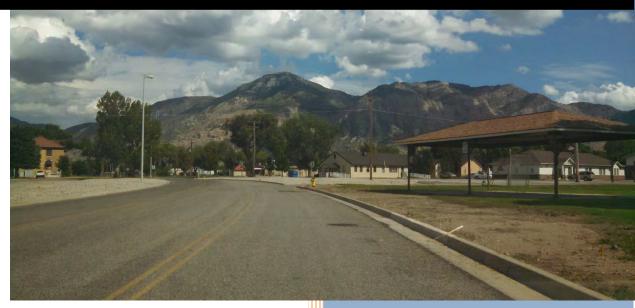


Bona Vista Water Improvement District Water Conservation Plan



Gregory L Seegmiller, P.E. J-U-B Engineers, Inc. 11/22/2024

Water Conservation Plan Bona Vista Water Improvement District Nov, 2024

Table of Contents

Water Conservation Goal
Water System Profile
Service Area3
Service Connections
Water Supply3
Future Water Use and Supply4
Billing5
System Water Loss7
Water Conservation7
Water Conservation Practices
Current Conservation Practices
Future Conservation Practices
Implementation, Monitor and Evaluation9
Appendix A1
Water Conservation Plan Resolution1
Appendix B1
Service Area Map1

List of Figures

Figure 1 Ben Lomond Peak	. Futue Use and Supply

Prepared by: J-U-B Engineers, Inc. 466 N 900 W, Kaysville UT 84037 office: 801-547-0393



Water Conservation Goal

The water conservation goal for the Weber River region is 200 gallons per capita per day (gpcpd) by 2030 (see Utah DNR Regional M&I Water Conservation Goals, 2019). This goal includes residential, commercial, institutional, and industrial water use and excludes agriculture, mining, and power generation. Bona Vista Water Improvement District (BVWID) is committed to achieving this goal.

Residential users in the BVWID service area obtain secondary water from Pineview Water Systems (PWS) and Mountain View Irrigation (MVI). Secondary water is included in the state's water conservation goals, and PWS and MVI water use will be included.

Water System Profile

Service Area

BVWID provides water to the communities of Harrisville, Farr West, Marriott-Slaterville, Plain City and portions of West Haven, Pleasant View, and Ogden City. The District service area is approximately 19,860 acres with approximately 245 miles of water mains of various sizes. Each year the District has grown, now serving a population of about 35,570. A map of the current service area is included in Appendix B.

Service Connections

BVWID currently have approximately 10,298 total connections, which include 9,307 residential connections, 863 commercials, 52 industrial, and 7 institutional connections, all of which are metered. Table 1 is a breakdown of the water usage for each type of connection for the year 2023.

Land use category	Connections	Acre Feet	Gallons	Percent of total
Residential	9,307	1,840.90	599,859,110	44%
Institutional	76	95.26	27,782,060	2%
Commercial	863	1,602.34	522,124,100	38%
Industrial	52	681.17	221,959,930	16%
Totals	10,298	4,219.67	1,371,725,200	100%

Table 1: Culinary Water Connections

Supply

The District has water rights of 10.028 cfs (4763.34 ACFT) through wells and springs with additional meters with Ogden City and Weber Basin Water Conservancy District. Table 2 is a list of all the District's water rights and volume of water associated with each water right.

Table 2: Bona Vista Water Rights

Source	WR#	CFS	Total CFS	ACFT/Year	GPM
Harrisville Well					350
Plain City Well	35-4928	0.36	0.36	260.62	162
Farr West Well	35-1320	1.794	8.328	1298.80	3738
	35-2059	1.794		1298.80	
	35-5011	1.80		1303.14	
	a32793	2.94		107.94	
North Ogden Spr.	35-955**	0.56	0.56	241 (386.1)	239
Totals:					

Notes:

* 35-3922 is based upon database note of 107.94 ac-ft on a 1969 certificate with 105 ac-ft max flow plus 105 ELU at 0.028 ac-ft/ELU for 107.94 ac-ft total.

**35-955 uses 858 Dwelling units at 0.45 ac-ft/DU for 386.1 ac-ft total.

In addition to the District's water rights, the District has purchased access to an additional 5236 acrefeet of water through Weber Basin Water Conservancy District and Ogden City. Source and distribution capacities are regularly evaluated, and improvement projects are identified in the districts most recent Impact Fee Facility Plan. Table 3 provides a summary of the water source production from 2018 to 2023.

Table 3: Annual Production from Water Sources in Acre-Ft

Source	2018	2019	2020	2021	2022	2023
Harrisville Well	0	0	0	0	0	0
Plain City Well	0	0	0	0	0	0
Farr West Well	42.00	13.00	101.14	251.06	416.00	0
North Ogden Spr.	169.00	133.00	133.65	107.00	100.00	161.00
Weber Basin	3447.00	3281.00	3762.00	3491.48	3026.00	3537.00
Ogden City	969.00	1101.00	1359.73	1219.92	1160.00	1419.00
Totals:	4627.00	4528.00	5356.79	5069.46	4702.00	5117.00

Future Water Use and Supply

The average annual growth rate for BVWID is approximately 4.4% based on historical growth over the past 10 years. Table 4 shows the projected population and connections up to 2060.

·····				
Year	Population	Connections		
2022	34,005	9,985		
2023	37,063	10,298		
2030	47,990	13,921		
2040	73,816	21,412		
2050	113,542	32,936		
2060	174,647	50,661		

Table 4: Projected Growth Rate

Figure 1 shows the projected annual use and supply to 2060. BVWID currently has access to 6,770 ac-ft annual for water. This supply will be sufficient until between 2030 and 2040. The District owns 10.028 ac-ft in water rights, and plans on developing wells to access those water rights to meet future demands.

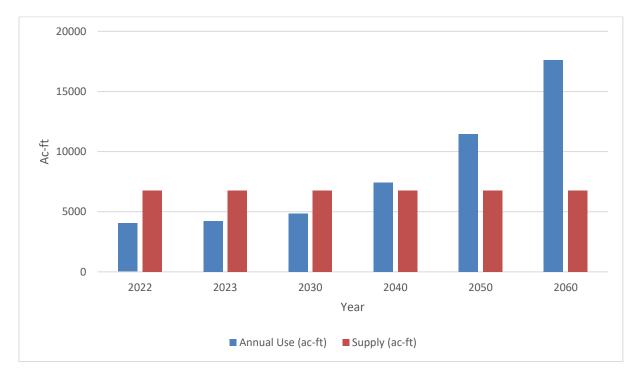


Figure1: Future Use and Supply Projections

Billing

BVWID's have a minimum base rate for each residential and commercial connections based on connection size. Table 5 provides the breakdown for the base rates.

Table 5: Monthly Base Rates

Connection Size	Rate
Residential	
3/4 X 5/8	\$10.84
1	\$15.21
1.5	\$19.53
2	\$31.47
Commercial	
3/4 X 5/8	\$32.78
1	\$45.88
1.5	\$58.99
2	\$95.03
3″	\$360.53
4"	\$458.83
6"	\$688.24
8″	\$950.43

In addition to the monthly base rate, there are additional usage rates added on to the base rate measured per 1,000 gallons. Additionally, the residential usage rates are increased based on drought severity. There are four tiers of drought severity: normal, severe, extreme, and exceptional. The increased rated based on drought severity is to help encourage users to practice water conservation practices. Table 6 summarizes the usage rates.

	Normal	Severe	Extreme	Exceptional
Tier	Rate	Rate	Rate	Rate
Residential				
0 7,000 gallons				\$1.66
7,001 15,000 gallons	\$1.55	\$2.28	\$2.66	\$3.04
15,001 20,000 gallons	\$2.24	\$3.36	\$3.92	\$4.48
20,001 gallons and above	\$2.75	\$4.13	\$4.81	\$5.50
Commercial				
0 50,000 gallons	\$1.55			
50,001 100,000 gallons	\$1.62			
Over 100,000 gallons	\$1.68			

Table 6: Additional Usage Rates

System Water Loss

BVWID has meters at on all connections and requires meters to be installed for all new developments. Water meters allow the District to measure how much water is being used at each connection. This information can be used to determine the system water loss by comparing the total usage from each meter and comparing it to annual usage measured from the source. Table 7 shows the comparison between the annual usage measured from the source and the meter usage data from 2018 to 2023.

Year	Total Meter Usage (ac ft)	Total from Sources (ac ft)	Estimated Water Loss %	Estimated Retail Value Loss
2018	4157.72	4627.00	10%	\$126,938
2019	4045.60	4528.00	11%	\$130,487
2020	4473.41	5356.79	16%	\$238,951
2021	4372.76	5069.46	14%	\$188,455
2022	4047.07	4702.00	14%	\$177,156
2023	4219.67	5117	18%	\$242,725

Table 7: Estimated Water Loss

Water loss in the distribution system is primarily caused by leaks at fittings or connections. Additional water loss is caused by fire hydrant flushing, construction, dust control, and filling new lines. The District performs routine maintenance on the system and fixes any know leaks as soon as possible.

Water Conservation

The Weber River Region conservation goal for 2030 is 200 gallons per capita per day (gpcpd). BVWID is committed to working with the Cities and secondary water companies to meet this goal. Table 8 summarizes the GPCPD for the District and the secondary water companies. Since 2018 the GPCPD has steadily declined. Since secondary water companies are now required to have meters for all connections, water use has declined.

Year	BVWID	Secondary	Total			
	GPCPD	GPCPD	GPCPD			
2018	135	-	-			
2019	125	-	-			
2020	135	560	695			
2021	118	333	589			
2022	106	264	370			
2023	106	190	296			

Table 8: Historic Use and GPCPD for Bona Vista Water

Water Conservation Practices

Current Conservation Practices

BVWID in the recent past that have promoted conservation, and the effort has helped the District conserve water. These include:

- 1. Bona Vista Water District has adopted a resolution that requires outside irrigation in all new residential and Commercial developments to be provided by a secondary irrigation system. This has:
 - Preserved culinary water for indoor use.
 - Placed the responsibility on the irrigation companies to implement conservation measures.
- 2. The District Board has supported secondary irrigation system suggested restrictions on watering during the day.
 - Between hours of 10:00 A.M. to 6:00 P.M.
 - There has been a reported conservation of up to 33 percent during the first few years of implementation.
- 3. In 2002 the District replaced all water meters (2018 updated meters) that were in service over 5 years and equipped all meters with electronic reading capability allowing us to switch to a monthly, year round reading and billing schedule. Thus has allowed us to:
 - Detect and notify customers of possible leaks more timely.
 - Perform monthly water audits, showing 9.97% of unaccounted water.
- 4. Commercial users are encouraged to use drip systems, Xeriscape and E.T. mangers if allowed to use culinary water for outdoor use.
- 5. In 2016, we implemented the "Land Improvement & Construction Cost Plan" to systematically find and replace old and leaky water mains.
- 6. The district has adopted a drought rate tier system with criterial for drought determination.

Future Conservation Practices

The District plans to work with the cities and secondary water districts within their service area to further water conservation. These future efforts will include:

- 1. Working with Cities require commercial users to require Xeriscape in the park strips and detention basins to reduce watered area.
- 2. Policy to regulate fire flow speculation. There is a lot of water loss for fire flow testing done in a time of year that fire flow is not designed for.
- 3. Continue to review the rate structure to encourage conservation.
- 4. Implement projects in the Impact Facility Fee Plan to upgrade aging infrastructure, which are more likely to have leaks.
- 5. Invest in new meters with improved leak detection capabilities.
 - The District currently has 11,000 connections. Approximately 90% of those already have the new Neptune T-10 meters. The remaining 1,100 will be completed by the year 2030 with an average of 20.4 meters replaced each month or 250 per year. The District budgets the purchase of 400 meters annually for both new growth and replacement.

6. Keeping the District's website up to date with current conservation tips, including the addition of information concerning the statewide rebate website <u>utahwatersavers.com</u>.

Implementation, Monitor and Evaluation

Bona Vista Water Improvement District is dedicated to providing quality water and service to all of its customers now and in the future. We also realize the need for everyone to do their part in conserving our most precious resource, water. We will continue to work with those cities we supply water to, helping to educate them so that they may make good decisions in the development and growth of their communities.

Appendix A

Water Conservation Plan Resolution

Service Area Map JFIF 3 8,00 dt -0 H F ſŀ + 7 1 IZ Bona Vista Water Improvement District Service Area 2018 Water Conservation Plan May 2019 7 E -2

Appendix B



RESOLUTION NO. 06-2024

A RESOLUTION OF THE GOVERNING BOARD OF THE BONA VISTA WATER IMPROVEMENT DISTRICT UPDATING ITS WATER CONVERSIVATION PLAN

WHEREAS, the Bona Vista Water Improvement District ("District") is an improvement district duly organized and existing under the laws of the State of Utah; and

WHEREAS, pursuant to Utah Code Ann. § 73-10-18, the District's Board of Trustees is required to approve a water conservation plan and submit it to the Division of Water Resources ("Division");

WHEREAS, the Board previously approved a water conservation plan, but the plan is required to be updated and renewed every five years;

NOW THEREFORE, be it resolved by the Board of Trustees of the Bona Vista Water Improvement District, that the attached water conservation plan is hereby approved.

The Clerk is directed to post a copy of the water conservation plan on the District's website, provide copies to the cities the District serves and Weber County, the Standard Examiner, and the Division of Water Resources. A copy of the minutes of the December 16, 2024, public hearing regarding the adoption of the water conservation plan shall be attached as part of this Resolution and included in the submission to the Division.

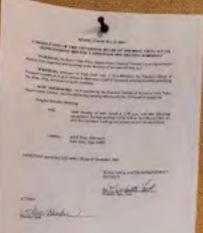
APPROVED and ENACTED this 16th day of December, 2024.

BONA VISTA WATER IMPROVEMENT DISTRICT

Ronald Stratford, Chair

ATTEST:

(Volan)



Support 1 dias



And the share to except to the state of the

In space, of any locate functions while restant environments. The part for the locate of a space of the space while functions and the space of the space of the space of a space of the space of a space of the sp

The lipster contrast the high in some and secondaries or a report any or of flats, free Wes-tern reporter theory is an input lipster of a proper in the second second second

TABLE STAT Consisting the

	1	- KEL10	T80-	1941
110		10.00	180-	190
6	τ.	1.000	180	191
2	3	strem.	Dirt I	Tap -
*		name-	380	783
V	3	-147-03-	1851	188
Participation -	1.8.1	intraint."	00	184
+ room	10	pinete i	180	

1000 pr-100 DOM: 1

Auto Daring

ACCESS OF THE CONTROL OF A DESCRIPTION OF THE ADDRESS OF THE ADDRE

18

Paulo Partie

Product wear View Concernment of Diseases was been been been by the Concernment of Mark Telescope and the Telescope and the Concernment of Mark Te



Bona Vista Water Improvement District

Committed to Providing Clean, Safe Drinking Water for All Our Residents

Menu

Public Hearing

Public Hearing

NOTICE OF PUBLIC HEARING - Bona Vista will hold a public hearing on Monday, December 16th at 6:30 p.m. at 2020 West 1300 North, Farr West, Utah 84404. The purpose of the public hearing is to discuss the 2025 budget, and adjustment of service fees to reflect the current consumer price index. In accordance with the Utah Water conservation Plan Act, (73-10-32, UCA), the District will also take public comment regarding the 2024 Water Conservation Plan update. The regularly scheduled meeting of the District will immediately follow.

Join Zoom Meeting

https://us02web.zoom.us/j/84310083214

Meeting ID: 843 1008 3214

Related Documents

2024 Water Conservation Plan (PDF / 963 KB)

Resolution 05-2024 (*PDF / 12 KB*)



(801) 621-0474

Contact Us

Water Quality Report

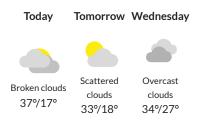
Subscribe

Receive news and alerts via email or text.



Unsubscribe

Local Weather



2025 Tentative Budget (PDF / 79 KB)

Contacts



(801) 621-0474

Send Us a Message

Related Links

- Utah Water Savers Rebates
- Sprinkler Controller Rebate
- Lawn Watering Guide
- Conserve Water Utah
- Rain Harvest Utah
- Water Conservation Tips
- National Rural Water Association
- Environmental Protection Agency
- USGS Water Q&A

Eng	lich	
LIIS	11511	

Translate

© 2024 All rights reserved. | Privacy Policy | Terms of Service | Accessibility
Return to top of page

Admin

Support

PUBLIC NOTICE WEBSITE ADMIN DIVISION OF ARCHIVES AND RECORDS SERVICE

Welcome!

Log Out

Edit Notice

This notice is **ACTIVE**.

General Information

Government Type:

Special Service District

Entity:

Bona Vista Water Improvement District

Public Body:

Bona Vista Water Improvement District Board

Notice Information

□ This is an Emergency Notice

Notice Title:

Notice of Public Hearing for Water Conservation Plan

Notice Subject:

Conservation

Notice Subject 2:

Please Select Subject

Notice Type(s):

~	Notice
	Meeting
	Hearing
	Bond

Event Start Date & Time:

12/16/2024 06:30 PM

The date of the public meeting being announced or the beginning of a set period for public comment, such as comment associated with a hearing.

Event End Date & Time:

mm/dd/yyyy --:-- --

This is the estimated end time of a public meeting or the specific end date and time for the comment period.

Event Deadline Date & Time:

mm/dd/yyyy --:-- --

This is a deadline date that may be associated with the event notice.

×

V

Description/Agenda:

The Bona Vista Water Improvement District will be holding a Public Hearing on their 2024 Water Conservation Plan. This conservation plan is required in accordance with the Utah Water Conservation Plan Act, (73-10-32, UCA). Customers and Stake Holders within the service area of Bona Vista are encouraged to comment. The Public Hearing will be held on December 16, 2024 at 6:30 pm at the district o ce located at 2020 West 1300 North, Farr West Utah 84404.

Agendas must be posted into this field and not solely added as an attachment.

Notice of Special Accommodations (ADA):

NOTICE OF SPECIAL ACCOMMODATION DURING PUBLIC MEETINGS In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify Marci Doolan at 801-621-0474 ext. 204.

In compliance with the American Disabilities Act, please note available accommodations or contact information for individuals needing special assistance during the meetings of this Body.

Notice of Electronic or Telephone Participation:

Join Zoom Meeting https://us02web.zoom.us/j/84310083214 Meeting ID: 843 1008 3214

Electronic or Telephonic Participation: Pursuant to UCA 52-4-207, please note whether or not electronic or telephonic participation is available for the meetings of this Body.

Email copy of notice to:

personn@example.com,personz@example.com

Multiple email addresses can be added by adding a comma between each email address. No spaces. Ex: email@email.com,anotheremail@email.com)

Other Information:

r lease add arry other information you would like to include.

Meeting Information

Street Address:

2020 West 1300 North

Street Address, Line 2:

1.U. DUA 123

City:

Farr West

ZIP Code:

84404

Audio File Location:

```
парыличичи.слаттра.сонтлавают пелна
```

This field provides a way to link your notice to audio files that are not hosted in the Public Notice Website.

Attachments

Attachment Requirements

Audio file attachments: .MP3, .MP4, .M4A, .WAV, FTR Gold (200MB max)

Other file attachments: .PDF - Portable Document Format | .DOC - Word Document | .DOCX - 2007/2010 Word Document | .WPD - Word Perfect Document | .RTF - Rich Text Format | .XLS - Excel Spreadsheet | .XLSX - Excel Spreadsheet | .ZIP - Compressed le | .DOCM - Open XML Formatted le

Add Attachments

Choose File No file chosen

File Name	Category	Date Added	Remove
2024 Water Conservation Update.pdf	Other ~	2024/11/27 08:34 AM	Delete

Copyright © 2024 State of Utah - All rights reserved.