

Water Conservation Plan



WATER MANAGEMENT & CONSERVATION PLAN 2021

Introduction: Update of the Water Management and Conservation Plan

In review of the old plan, I see that I need to update the information, and add and revise parts of the plan. The Uintah Basin has a unique and complex water delivery system. The Ashley Valley Water and Sewer Improvement District treats water from the same water source that is used for irrigation, the Ashley Springs and the Ashley Creek system. From this source the district uses their canal company water shares and water rights. The amount of water used depends on the river commissioner's determination of the distribution of the Ashley Creek water accordingly to water rights of the shareholders and the creek flow. The district's intake is directly connected to the Ashley Spring and the excess water that is not used at the treatment plant is used by Vernal City to supply their water to be treated at the Central Utah Water Conservancy Ashley Valley Plant. The amount not used by both plants over-flows into Ashley Creek and is used for irrigation.

When the district uses more water than is allotted by their allowed spring water shares the water is exchanged to the irrigators using other district water shares of other sources. These are water shares in three of the valleys reservoirs that can deliver replacement water.

The flow from the spring varies from water year to water year based on the snow fall and the rate of the runoff of the water shed; because of this the district plan has had to acquire a more stable water source. The Vernal Unit of the Central Utah Water Project, the Red Fleet Reservoir, has water that is available to develop. The infrastructure to deliver that water is in place and the district has acquired an additional 1128 acre feet of water of the 16,000 acre feet of M & I water available.

My update of this plan will show the conservation and best use of this unique water delivery system, and how the future growth will rely on water available in Red Fleet Reservoir, the existing delivery system, and improvements to the Green River Pumping Station.

A. BACKGROUND INFORMATION

Ashley Valley Water and Sewer Improvement District was formed in 1974 to take over water and sewer service to the Ashley Valley area outside of the Vernal City limits. Before Ashley Valley Water and Sewer Improvement District was formed, Vernal City was supplying water to this area through water lines installed by the Bureau of Reclamation as a part of the Steinaker Reservoir Project in the 1960's. Some earlier lines had been installed by Vernal City and the Naples Water Company in the 1930's and 1940's. Ashley Valley Water and Sewer Improvement District took over operation of the system within their boundaries in 1982. There are approximately 25 square miles in the service area of the District with elevation ranging from 5,000 feet to 6,000 feet above mean sea level.

Ashley Spring was then and continues to be the source of raw water for the system of all the Ashley Valley. A Master Plan was published in 1976 to define system expansion to meet projected water demands driven by development of energy sources in northeastern Utah and northwestern Colorado. In 1978, the Utah Division of Water Quality classified Ashley Spring source as under the direct influence of surface water, requiring the construction of a plant to completely treat the water before it entered the distribution system. When Ashley Valley took over operation of the outlining areas the lines were then undersized and in bad shape. Ashley Valley has made significant capital investment in their system in the intervening years following general direction of the 1976 Master Plan. Construction of a treatment plant, replacement of all of the cast iron line installed during the Bureau valley wide water project, building of storage tanks and larger transmission lines have all occurred. The District has made many

improvements to the integral parts of a valley wide water system.

The District constructed three storage tanks named Chocolate Rock, Asphalt Ridge, and Davis with a combined capacity of 4,400,000 gallons. A treatment plant was built with the capacity to treat 8 million gallons per day that was constructed in two phases. The first phase was 6 million gallons per day plant constructed in 1984. Then in 1995 the plant was expanded by 2 million gallons per day as the second phase. The treatment plant also has storage capacity of 250,000 gallons used primarily for plant operations. The plant is located near the mouth of Ashley Gorge and provides water to Ashley Valley, and treats Maeser and Jensen water for their systems. Over the past 28 years, Ashley Valley District has been very aggressive in upgrading their system which has over 135 miles of piping, tanks, PRVs and meters in the inventory. In 2014 the District began a large scale project to build a new water treatment facility adjacent to the plant that was built in 1984. That treatment plant became operational in the fall of 2016, and the original plant built in 1984 was demolished. In the fall of 2021 the district began construction on an addition to the treatment plant

The District has since constructed a 3 million gallon water tank near the water treatment plant at the mouth of Ashley Gorge which will be used to dampen the demand variations at the treatment plant and add significantly to the storage volume and operation of the system.

In addition to the improvements listed above the District has added a main distribution line that connects to water that is supplied by the Central Utah Ashley Valley Purification Plant that treats the Districts water rights from Red Fleet Reservoir. These connection points are at the end of water distribution lines owned and operated by the Uintah Water Conservation District. These lines are called Tyzack Reach Two and Reach Three. Along with this supply the District purchased an additional 2 million gallons of water storage in the Ashley Valley Purification Plant's 10 million gallon water tank.

The District is committed to continue providing high quality culinary water and sewer service to its consumers. Provide an adequate fire protection and continues supply of water. Replacement of old and undersized waterlines is paramount to that commitment.

B. EXISTING RESOURCES

SOURCE:

The Ashley Valley water system receives raw surface water from Ashley Spring. The water flows out of a spring that originates from water lost in a sink hole in Dry Fork Creek to the west. The upper traverse of Dry Fork Creek crosses a tract of exposed geological sedimentary layers and disappears in a sink hole known as the Dry Fork Sinks. The water then travels through this underground karst system for 10 miles and 36 hours to the east and is forced to the surface where the layers are faulted and emerges as Ashley Spring.

To meet current (2021) peak day demand, a flow rate of 17 CFS, is needed from the spring. This rate is well below the estimated minimum flow rate (25 cfs) of Ashley Springs. This includes the peak daily demand for Ashley Valley, Maeser and Jensen. Ashley Valley can also elect to receive treated water from the Ashley Valley Purification Plant which is a treatment plant northwest of Vernal. The plant can treat water from Ashley Creek or Red Fleet Reservoir sources.

WATER RIGHTS:

The Ashley Valley Water and Sewer Improvement District treats water from the same water source that is used for irrigation, the Ashley Springs and the Ashley Creek system. From the spring the District uses their canal company water shares. The amount of water shares used depends on the River Commissioner's determination of the distribution of the Ashley Creek water accordingly to water rights

of the shares holders and the creek flow. The flow from the spring varies from water year to water year based on the snow fall and the rate of the runoff of the water shed. When the River Commissioner determines that the District has exceeded their allowed water shares from the spring, water is then exchanged to the irrigators using the District's water shares held in other sources.

There are three reservoirs that the District can supply replacement water from.

In the Jensen Unit of the Central Utah Water Project (CUP), the Red Fleet Reservoir, the district has acquired an additional 1120 acre feet of water making a total of 1620 acre feet. This Red fleet Reservoir has 16,000 acre feet of M & I water available that is yet to be developed.

In the Vernal Unit of the CUP, the Steinaker Reservoir, the District has 640 acre feet of water available to exchange for spring water.

In the Oaks Park or Ashley Reservoir the district has 893 shares that can be credited to the exchange.

There are also additional shares of canal stock available to exchange.

The District's plan has been to acquire a more stable water source. The Red fleet Reservoir is the most stable water source and has additional water yet to be developed. There exists the infrastructure to deliver that water to the CUP plant to treat or exchange. The District will rely on this reservoir the most for their future water needs.

TREATMENT:

The treatment plant receives raw surface water directly from Ashley Spring. The treatment process is classified as multistage direct filtration. The modular units have an upflow clarifier to remove turbidity instead of the sedimentation process used in a conventional treatment plant. The units also have a mixed multimedia filter as the final stage of the process. The plant consists of 4 modular units; each unit can treat 2.0 million gallon per day (actual filter capacity is 2.016 million gallons per day) giving the plant a total design capacity of 8.0 million gallons per day. Operating capacity is around 7.0 million gallons per day. The present configuration allows the plant to operate with four modules in service to deliver the (2020) peak day demand of 7.8 million gallons per day to the water system. The plant uses more water during times when the raw water turbidity increases. During this time the plant process require finished water for backwashes; therefore the units have to produce more water than supplied to meet the backwash demand. This drop in supply is buffered by the 3 million gallon tank and drawing additional supply from the CUP plant which treats and delivers the Districts Red Fleet water rights. In 2020 that total use of Red Fleet water was 1,197.41 acre feet. The majority of the Red Fleet Water was pumped in exchange to the irrigators for water taken out of the spring.

The District's present treatment facility is adequate for normal and current peak day demand. As the peak demands of the system increases above the operational capacity of the plant the District supplements the water supply with water from the CUP plant to meet this increase. The plan for future growth and increased water use is to always supply the District's and Maeser Water's upper zone (the pressure zone above CUP static tank level) first, then deliver the balance of the production to the lower zones. The short falls in the demand would be supplemented from the CUP connection.

To this end Ashley Valley has acquired extra storage in the CUP 10 million gallon water tank and the CUP plant has expanding and changed their treatment process to meet this future capacity requirement of the area.

STORAGE AND SYSTEM:

Ashley Valley water system has storage in five tanks with the following capacities:

- Ashley Springs Tank 3,000,000 gallons
- Chocolate Rock Tank 2,000,000 gallons
- Asphalt Ridge Tank 1,000,000 gallons
- Davis Tank 2,000,000 gallon
- CUP 10 MG (5% of 10,000,000) = 500,000
- Total of 8,500,000 gallons

With the construction of the Ashley Springs 3 million gallon tank, located near the existing treatment plant, the district has the ability to optimize the treatment processes as the tank acts as a buffer between demand and supply.

The existing Ashley Valley water distribution system consists of large diameter transmission pipelines (24" to 12") which carry water from the treatment plant along the high western perimeter of the service area connecting the four storage tanks. From these transmission lines, distribution mains (12" to 8") branch into the service area, extending eastward along major streets. Branch lines extend north and south from the main distribution. There are approximately 135 miles of pipe in the distribution system spanning 5 pressure zones.

The distribution piping is primarily PVC or ductile iron ranging in size from 14" to 6", with only short segments of smaller pipe remaining in outlying areas. Ashley Valley has aggressively replaced most pipelines within the past thirty years and the distribution system is in good condition. All new water lines are required to be 8" diameter or larger and valve and fire hydrants are installed to State and County requirements.

FUTURE WATER NEEDS:

- The Ashley Springs source is expected to provide water for the district's growth through 2025. When needed to supplement demand, water shares from Red Fleet Reservoir can be treated through the CUP treatment plant to supplement water from Ashley Springs.
- The District will need to purchase additional water rights to provide a total of approximately 3,200 acre feet over the next fifty years. Sources for additional water rights include Ashley Spring irrigation stock and Red Fleet Reservoir undeveloped M and I water. The District has added to the impact fees a water share fee rate to pay for water right acquired from Red Fleet Reservoir. The District's goal is as farm land is turned in subdivisions, the water rights would transfer to culinary use. If the farm land has an existing pressurized irrigation system, the District would require the developers to upgrade it to a secondary irrigation system thus using the existing water right. The District has tried to purchase water stock but the canal companies have refused to transfer stock to the District.
- With the new 3 million gallon tank the system will be able to meet the projected storage demand for several more years.
- A long term goal that has been discussed is that when the demand reaches capacity of both plants there would be construction of a new treatment plant near the Red Fleet Reservoir. This new plant would treat existing water rights from that source and deliver water to Jensen and the lower zones of the Ashley Valley water systems. This concept will make the use of the Red Fleet water more efficiently and meet future demand as the water districts expand their system.

WATER CONSERVATION

Future maintenance and upgrades of distribution lines will ensure the system will be adequate to meet demands over the next 50 years. The district in 2020 hired Sunrise Engineering to perform a Master Plan Study in order to be prepared for the future growth of the system. Accounting for water loss through leak detection, maintenance, and upgrades of meters will have the most impact on water conservation.

Consumer education, an increasing water rate schedule, or other ordinances will also help with conservation. When water bills are high, consumers will use less water, but there is a fine line between making the consumers use less water and collecting sufficient income to maintain the water system. It is not expected that much water will be gained from intensive efforts to improve efficiency on water used through homes. Conservation efforts should and will focus on improved efficiency of outside watering. Many residents use treated or irrigation water for outside watering. The goal of conservation should be to use this irrigation water more efficiently.

In order to accomplish the district's water conservations goals, the following rate structure was adopted in 2021, and the district reviews the rates on an annual basis and makes changes an appropriate and as the law allows.

| Ashley Valley Water and Sewer Improvement District | | | | |
|---|------------------|--------------------------------------|--------------------------------|---------------------------|
| Tiered Rate Structure | | | | |
| Water Connection Type | Base Rate | Water Included with base rate | Tier 1 8,000-30,000 | Tier 2 30,000+ |
| Residential | \$ 27.50 | 8,000 Gallons | \$1.95/1,000 gal | \$2.25/1,000 gal |
| Commercial | \$ 25.50 | 8,000 Gallons | \$1.95/1,000 gal | \$2.25/1,000 gal |
| Motels/Hotels/Trailers | \$14.00 per unit | 4,000 gal per unit | \$1.95/1,000 gal | \$2.25/1,000 gal |
| Duplex, 4 plex | \$27.50 per unit | 8,000 gal per unit | \$1.95/1,000 gal | \$2.25/1,000 gal |

WATER CONSERVATION GOALS

Ashley Valley Water and Sewer Improvement District adopts the Utah Regional M&I Water Conservation Goal. The regional goal is to reach 234 GPCD by 2030. The below table shows that in 2020, the GPCD for the district was 228. The five-year average GPCD is 205, and the district plans to continue encouraging its customers to help maintain the GPCD goal. The district plans on accomplishing this through public information campaigns and public education efforts. We will encourage residents through water conservation messages on the district marquee, website interactions, and messages on the bills. We will primarily focus on outdoor irrigation efficiency on landscapes and other outdoor use. The district will work on implementing the BMP's listed below.

| Ashley Valley Water and Sewer Improvement District | | | | |
|---|----------------------------|------------------------------|-------------------|-----------------|
| Yearly Gallons Per Capita Per Day Usage Report | | | | |
| Year | Indoor (Winter Use) | Irrigation Season Use | Population | GPCD Use |
| 2016 | 162,176 | 631,460 | 9890 | 220 |
| 2017 | 154,771 | 654,532 | 12780 | 173 |
| 2018 | 190,356 | 845,118 | 14200 | 200 |
| 2019 | 205,413 | 797,676 | 13500 | 204 |
| 2020 | 238,021 | 903,792 | 13700 | 228 |
| 5 Year Average | 190,147 | 766,516 | 12,814 | 205 |

Conservation Best Management Practices (BMP's)

BMP's help focus conservation efforts and allow for unified efforts of residents, staff and elected officials to reach and maintain water conservation goals. It will take all parties involved participating in the planning and implementation efforts for the district to reach and maintain its long term goals. Listed below are Best Management Practices the district employees (where practicable) and considers in its water conservation plan.

WATER CONSERVATION COORDINATOR, COMMITTEE OR TEAM

- Hire or designate a Water Conservation Coordinator
- Create a committee/team/board with a chair that includes a combination of the following participants: Water Conservation Coordinator, board member, and interested community members to help research, coordinate, create and implement public information campaign(s), water conservation programs and incentives.

WATER CONSERVATION PLAN (WCP)

- Adopt a water conservation plan
- Provide contact information, system profile, water use history and other related information to ongoing and newly developed conservation programs.

PUBLIC AWARENESS & PUBLIC OUTREACH

- Utilize existing messaging from Slow the Flow, Water Resources, WaterSense and others.
- Display educational materials & resources on district website, bills, and marquee.
- Offer training and district materials to community partners when possible.
- Hold or collaborate events, programs and/or presentations.

PUBLIC INVOLVEMENT

- Collaborate on residential water audit programs.
- Collaborate on landscape consultation programs.
- Perform high water use inquiries and resolution techniques.
- Address water waste complaints.

WATER PRICING

- Utah SB28 requires water rates to rise for higher tiers of consumption
- Provide high water use notification

PHYSICAL SYSTEM

- Install & maintain efficient irrigation, utilize water-wise landscaping & smart controller technology at district facilities.
- Meter all connection (UT SCR 1), repair and replacement program, read meters on a regular basis.
- Consider and research water reuse technologies.

IDENTIFICATION OF ALTERNATIVES TO MEET FUTURE WATER NEEDS

Strategies to meet future demands beyond the limits of existing supplies or infrastructure have been identified. These strategies include conservation alternatives as well as traditional water development plans. The best alternatives determined from the evaluation of present infrastructure, and supply is to use the water reservoirs that were built to store the water to meet future needs. Another alternative is the reuse of return flows.

EVALUATION AND SELECTION OF ALTERNATIVES

PRIORITIZATION GOALS:

- Maximize the most efficient use of existing source
- Development of water rights and lock in rights to undeveloped water
- Evaluate the reuse or exchange of return flow from wastewater plant
- Work with the State and neighboring entities to form, manage and maintain a Water Bank
- Develop a secondary water system to lesson demand on existing treatment plants
- Coordinate with neighboring entities to formulate a Regional development plan

PERIODIC EVALUATION

The District should re-evaluate and update this Water Management and Conservation Plan in the year 2020 and every 5 years thereafter.

To gauge progress and tend performance of the plan below is a list of re-evaluation trigger points.

Re-evaluation when:

- Population growth exceeds 5 percent growth.
- When water demand reaches 9 MGD.
- Major changes in source water or weather cycles.
- Any change beyond predicted growth
- When the area enters into an extended drought period.

ASSOCIATED PLANS - EMERGENCY RESPONSE PLAN

The District has established a chain of communication to report and respond to emergency situations. The district manager, assistance manager or the lead operator would act an Emergency Management Coordinator (EMC) for the District. All actions and decisions would coordinate through the EMC.

Emergency response to *diminished supply* (drought conditions, line collapse, etc.), may include, at the discretion of the EMC under the direction of the Board of Trustees:

Steps to take:

1. Voluntary rationing of outside water use such as water use on alternating days
2. Voluntary discontinuance of outside use of water
3. Mandatory rationing of outside use of water, including service discontinuance for violation
4. Mandatory prohibition of outside use of water

Emergency response to *supply contamination*, (line breaks, sabotage, mud slides, treatment failure, etc.), may include:

1. Isolation of sections of the system by closing valves
2. Issue Boil Orders

3. Flushing of and decontamination of contaminated lines
4. Supplying bottled water or trucked water for culinary use

Emergency response to *supply severance* (such as flood, mud slide, pipe rupture, earthquake, etc.), may include:

1. Temporary pipeline connections or switching to alternate supply sources.
2. Bottled water or trucked in water for culinary use

ADDITIONAL CHARTS AND TABLES

| Ashley Valley Water and Sewer Improvement District | | | | |
|---|----------------------------|------------------------------|----------------------|------------------|
| 2016 Usage By Water Category | | | | |
| Use Category | Indoor (Winter Use) | Irrigation Season Use | # Connections | Total Use |
| Residential | 137,633 | 519,256 | 4,482 | 656,889 |
| Motels/Multiples | 5,320 | 11,832 | 4 | 17,152 |
| RV Parks | 1,107 | 2,702 | 3 | 3,809 |
| Commercial | 18,116 | 97,670 | 305 | 115,786 |
| Total Usage | 162,176 | 631,460 | 4,794 | 793,636 |

| Ashley Valley Water and Sewer Improvement District | | | | |
|---|----------------------------|------------------------------|----------------------|------------------|
| 2017 Usage By Water Category | | | | |
| Use Category | Indoor (Winter Use) | Irrigation Season Use | # Connections | Total Use |
| Residential | 133,198 | 525,740 | 4,951 | 658,938 |
| Motels/Multiples | 3,984 | 12,035 | 4 | 16,019 |
| RV Parks | 934 | 1,137 | 2 | 2,071 |
| Commercial | 16,655 | 115,620 | 291 | 132,275 |
| Total Usage | 154,771 | 654,532 | 5,248 | 809,303 |

| Ashley Valley Water and Sewer Improvement District | | | | |
|---|----------------------------|------------------------------|----------------------|------------------|
| 2018 Usage By Water Category | | | | |
| Use Category | Indoor (Winter Use) | Irrigation Season Use | # Connections | Total Use |
| Residential | 162,294 | 682,557 | 4,387 | 844,851 |
| Motels/Multiples | 5,884 | 13,664 | 4 | 19,548 |
| RV Parks | 184 | 893 | 1 | 1,077 |
| Commercial | 21,994 | 148,004 | 294 | 169,998 |
| Total Usage | 190,356 | 845,118 | 4,686 | 1,035,474 |

Ashley Valley Water and Sewer Improvement District

2019 Usage By Water Category

| Use Category | Indoor (Winter Use) | Irrigation Season Use | # Connections | Total Use |
|--------------------|---------------------|-----------------------|---------------|------------------|
| Residential | 160,598 | 640,183 | 4,371 | 800,781 |
| Motels/Multiples | 5,823 | 12,191 | 4 | 18,014 |
| RV Parks | 40 | 140 | 1 | 180 |
| Institutional | 9,192 | 93,123 | 73 | 102,315 |
| Commercial | 29,760 | 52,039 | 214 | 81,799 |
| Total Usage | 205,413 | 797,676 | 4,663 | 1,003,089 |

Ashley Valley Water and Sewer Improvement District

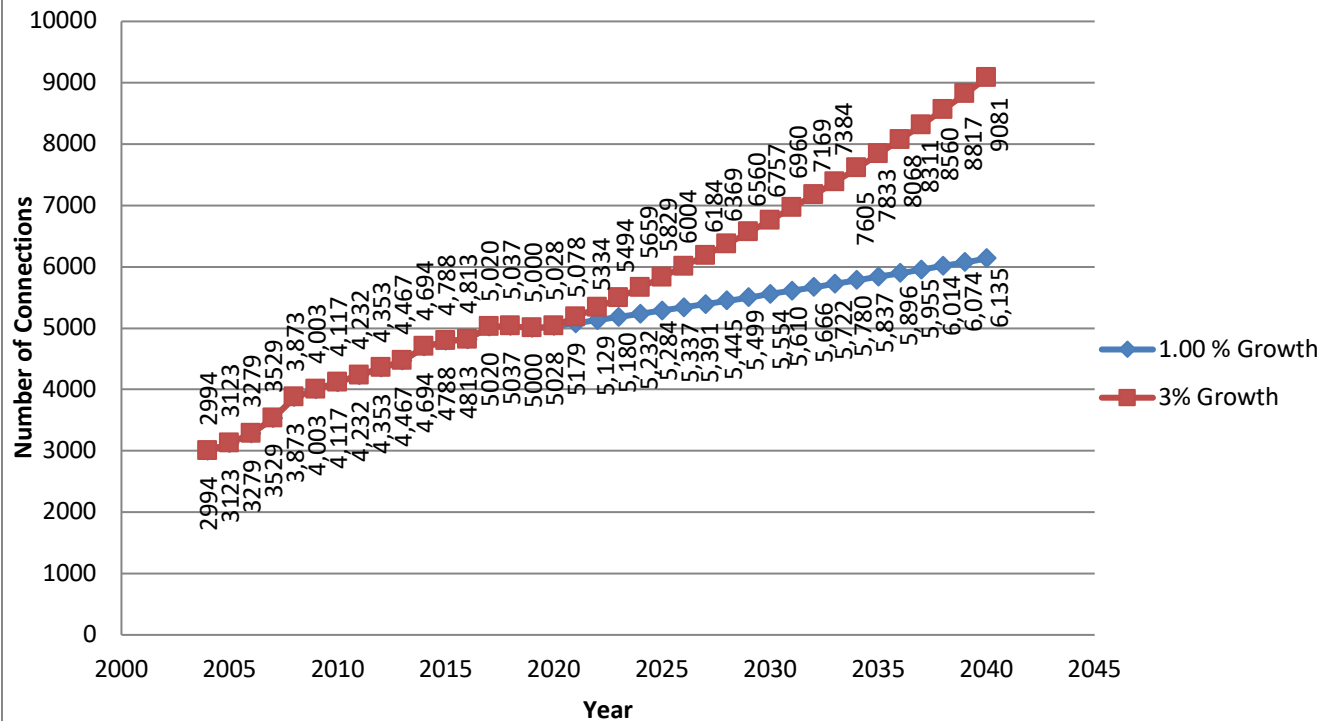
2020 Usage By Water Category

| Use Category | Indoor (Winter Use) | Irrigation Season Use | # Connections | Total Use |
|--------------------|---------------------|-----------------------|---------------|------------------|
| Residential | 175,594 | 722,943 | 4,523 | 898,537 |
| Motels/Multiples | 7,069 | 16,365 | 73 | 23,434 |
| RV Parks | 152 | 433 | 1 | 585 |
| Institutional | 8,241 | 106,728 | 60 | 114,969 |
| Commerical | 46,965 | 57,323 | 218 | 104,288 |
| Total Usage | 191,056 | 846,469 | 4,657 | 1,037,525 |

AVWSID Historical and Predicted Growth

| 10 Year Historical Growth | | | Predicted Number of Connections at 1.00% Growth | | | Predicted Number of Connections at 3% Growth | | |
|---------------------------|-----------------------|----------------------------|---|-------------|--------------|--|-------------|--------------|
| Year | Number of Connections | Yearly Connection Increase | Year | Connections | Number Added | Year | Connections | Number Added |
| 2004 | 2994 | N/A | 2020 | 5,028 | 0 | 2020 | 5028 | 0 |
| 2005 | 3123 | 129 | 2021 | 5,078 | 50 | 2021 | 5179 | 151 |
| 2006 | 3279 | 156 | 2022 | 5,129 | 51 | 2022 | 5334 | 155 |
| 2007 | 3529 | 250 | 2023 | 5,180 | 51 | 2023 | 5494 | 160 |
| 2008 | 3,873 | 344 | 2024 | 5,232 | 52 | 2024 | 5659 | 165 |
| 2009 | 4,003 | 130 | 2025 | 5,284 | 52 | 2025 | 5829 | 170 |
| 2010 | 4,117 | 113 | 2026 | 5,337 | 53 | 2026 | 6004 | 175 |
| 2011 | 4,232 | 115 | 2027 | 5,391 | 53 | 2027 | 6184 | 180 |
| 2012 | 4,353 | 121 | 2028 | 5,445 | 54 | 2028 | 6369 | 186 |
| 2013 | 4,467 | 114 | 2029 | 5,499 | 54 | 2029 | 6560 | 191 |
| 2014 | 4,694 | 227 | 2030 | 5,554 | 55 | 2030 | 6757 | 197 |
| 2015 | 4,788 | 94 | 2031 | 5,610 | 56 | 2031 | 6960 | 203 |
| 2016 | 4,813 | 25 | 2032 | 5,666 | 56 | 2032 | 7169 | 209 |
| 2017 | 5,020 | 207 | 2033 | 5,722 | 57 | 2033 | 7384 | 215 |
| 2018 | 5037 | 17 | 2034 | 5,780 | 57 | 2034 | 7605 | 222 |
| 2019 | 5000 | -37 | 2035 | 5,837 | 58 | 2035 | 7833 | 228 |
| 2020 | 5028 | 28 | 2036 | 5,896 | 58 | 2036 | 8068 | 235 |
| | | | 2037 | 5,955 | 59 | 2037 | 8311 | 242 |
| | | | 2038 | 6,014 | 60 | 2038 | 8560 | 249 |
| | | | 2039 | 6,074 | 60 | 2039 | 8817 | 257 |
| | | | 2040 | 6,135 | 61 | 2040 | 9081 | 264 |

Historical Growth Plus Predicted 1% Growth & 3% Growth Rate



Critical Points:

- Current Population. 13,700
- Number of connections:

| | |
|-------------|------|
| Residential | 4659 |
| Mobile | 1 |
| Commercial | 228 |
| Multiples | 77 |
| Institution | 63 |
| Total | 5028 |
- Water Delivery 2020:

| | |
|------------------|-----------------------|
| AVWSID | 1,141,813,000 Gallons |
| CUWCD to AVWSID | 104,040,190 Gallons |
| To Maeser Water | 129,613,780 Gallons |
| To Jensen Water | 112,727,263 Gallons |
| To Uintah County | 2,958,900 Gallons |
| To Vernal City | 205,020 Gallons |
| To RHEX Mine | 53,457,190 Gallons |
- AVWSID Projected needed supply in 2070 is 6,642.04 acre feet.
- Metering of customer meters with Badger AMR Orion system. For the master meters an ongoing program to replace or upgrade meters every 15 years. Master meter replacement are determined based on age and accuracy measurements.

LIST OF DISTRICT OFFICERS:

Trustees: (as of January 2020)

| | |
|---|---------------------------------|
| Brownie Tomlinson (chairman) | Home 435-789-5457 cell 790-5468 |
| Boyd Workman | Home 435-789-1058 cell 822-1058 |
| Robert Jolly | Home 435-789-5263 |
| Max Haslem | Home 435-789-1403 |
| Dean Baker | Home 435-789-5396 |
| Ashley Valley Water and Sewer Improvement District 609 West Main Street P.O. Box 967 Vernal, Utah 84078 | Phone 435-789-9400 |
| Ryan Goodrich (District Manager) | Cell 435-823-1599 |
| Ryan Wolfinjer (Assistant Manager) | Cell 435-823-2353 |
| Nora Garcia (District Clerk / Secretary) | Cell 435-828-8504 |

Certification of Adoption

I, Ryan Goodrich, Manager of the Ashley Valley Water and Sewer Improvement District, hereby certifies that the attached Water Management and Conservation Plan has been established and adopted by our board of directors on December 21, 2021, at the December public hearing of the District board.


Name

Ryan L. Goodrich
Title District Manager

Attested by Ryan Wolfinjer

AFFIDAVIT OF PUBLICATION

STATE OF UTAH,

County of Uintah

}S.S.

PUBLIC NOTICE OF ASHLEY VALLEY WATER AND SEWER IMPROVE- MENT DIS- TRICT

Notice of a Public hearing of The Ashley Valley Water & Sewer Improvement District. This meeting will be held on December 21, 2021, at 12 p.m. at the district office located at 609 West Main, Vernal, Utah. The purpose of this meeting is to amend the Water Conservation Plan. The Public is encouraged to attend. Nora Garcia, District Clerk
Published in the Vernal Express December 15, 2021.

I, KAYLENE ELLIS, on oath, say that I am the Legals Manager of the Vernal Express, a weekly newspaper of general circulation, published at Vernal, 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 December 15, 2021, and that the last publication of such notice was in the issue of such newspaper dated December 15, 2021, 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.

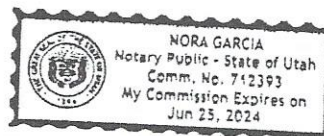
This page is not a billing statement or invoice, but a proof of publication. Please make payment from billing invoice.

Kaylene Ellis
Legals Manager

Subscribed and sworn to before me this 28 day of

December, 2021 by Kaylene Ellis.

Nora Garcia
Notary Public



ASHLEY VALLEY WATER
& SEWER IMPROVEMENT DISTRICT
609 WEST MAIN
VERNAL UTAH

Minutes of the Ashley Valley Water and Sewer Improvement District Board Meeting, 2022 Budget Hearing and Water Conservation Plan Update Public Hearing held on Tuesday December 21, 2021, at 12:00 p.m. in the conference room of the District Office located at 609 West Main, Vernal Utah.

IN ATTENDANCE

| | |
|-------------------|-------------------|
| Brownie Tomlinson | Chairman |
| Boyd Workman | Vice Chairman |
| Robert Jolley | Trustee |
| Max Haslem | Trustee |
| Dean Baker | Trustee |
| Ryan Goodrich | District Manager |
| Nora Garcia | District Clerk |
| Allen Hacking | Assistant Manager |

Chairman Tomlinson called the meeting to order at 12:00 p.m. on December 21,2021. This is a **Public Hearing for the 2022 Budget and the Water Conservation Plan Update.**

Chairman Tomlinson thanked CRS Engineers, Sunrise Engineering and Jones and Demile for providing todays lunch.

Present for today's meeting: Aaron Averett and Rex Carpenter with Sunrise Engineers, Daren Anderson and Craig Nebeker with CRS Engineering, Bart Jensen with Jones and DeMille Engineering, Trudy Wheeler with Jensen Water and Pam Clinch. Steve Pitchford was present to discuss his ADU on 2500 South.

PUBLIC INPUT:

Chairman Tomlinson asked for statements of conflict (if any). Chairman Tomlinson stated that he may have a conflict on the Stubbs and Stubbs change order.

CONSENT CALENDAR

Trustee Boyd Workman made the motion to accept the November 16, 2021, minutes; second made by Max. Motion passed.

ADU Connection at 926 W 2500 S

Steve Pitchford was present to discuss the ADU home located at 926 W 2500 S. Manager Ryan Goodrich gave the background on this ADU connection. Ryan explained to the board that a letter of final occupancy for this property was requested and when he did research he did not show connection fees being paid for this new connection. After discussions with the owners, he learned that they had connected to the existing water and sewer connections. This is a home (approximately 1800 sq foot home), that was built as an ADU through the county planning and zoning ordinances. Ryan provided a temporary letter of occupancy so that the owners could move in. Ryan explained further that the owner of the property, Mike Sisto, originally requested a letter of availability which Nora provided. This letter specifically states that availability will be based on payment of impact and connection fees, and completion of construction requirements. The homeowner stated that he spoke to one of our employees at his property and was told that they could hook to the existing connections. Because of that conversation, they felt that they were following the district requirements and hooked the new ADU to the existing connections and only learned that there were fees and construction requirements when Ryan contacted them about the final occupancy request. Mr. Pitchford was present representing the owners of this property and stated that they were following policy as they understood it.

The district has been working on an update to the Billing and Collection policy and an adoption of an ADU policy. Ryan stated to the board that he believes that this home does not follow the proposed ADU policy, and he recommends new water and sewer connections be paid and installed on this home. After a lengthy discussion Dean made the motion to allow the ADU to stay connected to the existing services; but the impact fees need to be paid for a second unit (\$6,418.00), with the connection fees will be waived. This motion also includes for the district to offer financing at 0% interest for 3 years, if the property is ever split a second connection will need to be paid (connection price only) and installed, and a letter of interest to be filed on this property. Motion was seconded by Robert and passed unanimously.

Water & Sewer Billing Collection Policy update/adopt ADUs

A discussion was held on the following modifications to the Water and Sewer Collection Policy

4. All Letters of Availability for water and sewer services are reviewed on a case-by-case basis, and final availability is determined by capacity, area, existing services, and any other determining factors for service. The district works closely with Tri-County Health Department and follows their policies when applicable. No letters will be provided until an Availability Application has been submitted to district staff.
6. Accessory Dwellings Connections (as permitted and allowed per Uintah County Code 17.33.020—34 version April 1, 2021, and Naples City Ordinance 02-24-08 updated 2018) are a permitted connection after availability has been determined. Applicant must provide proof of ADU qualification from either Uintah County or Naples City before services are connected to dwelling.
7. Accessory Dwelling Connections are allowed to be connected to the same service line as the original dwelling. In the event the parcel ever splits or is sold, the new

parcel will be required to purchase a new water and or sewer service at the then current rate. The dwelling will then be required to connect to the new service connections and physical disconnect from original service lines will need to be proved to the district's satisfaction.

8. Applicants will be required to work with district staff to determine the new demand to be placed on the system and may be required to purchase an upsized meter that will meet potential demand. Purchase price will include calculated impact and connection fees.
9. Accessory Dwellings that exceed 50% size of original taxable dwelling size will be required to purchase and have installed new water and sewer (if applicable) services.

Billing:

1. Water and Sewer charges will be levied on all users connected to the district's system. Residents who have been determined to have sewer availability will be charged the monthly sewer rate, even if not connected to the sewer system. Water and sewer usage/overage fees are calculated based on metered water usage and billed at the rates prescribed by the district board of trustees.
2. Accessory Dwelling Connections are billed at 1.5 times the current residential rates.

Robert made the motion to make the above changes to the district's policy, second was made by Boyd. Passed unanimously.

PROJECT UPDATES

3500 South Lift Station

Craig with CRS Engineering reported on this project. He reported that the walls have been poured for all the basement sections of the station. In addition, he presented a change order request in the amount of \$16,893.31. This amount covered the extra demolition needed on the fence and damaged concrete pads, and to pour replacement concrete around the new building and entrance areas. Robert made the motion to approve the change order, second made by Boyd, those voting yes to the above motion, Robert, Boyd, Max and Dean. Chairman Tomlinson recused himself.

Treatment Plant Expansion

Daren with CRS Engineering reported that the treatment module has been installed and Nelson Brothers Construction poured concrete in the filter base today. Daren stated that this project is progressing well. Ryan showed a video of the filter install.

Sewer re-line Bid Award

Rex Carpenter with Sunrise reported on the sewer line bid. There were 6 sections of line that the district requested to be re-lined and one manhole to be lined. Val Kotter bid on the lining and the manhole repair. Advanced Lining proposed only on the manhole rehabilitation. Val Kotter's proposal on the manhole did not meet the district requirements. Dean made the motion to award the manhole rehabilitation to Advanced Lining and the sewer lining to Val Kotter. Val Kotters's proposal is \$142,100 and Advanced Lining is \$ \$4,976.00. Max made the second on this motion, those voting yes Robert, Boyd, Brownie, Max and Dean. This project is being funded by the left over 500 west sewer project money. That account has approximately \$116,000.00, the shortage will be paid out of the general fund.

Canyon & Loop Line Assessment and Re-line Bid Award

Aaron with Sunrise Engineers explained the Canyon and Loop Line proposals and responses. Two companies responded to the evaluation phase of this project. The board discussed the score that was presented. Based on the score Robert made the motion to issue notice of award to Advantage Re-line Inc. for the evaluation portion of the proposal, second was made by Max. Those voting yes to the above motion, Robert, Boyd, Brownie, Max and Dean.

BUDGET HEARING 2022

Dean made the motion to enter the Budget Hearing and the Water Conservation Plan Update Public Hearing at 2:20 p.m.; second made by Robert, passed unanimously. Ryan presented the 2022 budget to the public present and the board of trustees. There were a couple of items Ryan pointed out that have changed since the tentative budget presented last month. He pointed out that he budgeted \$40,000.00 for security at the Naples shop and purchasing sound equipment for the conference room. He explained that the district has significantly increased its inventory to try to combat rising prices of materials. This inherently increase security risk and he feels that there needs to be better security at the shop in Naples. This amount will come out of district funds. The board asked Ryan to purchase the security system at the shop first. The other change is in the capital budget the sewer project was originally \$130,000 it was changed to \$150,000. The proposed 2022 or later capital projects in the amount of \$225,00 for Water Rights, banking and legal agreements, land acquisition for treatment plant site and land acquisition for a tank site; to be funded with district funds. \$ 9,000 out of the O&M budget for an impact fee study update. New funding in the amount of 3,659,600 grant/loan for Phase 1 loop line replace-reline. Brownie asked for public comments; none were received. Dean made the motion to approve the 2022 budget as it was presented, second was made by Boyd. Those voting yes to the above; Robert, Boyd, Brownie, Max and Dean. The 2022 budget is available for public inspection: Monday-Friday 8:00 a.m.-5.00 p.m.

Adopt the Water Conservation Plan Update

Included in today's material is an updated Water Conservation Plan. Ryan explained that every 5 years the district is required to update our Water Conservation Plan. The majority of this plan was done approximately 15 years ago, and this update included some significant changes. It must be adopted in a public hearing with an opportunity for the public to comment on it. The big changes include adding conservation goals and plans to meet those goals. The regional goal for the district's area is to reach 234 gallons per capita per day by 2030. In 2020 the districts gallon per capita per day was 228, the five-year average is 205. The district has already met and exceeded the goal set by the governor. Adopting this plan today would be to meet the regional goal of 234 gallons per day per capita, and to continue meeting the GPCD or exceeding it yearly. Telephone numbers of our district officers need to be updated. Members of the public were invited to comment if they desired. No one took the opportunity to comment on the updated plan. Robert made the motion to update our Water Conservation Plan, second was made by Max, passed unanimously.

Robert made the motion to close the public hearing at 3:05 p.m., second was made by Dean. Those voting yes, Robert, Boyd, Brownie, Max, and Dean.

2022 Board Meeting Schedule

Currently the district board meetings are held on the 3rd Tuesday of each month. Max made the motion to continue with this schedule; seconded by Dean, passed unanimously.

Board Member Compensation

Trustees are currently compensated \$3,200.00 yearly, with the Chairman receiving compensation of \$3,500.00. Max made the motion to keep the compensation for 2022 the same. Second was made by Dean, passed unanimously.

Letter to UASD (Procurement Law)

The board asked Ryan to compose a letter to the UASD concerning the procurement for professional/design service. The letter is requesting help from the UASD in lobbying for some changes in the code relating to acquiring professional services. In scoring, many times the firms all end up equally qualified for the work the entity needs. The change would entail the scoring of firms with pricing information. The district believes it would be beneficial to all parties involved to allow for the entity to request pricing. Boyd made the motion to sign and send this letter to the UASD, second was made by Robert. Motion passed unanimously.

2022 New Connection Pricing

Ryan discussed with the board the need to raise the price on the connection fees due to the increase in the cost of water connection supplies. Ryan proposes we raise the connection fees from \$2900.00 to \$3122.00 on a ¾ inch water connection. The subdivision from \$280.00 to \$322.00. Boyd made the motion to pass this price increase, second was made by Dean. Those voting yes to the above motion; Robert, Boyd, Brownie, Max, and Dean.

December Expenditures

Nora reported that in today's packet there are invoices to be paid in the amount of \$543,289.50; that does not include a Staples invoice in the amount of \$259.10, and a refund of \$117.95. This brings the total to \$543,666.55. Approval to pay these expenditures was not on the agenda; it will be presented at the next meeting. Robert suggested we pay all expenditures that were presented.

Manager Ryan Goodrich announced that he was recently appointed to the RWAU board of directors. Ryan will fill that position until the annual meeting in St. George, at which point the board will recommend that he fill the remainder of Mike Davis' term.

Nora reminded the board that Manager Ryan Goodrich's evaluation should be completed next month. Policy is the Chairman to evaluate the manager and share it with the board.

Robert made the motion to adjourn at 3:30 p.m.