

# Johnson Water Improvement District 2019 Water Conservation Plan

# System Profile

Johnson Water Improvement District (JWID) provides culinary water to the residents of Eastern Duchesne County and Western Uintah County. Founded in 1969 as Myton Water Association its name was changed to Johnson Water Association and in 1983 it became Johnson Water Improvement District (JWID).

JWID provides much needed culinary water for the residents, farms, ranches, businesses, and industry located within the boundaries of the district which has a population of about 2120 persons. JWID also shares and maintains the waterline and tank that provides all the culinary water to the city of Myton, Utah.

JWID also provides water to parts of Roosevelt City, Utah and was instrumental in providing the water to develop the airport and industrial area of Roosevelt as well as some of their residential areas.

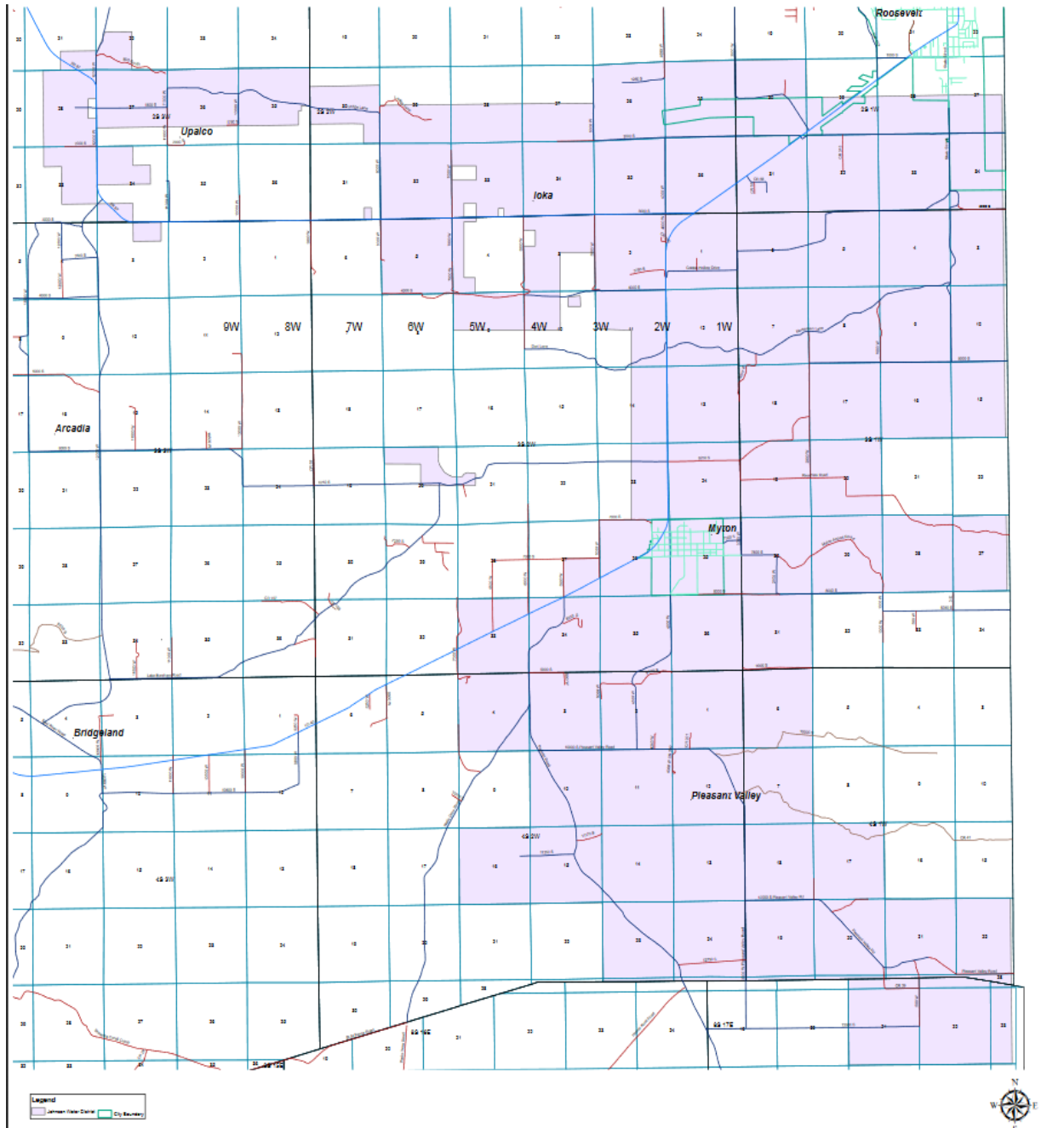
JWID has many miles of pipeline and a relative few customers. The economics of this is sustained by our very large industrial customers who use large amounts of water in oil field production and hydraulic fracturing.

JWID is constantly trying to improve the delivery and quality of water delivered to our customers for drinking, farming, ranching, industrial, and fire flow requirements.

Most of the water comes from the Duchesne Valley Treatment Plant north of Duchesne, Utah. JWID also has two wells that are used for industrial use only, mainly fracking.

The treatment plant is dealing with the aftermath of the Dollar Ridge Fire in the summer of 2018 that has caused the level of organics and turbidity in the Starvation Reservoir to skyrocket. Major modifications to the plant are now being started to deal with the changes to the reservoir. Due to the increase in organics from the lake more chlorine will be needed to the system and more flushing will be needed to get a chlorine residual to the end of the line.

# Map of JWID



## Categorized connections

Residential connections	726
Commercial connections	94
Institutional connections	0
Industrial connections	17
Total connections	837

## Supply

Source	Total AF
Wells	153
Purchased	2287
Total	2440

JWID gets most of its water from Duchesne City and from The Duchesne County Water Conservancy District. Both sources use water rights owned by Duchesne City out of the Starvation Reservoir. The water is treated at the Duchesne Valley Treatment Plant run by the Central Utah Water Conservancy District.

JWID also has two groundwater wells used for culinary water until 2016 and now used for industrial water only.

JWID purchases culinary water from several sources, they are:

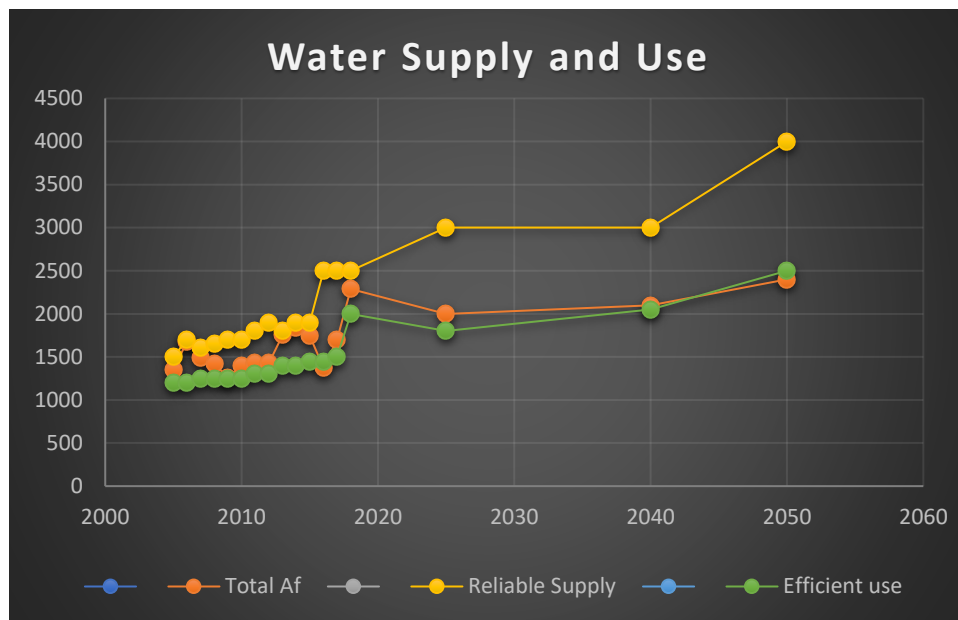
1. Duchesne City
2. Duchesne County Water Conservancy District

3. Upper Country Water Improvement District
4. Ute Tribe
5. East Duchesne Water Improvement District

## Comparison Graph Reliable Supply

There are too many variables to predict accurately what future use and efficient use will look like in the future. Some of the factors to consider are:

1. Oil Price fluctuation has a big impact on the amount of water needed and used. As the price of oil increases the water use also increases.
2. Expanding oil transportation options could have a very large impact on oil production in the Uintah Basin. Currently the only economical market for the oil is in the Salt Lake area oil refineries. At the present time the refineries can only process 80,000 barrels of oil a day from the basin and that point has been reached. In order to produce more oil, other markets will have to be opened by using new Railroad connections, Pipelines, or by refining more product before it is transported. These options are all being explored at the present time. The Seven County Infrastructure Coalition is working on the railroad funding and routing.
3. One Fracked horizontal well produces as much as 30 traditional wells. Fewer wells will be drilled and fewer employees will be needed to drill and maintain them. That means less demand for residential/domestic housing and water.
4. Oil companies securing other sources or supply of Frac water creates uncertainty in future use of culinary for those fracking operations. Oil companies are aggressively seeking less expensive and larger supplies of water. They are trying to lease irrigation water from irrigation companies and shareholders. They are also trying to buy or lease water from the Ute Tribe.
5. New fracking technology that utilizes less water is also on the horizon. The recipe for fracking a well is constantly changing.



## Future Water Sources and Cost Projections

JWID in conjunction with other water users of the Duchesne Valley Treatment plant have been discussing with officials of the Central Utah Water Conservancy District anticipated water needs from the treatment plant.

All the users have been experiencing increased industrial use mainly from hydraulic fracturing processes used in the oil industry. These uses are year-round but are intermittent. Each water supplier serves one or more oil companies and their schedules change daily. This creates problems because of the fluctuation in the amount that needs to be produced from day to day and requires that the treatment plant get advance notice of changes in daily flows.

Currently plans are being made for treatment plant modifications to deal with the effects of the Dollar Ridge Fire and the spring and fall algae events which lower plant production. The costs for these modifications will be between 18-25 million dollars.

## Measurement methods

All JWID water is metered at the source and at the point of connection to the end user. All JWID water use is metered except breaks and flushing. JWID has a constant program of calibration and replacement of water meters.

## System Water Loss Control

System Water Loss Control- We Immediately repair all known leaks. We have a maintenance program to maintain fire hydrants, valves, air vents, PRVs, and meters.

We average about 12 connections per mile and 13,779 gallons per mile in an 8" pipe in the eastern part of our district. Because of the low number of connections, the water tends to become stagnant and loose chlorine residual because of low flow rates.

JWID has the responsibility to maintain the quality of water in the system which requires that the supply lines be flushed from time to time to maintain a chlorine residual. The flushed water is wasted and goes into drainage ditches and downstream. In some areas of the system where fracking is occurring or where there is enough use of the water there is no need to flush the water lines. In the opinion of JWID it is better for the customer to waste water and pay for it, than to flush it on the ground with no compensation.

## Tiered pricing structures:

We are currently looking at implementing a tiered pricing structure. Because of the problems we deal with regarding water quality and chlorine residual in our water system, we have found it to our advantage to move as much water as possible through our water lines, especially at the eastern end of the system. We are hesitant to reduce the flow in this area if we implement a tiered pricing structure at this time because of the adverse effects it would have on water quality.

Our water rate structure is shown below.

### Residential

Base rate of \$35.00 up to 6000 gal for  $\frac{3}{4}$  "connection then \$1.57/1000

Base rate of \$46.00 up to 8,000 gal for 1" connection then \$1.57/1000

### Commercial

Base rate of \$35.00 up to 6000 gal for  $\frac{3}{4}$  "connection then \$2.52/ 1000

Base rate of \$66.00 up to 10,000 gal for 1 "connection then \$2.52/ 1000

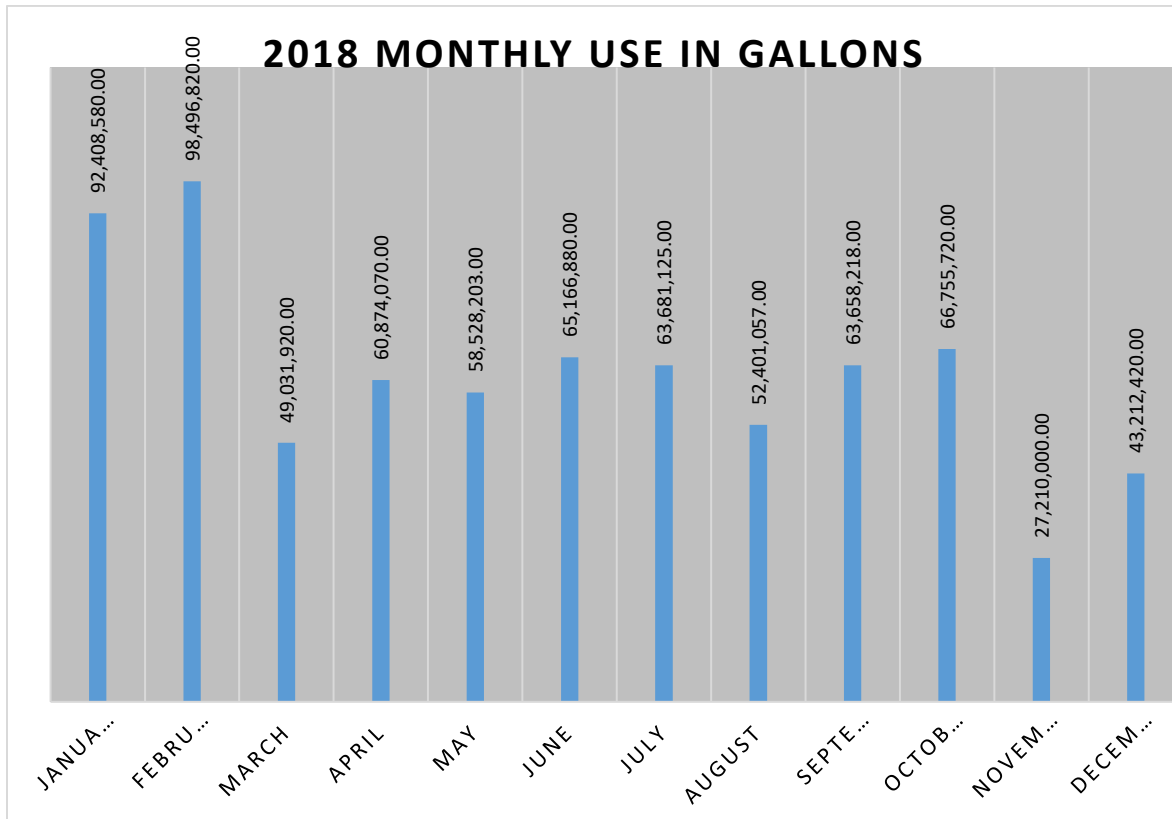
### Industrial

Contracted Frac Water #1 \$3.19/1000 gal.

Un-contracted Frac water #2 \$4.76/ 1000/gal.



## Water Use



## Annual Use Information in Acre Feet

Year	Domestic	Commercial	Industrial	Institutnl	Stock	Wholesale	Other	Unmetered	Total
2018	428.11	41.23	1628.44						2097.78
2017	444.26	62.54	1191.41	0.00	0.00	0.00	0.00	0.00	1698.21
2016	449.85	59.80	866.15	0.01	0.00	0.00	0.00	0.00	1375.81
2015	630.11	58.17	1054.73	0.07	0.00	0.00	0.00	0.00	1743.08
2014	356.14	48.82	1348.74	0.00	86.58	0.00	0.00	0.00	1840.28
2013	451.61	37.94	1191.99	0.17	71.46	0.00	0.00	0.00	1753.17
2012	434.18	33.46	887.46	0.14	73.34	0.00	0.00	0.00	1428.58
2011	389.48	48.41	883.14	62.60	44.95	0.00	0.00	0.00	1428.58
2010	598.34	18.80	734.32	0.15	44.17	0.00	0.00	0.00	1395.78
2009	477.38	12.74	704.02	0.16	68.62	0.00	0.00	0.00	1262.92
2008	460.69	36.04	864.32	1.25	54.13	0.00	0.00	0.00	1416.43
2007	403.91	2.66	963.21	1.25	123.01	0.00	0.00	0.00	1494.04
2006	281.66	12.22	1279.68	0.70	100.40	0.00	0.00	0.00	1674.66
2005	527.02	8.16	744.96	0.16	74.17	0.00	0.00	0.00	1354.47

## Potable water

Residential/domestic	139,503,000
Commercial	13,436,000
Institutional	0
Industrial	530,630,000
Total	683,569,000.00

## Chart of Per Capita water use in gallons per capita per day (GPCD)

Many of JWID residential connections are also used for the watering of livestock, some have several hundred head of livestock. A great number do not use culinary water for outdoor watering because they own water shares in an irrigation company and that water is used for lawns and gardens. Because of these situations there is not as great a difference between winter and summer usage as there would be in suburban areas.

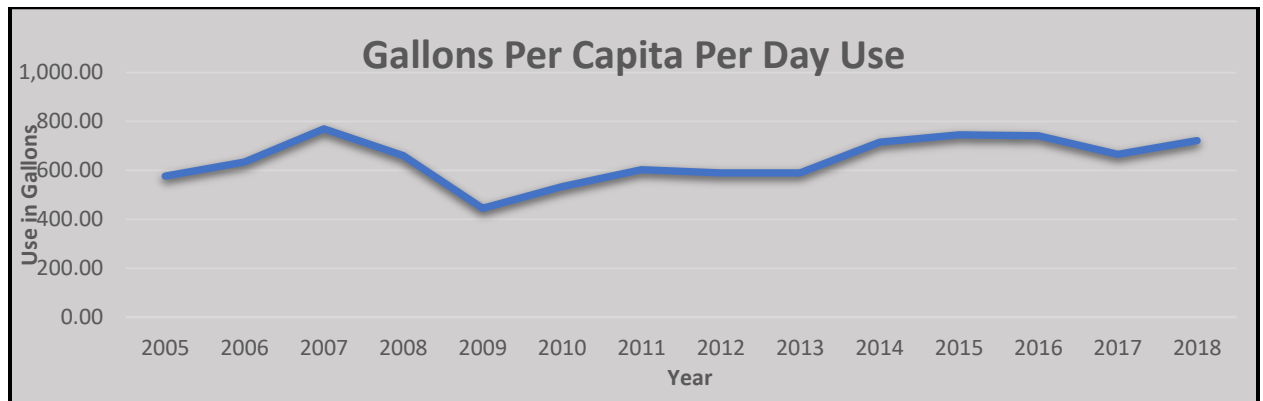
Total water deliveries/365/total service area population =GPCD

	GPCD
Residential	180
Commercial	17
Institutional	0
Industrial	686
Total	883

## Water efficiency progress

JWID water efficiency progress is determined largely by industrial use. As the oil companies bring on new wells that exceed the ability of the Salt Lake Refineries to process, drilling will slow down, and fracking will also slow down and demand for industrial water will

decrease. World oil prices will also dictate the amount of oil production, and therefor water use, that will take place.



## Conservation Practices

The manager is assigned to monitor conservation efforts.

JWID meters all water.

JWID repairs leaks promptly.

JWID follows Utah laws relating to operation of service districts.

JWID has the goal of 18% reduction in water use as set by the State's Regional Conservation Goals.

## Contact Information

Conservation Advisory committee

Dickson Taylor 435-724-2620

Conservation Staff

Dickson Taylor 435-724-2620

## Emergency Plan

Our emergency plan in case of drought, natural disaster, or supply disruption puts priority on residential domestic use above all other uses. JWID industrial users have been made aware

they are in last place in priority in emergency situations. In drought situations they will be shut off completely in order to provide water to residences.

## Conservation

JWID includes in the Consumer Confidence Report (CCR) a few conservation tips and links to [www.epa.gov/waterwise](http://www.epa.gov/waterwise) . From time to time JWID includes tips on the bill that is sent out monthly. Our goal is to have tips printed in the months of April and October each year. We also include conservation information and tips on our website at <http://jwidwater.com/> with a goal to add new tips in the months of January and July. JWID is installing new meters and radios that track hourly water use for the last 90 days to help identify leaks and water use the customer may not be aware of. The conversion to new radios on our meters will be completed by April of 2020. JWID is in the Green River Conservation Region with a 2015 use of 284 and a 2030 goal of 234. JWID will work to meet the goal for the region.

## New Best Management Practices

1. Adhere to laws pertaining to municipalities and water improvement districts so that water service areas do not overlap.
2. Determine how to maintain a chlorine residual at the ends of our system without over flushing or increasing disinfection by-products in our distribution system.
3. Inform customers of methods to include landscaping that is beautiful and still requires less irrigation such as using native plants bushes and trees.
4. Encourage industrial users to research latest water efficient methods of oil and gas extraction.

## Public awareness practices

Johnson Water Improvement District is taking steps to make our customers more aware of the need to conserve water.

We have recently added a website to help educate the customers in conservation practices and to show more information about the efficient use of water.

## Conclusion

Johnson Water Improvement District is unique from many other water districts or cities. It depends on industrial water use to help pay for the long distances between customers. It covers a large area with many changes in elevation that present a challenge in delivering water to the area.

Because of the large influence of the oil industry it is hard to predict future water use accurately.

Because of the Dollar Ridge Fire, it is hard to maintain a chlorine residual to the ends of the system even with substantial flushing which wastes a lot of water.

Adding chlorine boosters is an option but also increases the presence of disinfection by products which must be watched carefully.

Johnson Water Improvement District will take all steps possible to conserve water now and into the future and still provide quality water to its customers.

# Public Notice of Hearing

## 2019 Johnson Water Conservation Plan

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December

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Balls, Esquire, at Parr  
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less, P.C., 101 South  
200 East, Suite 700,  
Salt Lake City, Utah,  
84111, a copy of the  
Answer within thirty  
(30) days after final  
publication of this  
Summons, which is  
1/7/2020.

If you fail to do so,  
judgment by default  
will be taken against  
you for the relief  
demanded in the  
Complaint, which has  
been filed with the  
Clerk of the above  
entitled court, and a  
copy of which may  
be obtained from  
such Clerk.

DATED this 17th  
day of December,  
2019.

Parr Brown Gee &  
Loveless, P.C.  
/s./Jeffery A. Balls  
Attorneys for  
Plaintiff TransWest  
Express, LLC  
Published in  
the Uintah Basin  
Standard December  
24 and 31, 2019, and  
January 7, 2020.

### NOTICE OF TRUSTEE'S SALE

The following  
described property  
will be sold at public  
auction to the highest  
bidder, payable in  
lawful money of the  
United States, at the  
main entrance of  
the Eighth Judicial  
District Courthouse,  
21554 West 9000  
South, Duchesne,  
Utah, on January 30,  
2020 at 12:00 p.m.,  
for the purpose of  
foreclosing a Deed  
of Trust for Utah  
("Trust Deed") dated  
August 26, 2009 and  
originally executed  
by Clare Elder, as  
Trustor, in favor of  
the United States  
of America, acting  
through the Rural  
Housing Service or  
successor agency,  
United States Depart-

certified funds pay-  
able to Backman Title  
Services, Ltd. Cash  
payments are not ac-  
cepted.

Dated this 18th day  
of December, 2019.

Backman Title Ser-  
vices, LTD., a Utah  
limited partnership,  
Successor Trustee

By: Backman Title  
Company of Utah, a  
Utah corporation, its  
general partner  
/s/ Brian A. Cole-  
man, VP & General  
Counsel

File No. 9-002389  
Published in  
the Uintah Basin  
Standard December  
24 and 31, 2019, and  
January 7, 2020.

### PUBLIC NOTICE

DAN KARREN  
MINOR SUBDIVI-  
SION

Notice is hereby  
given that the  
Roosevelt Planning  
and Zoning will be  
conducting a public  
hearing to receive  
specific comments on  
approving a lot split  
for Dan Karren Minor  
Subdivision located at  
1363 West Highway  
40 in Roosevelt.

Compliance with  
the Americans With  
Disability Act. Indi-  
viduals needing spe-  
cial accommodations  
during these hearings  
should notify Carolyn  
Wilcken, 722-5001.

The hearing will  
begin at 5:30 p.m. on  
Wednesday, Janu-  
ary 8, 2020. Further  
information can be  
obtained by contact-  
ing Dean Johnson at  
435-823-7229. The  
public is invited and  
encouraged to attend.  
/s/ Carolyn  
Wilcken  
Published in the Uin-  
tah Basin Standard  
December 24 and 31,  
2019.

### PUBLIC NOTICE

the right to access  
of the water and  
will be in addition  
to any assessments  
by Dry Gulch Water  
Users and will be  
paid yearly for each  
4, 10 or 14.5 share  
lot of water. Class B  
Board will have final  
decision to determine  
if there is sufficient  
transfer room in  
the lateral to handle  
delivery of the leased  
shares to the property.  
This will be verified  
before acceptance or  
award of any bid. In  
the event successful  
bidder fails to reim-  
burse Upper Country  
Water for the billed  
agreement, their lease  
will be forfeited and  
any agreement is null  
and void. Sealed bids  
must be received by  
mail (P.O. Box 406,  
Altamont, Ut  
84001) or in person  
to Upper Country  
Water office (4132 N  
15675 W, Altamont,  
Ut) no later than 5:00  
pm on Wednesday,  
January 15, 2020.  
Upper Country Water  
reserves the right to  
accept or reject any  
or all bids. For more  
information you  
may contact Kirk  
Christensen at 435-  
823-5243.

Published in the  
Uintah Basin Stan-  
dard December 31,  
2019, and January 7,  
2020.

### ANNUAL NOTICE OF PUBLIC MEETING

Pursuant to sec-  
tion 52-4-202, Utah  
Code Annotated  
1953, Roosevelt City  
hereby gives notice  
that the City Council  
holds its regular  
council meetings  
monthly on the third  
Tuesday of each  
month starting at 5:30  
p.m. in the Roos-  
evelt City Hall, 255  
South State Street,

County Commission,  
during their regularly  
scheduled meeting,  
adopted the following  
ordinance:

ORDINANCE  
#19-375

AN ORDINANCE  
SETTING THE  
COMMISSION  
MEETING SCHED-  
ULE FOR 2020

(The complete  
ordinance is on file at  
the Duchesne County  
Administration  
Building, 734 North  
Center, Duchesne,  
Utah. A copy of the  
ordinance can be ob-  
tained by contacting  
the Duchesne County  
Clerk's Office at 738-  
1103.)

Published in the  
Uintah Basin Stan-  
dard December 31,  
2019.

### ANNUAL NOTICE OF ARTS, PARK, & RECRE- ATION COM- MITTEE MEETINGS

Pursuant to Utah  
Code 52-4-202(2)  
(a), Roosevelt City  
hereby gives notice  
that the Arts, Park, &  
Recreation Com-  
mittee has their  
regular meetings on  
first Wednesday of  
each month at 7:00  
p.m., starting with  
the January meet-  
ing to be held on  
Wednesday, January  
8, 2020. Meetings  
begin at 5:30 p.m. in  
the Roosevelt City  
Hall, 255 South State  
Street, Roosevelt,  
Utah. More detailed  
meeting information  
can be obtained by  
contacting the city  
office at 722-5001 or  
at [www.rooseveltci-ty.com](http://www.rooseveltci-ty.com). If no items  
are scheduled there  
will be no meeting.  
For specific meeting  
dates contact the city  
office at 722-5001.  
/s/ Carolyn

Published in the  
Uintah Basin Stan-  
dard December 31,  
2019.

### NOTICE

Notice of Public  
Meeting for Title  
Transfer of lands and  
facilities associated  
with the Uintah Basin  
Replacement Project  
from the Department  
of the Interior to the  
Moon Lake Water  
Users Association

The Moon Lake  
Water Users Associ-  
ation (Association)  
submitted a request  
to the Secretary of  
the Interior for title  
transfer of lands and  
facilities of the Uin-  
tah Basin Replace-  
ment Project (UBRP)

under the authority  
of Public Law 116-9,  
Title VIII, Subtitle A  
(Dingell Act). UBRP  
was authorized and  
constructed under the  
authority of Public

law 102-575 titled  
the Central Utah  
Project Completion  
Act (CUPCA) and  
managed and oper-  
ated by the Associa-  
tion. The Depart-  
ment of the Interior's  
CUPCA Office will  
oversee the title  
transfer process. A  
public meeting will  
be held Wednesday,  
January 15, 2020 at  
6:00 pm at the Duch-  
esne County Water  
Conservancy District  
Office 275 West 800  
South Roosevelt, UT  
The back ground and  
purpose of this trans-  
fer will be presented  
and public comment  
received. Questions  
may be directed to

W. Russ Findlay,  
Department of the In-  
terior - Central Utah  
Project Completion  
Act Office, 302 East  
1860 South, Provo  
UT 84606-7317 or to  
[wfindlay@usbr.gov](mailto:wfindlay@usbr.gov),  
801-379-1084.

Published in the  
Uintah Basin Stan-  
dard December 31,

ing through the Rural  
Housing Service or  
Successor Agency,  
United States Depart-  
ment of Agricul-  
ture, as Trustee and  
Beneficiary, recorded  
April 7, 2008, as  
Entry No. 403848  
in Book A534, page  
250, Official Records  
of Duchesne County,  
Utah.

Notice of Default  
and Election to Sell  
said real property  
was recorded in said  
Official Records on  
August 5, 2019 as  
Entry No. 528402.

Basin Land Title  
and Abstract, Inc.,  
John D. Ober-  
hansly, President.

Published in the  
Uintah Basin Stan-  
dard December 31,  
2019, and January 7  
and 14, 2020

### PUBLIC NOTICE

The Johnson Water  
Improvement District  
will be having a  
Public Hearing for  
customer com-  
ments on their Water  
Conservation Plan  
on Thursday, January  
9, 2020 at 6:30 p.m.  
at the Johnson Water  
District office, 3748  
West Highway 87  
Roosevelt Utah, for  
the purpose of pre-  
senting and adopting  
the Water Conserva-  
tion Plan.

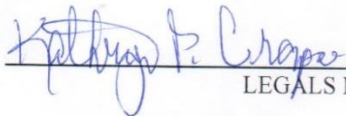
Karen Ashby,  
Office Manager  
Published in the  
Uintah Basin Stan-  
dard December 31,  
2020.



## AFFIDAVIT OF PUBLICATION

County of Duchesne,  
STATE OF UTAH


I, KATHRYN P. CRAPO, on oath, say that I am the LEGALS MANAGER of the Uintah Basin Standard, a weekly newspaper of general circulation, published at Roosevelt, State and County aforesaid, and that a certain notice, a true copy of which is hereto attached, was published in the full issue of such newspaper for 1 consecutive issues, and that the first publication was on the 31 day of December, 20 19, and that the last publication of such notice was in the issue of such newspaper dated the 31 day of December, 20 19, and that said notice was published on Utahlegals.com on the same day as the first newspaper publication and the notice remained on Utahlegals.com until the end of the scheduled run.

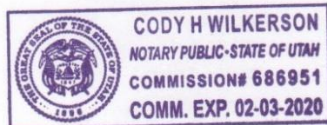
  
LEGALS MANAGER

Subscribed and sworn to before me on this

31 day of December, 20 19

by Kathryn P. Crapo.

  
Notary Public



### PUBLIC NOTICE

The Johnson Water Improvement District will be having a Public Hearing for customer comments on their Water Conversation Plan on Thursday, January 9, 2020 at 6:30 p.m. at the Johnson Water District office, 3748 West Highway 87 Roosevelt Utah, for the purpose of presenting and adopting the Water Conversation Plan.

Karen Ashby,  
Office Manager  
Published in the  
Uintah Basin Standard December 31, 2020.

# JOHNSON WATER DISTRICT

3748 W Highway 87  
Roosevelt, UT 84066

## PUBLIC HEARING

### Minutes

January 9, 2020

**1. CALL TO ORDER:**

CONVENED: Board Meeting convened at 6:33 p.m. The meeting was called to order by Dallas Murray.

- |                      |                |                      |
|----------------------|----------------|----------------------|
| <b>2. ROLL CALL:</b> | Dallas Murray  | Chairman             |
|                      | John Jorgensen | Vice-Chairman        |
|                      | Drew Eschler   | Trustee              |
|                      | Dickson Taylor | Water System Manager |
|                      | Jim Smart      | Operator (absent)    |
|                      | Karen Ashby    | Secretary            |

VISITOR: Jeff McCarty, Sunrise Engineering  
Jason Blaukenagel, Sunrise Engineering

The Public Hearing was advertised in the Uintah Basin Standard:

- JWID held public customer hearing to solicit input from the customers regarding the Water Conservation Plan.

Dickson Taylor handed out copies of the "Water Conservation Plan" to the Board of Trustees. He explained that he had submitted it to the State and they sent it back with some correction that they wanted made. It was explained that with Fracking that it is always changing with new tech knowledge.

With the Fracking water way down we have to flush the line to try and get chlorine through the system. The question was asked when we are flushing lines do we need to meter the water to see how much we are using?

- a. It was explained that Johnson Water District would rather sell the water instead of having to conserve water. We are a unique system and cannot predict the future on what the Industrial water will do. Our system needs to use more water.
- b. The state wants the District to come up with a tier rate pricing.

It was motioned by Drew Eschler to adopt the Water Conservation Plan that was presented to the Board, second by John Jorgensen all approved. Drew Eschler aye, John Jorgensen aye and Dallas Murray aye.

- 3. ADJOURNEMENT:** It was motioned to adjourn the Public Hearing at 7:05 p.m. by John Jorgensen, second by Drew Eschler, all approved.

**APPROVAL:**

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**Dallas Murray, Chairman**

**Attest:**

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**Karen Ashby, Secretary**

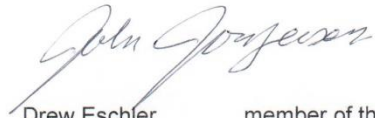
I hereby certify as a member of the Johnson Water Improvement district board that the board has approved the 2019 Water Conservation Plan.

Signed

Dallas Murray Board Chairman



John Jorgensen member of the board



Drew Eschler member of the board

