20 14:53
Solids, Total Dissolved TDS @ 180 C		313	mg/L	14				2.3	5	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 05/04/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-H B								Analytical Run: PHSC_101-C_200423A		
Lab ID: 6.86	2	Initial Calibration Verification Standard								04/23/20 11:44
pH		6.88	s.u.	0.010	100	98	102			
pH Measurement Temp		20.9	°C			0	0			
Method: A4500-H B								Batch: R257632		
Lab ID: C20040796-015ADUP	2	Sample Duplicate								Run: PHSC_101-C_200423A 04/23/20 14:18
pH		7.07	s.u.	0.010				0.4	1.5	
pH Measurement Temp		16.5	°C							

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 05/04/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E300.0								Analytical Run: IC3-C_200424A		
Lab ID: ICV	3	Initial Calibration Verification Standard							04/24/20 15:29	
Chloride		10.0	mg/L	1.0	100	90	110			
Fluoride		4.86	mg/L	0.10	97	90	110			
Sulfate		39.4	mg/L	1.0	98	90	110			
Method: E300.0								Batch: R257740		
Lab ID: ICB	3	Method Blank							Run: IC3-C_200424A 04/24/20 15:48	
Chloride		ND	mg/L	0.06						
Fluoride		ND	mg/L	0.02						
Sulfate		ND	mg/L	0.2						
Lab ID: LFB	3	Laboratory Fortified Blank							Run: IC3-C_200424A 04/24/20 16:07	
Chloride		9.84	mg/L	1.0	98	90	110			
Fluoride		4.93	mg/L	0.10	99	90	110			
Sulfate		38.5	mg/L	1.0	96	90	110			
Lab ID: C20040790-001AMS	3	Sample Matrix Spike							Run: IC3-C_200424A 04/24/20 17:04	
Chloride		18.2	mg/L	1.0	102	80	120			
Fluoride		5.11	mg/L	0.10	99	80	120			
Sulfate		149	mg/L	1.0	95	80	120			
Lab ID: C20040790-001AMSD	3	Sample Matrix Spike Duplicate							Run: IC3-C_200424A 04/24/20 17:23	
Chloride		18.3	mg/L	1.0	103	80	120	0.5	20	
Fluoride		5.15	mg/L	0.10	100	80	120	0.8	20	
Sulfate		150	mg/L	1.0	98	80	120	0.6	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 05/04/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2										Analytical Run: FIA201-C_200424A
Lab ID: ICV		Initial Calibration Verification Standard								04/24/20 09:49
Nitrogen, Nitrate+Nitrite as N		1.00	mg/L	0.010	100	90	110			
Method: E353.2										Batch: R257699
Lab ID: MBLK		Method Blank								04/24/20 09:51
Nitrogen, Nitrate+Nitrite as N		ND	mg/L	0.008						
Lab ID: LFB		Laboratory Fortified Blank								04/24/20 09:52
Nitrogen, Nitrate+Nitrite as N		1.04	mg/L	0.010	105	90	110			
Lab ID: C20040796-013BMS		Sample Matrix Spike								04/24/20 11:02
Nitrogen, Nitrate+Nitrite as N		1.07	mg/L	0.010	107	90	110			
Lab ID: C20040796-013BMSD		Sample Matrix Spike Duplicate								04/24/20 11:04
Nitrogen, Nitrate+Nitrite as N		1.09	mg/L	0.010	109	90	110	1.9	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 04/27/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7		Analytical Run: ICP4-C_200422B								
Lab ID: QCS	5	Initial Calibration Verification Standard							04/24/20 16:01	
Calcium		39.1	mg/L	0.50	98	90	110			
Iron		3.99	mg/L	0.10	100	90	110			
Magnesium		37.8	mg/L	0.50	94	90	110			
Potassium		39.6	mg/L	0.50	99	90	110			
Sodium		39.6	mg/L	0.53	99	90	110			
Method: E200.7		Batch: R257713								
Lab ID: MB-6300DIS200424A	5	Method Blank							Run: ICP4-C_200422B 04/24/20 15:50	
Calcium		ND	mg/L	0.3						
Iron		ND	mg/L	0.06						
Magnesium		ND	mg/L	0.03						
Potassium		ND	mg/L	0.2						
Sodium		ND	mg/L	0.5						
Lab ID: LFB-6300DIS200424A	5	Laboratory Fortified Blank							Run: ICP4-C_200422B 04/24/20 15:58	
Calcium		50.9	mg/L	0.50	102	85	115			
Iron		5.12	mg/L	0.10	102	85	115			
Magnesium		50.3	mg/L	0.50	101	85	115			
Potassium		51.3	mg/L	0.50	103	85	115			
Sodium		50.4	mg/L	0.54	101	85	115			
Lab ID: C20040771-001BMS2	5	Sample Matrix Spike							Run: ICP4-C_200422B 04/24/20 16:58	
Calcium		92.4	mg/L	1.0	103	70	130			
Iron		5.33	mg/L	0.026	107	70	130			
Magnesium		71.0	mg/L	1.0	102	70	130			
Potassium		54.9	mg/L	1.0	107	70	130			
Sodium		58.2	mg/L	1.0	107	70	130			
Lab ID: C20040771-001BMSD	5	Sample Matrix Spike Duplicate							Run: ICP4-C_200422B 04/24/20 17:02	
Calcium		91.4	mg/L	1.0	101	70	130	1.0	20	
Iron		5.18	mg/L	0.026	104	70	130	2.7	20	
Magnesium		70.8	mg/L	1.0	101	70	130	0.3	20	
Potassium		54.0	mg/L	1.0	105	70	130	1.7	20	
Sodium		57.4	mg/L	1.0	105	70	130	1.4	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 04/27/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8		Analytical Run: ICPMS5-C_200424A								
Lab ID: QCS		13 Initial Calibration Verification Standard								04/24/20 10:36
Aluminum		0.251	mg/L	0.030	100	90	110			
Antimony		0.0470	mg/L	0.0010	94	90	110			
Arsenic		0.0500	mg/L	0.0010	100	90	110			
Barium		0.0495	mg/L	0.050	99	90	110			
Beryllium		0.0250	mg/L	0.0010	100	90	110			
Cadmium		0.0250	mg/L	0.0010	100	90	110			
Chromium		0.0502	mg/L	0.0050	100	90	110			
Copper		0.0520	mg/L	0.0050	104	90	110			
Lead		0.0492	mg/L	0.0010	98	90	110			
Manganese		0.253	mg/L	0.0010	101	90	110			
Silver		0.0244	mg/L	0.0010	98	90	110			
Thallium		0.0523	mg/L	0.00050	105	90	110			
Zinc		0.0529	mg/L	0.010	106	90	110			
Method: E200.8		Batch: R257693								
Lab ID: LRB		13 Method Blank								04/24/20 11:02
Aluminum		ND	mg/L	0.002						
Antimony		ND	mg/L	0.0001						
Arsenic		ND	mg/L	8E-05						
Barium		ND	mg/L	0.0001						
Beryllium		ND	mg/L	0.0002						
Cadmium		ND	mg/L	2E-05						
Chromium		ND	mg/L	8E-05						
Copper		ND	mg/L	0.0010						
Lead		ND	mg/L	7E-05						
Manganese		ND	mg/L	0.0001						
Silver		ND	mg/L	2E-05						
Thallium		ND	mg/L	5E-05						
Zinc		ND	mg/L	0.003						
Lab ID: LFB		13 Laboratory Fortified Blank								04/24/20 11:06
Aluminum		0.0477	mg/L	0.030	95	85	115			
Antimony		0.0465	mg/L	0.0010	93	85	115			
Arsenic		0.0498	mg/L	0.0010	100	85	115			
Barium		0.0493	mg/L	0.050	99	85	115			
Beryllium		0.0479	mg/L	0.0010	96	85	115			
Cadmium		0.0485	mg/L	0.0010	97	85	115			
Chromium		0.0496	mg/L	0.0050	99	85	115			
Copper		0.0497	mg/L	0.0050	99	85	115			
Lead		0.0492	mg/L	0.0010	98	85	115			
Manganese		0.0500	mg/L	0.0010	100	85	115			
Silver		0.0192	mg/L	0.0010	96	85	115			
Thallium		0.0540	mg/L	0.00050	108	85	115			
Zinc		0.0494	mg/L	0.010	99	85	115			

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)

QA/QC Summary Report

Prepared by Casper, WY Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 04/27/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R257693
Lab ID: C20040750-001BMS	13	Sample Matrix Spike		Run: ICPMS5-C_200424A				04/24/20 11:45		
Aluminum		0.0486	mg/L	0.030	97	70	130			
Antimony		0.0451	mg/L	0.0010	90	70	130			
Arsenic		0.0580	mg/L	0.0022	116	70	130			
Barium		0.0745	mg/L	0.050	97	70	130			
Beryllium		0.0442	mg/L	0.0010	86	70	130			
Cadmium		0.0467	mg/L	0.0010	93	70	130			
Chromium		0.0539	mg/L	0.0050	97	70	130			
Copper		0.110	mg/L	0.010	92	70	130			
Lead		0.0494	mg/L	0.0010	98	70	130			
Manganese		0.0999	mg/L	0.0016	100	70	130			
Silver		0.0187	mg/L	0.0010	93	70	130			
Thallium		0.0482	mg/L	0.00050	96	70	130			
Zinc		0.0571	mg/L	0.010	92	70	130			
Lab ID: C20040750-001BMSD	13	Sample Matrix Spike Duplicate		Run: ICPMS5-C_200424A				04/24/20 11:50		
Aluminum		0.0489	mg/L	0.030	98	70	130	0.5	20	
Antimony		0.0460	mg/L	0.0010	92	70	130	2.0	20	
Arsenic		0.0570	mg/L	0.0022	114	70	130	1.7	20	
Barium		0.0743	mg/L	0.050	97	70	130	0.3	20	
Beryllium		0.0439	mg/L	0.0010	86	70	130	0.6	20	
Cadmium		0.0461	mg/L	0.0010	92	70	130	1.2	20	
Chromium		0.0540	mg/L	0.0050	97	70	130	0.2	20	
Copper		0.110	mg/L	0.010	93	70	130	0.3	20	
Lead		0.0492	mg/L	0.0010	97	70	130	0.5	20	
Manganese		0.0998	mg/L	0.0016	100	70	130	0.1	20	
Silver		0.0183	mg/L	0.0010	92	70	130	1.8	20	
Thallium		0.0489	mg/L	0.00050	98	70	130	1.4	20	
Zinc		0.0560	mg/L	0.010	90	70	130	1.9	20	
Method: E200.8										Analytical Run: ICPMS5-C_200425A
Lab ID: QCS	Initial Calibration Verification Standard									04/25/20 21:50
Selenium		0.0501	mg/L	0.0010	100	90	110			
Method: E200.8										Batch: R257722
Lab ID: LRB		Method Blank		Run: ICPMS5-C_200425A				04/25/20 10:59		
Selenium		ND	mg/L	0.0002						
Lab ID: LFB		Laboratory Fortified Blank		Run: ICPMS5-C_200425A				04/25/20 11:04		
Selenium		0.0479	mg/L	0.0010	96	85	115			
Lab ID: C20040771-001BMS		Sample Matrix Spike		Run: ICPMS5-C_200425A				04/26/20 00:00		
Selenium		0.0506	mg/L	0.0019	101	70	130			
Lab ID: C20040771-001BMSD		Sample Matrix Spike Duplicate		Run: ICPMS5-C_200425A				04/26/20 00:04		
Selenium		0.0520	mg/L	0.0019	104	70	130	2.9	20	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 05/01/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E335.4										Analytical Run: FIA202-B_200427B
Lab ID: ICV										04/27/20 11:19
Initial Calibration Verification Standard										
Cyanide, Total		0.100	mg/L	0.0050	100	90	110			
Lab ID: CCV										04/27/20 11:39
Continuing Calibration Verification Standard										
Cyanide, Total		0.0990	mg/L	0.0050	99	90	110			
Method: E335.4										Batch: 144019
Lab ID: MB-144019										04/27/20 11:22
Method Blank										Run: FIA202-B_200427B
Cyanide, Total		ND	mg/L	0.002						
Lab ID: LCS-144019										04/27/20 11:23
Laboratory Control Sample										Run: FIA202-B_200427B
Cyanide, Total		0.0955	mg/L	0.0050	96	90	110			
Lab ID: B20041624-002EMS										04/27/20 11:28
Sample Matrix Spike										Run: FIA202-B_200427B
Cyanide, Total		0.0975	mg/L	0.0050	98	90	110			
Lab ID: B20041624-002EMSD										04/27/20 11:30
Sample Matrix Spike Duplicate										Run: FIA202-B_200427B
Cyanide, Total		0.0980	mg/L	0.0050	98	90	110	0.5	10	

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



QA/QC Summary Report

Prepared by Billings, MT Branch

Client: Town of Jackson

Work Order: C20040800

Report Date: 04/30/20

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E245.1										
Analytical Run: HGCV202-B_200427A										
Lab ID: ICV	Initial Calibration Verification Standard									
Mercury		0.00196	mg/L	0.00010	98	90	110			04/27/20 14:47
Method: E245.1										
Batch: 144034										
Lab ID: MB-144034	Method Blank									
Mercury		ND	mg/L	0.00005						Run: HGCV202-B_200427A 04/27/20 16:35
Lab ID: LCS-144034	Laboratory Control Sample									
Mercury		0.00211	mg/L	0.00010	106	85	115			Run: HGCV202-B_200427A 04/27/20 16:36
Lab ID: B20041654-002BMS	Sample Matrix Spike									
Mercury		0.00211	mg/L	0.00010	105	70	130			Run: HGCV202-B_200427A 04/27/20 17:04
Lab ID: B20041654-002BMSD	Sample Matrix Spike Duplicate									
Mercury		0.00207	mg/L	0.00010	103	70	130	1.8	30	Run: HGCV202-B_200427A 04/27/20 17:06

Qualifiers:

RL - Analyte Reporting Limit

ND - Not detected at the Reporting Limit (RL)



Work Order Receipt Checklist

Town of Jackson

C20040800

Login completed by: Dorian Quis

Date Received: 4/22/2020

Reviewed by: Misty Stephens

Received by: saa

Reviewed Date: 4/23/2020

Carrier name: Ground

Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	Yes ☒	No ☐	
Chain of custody agrees with sample labels?	Yes ☒	No ☐	
Samples in proper container/bottle?	Yes ☒	No ☐	
Sample containers intact?	Yes ☒	No ☐	
Sufficient sample volume for indicated test?	Yes ☒	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☒	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☒	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	2.2°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☒
Water - pH acceptable upon receipt?	Yes ☒	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Radiochemical precision results represent a 2-sigma Total Measurement Uncertainty.

Contact and Corrective Action Comments:

None

Exhibit C

ToJ Municipal Code - Title 13

Title 13 Utilities

Title 13 UTILITIES

Chapters:

13.04 WATER SYSTEM

13.06 WATER RATE ADJUSTMENTS

13.08 SEWERAGE DISPOSAL SYSTEM

13.12 WATER METERS

13.13 SEWER RATE ADJUSTMENTS

Chapter 13.04

WATER SYSTEM

Sections:

- 13.04.010 Water plant--Management and control.**
- 13.04.020 Water supplier--Franchise not granted when.**
- 13.04.030 Control of water system/Cross Connection Control**
- 13.04.040 Repealed.**
- 13.04.050 Supply--How obtained--Installation fees.**
- 13.04.060 Granting of applications.**
- 13.04.065 Connection of groundwater heating and cooling systems prohibited.**
- 13.04.070 Service pipe--Stop cock required.**
- 13.04.080 Service pipe--Permit for extension.**
- 13.04.090 Unauthorized use of water.**
- 13.04.100 Town not liable for damages.**
- 13.04.110 Inspection of premises.**
- 13.04.120 Violation of rules and regulations.**
- 13.04.130 Waste prohibited.**
- 13.04.140 Regulation of water for sprinkling purposes--Proclamation.**
- 13.04.150 Proclamation of limited use--Violation.**
- 13.04.160 Water Service Pipes and Water Service Laterals to be kept in good repair.**
- 13.04.170 Excavation prohibited without permit.**
- 13.04.180 Liens for unpaid bills.**
- 13.04.190 Bills --When due--Delinquency.**
- 13.04.200 Delinquency--Shutting off water.**
- 13.04.210 Shutting off water--Notice not required.**
- 13.04.220 Shutting off water--Charges.**
- 13.04.230 Discontinuance of service by joint users.**
- 13.04.240 Unauthorized turning on of water.**
- 13.04.250 Private pipes--Permission required.**
- 13.04.260 Notice of discontinuance of use.**
- 13.04.270 Charges--Statement of amount due.**
- 13.04.280 Repealed.**
- 13.04.290 Repealed.**
- 13.04.300 Water rates.**
- 13.04.310 Penalty for violations.**

13.04.010 Water plant--Management and control.

The Town shall have exclusive control and management of the municipal water plant belonging to the Town, and shall have exclusive management and control of the supply and distribution of water to all users within and without the corporate limits and shall from time to time make such rules and regulations as are necessary for the complete management, control, distribution, and supplying of water to the users. (Ord. 743 § 2, 2003; Ord. 97 § 1, 1966.)

13.04.020 Water supplier--Franchise not granted when.

No person, firm, or corporation shall be granted any franchise or permit to furnish or supply any inhabitant within the Town any water for the domestic or culinary use or for sprinkling of lawns and gardens within any portion of the Town where the water mains have been extended or may hereafter be extended so as to supply the property with water. (Ord. 743 § 2, 2003; Ord. 97 § 2, 1966.)

13.04.030 Control of water system.

- A. The water supply of the Town shall be under the exclusive control of the Mayor and Town Council who may from time to time direct any construction of such works, placing of mains, service pipes, and fire hydrants as the necessity of the Town may require. The usage charge and the water system service charges may be changed from time to time by ordinance of the Town Council.
- B. The purpose of this subsection is: (i) to protect the public water supply against actual or potential contamination through cross-connections by isolating sources of contamination that may occur within a water user's premises because of some undiscovered or unauthorized cross-connection on the premises; (ii) to eliminate existing connections between drinking water systems and other sources of water that are not approved as safe and potable for human consumption; (iii) to eliminate cross-connections between drinking water systems and sources of contamination; (iv) to prevent the making of cross-connection in the future.
 1. Except as otherwise provided in this code, or other ordinances of the Town, the cross connection provisions of Chapter 12, Section 14 of the Wyoming Department of Environmental Quality Water Quality Regulations are adopted by reference and incorporated herein as if fully set forth herein, with the penalties to be as provided in this Code.
 2. **Definitions.**
 - a. "Air gap separation" means a physical break between a supply pipe and a receiving vessel. The air-gap shall be at least double the diameter of the supply pipe measured vertically above the top rim of the vessel, but in no case less than one inch (1").
 - b. "Approved backflow prevention assembly" means an assembly that has been manufactured in full conformance with the standards established by the American Waterworks Association, entitled: AWWA C506, (Current Revision) Standards for Reduced Pressure Principle and Double Check Valve Backflow Prevention Devices; and have passed laboratory and field evaluation tests performed by a recognized

- testing organization which has demonstrated their competency to perform such test to the town.
- c. "Approved water supply" means any water supply whose potability is regulated by a state or local health agency.
 - d. "Auxiliary supply" means any water supply on or available to the premises other than the approved water supply.
 - e. "AWWA standard" means an official standard developed and approved by the American Water Works Association (AWWA).
 - f. "Backflow" means a flow condition, caused by a differential in pressure, that causes the flow of water or other liquids, gases, mixtures or substances into the distributing pipes of a potable supply of water from any source or sources other than an approved water supply source. Backsiphonage is one cause of backflow. Backpressure is the other cause.
 - g. "Contamination" means a degradation of the quality of the potable water by any foreign substance which creates a hazard to the public health, or which may impair the usefulness or quality of the water.
 - h. "Cross-connection," as used in this chapter, means any unprotected actual or potential connection between a potable water system used to supply water for drinking purposes and any source or system containing unapproved water or substances that is not or cannot be approved as safe, wholesome and potable. By-pass arrangements, jumper connection, removable sections, swivel or changeover assemblies, or other assemblies through which backflow could occur, shall be considered to be cross-connections.
 - i. "Double check valve assembly (DC)" means an approved backflow prevention assembly of two (2) internally loaded, independently acting check valves, including resilient seated shut-off valves on each end of the assembly and test cocks for testing the water-tightness of each check valve.
 - j. "Person" means any individual, corporation, company, association, partnership, municipality, public utility, or other public body or institution.
 - k. "Premises" means any and all areas on a water user's property which are served or have the potential to be served by the public water system.
 - l. "Public water system" means a system for the provision of piped water to the public for human consumption that has fifteen (15) or more service connections or regularly serves an average of twenty-five (25) individuals daily at least sixty (60) days out of the year.
 - m. "Reclaimed water" means a wastewater, which, as a result of treatment, is suitable for uses other than potable use.
 - n. "Reduced pressure principle backflow prevention assembly" means an approved backflow prevention assembly incorporating two (2) internally loaded check valves and an automatically operating differential relief valve located between the two check valves, including resilient seated shut-off valves on each end of the assembly, and equipped with necessary test cocks for testing the assembly.
 - o. "Service connection" refers to the point of connection of a user's piping to the water supplier's facilities.

- p. "Water supplier" means the person who owns or operates an approved water supply system.
- q. "Water user" means any person obtaining water from an approved water supply system.
- r. "Water Service Pipe or Water Service Laterals" means all valves, water pipe, curb stops, thaw wire systems and connections for potable, irrigation, fire lines or other connections extending from the outside diameter of the Town's water main to the point of use.

(Ord. 1071 § 1, 2014).

3. Unprotected cross-connections with the public water supply are prohibited.

Whenever backflow protection is found necessary, the Town will require the water user to install an approved backflow prevention assembly by and at the user's expense for continued services or before new service will be granted. For new water meter sets, the required backflow assembly shall be installed, inspected, approved and certified test results provided to the town within five (5) days of meter set, unless the Town Engineer or designee approves otherwise. The service will be locked off if inspections and certifications are not completed as specified above. Wherever backflow protection has been found necessary on a water supply line entering a water user's premises, then any and all water supply lines from the Town's mains entering such premises, buildings, or structures shall be protected by an approved backflow prevention assembly. The type of assembly to be installed will be in accordance with the requirements of this chapter.

(Ord. 756 § 2, 2004)

4. Where Protection is Required.

- a. Each service connection from the Town water system for supplying water to premises having an auxiliary water supply shall be protected against backflow of water from the premises into the public water system unless the auxiliary water supply is an approved water supply.
- b. Each service connection from the Town water system for supplying water to premises on which any substance is handled in such fashion as may allow its entry into the water system shall be protected against backflow of the water from the premises into the public system. This shall include the handling of process waters and waters originating from the Town water system which have been subjected to deterioration on sanitary quality. Backflow prevention assemblies shall be installed on the service connection to any premises having (i) internal cross-connections that cannot be permanently corrected and controlled to the satisfaction of the Town, or (ii) intricate plumbing and piping arrangements or where entry to all portions of the premises is not readily accessible for inspection purposes, making it impracticable or impossible to ascertain whether or not cross-connections exist.

5. Type of Protection Required. The type of protection that shall be provided to prevent backflow into the approved water supply shall be commensurate with the degree of hazard that exists on the water user's premises. The type of protective assembly that shall be

required (listing in an increasing level of protection) includes: double check valve assembly (DC), reduced pressure principle backflow prevention assembly (RP), and an air-gap separation (AG). The water user may choose a higher level of protection than required by the Town. The minimum types of backflow protection required to protect the approved water supply, at the user's water connection are given in Chapter 12, Section 14 of the Wyoming Water Quality Rules and Regulations. Situations that are not covered in those Regulations shall be evaluated on a case-by-case basis and the appropriate backflow protection shall be determined by the Town. When two (2) or more services supply water from different street mains to the same building, structure, or premises through which an inter-street main flow may occur, each water service shall have at least a standard check valve to be located adjacent to and on the property side of the respective meters. Such check valve shall not be considered adequate if backflow protection is deemed necessary to protect the mains from pollution or contamination; in such cases the installation of approved backflow assemblies at such service connections shall be required.

6. Backflow Prevention Assemblies.

- a. Only backflow prevention assemblies, which have been approved by the Town, shall be acceptable for installation by a water user connected to the Town's potable water system. The Town will provide upon request, to any affected user, a list of approved backflow prevention assemblies.
- b. Backflow prevention assemblies shall be installed in a manner prescribed in Standard Details for Public Work Construction, as adopted by the Town. Location of the assemblies shall be as close as practical to the user's service connection. The Town shall have the final authority in determining the required location of a backflow prevention assembly.
- c. Air-Gap Separation (AG). The air-gap separation shall be located on the user's side of and as close to the service connection as is practical. All piping from the service connection to the receiving tank shall be above grade and be entirely visible. NO water use shall be provided from any point between the service connection and the air-gap separation. The water inlet piping shall terminate a distance of at least two pie diameters of the supply inlet, but in no case less than one inch above the overflow rim of the receiving tank.
- d. Reduced Pressure Principle Backflow Prevention Assembly (RP). The approved reduced pressure principle assembly shall be installed on the user's side of and as close to the service connection as is practical. The assembly shall be installed a minimum of twelve inches above grade and not more than thirty-six inches above grade, measured from the bottom of the assembly, and with a minimum of twelve inches side clearance. The assembly shall be installed so that it is readily accessible for maintenance and testing. Water supplied from any point between the service connection and the RP assembly shall be protected in a manner approved by the town.
- e. Double Check Valve Assembly (DC). The approved double check valve assembly shall be installed on the user's side of and as close to the service connection as is practical. The DC shall be installed above grade, if possible, and in a manner where it is readily accessible for testing and maintenance. If a double check valve assembly is put below

grade it must be installed in a vault such that there is a minimum of six inches between the bottom of the vault and the bottom of the assembly, so that the top of the assembly is a maximum of eight inches below grade, so there is a minimum of twenty-four inches of clearance between the side of the assembly with the test cocks and the side of the vault, and so there is a minimum of twelve inches clearance between the other side of the assembly and the side of the vault. Special consideration must be given to double check valve assemblies of the "Y" type. These assemblies must be installed on their "side" with the test cocks in a vertical position so that either check valve may be removed for service without removing the assembly. Vaults that do not have an integrated bottom must be placed on a three-inch layer of gravel.

- f. **Backflow Prevention Assembly Testing and Maintenance.** The owner of any premises on which, or on account of which, backflow prevention assemblies are installed, shall have the assemblies tested by a person who has demonstrated their competency in testing of these assemblies to the Town. Backflow prevention assemblies must be tested at least annually and immediately after installation, relocation or repair. The Town may require a more frequent testing schedule if it is determined to be necessary. NO assembly shall be placed back in service unless it is functioning as required. A report in a form acceptable to the Town must be filed with the Town each time an assembly is tested, relocated, or repaired. These assemblies shall be serviced, overhauled, or replaced whenever they are found to be defective and all costs of testing, repair, and maintenance shall be borne by the water user. The Town will supply affected water users with a list of persons acceptable to the Town to test backflow prevention assemblies. The Town will notify affected customers by mail when periodic testing of an assembly is required and also supply users with the necessary forms, which must be filled out each time an assembly is tested or repaired. **Backflow Prevention Assembly Removals.** Approval must be obtained from the Town before a backflow prevention assembly is removed, relocated, or replaced. The use of an assembly may be discontinued and the assembly removed from service upon presentation of sufficient evidence to the Town to verify that a hazard no longer exists or is not likely to be created in the future.
- g. **Relocation.** An assembly may be relocated following confirmation by the Town that the relocation will continue to provide the required protection and satisfy installation requirements. A retest will be required following the relocation of the assembly.
- h. **Repair.** An assembly may be removed for repair, provided the water use is either discontinued until repair is completed and the assembly is tested and returned to service, or the service connection is equipped with other backflow protection approved by the Town. A retest will be required following the repair of the assembly.
- i. **Replacement.** An assembly may be removed and replaced provided the water use is discontinued until the replacement assembly is installed and tested. All replacement assemblies must be approved by the Town and must be commensurate with the degree of hazard involved. A retest will be required following the replacement of the assembly.

7. Administrative Procedures.

- a. **Water System Survey.** The Town shall review all requests for new services to determine if backflow protection is needed. Plans and specifications must be

- submitted to the Town upon request for review of possible cross-connection hazards as a condition of service for new service connections. If it is determined that a backflow prevention assembly is necessary to protect the public water system, the required assembly must be installed before service will be granted. The Town may require an on-site inspection to evaluate cross-connection hazards. The Town will transmit a written notice requesting an inspection appointment to each affected water user. Any water user who cannot or will not allow an on-premises inspection of premises piping systems shall be required to install the backflow prevention assembly or air-gap the Town considers necessary. The Town may, at its discretion, require a re-inspection for cross-connection hazards of any premises to which it serves water. The Town will transmit a written notice requesting an inspection appointment to each affected water user. Any water user who cannot or will not allow an on-premises inspection of premises piping systems shall be required to install the backflow prevention assembly or air-gap the Town considers necessary.
- b. Customer Notification - Assembly Installation. The Town will notify the water user of the survey findings, listing the corrective actions to be taken if any are required. A period of sixty days will be given to complete all corrective actions required, including installation and testing of approved backflow prevention assemblies or air-gap, unless a written extension is granted. A second notice will be sent to each water user who does not take the required corrective actions prescribed in the first notice, within the sixty-day period allowed. The second notice will give the water user a two-week period to take the required corrective action. If no action is taken within the two-week period, the Town may terminate water service to the affected water user until the required corrective actions are taken.
- c. Customer Notification - Testing and Maintenance. The Town will notify each affected water user when it is time for the backflow prevention assembly, installed on their service connection, to be tested, or the air-gap to be inspected. This written notice shall give the water user thirty days to have the assembly tested or air-gap inspected, and supply the water user with the necessary form to be completed and resubmitted to the Town. A second notice shall be sent to each water user who does not have the backflow prevention assembly tested or air-gap inspected as prescribed in the first notice within the thirty-day period allowed. The second notice will give the water user a two-week period to have the backflow prevention assembly tested or the air-gap inspected. If no action is taken within the two-week period, the Town may terminate water service to the affected water user until the subject assembly is tested, or air-gap inspected.
- d. Water Service Termination.
- i. General. When the Town encounters water users that represent a clear and immediate hazard to the water supply that cannot be immediately abated, the Town shall institute the procedure for discontinuing the Town's water service. Conditions or water uses that create a basis for water service termination shall include, but are not limited to, the following items: (1) refusal to install a required backflow prevention assembly or air-gap separation; (2) refusal to test a backflow prevention assembly or inspect an air-gap separation; (3) refusal to

repair a faulty backflow prevention assembly; (4) refusal to replace a faulty backflow prevention assembly; (5) direct or indirect connection between the public water system and a sewer line; (6) unprotected direct or indirect connection between the public water system and a system or equipment containing contamination; (7) unprotected direct or indirect connection between the public water system and an auxiliary water system; (8) a situation that presents an immediate health hazard to the public water system.

- ii. **Water Service Termination Procedures.** For conditions 1, 2, 3, or 4 of subsection 7(d)(i) above, the Town will terminate service to a customer's premises after two written notices have been sent specifying the corrective action needed and the time period in which it must be done. If no action is taken within the allotted time period water service may be terminated. For conditions 5, 6, 7, or 8 of subsection 7(d)(i) above, the Town will take the following steps: Make a reasonable effort to advise the water user of intent to terminate water service; Terminate the water supply and lock the service valve. The water service will remain inactive until corrections of violations have been approved by the Town.

8. **Penalties.** The Town Administrator or his/her designee shall have the authority to enforce this section. It is unlawful for any person, firm, or corporation at any time to make or maintain or cause to be made or maintained, temporarily or permanently, for any period of time whatsoever, any cross-connection between plumbing pipes or water fixtures being served with water by the Town water system and any other source of water supply or to maintain any sanitary fixture or other appurtenances or fixtures which, by reason of their construction, may cause or allow backflow of water or other substances into the water supply system of the Town and/or the service of water pipes or fixtures of any customer of the town. Any violations of the provisions of this section or rules or regulations promulgated thereof, shall be an infraction, punishable by a fine of not less than twenty-five dollars (\$25.00), nor more than Seven Hundred Fifty dollars (\$750.00). Each day that a violation exists shall constitute a separate and distinct offense.

(Ord. 748 § 1, 2003; Ord. 743 § 2, 2003; Ord. 664 § 2, 2000; Ord. 539 § 1, July 1996, Ord. 97 § 3, 1966.)

13.04.040 Superintendent of waterworks--Appointment and powers.

Repealed. (Ord. 664 § 1, 2000; Ord. 97 § 4, 1966.)

13.04.050 Supply--How obtained--Installation fees.

- A. Any person desiring to obtain a supply of water from the waterworks shall make application by building permit to the Planning & Building Department and file an acknowledgment therewith that he shall be governed by the laws and regulations as may be provided by the Mayor and Town Council for the control of water supply. The application for water must state the location, kind of building, number of rooms, and the entire area of grounds to be supplied, state the purpose for which the water is to be used, and the size of water meter required. The applicant shall pay a water capacity fee based upon the size of the water meter placed upon the service line, fire service line or Water Service Laterals running from the Town main to the property of the applicant, as follows:

Size of the Water Meter	Capacity Fee
¾ inch	\$ 690
1 inch	1,227
1 ¼ inch	1,918
1 ½ inch	2,761
2 inch	4,909
2 ½ inch	7,670
3 inch	11,044
4 inch	19,633
6 inch	44,176
8 inch	78,533

Size of the Fire Line	Capacity Fee
2 inch	\$ 1,000
4 inch	2,100
6 inch	2,400
8 inch	3,100

Water capacity fees for service lines, which fall between the above listed sizes, shall be charged at the rate of the larger standard size. (Ord. 1071 § 1, 2014; Ord. 992 § 1, 2011; Ord. 935 § 1, 2009; Ord. 866 § 1, July 2008.)

- B. There shall be no additional charge for capacity fees for fire protection systems; provided, however, that all taps into the mains of the Town for fire sprinkler system services shall be separate taps subject to all other conditions with respect to taps and payment for materials.
- C. The provisions of Subsection A above with respect to capacity fees may be amended from time to time by ordinance adopted by the Town Council.

D.The Town Engineer shall have the responsibility for interpreting the provisions of Subsections A, B, and C hereof. If in the opinion of the Town Engineer unique circumstances exist making the strict application of the schedule set forth in Subsection A inappropriate, the matter shall be presented to the Town Council at a regular or special meeting duly called for the purpose of deciding the appropriate fee to be charged. An applicant aggrieved by a determination of the Town Engineer with respect to the fees to be charged pursuant to Subsection A hereof shall have a similar right of review before the Town Council. (Ord. 743 § 2, 2003; Ord. 664 § 3, 2000: Ord. 538 § 1, 1996: Ord. 410 § 1, 1990: Ord. 270 § 1, 1980:)

13.04.060 Granting of applications.

If the application is granted, the applicant shall be authorized to extend the water mains to include the property. All expenses related to any extension from the water main to a private lot or within a private lot shall be borne by the property owner(s) or their designated representative. All connections to the water mains shall be installed and tested per the Town Standards for trench construction, pressure testing and roadway patching. All associated work shall be done by or under the supervision of the Public Works Department.

Service Line Provision Fees (Water)										
Size	3/4"	1"	1 1/2"	2"	3"	4"	6"	8"	10"	12"
Corp Stop	\$44.50	\$50.00	\$98.00	\$158.00	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
Curb Valve	\$47.50	\$71.00	\$128.75	\$186.00	Not Used	\$619.00	\$860.00	\$1,274.00	\$1,908.00	\$2,915.00
Copper Pipe (ft)	\$6.50	\$8.50	\$13.00	\$22.25	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
Curb Valve Box	\$72.50	\$72.50	\$72.50	\$72.50	Not Used	\$133.00	\$133.00	\$133.00	\$133.00	\$133.00
Tapping Sleeve	Not Used	Not Used	Not Used	Not Used	See Chart	See Chart	See Chart	See Chart	See Chart	See Chart
Saddle	See Chart	See Chart	See Chart	See Chart	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
Labor	\$120.00	\$120.00	\$120.00	\$120.00	\$545.00	\$584.25	\$584.25	\$584.25	\$584.25	\$584.25
Fee Subtotal	\$291.00	\$322.00	\$432.25	\$558.75	\$545.00	\$1,336.25	\$1,577.25	\$1,991.25	\$2,625.25	\$3,632.25

Saddle Fees

Size	4 by 1	4 by 2	6 by 1	6 by 2	8 by 1	8 by 2	10 by 1	10 by 2	12 by 1	12 by 2	14 by 1	14 by 2
Saddle Fee	\$69.00	\$84.00	\$80.00	\$93.00	\$92.00	\$107.00	\$110.00	\$129.00	\$129.00	\$148.00	\$152.00	\$160.00

Tapping Sleeve Fees

Size	4X4	6X4	6X6	8X4	8X6	8X8	10X4	10X6	10X8	10X10	12X4	12X6	12X8	12X10	12X12
Tap Sleeve Fee	\$636	\$664	\$757	\$687	\$764	\$951	\$747	\$811	\$1,027	\$1,700	\$884	\$972	\$1,174	\$1,849	\$2,197
Valve Box	\$117 sizes 4 to 14														

Size	14X4	14X6	14X8	14X10	14X12
Tap Sleeve Fee	\$936	\$1,034	\$1,292	\$1,972	\$2,319
Valve Box	\$117 sizes 4 to 14				

(Ord. 1071 § 1, 2014; Ord.992 §1, 2011; Ord.935 §1, 2009; Ord. 866 § 1, July 2008; Ord. 757 § 2, 2004; Ord. 743 § 2, 2003; Ord. 684, § 1, 2001; Ord. 664 § 4, 2000; Ord. 254 § 1, 1979; Ord. 97 § 6, 1966.)

13.04.065 Connection of groundwater heating and cooling systems prohibited.

It is unlawful for any person to connect, direct the connection of or permit the connection of any groundwater heating or cooling system to the water system of the Town, provided that this prohibition shall not apply to conventional evaporative cooling systems or conventional air-conditioning systems not utilizing large volumes of water for heat exchange. (Ord. 743 § 2, 2003; Ord. 307 § 1, 1983.)

13.04.070 Service pipe --Stopcock required.

At every service pipe there shall be placed 6" inside of the customer's property line a stop-cock and key box which shall be paid for by the water consumer, and shall be under the exclusive control of the Town.

(Ord. 759 § 2, 2004; Ord. 743 § 2, 2003; Ord. 97 § 7, 1966.)

13.04.080 Service pipe --Permit for extension.

No extension of service pipe shall be made without obtaining a permit from the Town Planning & Building Department and every building, except it be a private garage in connection with the dwelling house, shall have a separate service pipe. All ordinances and parts of ordinances in conflict with the provisions of this ordinance are hereby repealed. (Ord. 743 § 2, 2003; Ord. 664 § 5, 2000; Ord. 97 § 8, 1966.)

13.04.090 Unauthorized use of water.

If any water consumer shall permit any other person from other premises or any unauthorized person to use or obtain water from his premises or water fixtures whatever, inside or outside of his building, the supply of water of such persons may be terminated. Any unauthorized person taking water from another's premises is guilty of a misdemeanor and upon conviction thereof is liable to a fine not exceeding seven hundred fifty dollars. (Ord. 743 § 2, 2003; Ord. 664 § 6, 2000; Ord. 97 § 9, 1966.)

13.04.100 Town not liable for damages.

The Town shall not be liable to the users of any water caused by interruptions of water supply, scarcity of water, accidents to works or mains, or during the time of alterations, additions, or repairs, or for any other unavoidable causes. (Ord. 743 § 2, 2003; Ord. 97 § 10, 1966.)

13.04.110 Inspection of premises.

Free access shall at all reasonable hours be allowed to the Public Works Department to all places supplied with water from the municipal water plant, in accordance with Section 1.08.010 of this code to examine the apparatus, the amount of water used, and the manner of its use; and to ascertain any violation of the rules and regulations controlling the supply of water and the charges made therefore. (Ord. 743 § 2, 2003; Ord. 664 § 7, 2000; Ord. 97 § 11, 1966.)

13.04.120 Violation of rules and regulations.

Any water user who intentionally or willfully violates any of the rules and regulations controlling the supply of water and the distribution of the same or willfully and knowingly draws a larger supply than his application calls for, shall be liable to have his supply of water terminated and shall forfeit all amounts paid. (Ord. 743 § 2, 2003; Ord. 664 § 8, 2000; Ord. 97 § 12, 1966.)

13.04.130 Waste prohibited.

- A. It is unlawful for any water user to waste or allow it to be wasted by imperfect stops, valves, leaky joints or pipes, or to allow tanks of water or troughs to leak or overflow, or wastefully run water from a faucet or stop, or through basins, water closets, urinals, or other apparatus, or to use the water wastefully for a purpose other than those for which he has paid, or to use water in any violation of the rules and regulations for the control of the water supply under the provisions of this chapter, or of any rules and regulations to be hereinafter provided by the Mayor and Town Council.
- B. Any person violating any of the provisions of this section is guilty of a misdemeanor and upon conviction thereof shall be fined in a sum not to exceed seven hundred fifty dollars and shall be subject to have his supply of water terminated. (Ord. 743 § 2, 2003; Ord. 664 § 9, 2000; Ord. 97 § 13, 1966.)

13.04.140 Regulation of water for sprinkling purposes--Proclamation.

In time of scarcity or when the plant is unable to furnish a sufficient supply of water for all purposes, the Mayor shall by proclamation limit the use of water for other than domestic purposes to such an extent as may be necessary for the public good.
(Ord. 743 § 2, 2003; Ord. 97 § 14, 1966.)

13.04.150 Proclamation of limited use--Violation.

If after the Mayor has issued a proclamation regulating the use of water, any person or persons, by himself, family, servant, or agent who violates the provisions of such proclamation made by the Mayor of the Town, is guilty of a misdemeanor and shall be punished by a fine of not to exceed seven hundred fifty dollars.
(Ord. 743 § 2, 2003; Ord. 664 § 10, 2000; Ord. 97 § 15, 1966.)

13.04.160 Water Service Pipes and Water Service Laterals to be kept in good repair.

Water Service pipes and Water Service Laterals shall be defined as all valves, water pipe, curb stops, thaw wire systems and connections for potable, irrigation, fire lines or other connections extending from the outside diameter of the Town's water main to the point of use. All water users shall keep their service pipes, connections, and other apparatus in good repair and protected from frost at their own expense and in such conditions that they will not waste or permit the waste of water. All leaks in the service or any other pipe or fixture on the premises of the consumer shall be immediately repaired. Upon failure to repair any such leak, the service may be discontinued until repairs are made. (Ord. 1071 § 1, 2014, Ord. 743 § 2, 2003; Ord. 97 § 16, 1966.)

13.04.170 Excavation prohibited without permit.

No person or persons without first having obtained a permit from the Town Planning & Building Department shall be allowed to dig into the street or under the sidewalk for the purpose of laying, removing, or repairing any service pipe. (Ord. 743 § 2, 2003; Ord. 97 § 17, 1966.)

13.04.180 Liens for unpaid bills.

In the event that the charges for the water furnished upon any premises for any purpose are not paid when due and payable in accordance with the terms and provisions of this chapter, the Town Clerk may make and file a lien in behalf of the Town for the amount due and within the time and in the manner provided for filing liens of mechanics and material men under the provisions of the law of the State of Wyoming, and such lien shall bind the premises in the same manner and to the same extent as such material men's and mechanic's liens are binding under the State law and shall be foreclosed in the same manner. Upon foreclosure thereof costs shall in like manner be allowed or the Town may sue to recover the amount due for such rental from the person liable without filing a lien. In like manner a lien may be filed and foreclosed or suit brought to enforce the payment for any labor or material furnished or supplied by the Town. (Ord. 743 § 2, 2003; Ord. 97 § 18, 1966.)

13.04.190 Bills --When due--Delinquency.

Water bills will be processed and mailed the first of the month following the month of meter reading. All bills for water are payable monthly in arrears and are due on the last day of each month. All water bills shall be delinquent at the close of the office on the last day of the month on which they fall due, unless such day is a legal holiday, in which event they shall be delinquent at the close of the office on the next succeeding regular business day. For all bills that become delinquent, the amount thereof, and interest at a rate of 18% per annum on the unpaid balance, may be recovered by the Town.

(Ord. 755 § 2, 2004; Ord. 743 § 2, 2003; Ord. 721 § 1, 2003; Ord. 664 § 11, 2000; Ord. 382 § 1, 1988; Ord. 230 § 1, 1977;;Ord. 97 § 19, 1966.)

13.04.200 Delinquency--Shutting off water.

Water may be shut off when a water bill upon any premises has deemed delinquent and unpaid for forty-five (45) days. The Town Finance Department shall have power to turn off the water from the premises until such past due charges, together with such other costs as may be accrued in accordance with Section 13.04.190, shall have been fully paid and discharged. (Ord. 743 § 2, 2003; Ord. 664 § 12, 2000; Ord. 97A § 1, 1972; Ord. 97 § 20, 1966.)

13.04.210 Shutting off water--Notice not required.

Notice shall not be required to the owner, lessee, or any occupant of the property, or any person interested therein before turning off such water, but this section shall be deemed notice to all persons interested that unless the water supplied to such premises is paid the water supplying such premises may be shut off. (Ord. 743 § 2, 2003; Ord. 664 § 13, 2000; Ord. 97 § 21, 1966.)

13.04.220 Shutting off water--Charges.

When charges for water are unpaid, or for any other reason due to the violation of the rules and regulations adopted, it becomes necessary to shut off the supply of water to any premises before the same is again turned on, the Finance Department shall charge and collect a one hundred fifty dollars (\$150) fee for turning off the water and a one hundred fifty dollars (\$150) fee for turning the water on. Water will not be turned on to any premises unless the owner or resident of such premises is present.

(Ord. 743 § 2, 2003; Ord. 664 § 14, 2000; Ord. 550 § 1, 1996; Ord. 97 § 22, 1966.)

13.04.230 Discontinuance of service by joint users.

Where two or more parties or premises are supplied by the same service pipe, the failure on the part of either party to comply with this chapter shall warrant the Public Works Department in withholding a supply of water through the service pipe until a separate pipe with stop cock and key box is put in for each separate consumer. All new construction must have its own service line. (Ord. 743 § 2, 2003; Ord. 664 § 15, 2000; Ord. 97 § 23, 1966.)

13.04.240 Unauthorized turning on of water.

Any person whose water service has been terminated due to nonpayment of billings or any other reason that turns the water on, or permits the water to be turned on, or uses or permits the water to be used without authority, is guilty of a misdemeanor and upon conviction thereof, shall be punished by a fine of not to exceed seven hundred fifty dollars. (Ord. 743 § 2, 2003; Ord. 97 § 24, 1966.)

13.04.250 Private pipes--Permission required.

No person shall be allowed to convey water from any ditch or place to supply water for domestic use or for fountains, mechanical or other purposes, within the Town unless he first obtains permission from the Town. (Ord. 743 § 2, 2003; Ord. 97 § 25, 1966.)

13.04.260 Notice of discontinuance of use.

Any water user not using the water after the first of any month must report the same to the Town Finance Department and have the water shut off, and if he fails to do so the full amount for the month must be paid. No allowance shall be made for nonusage for less than one month. The owner of the premises shall be responsible for water furnished. No volume or base charges will be assessed when the water is shut off after proper notification to the Town Finance Department. The Town shall charge ten (\$10) dollars for each time the water is turned off or on for residences and fifteen (\$15) dollars each for business or commercial users. (Ord. 743 § 2, 2003; Ord. 664 § 16, 2000; Ord. 97 § 26, 1966.)

13.04.270 Charges--Statement of amount due.

The Town Finance Department shall furnish each property owner, landlord or his agent, on the first of the month a statement of the amount due for water for the prior month. The failure of any user of water to receive a notice or statement will in no way affect the rights of the Town to shut off water for nonpayment of bills. (Ord. 743 § 2, 2003; Ord. 664 § 17, 2000; Ord. 230 § 2, 1977; Ord. 97 § 27, 1966.)

13.04.280 Charges--Credit for service to town.

Repealed. (Ord. 664 § 1, 2000; Ord. 97 § 28, 1966.)

13.04.290 Sprinkling lawns. Nozzle size. Use restrictions.

Repealed. (Ord. 743, 2003; Ord. 97 § 29, 1966)

13.04.300 Water rates.

A. Charges for water system service and the usage of Town water shall include two components: user charges and base charges.

User Charges

Volume charge per 1,000 gallons	\$ 2.12
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Base Charges

Monthly fixed charge based on meter size

¾ inch	\$ 7.22
1 inch	9.93
1 ½ inch	17.41
2 inch	25.31
3 inch	57.54
4 inch	86.26
6 inch	159.34

(Ord. 1039 §1, 2013; Ord. 1018 § 1, 2013; Ord. 1008 § 1, 2012; Ord. 999 § 1, 2012; Ord. 992 § 1, 2011; Ord. 935 § 1, 2009; Ord. 866 § 1, July 2008.)

B. Water sold from fire hydrants shall be charged a base charge of \$125.16 and a usage rate of \$2.12 per one thousand gallons.

(Ord. 1039 §1, 2013; Ord. 1018 §1, 2013; Ord. 1008 §1, 2012; Ord. 992 §1, 2011; Ord. 935 §1, 2009; Ord. 866 § 1, 2008.)

C. Effective January 1, 2017, water rates for the 3 Creek Ranch Subdivision in Teton County, Wyoming shall be as follows:

Base Charge, per connection, per year \$1,296.00

(Res. 17-03, 2017; Res. 14-02, 2014; Res. 13-22, 2013; Res. 11-12, 2011; Res. 10-24, 2010; Res. 09-29, 2009)

Volume Charge, per thousand gallons \$ 1.06

(Res. 17-03, 2017; Res. 14-02, 2014; Res. 13-22, 2013; Res. 11-12, 2011; Res. 10-24, 2010)

Replacement Charge, per connection, per year \$268.00

(Res. 17-03, 2017; Res. 14-02, 2014; Res. 13-22, 2013; Res. 11-12, 2011; Res. 10-24, 2010)

The rates set forth in this subsection shall be effective until December 31, 2009. Effective January 1, 2010, and each year thereafter, the base charge, volume charge and replacement charge will be recalculated, using the budget in effect at the time of recalculation and other appropriate reference material, by the Town of Jackson Finance Department for adoption by council resolution. The formulas for recalculation will be those presented by Red Oak Consulting on March 28, 2005.

(Ord. 992 § 1, 2011; Ord. 935 § 1, 2009; Ord. 866 § 1, July 2008; Ord. 833 §1, 2006; Ord. 804 §1, 2005; Ord. 743 § 2, 2003; Ord. 664 § 18, 2000; Ord. 588§ 1, 1996; Ord. 551§ 1, 1996; Ord. 539 § 1, 1996; Ord. 479 § 1, 1994; Ord. 381 § 1, 1988; Ord. 370 § 1, 1987; Ord. 270 § 2, 1980; Ord. 97A § 2, 1972; Ord. 97 § 30, 1966.)

13.04.310 Penalty for violations.

Any person or persons violating any of the provisions of this chapter is guilty of a misdemeanor and upon conviction thereof, except in cases where a specific penalty is provided, shall be punished in accordance with Section 1.12.010 of this Code.

(Ord. 743 § 2, 2003; Ord. 289 § 19, 1982; Ord. 270 § 4, 1980; Ord. 97 § 32, 1966.)

Chapter 13.06

WATER RATE ADJUSTMENTS

Sections:

13.06.010 Commercial enterprises - public restrooms.

13.06.020 Senior and disabled citizens.

13.06.030 Repealed.

13.06.040 Fire department.

13.06.050 Town employees.

13.06.060 Social service organizations.

13.06.070 Bill reduction for repair of water leaks.

13.06.080 Water allowance for inclement weather.

13.06.090 Medical reasons.

13.06.010 Commercial enterprises - public restrooms.

Repealed. (Ord. 592 § 1, 1998; Ord. 552 § 1, 1996.)

13.06.020 Senior and disabled citizens.

The usage rate for senior citizens aged sixty-five (65) or over who certify to the office of the Town Administrator that they are the primary resident of the residence, that they are a full-time resident of Jackson and that their net annual income does not exceed one hundred fifty percent (150%) of the Teton County poverty level and disabled citizens who certify that they are permanently disabled, that they are the primary resident of the residence and that they are full-time residents of Jackson and their gross annual income is not greater than one hundred fifty percent (150%) of the Teton County poverty level shall have the base charge and usage rate reduced by fifty percent (50%).

(Ord. 744 § 2, 2003; Ord. 678 § 2, 2000; Ord. 553 § 1, 1996, Res. 88-19 § 3, 1988; Res. 87-22 § 2, 1987.)

13.06.030 Nonresidents.

Repealed. (Ord. 678 § 1, 2000, 1996; Res. 87-22 § 3, 1987.)

13.06.040 Fire department.

Repealed. (Ord. 835 § 1, 2006; Ord. 744 § 2, 2003; Res. 88-19 § 1, 1988.)

13.06.050 Town employees.

Water shall be provided for the primary residence without a base charge and at a usage charge as established in Section 13.04.300 of this Code per one thousand gallons for gallons in excess of five-thousand (5,000) per month for all full-time employees of the Town, all elected officials of the Town and all members of the Town Planning Commission.

(Ord. 744 § 2, 2003; Ord. 554 § 1, 1996, Res. 88-19 § 2, 1988.)

13.06.060 Social service organizations.

Water shall be provided at a base fee and volume rate reduced by twenty-five percent (25%) for the following social services organizations:

- A. Community Entry Services;
- B. Teton Community Health Center;
- C. Community Children's Project;
- D. VanVleck House;
- E. The Learning Center;
- F. Pioneer Senior Citizens Center;
- G. Teton County Task Force;
- H. Good Samaritan Mission.

(Ord. 744 § 2, 2003; Res. 88-19 § 5, 1988.)

13.06.070 Bill reduction for repair of water leaks.

In the event that water consumption has significantly increased in a given quarter due to undetected water leak, a fifty percent (50%) reduction in the usage charge for water may be given by the Town Administrator provided that the customer provides written documentation that the leak has been repaired. In extreme circumstances, the Town Administrator may grant this reduction for the same location for not more than three (3) consecutive months. In the event that water consumption has significantly increased due to other catastrophic events, the Town Administrator may authorize a recalculation of water usage. The amount of the bill will be calculated by utilizing an average of the previous three (3) years water usage for the same month to determine normal billing. If three (3) years of information is not available, three (3) years of available and comparable data will be used. The reduction may be granted for amounts of usage over the determined normal billing. In extreme circumstances, the Town Administrator may grant this reduction for the same location for not more than three (3) consecutive months.

(Ord. 744 § 2, 2003; Ord. 694 § 1, 2001; Ord. 678 § 3, 2000; Ord. 555 § 1, 1996, Res. 88-19 § 6, 1988.)

13.06.080 Water allowance for inclement weather.

To prevent the freezing of water mains the Town Administrator may grant an allowance of an additional five-thousand (5,000) gallons per month. Additional allowances may be granted for specific instances by the Town Council.

(Ord. 744 § 2, 2003; Ord. 556 § I, 1996; Res. 88-19 § 7, 1988.)

13.06.090 Adjustment of water rates for medical reasons.

Upon receipt of written verification from a licensed medical doctor indicating that a patient under his or her care is in need of life sustaining treatment, or treatment that will improve the quality of life of a chronically or terminally ill person, and involves the use of unusually large amounts of water at the patient's residence, upon written approval of the Town Administrator, the user may receive a waiver of fees for all water use attributable to such treatment. The waived portion of the fees shall be calculated as the difference between the historical metered consumption at the residence by the user, and the metered consumption measured after the medical treatment is begun. In the event the patient is a new water user, or there is no historical

metered consumption at the residence, a representative average of use by residences in the immediate vicinity shall be used as the base rate to be subtracted from the metered consumption measured after the medical treatment is begun. (Ord. 744 § 2, 2003; Ord. 616 § I, 1999)

Exhibit D

Water Fund - Financials

TOWN OF JACKSON, WYOMING
WATER FUND
REVENUE, EXPENDITURES, & CHANGES TO WORKING CAPITAL

DESCRIPTION	FY2010 ACTUAL	FY2011 ACTUAL	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 ACTUAL	FY2016 ACTUAL	FY2017 ACTUAL	FY2018 ACTUAL	FY2019 ACTUAL	FY2020 AMENDED
Beginning Working Capital	\$5,530,979	\$5,237,666	\$4,722,742	\$3,695,464	\$3,183,677	\$4,129,127	\$4,714,588	\$4,759,311	\$5,331,576	\$5,899,563	\$4,794,517
						552,405	11,667				
Intergovernmental	-	917,401	1,490,875	87,195	-	-	-	-	-	125,000	-
Charges for Services	1,264,582	1,289,902	1,648,668	1,955,015	2,315,911	2,417,077	2,425,897	2,717,681	2,562,141	2,594,752	2,504,438
Miscellaneous Revenue	115,772	77,115	32,787	11,848	16,808	318,087	18,704	17,618	142,482	106,725	87,183
Total Revenue	1,380,354	2,284,418	3,172,330	2,054,058	2,332,719	2,735,164	2,444,601	2,735,299	2,704,623	2,826,477	2,591,621
Transfers In	-	-	-	8,576	-	118,674	-	-	-	244,561	375,000
Total Sources	1,380,354	2,284,418	3,172,330	2,062,634	2,332,719	2,853,838	2,444,601	2,735,299	2,704,623	3,071,038	2,966,621
Water Maintenance & Operation	462,925	517,000	487,667	485,235	545,810	541,859	746,311	647,745	575,243	654,223	921,233
Water Wells	158,718	151,197	172,014	177,835	195,487	262,166	500,641	226,017	195,147	224,677	231,818
Water Billing & Accounting	144,171	143,694	167,940	164,564	161,526	149,484	145,925	145,395	130,682	162,809	172,020
Capital Outlay	606,426	1,656,722	2,954,141	1,096,309	1,335	792,897	458,937	586,687	667,767	1,040,179	764,219
Debt Service	41,245	41,245	41,245	106,862	108,215	108,215	108,215	108,215	108,215	108,215	108,220
Total Expenditures	1,413,485	2,509,858	3,823,007	2,030,805	1,012,373	1,854,621	1,960,029	1,714,059	1,677,054	2,190,103	2,197,510
Transfers Out	260,182	289,484	376,601	543,616	374,896	413,756	439,849	448,975	459,582	1,985,981	626,362
Total Uses	1,673,667	2,799,342	4,199,608	2,574,421	1,387,269	2,268,377	2,399,878	2,163,034	2,136,636	4,176,084	2,823,872
Ending Working Capital	\$5,237,666	\$4,722,742	\$3,695,464	\$3,183,677	\$4,129,127	\$4,714,588	\$4,759,311	\$5,331,576	\$5,899,563	\$ 4,794,517	\$ 4,937,266
<i>Net Change in Working Capital</i>	<i>\$ (293,313)</i>	<i>\$ (514,924)</i>	<i>\$ (1,027,278)</i>	<i>\$ (511,787)</i>	<i>\$ 945,450</i>	<i>\$ 585,461</i>	<i>\$ 44,723</i>	<i>\$ 572,265</i>	<i>\$ 567,987</i>	<i>\$ (1,105,046)</i>	<i>\$ 142,749</i>

**WATER FUND
REVENUES AND OTHER SOURCES**

REVENUE DESCRIPTION	FY2010 ACTUAL	FY2011 ACTUAL	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 ACTUAL	FY2016 ACTUAL	FY2017 ACTUAL	FY2018 ACTUAL	FY2019 ACTUAL	FY2020 AMENDED
County Solar Farm EMP Match	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 125,000	\$ -
Federal/State Aid	-	917,401	1,490,875	87,195	-	-	-	-	-	-	-
Total Intergovernmental	\$ -	\$ 917,401	\$ 1,490,875	\$ 87,195	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 125,000	\$ -
Water Fees	\$ 1,190,684	\$ 1,239,741	\$ 1,583,998	\$ 1,854,826	\$ 2,153,363	\$ 2,195,187	\$ 874,372	\$ -	\$ -	\$ -	\$ -
Water Usage Fees	-	-	-	-	-	-	1,004,266	1,925,625	1,830,596	1,815,217	1,740,611
Water Base Fees	-	-	-	-	-	-	410,261	570,385	591,560	620,275	622,168
Water Interest Charges	-	-	-	-	-	1,203	3,264	5,112	3,784	2,998	6,316
Water Capacity Fees	43,717	32,629	36,612	54,081	100,197	141,712	76,720	125,173	80,148	91,724	89,892
One-Time Payments	-	-	-	-	-	-	-	6,500	-	-	-
Water Tap/Meter Fees	30,181	17,532	28,058	46,108	62,351	78,975	57,014	84,886	56,053	64,538	45,451
Total Charges for Services	1,264,582	1,289,902	1,648,668	1,955,015	2,315,911	2,417,077	2,425,897	2,717,681	2,562,141	2,594,752	2,504,438
Interest Earnings	111,087	74,356	26,624	8,221	6,001	9,348	9,431	11,705	53,391	105,800	78,183
Miscellaneous Revenue	4,685	2,759	2,798	3,627	10,807	26,630	9,273	5,913	14,863	925	9,000
Sale of Fixed Assets	-	-	3,365	-	-	-	-	-	-	-	-
WARM Insurance Proceeds	-	-	-	-	-	282,109	-	-	74,228	-	-
Total Miscellaneous Revenue	115,772	77,115	32,787	11,848	16,808	318,087	18,704	17,618	142,482	106,725	87,183
Debt Issue Proceeds	-	-	-	-	-	-	-	-	-	-	-
Total Debt Issue Proceeds	115,772	77,115	32,787	11,848	16,808	600,196	18,704	17,618	216,710	106,725	87,183
Transfer In - Capital Projects	-	-	-	-	-	-	-	-	-	244,561	375,000
Transfer In - General Fund	-	-	-	8,576	-	-	-	-	-	-	-
Transfer In - SPET 2001	-	-	-	-	-	118,674	-	-	-	-	-
Total Transfers In	-	-	-	8,576	-	118,674	-	-	-	244,561	375,000
Total Water Fund	\$ 1,380,354	\$ 2,284,418	\$ 3,172,330	\$ 2,062,634	\$ 2,332,719	\$ 2,853,838	\$ 2,444,601	\$ 2,735,299	\$ 2,704,623	\$ 3,071,038	\$ 2,966,621

**WATER FUND
WATER MAINTENANCE & OPERATIONS**

EXPENDITURE DESCRIPTION	FY2010 ACTUAL	FY2011 ACTUAL	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 ACTUAL	FY2016 ACTUAL	FY2017 ACTUAL	FY2018 ACTUAL	FY2019 ACTUAL	FY2020 AMENDED
Salaries & Wages - Regular	\$ 206,628	\$ 183,320	\$ 177,414	\$ 181,367	\$ 184,981	\$ 191,209	\$ 229,805	\$ 238,563	\$ 235,648	\$ 237,304	\$ 297,153
Buyout - Compensated Absences	19,243	2,813	2,213	2,733	2,444	2,818	3,167	3,064	3,605	2,348	2,928
Overtime	7,953	4,363	5,011	2,363	5,642	3,527	5,416	4,008	4,630	7,562	10,000
liday Pay - PTO Buyback	-	-	-	-	-	-	-	-	332	-	-
FICA & Medicare	17,464	13,571	13,131	12,436	13,536	13,951	16,794	17,268	17,294	18,384	23,721
Health Insurance	55,412	43,742	50,748	52,583	61,950	69,816	82,267	86,240	82,645	83,472	95,590
Vision Insurance	-	-	-	-	501	622	781	753	699	820	949
Dental Insurance	3,161	2,639	2,741	2,639	3,570	3,796	4,415	4,463	3,632	3,632	4,313
Wyoming Retirement	23,629	22,976	22,549	21,126	23,933	26,474	33,342	34,268	33,762	35,577	44,814
Workers' Compensation	6,653	2,414	2,063	2,044	2,887	5,274	6,579	5,229	5,305	4,228	7,904
State Unemployment	1,810	1,402	1,691	1,235	1,454	795	782	616	534	345	827
Disability/Life Insurance	1,638	1,552	1,609	1,599	1,536	1,965	2,350	2,003	2,242	2,220	5,683
General/Office Supplies	-	-	-	-	40	-	46	-	-	-	-
Uniforms	368	219	140	256	190	502	174	518	252	190	800
Small Tools & Equipment <\$10K	167	1,319	1,909	2,256	2,883	4,167	1,064	6,012	4,984	1,605	5,200
Water/Sewer Supplies	14,228	11,307	23,071	22,507	23,037	33,599	19,367	30,113	26,171	21,674	30,000
Postage	41	-	28	-	151	-	-	-	-	69	-
Printing & Publication	396	264	-	-	-	-	-	4	-	-	1,000
Dues & Subscriptions	392	566	500	717	312	150	240	500	1,135	1,326	1,000
Utilities	10,461	14,345	16,030	16,040	9,598	11,256	13,487	10,247	14,174	18,486	12,550
Professional services	-	175	-	4,304	17,580	3,506	3,370	30,033	13,591	20,038	230,781
Repair & Maint - Shop Parts	6,751	5,862	5,793	8,972	5,366	2,542	5,036	5,957	6,406	1,961	3,450
Repair & Maint - Shop Labor	-	-	-	-	5,390	3,490	3,769	4,700	2,704	1,369	3,320
Repair & Maint - Machinery	89	108	276	43	508	503	1,292	376	450	1,794	2,500
Petroleum Products	5,623	6,851	7,704	9,129	8,045	6,308	4,979	5,040	5,416	5,017	6,349
Repairs & Maint - Water Tanks	13,543	-	2,866	750	135	14,224	7,482	368	500	22,501	25,000
Repair & Maint - Dist Syst	41,852	171,982	122,326	112,284	127,166	96,781	239,832	87,689	40,108	98,281	66,519
Repair & Maint - Fire Hydrants	652	2,741	4,643	3,832	18,449	12,473	27,533	6,230	6,219	2,967	5,500
Repair & Maint - Buildings	173	902	425	-	1,239	8,840	5,669	34,571	35,661	26,999	4,500
Trash Collection	-	-	-	-	-	-	-	-	-	-	2,311
Uniform Cleaning	704	877	753	1,197	611	1,318	1,414	1,624	1,671	1,418	1,357
Training, Travel, & Meetings	5,023	4,142	4,469	5,212	5,123	2,408	5,967	4,647	1,484	8,155	2,700
IT Services	11,478	10,616	11,471	13,001	12,956	14,977	13,501	15,378	17,307	17,396	14,720
Property Insurance	4,193	3,555	3,845	2,487	2,494	2,510	3,499	4,323	4,743	4,709	5,186
Liability Insurance	3,085	2,271	2,248	2,017	2,103	2,058	2,892	2,940	1,939	2,376	2,608
Equipment Rental	115	106	-	106	-	-	-	-	-	-	-
Total Water Maint. & Operations	\$ 462,925	\$ 517,000	\$ 487,667	\$ 485,235	\$ 545,810	\$ 541,859	\$ 746,311	\$ 647,745	\$ 575,243	\$ 654,223	\$ 921,233

**WATER FUND
WATER WELLS**

EXPENDITURE DESCRIPTION	FY2010 ACTUAL	FY2011 ACTUAL	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 ACTUAL	FY2016 ACTUAL	FY2017 ACTUAL	FY2018 ACTUAL	FY2019 ACTUAL	FY2020 AMENDED
Small Tools & Equipment <\$10K	\$ -	\$ 50	\$ 812	\$ 40	\$ 479	\$ 1,167	\$ -	\$ 286	\$ 100	\$ 140	\$ 500
Water/Sewer Supplies	36,067	30,085	38,221	42,789	38,903	32,177	45,553	32,671	29,925	30,587	35,000
Utilities	89,593	84,291	92,600	88,413	104,250	103,888	115,637	121,347	118,216	98,201	117,050
Utilities - Thaw Wells	1,410	705	1,840	2,267	4,105	3,877	1,321	2,515	145	(245)	3,000
Water/Sewer - Refuge Easement	7,281	7,704	10,547	23,240	30,007	54,169	20,604	28,834	24,555	28,448	26,000
Phone Communications	1,236	-	-	-	-	-	-	-	-	-	-
Repair & Maint - Shop Parts	-	-	-	-	2,802	5,543	4,174	5,026	1,789	396	1,380
Repair & Maint - Shop Labor	-	-	-	-	200	1,777	3,763	4,820	1,454	374	1,660
Repair & Maint - Machinery	8,577	16,473	1,370	14,351	3,419	49,403	297,650	12,123	8,560	16,048	15,000
Petroleum Products	-	-	-	-	2,794	840	196	575	1,942	590	1,916
Repair & Maint - Buildings	2,143	475	20,992	2,308	577	2,758	5,429	4,375	240	41,075	12,000
EPA Sampling	3,625	2,580	5,152	1,817	5,396	3,996	2,730	9,017	3,363	4,240	13,000
Property Insurance	-	-	-	2,548	2,555	2,571	3,584	4,428	4,858	4,823	5,312
Equipment Rental	8,786	8,834	480	62	-	-	-	-	-	-	-
Total Water Wells	\$ 158,718	\$ 151,197	\$ 172,014	\$ 177,835	\$ 195,487	\$ 262,166	\$ 500,641	\$ 226,017	\$ 195,147	\$ 224,677	\$ 231,818

**WATER FUND
BILLING & ACCOUNTING**

EXPENDITURE DESCRIPTION	FY2010 ACTUAL	FY2011 ACTUAL	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 ACTUAL	FY2016 ACTUAL	FY2017 ACTUAL	FY2018 ACTUAL	FY2019 ACTUAL	FY2020 AMENDED
Salaries & Wages - Regular	\$ 59,063	\$ 59,473	\$ 59,781	\$ 57,142	\$ 60,244	\$ 51,187	\$ 53,865	\$ 53,289	\$ 51,290	\$ 53,004	\$ 54,935
Buyout - Compensated Absences	-	695	656	1,079	972	806	699	658	373	806	528
Overtime	102	193	1,185	2,200	1,952	1,279	1,756	1,046	1,232	2,112	1,550
FICA & Medicare	4,544	4,437	4,564	4,779	4,639	3,849	4,053	3,967	3,844	4,089	4,362
Health Insurance	23,738	21,721	23,988	26,093	17,317	15,613	15,679	16,420	12,933	13,062	12,932
Vision Insurance	-	-	-	-	122	133	335	134	97	115	115
Dental Insurance	1,106	1,117	1,292	1,292	931	695	695	707	572	572	572
Wyoming Retirement	6,580	7,343	7,488	7,831	7,802	7,139	7,863	7,659	7,450	8,017	8,293
Workers' Compensation	1,891	727	573	624	827	1,102	948	1,191	863	717	1,070
State Unemployment	834	632	668	936	766	205	135	214	225	111	180
Disability/Life Insurance	520	519	562	505	505	598	561	442	515	533	1,601
General/Office Supplies	1,407	1,457	1,580	3,014	1,557	17	1,784	2,044	1,879	1,410	2,100
Uniforms	-	-	-	-	-	-	208	-	540	-	-
Water/Sewer Supplies	20,948	24,361	44,419	37,626	40,150	37,867	34,865	33,359	23,012	52,095	50,000
Professional Services	-	45	-	-	-	-	-	-	-	-	-
Banking Fees	-	-	-	-	737	2,023	2,743	2,989	3,347	4,058	4,000
Credit Card Fees	-	-	-	-	1,041	2,432	3,334	5,515	6,570	6,019	9,000
Utility Billing Services	11,113	11,141	11,439	11,938	12,248	11,796	12,226	10,873	10,874	10,782	13,000
Repair & Maint - Vehicles	1,806	416	-	-	-	-	-	-	-	-	-
Repair & Maint - Shop Parts	-	-	-	-	-	306	-	-	135	91	288
Repair & Maint - Shop Labor	-	-	-	-	-	-	-	-	150	154	415
Petroleum Products	910	994	1,400	1,053	1,009	852	604	591	576	643	1,021
Uniform Cleaning	496	490	484	408	422	257	275	258	320	252	520
Training, Travel, & Meetings	-	379	129	29	253	32	49	759	480	711	-
IT Services	8,274	6,836	7,002	7,387	7,377	10,655	2,580	2,616	2,998	2,962	5,044
Liability Insurance	839	718	730	628	655	641	668	664	407	494	494
Total Water Billing & Accounting	\$ 144,171	\$ 143,694	\$ 167,940	\$ 164,564	\$ 161,526	\$ 149,484	\$ 145,925	\$ 145,395	\$ 130,682	\$ 162,809	\$ 172,020

CAPITAL OUTLAY

EXPENDITURE DESCRIPTION	FY2010 ACTUAL	FY2011 ACTUAL	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 ACTUAL	FY2016 ACTUAL	FY2017 ACTUAL	FY2018 ACTUAL	FY2019 ACTUAL	FY2020 AMENDED
Capital Equipment	108,975	40,340	31,766	-	-	77,776	33,591	39,127	50,058	65	45,000
Capital Improvements	497,451	1,616,382	2,922,375	1,096,309	1,335	715,121	425,346	547,560	617,709	1,040,114	719,219
Total Capital Outlay	606,426	1,656,722	2,954,141	1,096,309	1,335	792,897	458,937	586,687	667,767	1,040,179	764,219

DEBT SERVICE

EXPENDITURE DESCRIPTION	FY2010 ACTUAL	FY2011 ACTUAL	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 ACTUAL	FY2016 ACTUAL	FY2017 ACTUAL	FY2018 ACTUAL	FY2019 ACTUAL	FY2020 AMENDED
Loan Repay - Well 6, 7, & 8	\$ 41,245	\$ 41,245	\$ 41,245	\$ 41,245	\$ 41,245	\$ 41,245	\$ 41,245	\$ 41,245	\$ 41,245	\$ 41,245	\$ 41,250
Loan Repay - Water Tanks	-	-	-	65,617	66,970	66,970	66,970	66,970	66,970	66,970	66,970
Total Debt Service	\$ 41,245	\$ 41,245	\$ 41,245	\$ 106,862	\$ 108,215	\$ 108,215	\$ 108,215	\$ 108,215	\$ 108,215	\$ 108,215	\$ 108,220

TRANSFERS OUT

EXPENDITURE DESCRIPTION	FY2010 ACTUAL	FY2011 ACTUAL	FY2012 ACTUAL	FY2013 ACTUAL	FY2014 ACTUAL	FY2015 ACTUAL	FY2016 ACTUAL	FY2017 ACTUAL	FY2018 ACTUAL	FY2019 ACTUAL	FY2020 AMENDED
Indirect Cost Allocation - General	\$ 260,182	\$ 289,484	\$ 376,601	\$ 353,616	\$ 374,896	\$ 413,756	\$ 439,849	\$ 448,975	\$ 459,582	\$ 485,981	\$ 626,362
Transfer to 2001 SPET	-	-	-	190,000	-	-	-	-	-	-	-
Transfer to Capital Projects - Loan	-	-	-	-	-	-	-	-	-	1,500,000	-
Total Interfund Transfers	\$ 260,182	\$ 289,484	\$ 376,601	\$ 543,616	\$ 374,896	\$ 413,756	\$ 439,849	\$ 448,975	\$ 459,582	\$ 1,985,981	\$ 626,362

Exhibit E

WWDC Public Water System Survey

WYOMING WATER DEVELOPMENT OFFICE
PUBLIC WATER SYSTEM SURVEY

2018



MUNICIPALITY/DISTRICT/ENTITY INFORMATION

Name of Entity? Town of Jackson
Type of Entity? (Municipality, District, JPB, Private Company, Other) municipality
Public Water System I.D. # WY5600213
Contact person(s) John Ryan, Water Manager
Address: PO Box 1687 City: Jackson Zip code: 83001 County: Teton
Phone #: 307-733-3079 e-mail: jryan@jacksonwy.gov
Fax#: 307-734-1664 website: www.townofjackson.com

WATER SYSTEM DATA

Number of Wells? 7 Depth of wells? 120'-160' Number of springs? 0
Surface water source(s)? N/A
Type of diversion(s)? (Surface Direct, Infiltration Gallery, Alluvial Wells, Dam, Ditch, Other)
N/A
Other water sources? N/A

Total system capacity in gallons per day? 9.8 MGD
Total raw water storage (gal)? 0 Total treated water storage (gal)? 3.43 MG
Treatment method(s) (Disinfection/Chlorination, Filtration, Conventional Water Treatment Plant, or other)?
disinfection/chlorination

WATER SYSTEM USAGE

Total population served? 9,750 # of taps in entity? 3275 # of taps outside entity? 750

Total annual water use by the system (gallons)? 896 Mgal/yr
Peak day water use for the system (gallons)? 5.81 Mgal/day

Do you sell bulk water? yes If yes, what is the charge? \$125.16 startup +\$2.25 per 1,000 gal
What is the annual bulk water sales volume (gallons)? 806.7 Mgal/yr
Is the bulk water sold treated, untreated, or both? Treated

Do you sell water to other entities? yes If yes, to whom? Teton Science School,
Classical Academy and Saddle Butte, Indian Springs Ranch and 3 Creek Subdivisions.

Do you buy water from other entities? no If yes, from whom? _____
How much water do you buy? n/a
What is the cost of the bulk water purchased? n/a

What is the estimated loss to leakage? 245.6 Kgal/day Or 10 %

BILLING RATES

What % of the system is metered? 100% Does the entity bill by meter? yes

What are the unmetered uses within the system if any? _____

What is the average monthly water bill? \$53/service

	TAP FEES	BASE WATER RATE	GALLONS INCLUDED IN BASE RATE
RESIDENTIAL	Billing does not differentiate between residential, commercial or industrial		
COMMERCIAL	Tap and base rate fees are based on meter size. Billing is not based on a		
INDUSTRIAL	tiered water structure, and there are not gallons included in the base rate.		
OTHER	Tap, base and user fees are described on the attachment.		

What is the rate for each 1,000 gallons ~~above the base amount~~? \$2.25

What would a household's bill be for using 10,000 gallons in a month? n/a

What would a household's bill be for using 20,000 gallons in a month? n/a

WATER SYSTEM FISCAL DATA

	\$
What is the annual budget for the system?	\$2.5M
How much is spent on operation and maintenance annually?	\$1.9M
What does water quality testing cost annually?	\$12K
How much money is in the emergency/replacement fund?	\$4.5M
What is the annual payment/contribution to the emergency/replacement fund?	\$100K
What are revenues from water bills?	\$2.46M
What are revenues from tap fees?	\$45K

Is the water system financially self supporting? yes

Are there other funding sources for the water system? yes

What are they? SPET and TOJ General Funds transfers.

WELLHEAD PROTECTION AND CONSERVATION MEASURES

Is there a wellhead protection plan in place? yes

What types of water conservation measures are in place? 100% metered use.

What is the estimated water savings from the conservation measures? unknown

General Comments: _____

Excerpts below from ToJ Title 13 Utilities

13.04.050 Supply--How obtained--Installation fees.

The applicant shall pay a water capacity fee based upon the size of the water meter placed upon the service line, fire service line or Water Service Laterals running from the Town main to the property of the applicant, as follows:

<u>Size of the Water Meter</u>	<u>Capacity Fee</u>
¾ inch	\$ 690
1 inch	1,227
1 ¼ inch	1,918
1 ½ inch	2,761
2 inch	4,909
2 ½ inch	7,670
3 inch	11,044
4 inch	19,633
6 inch	44,176
8 inch	78,533

<u>Size of the Fire Line</u>	<u>Capacity Fee</u>
2 inch	\$ 1,000
4 inch	2,100
6 inch	2,400
8 inch	3,100

13.04.060 Granting of applications.

If the application is granted, the applicant shall be authorized to extend the water mains to include the property. All expenses related to any extension from the water main to a private lot or within a private lot shall be borne by the property owner(s) or their designated representative. All connections to the water mains shall be installed and tested per the Town Standards for trench construction, pressure testing and roadway patching. All associated work shall be done by or under the supervision of the Public Works Department.

<u>Service Line Provision Fees (Water)</u>										
<u>Size</u>	<u>¾"</u>	<u>1"</u>	<u>1 1/2"</u>	<u>2"</u>	<u>3"</u>	<u>4"</u>	<u>6"</u>	<u>8"</u>	<u>10"</u>	<u>12"</u>
Corp Stop	\$44.50	\$50.00	\$98.00	\$158.00	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
Curb Valve	\$47.50	\$71.00	\$128.75	\$186.00	Not Used	\$619.00	\$860.00	\$1,274.00	\$1,908.00	\$2,915.00
Copper Pipe (ft)	\$6.50	\$8.50	\$13.00	\$22.25	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
Curb Valve Box	\$72.50	\$72.50	\$72.50	\$72.50	Not Used	\$133.00	\$133.00	\$133.00	\$133.00	\$133.00
Tapping Sleeve	Not Used	Not Used	Not Used	Not Used	See Chart	See Chart	See Chart	See Chart	See Chart	See Chart
Saddle	See Chart	See Chart	See Chart	See Chart	Not Used	Not Used	Not Used	Not Used	Not Used	Not Used
Labor	\$120.00	\$120.00	\$120.00	\$120.00	\$545.00	\$584.25	\$584.25	\$584.25	\$584.25	\$584.25
Fee Subtotal	\$291.00	\$322.00	\$432.25	\$558.75	\$545.00	\$1,336.25	\$1,577.25	\$1,991.25	\$2,625.25	\$3,632.25

Saddle Fees

<u>Size</u>	<u>4 by 1</u>	<u>4 by 2</u>	<u>6 by 1</u>	<u>6 by 2</u>	<u>8 by 1</u>	<u>8 by 2</u>	<u>10 by 1</u>	<u>10 by 2</u>	<u>12 by 1</u>	<u>12 by 2</u>	<u>14 by 1</u>	<u>14 by 2</u>
Saddle Fee	\$69.00	\$84.00	\$80.00	\$93.00	\$92.00	\$107.00	\$110.00	\$129.00	\$129.00	\$148.00	\$152.00	\$160.00

Tapping Sleeve Fees

<u>Size</u>	<u>4X4</u>	<u>6X4</u>	<u>6X6</u>	<u>8X4</u>	<u>8X6</u>	<u>8X8</u>	<u>10X4</u>	<u>10X6</u>	<u>10X8</u>	<u>10X10</u>	<u>12X4</u>	<u>12X6</u>	<u>12X8</u>	<u>12X10</u>	<u>12X12</u>
Tap Sleeve Fee	\$636	\$664	\$757	\$687	\$764	\$951	\$747	\$811	\$1,027	\$1,700	\$884	\$972	\$1,174	\$1,849	\$2,197
Valve Box	\$117	sizes	4 to 14												

<u>Size</u>	<u>14X4</u>	<u>14X6</u>	<u>14X8</u>	<u>14X10</u>	<u>14X12</u>
Tap Sleeve Fee	\$936	\$1,034	\$1,292	\$1,972	\$2,319
Valve Box	\$117	sizes	4 to 14		

13.04.300 Water rates.

- A. Charges for water system service and the usage of Town water shall include two components: user charges and base charges.

User Charges

Volume charge per 1,000 gallons	\$ 2.12
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Base Charges

Monthly fixed charge based on meter size

¾ inch	\$ 7.22
1 inch	9.93
1 ½ inch	17.41
2 inch	25.31
3 inch	57.54
4 inch	86.26
6 inch	159.34