



JUNE 9, 2021

WATER CONSERVATION AND DROUGHT MANAGEMENT
ADVISORY BOARD

REGULAR MEETING 2:00 P.M.

Consistent with provisions of the Utah Open and Public Meetings Act, Utah Code Ann. § 54-2-207(4), the Water Conservation and Drought Management Advisory Board Chair has issued written determinations supporting the decision to convene electronic meetings of the Board without a physical anchor location. Due to the health and safety risks related to the ongoing COVID-19 pandemic and considering public health orders limiting in-person gatherings, the Water Conservation and Drought Management Advisory Board will continue to hold meetings by electronic means. The public is invited and encouraged to view the Board's electronic meetings by viewing the City's YouTube

channel: <https://www.youtube.com/MoabCityGovernment>.

1. Call To Order
2. Written Determination To Conduct Electronic Meetings
3. Approval Of Minutes

3.I. Minutes: April 14, 2021

Documents:

[WB-MIN-2021-04-14 DRAFT.PDF](#)

3.II. Minutes: May 10, 2021

Documents:

[WB-MIN-2021-05-10 DRAFT.PDF](#)

4. Board And Staff Reports
5. Water Conservation Plan Update: Review Data

Documents:

[WCP DATA FOR 6-9 - WATER BOARD 6-9-21.PDF](#)

6. Water Conservation Plan Update: Assignments

Documents:

ASSIGNMENTS.PDF
MATHESON WETLANDS 6-1-21 AH.PDF

7. Future Of Water In The Community: Steve

Documents:

STEVE ADJUDICATION LETTER MAY 7 2021 B.PDF

8. Adjournment

Special Accommodations:

In compliance with the Americans with Disabilities Act, individuals needing special accommodations during this meeting should notify the Recorder's Office at 217 East Center Street, Moab, Utah 84532; or phone (435) 259-5121 at least three (3) working days prior to the meeting.

Check our website for updates at: www.moabcity.org

CITY OF MOAB
WATER CONSERVATION AND DROUGHT MANAGEMENT ADVISORY BOARD
REGULAR MEETING MINUTES
April 14, 2021

The Water Conservation and Drought Management Advisory Board held its regular meeting on the above date. Consistent with provisions of the Utah Open and Public Meetings Act, Utah Code Ann. §54-2-207(4), the Water Conservation and Drought Management Advisory Board Chair has issued written determinations supporting the decision to convene electronic meetings of the Board without a physical anchor location. Due to the health and safety risks related to the ongoing COVID-19 pandemic and considering public health orders limiting in-person gatherings, the Water Conservation and Drought Management Advisory Board will continue to hold meetings by electronic means. An anchor location was not provided. An audio recording of the meeting is archived at <http://www.utah.gov/pmn/index.html>. A video recording is archived at <https://www.youtube.com/watch?v=clc0obND1KU>.

Regular Meeting— Call to Order and Attendance:

Water Board Chair Jeremy Lynch called the meeting to order at 2:04 PM. Participating remotely were Water Board Members Arne Hultquist, Kyle Bailey, Steve Getz, Eve Tallman, Kara Dohrenwend, and Mike Duncan. City staff participating remotely were Assistant City Manager Carly Castle, City Engineer Chuck Williams, Public Works Director Levi Jones, Sustainability Director Mila Dunbar-Irwin, City Attorney Laurie Simonson, Recorder Sommar Johnson, and Deputy Recorder Kerri Kirk.

Written Determination to Conduct Electronic Meetings:

Board Chair Lynch read the written determination into the minutes.

Annual Open and Public Meetings Act Training:

City Attorney Simonson presented the annual training for the Open and Public Meetings Act (OPMA). Board Member Tallman inquired about the bylaws stating that a quorum equals three people. She said that a quorum should be more than half of the board members, which would equal four. City Attorney Simonson said that, sometimes, a quorum is less than half of the total board members when it is difficult to get minimum attendance at the meetings. She said the quorum number in the bylaws would be verified.

Board Vice Chair Hultquist inquired about the Citizens to be Heard section of the agenda, since it hasn't been on the agendas for quite some time. Assistant City Manager Castle said that agenda item was removed at the onset of the COVID-19 pandemic, but it could be reinstated at any time. There was a discussion about permitting citizens to be heard even if it is not an agenda item. Board Vice Chair Hultquist requested that Citizens to be Heard be added back onto the agendas going forward.

Board Vice Chair Hultquist inquired about how many Water Board members could attend MAWP meetings. City Attorney Simonson and Assistant City Manager Castle said they would review the bylaws and get back to him.

Approval of Minutes: March 10, 2021

Discussion: Board Chair Lynch said that there were a few edits to the minutes. He inquired if anyone else had changes.

Motion: Board Vice Chair Hultquist moved to approve the minutes as they stand. Board Member Tallman seconded the motion.

Vote: The motion passed 7-0 with Board Members Hultquist, Duncan, Lynch, Getz, Tallman, Dohrenwend, and Bailey voting aye.

Board and Staff Reports:

Board Vice Chair Hultquist reported attending the Utah Department of Agriculture and Food Zone Meeting on March 30 in Green River. He said Grand County is getting two extension agents instead of one. One will be responsible for landscaping and water programs and the other will focus on other USU extension programs. He said he will attend a meeting tomorrow with the Utah Division of Water Resources regarding watershed councils. He stated there will be a virtual BDA workshop on April 20. He stated there will be Utah water conservation forums on May 6 and May 13 at 10 AM. He said there will be a stream restoration webinar by the Utah Division of Water Rights on May 7. He said there will be a water conservation training on May 20 by the Rural Water Association of Utah. Board Chair Lynch left the meeting at 2:45 PM.

Assistant City Manager Castle inquired about in-person meeting options for the Water Board. She reported that City Council will return to in-person meetings in May, when staff and Councilmembers have been fully vaccinated. There was a discussion about hybrid meetings vs. in-person meetings. Board Member Dohrenwend inquired about the mask policy for in-person meetings. Board Member Tallman recommended waiting to switch to in-person meetings until June when the Grand County mask mandate ends. Board Vice Chair Hultquist said he is in favor of switching to in-person meetings in May. Board Member Dohrenwend said an in-person meeting in May is fine as long as mask expectations are clear to the public. She also inquired about an air purification system for the Council chambers.

Introduction of Sustainability Director:

Sustainability Director Dunbar-Irwin introduced herself. Board Member Duncan requested that Sustainability Director Dunbar-Irwin review additional water consumption from hotels and subdivisions that were not included in the last survey. Sustainability Director Dunbar-Irwin reviewed some of the tasks on the City's sustainability priority list. There was a discussion about safe yield estimates.

Water Conservation Plan Update: Review and Discussion of Draft Conservation Policies:

Catch-Up Session: Board Member Tallman stated having a copy of the 2016 Water Conservation Plan with notes that will be shared with Sustainability Director Dunbar-Irwin. She inquired about personnel assignments for the Water Conservation Plan update. Board Member Dohrenwend reviewed the sections and notes that were generated with Water Board input last year. Board Member Tallman inquired about the process moving forward to completion. Assistant City Manager Castle said Sustainability Director Dunbar-Irwin will be in charge of the production, format and tone of the Water Conservation Plan update. She said the Water Board will assist with developing new programs and policies for the plan update. There was a discussion about the landscape ordinance process.

Review and Discussion of Draft Conservation Policies: Board Vice Chair Hultquist stated that his draft of the graywater ordinance section of the plan is complete. Board Member Dohrenwend inquired what Sustainability Director Dunbar-Irwin prefers for the Water Board's participation in the plan update. Sustainability Director Dunbar-Irwin stated that she prefers the Water Board to have discussions while she takes notes for the plan update. Board Member Duncan inquired who would be the publisher of the plan update. Sustainability Director Dunbar-Irwin said that she is the responsible party.

Board Vice Chair Hultquist inquired if the City already has a water shortage contingency plan.

Assistant City Manager Castle clarified that the current emergency plan is for extreme circumstances to protect fire flow and essential basic culinary needs. She said the water shortage contingency plan will have several stages due to different water level thresholds. Board Member Getz inquired about a monitoring program for the aquifer water levels. There was a discussion about a two-year delay for water levels due to snowpack.

Board Member Getz inquired about the effect of a graywater ordinance on commercial businesses. He also inquired about the amount of water needed from graywater for the landscaping portion of the site plan for developments. There was a discussion about landscaping and graywater.

Sustainability Director Dunbar-Irwin reported having information about landscape ordinances, which she can compile to share at a future meeting. There was a discussion about how specific or general the landscape ordinances would need to be. Board Member Tallman requested winning examples of landscape ordinances from other cities that will point Moab in the right direction. There was a discussion about the percent of water that's used for irrigating crops in Utah. Board Member Dohrenwend requested that landscaping be included in the education and outreach section of the Water Conservation Plan update.

Adjournment: Board Vice Chair Hultquist adjourned the meeting at 4:01 PM.

CITY OF MOAB
WATER CONSERVATION AND DROUGHT MANAGEMENT ADVISORY BOARD
REGULAR MEETING MINUTES
May 10, 2021

The Water Conservation and Drought Management Advisory Board held its regular meeting on the above date. Consistent with provisions of the Utah Open and Public Meetings Act, Utah Code Ann. §54-2-207(4), the Water Conservation and Drought Management Advisory Board Chair has issued written determinations supporting the decision to convene electronic meetings of the Board without a physical anchor location. Due to the health and safety risks related to the ongoing COVID-19 pandemic and considering public health orders limiting in-person gatherings, the Water Conservation and Drought Management Advisory Board will continue to hold meetings by electronic means. An anchor location was not provided. An audio recording of the meeting is archived at <http://www.utah.gov/pmn/index.html>. A video recording is archived at <https://www.youtube.com/watch?v=OYf2qxikho4>.

Regular Meeting— Call to Order and Attendance:

Water Board Chair Jeremy Lynch called the meeting to order at 3:04 PM. Participating remotely were Water Board Members Arne Hultquist, Kyle Bailey, Steve Getz, and Kara Dohrenwend. Water Board Member Mike Duncan joined the meeting at 3:37 PM. Water Board Member Eve Tallman was absent. City staff participating remotely were Sustainability Director Mila Dunbar-Irwin, City Engineer Chuck Williams, Public Works Director Levi Jones, Recorder Sommar Johnson, and Deputy Recorder Kerri Kirk.

Written Determination to Conduct Electronic Meetings:

Board Chair Lynch read the written determination into the minutes.

Approval of Minutes: April 14, 2021

Discussion: Board Vice Chair Hultquist said he requested a couple of minor changes to the minutes. There was a discussion about difficulty accessing the minutes for review. Board Member Bailey inquired if he was listed as present on the minutes. City Engineer Williams confirmed that Board Member Bailey was listed as present on the minutes.

Motion: Board Chair Lynch moved to table the minutes. Board Vice Chair Hultquist seconded the motion.

Vote: The motion passed 5-0 with Board Members Hultquist, Lynch, Getz, Dohrenwend, and Bailey voting aye. Board Members Duncan and Tallman were not present for the vote.

Board and Staff Reports:

Sustainability Director Dunbar-Irwin offered to resend the link for the agenda packet to the Board Members.

City Engineer Williams reported that bids were received for Well #12. He said the bid results will tentatively be on the Council agenda for May 26.

Board Member Bailey reported that Regional Engineer Marc Stilson for the Utah Division of Water Rights was present at the recent County Commission meeting.

Board Vice Chair Hultquist reported there is a MAWP meeting coming up. He said there is a Utah Water Conservation Forum Spring Conference on May 13. He offered to forward a link for the Spring Conference to the Board Members.

Water Conservation Plan Update: Review Outline:

Sustainability Director Dunbar-Irwin reviewed the checklist of requirements for the water conservation plan. She said the draft of the plan is due by July 15 to the state. She reviewed the water conservation plan outline. There was a discussion about the water quality section of the outline. Board Vice Chair Hultquist offered to draft the water quality section. City Engineer Williams suggested utilizing the USGS report, UDWR, and Kolm's report to draft the water measurement section. There was discussion about system water loss and water use by type. There was a discussion about conservation goals and the metrics from different years.

City Recorder Johnson left the meeting at 3:30 PM. Board Member Duncan joined the meeting at 3:37 PM. He suggested changes to the water conservation goal table. There was a discussion about the amount of Moab senior water rights to the sole source groundwater aquifer. There was a discussion about paper water rights versus wet water rights.

There was a discussion about why water use has decreased in Moab. There was a discussion about potential water conservation measures. There was a discussion about water rates for high water users. Board Vice Chair Hultquist offered to draft the section about the Matheson Wetlands. Board Member Dohrenwend offered to share insight about treating the creeks like ecological systems instead of storm drains.

Water Conservation Plan Update: Discussion of Draft Conservation Policies

Graywater Ordinance: There was a discussion about new commercial developments including graywater systems. Board Member Dohrenwend said the landscape and graywater ordinances need to work together, and there needs to be plenty of education and outreach. Sustainability Director Dunbar-Irwin said she has discussed both ordinances with the Planning Department and the Southeastern Utah Health Department. She said she would add the Water Board's suggestions to the Graywater Ordinance draft.

Landscape Ordinance: Sustainability Director Dunbar-Irwin introduced the Landscape Ordinance draft. She said that USU (Utah State University) is not recommending day-of-the-week watering anymore. There was discussion about wind, nighttime watering, leak detection, and moisture meters. There was a discussion about the watering systems for the city parks. Board Member Dohrenwend offered to assist with identifying the right types of landscape species for the Moab area. There was a discussion about education for current development, and requirements for new development.

Adjournment: Board Chair Lynch inquired about future agenda items for June. Board Member Getz said UDWR is going through their adjudication process, and some residents have wells that include residential use, but they are on municipal water. Board Chair Lynch said this discussion item could be added to a future agenda or taken to the MAWP. There was a discussion about UDWR closing the aquifer after the adjudication process, and how that would affect well owners. Board Chair Lynch adjourned the meeting at 5:00 PM.

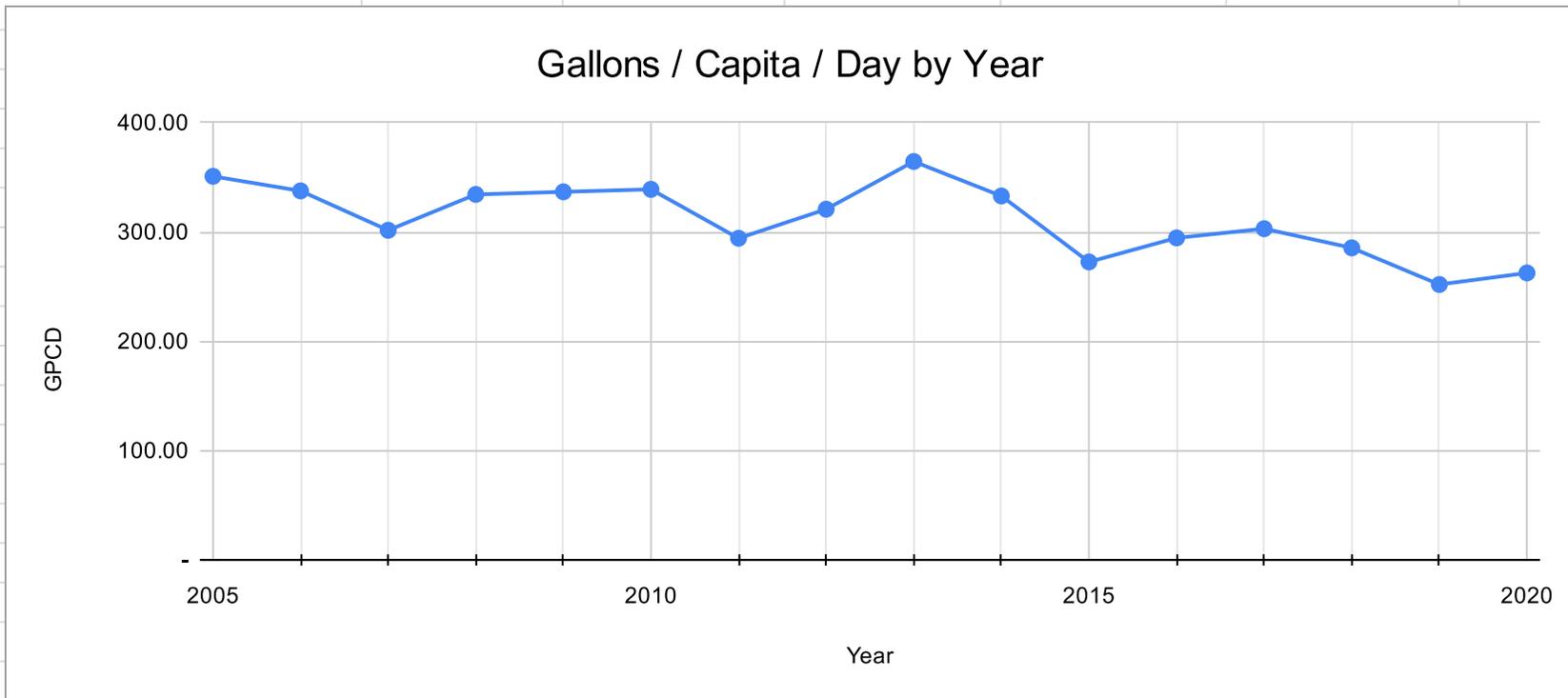
Preliminary Data for Water Conservation Plan Update 2021						
Estimated Population 2020	5670					

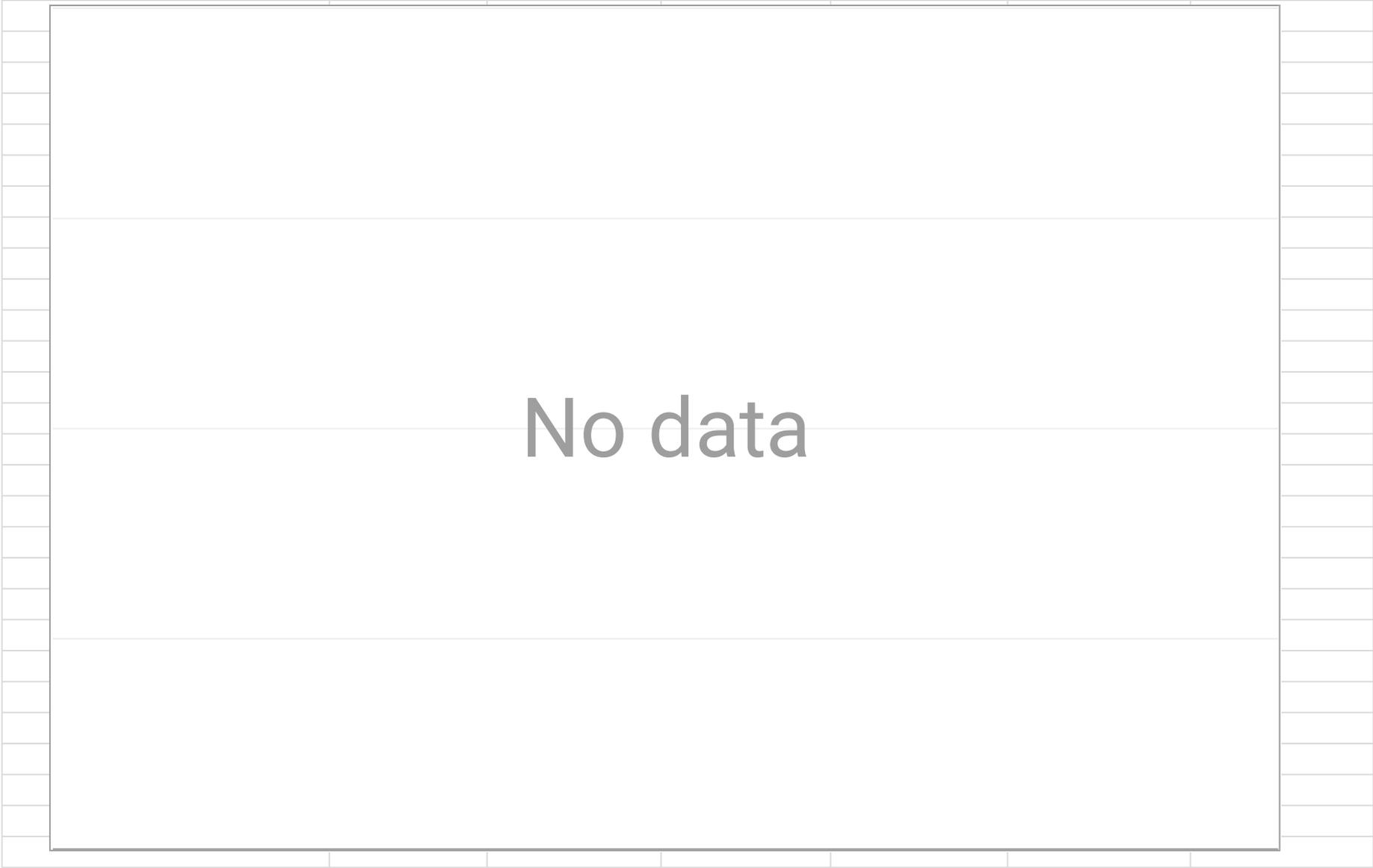
Water Source Data (AF)						
	5-yr average	2020 (2,218 AF)	2019 (2,264 AF)	2018 (2,478 AF)	2017 (2,540 AF)	2016 (2,388 AF)
Birch Springs 1,2,3 (WS003)	515.90	468.42	503.63	539.83	551.85	515.78
Sommerville Springs Nos. 1 & 2 (WS001,2)	509.73	469.22	472.09	517.06	572.11	518.19
Well No. 10 (WS010)	503.60	409.36	521.26	487.91	565.79	533.68
Well No. 6 (WS007)	436.57	478.65	458.60	368.13	426.63	450.83
Skakel Springs (WS012)	231.88	264.30	169.92	262.53	230.31	232.35
McConkie Spring (Irrigation, estimated)	126.41	120.00	120.00	120.00	152.03	120.00
Well #7 Golf Course (Irrigation)	53.37	8.43	18.00	182.70	41.06	16.67
Total Per Year	2,377.46	2,218.38	2,263.50	2,478.16	2,539.78	2,387.50

Year 2020 Potable Water Use Data				
	Residential	Commercial	Institutional	Total
Connections	1,773	430	60	2,263
Water Use (AF)	996.01	533.84	137.46	1,667.31
Per Capita Water Use (GPCD)	156.82	84.05	21.64	262.52

Potable Water Diversion (AF)						
Year	Residential	Commercial	Institutional	Total	Est. Population	GPCD
2005	1,065.78	899.68	-	1,965.46	5,000	350.93
2006	1,067.21	899.27	-	1,966.48	5,200	337.61
2007	919.72	727.01	-	1,646.72	4,875	301.56
2008	984.09	813.71	-	1,797.80	4,800	334.37
2009	955.69	854.87	-	1,810.56	4,800	336.74

2010	775.53	1,049.98	-	1,825.52	4,807	339.03
2011	748.18	899.78	-	1,647.96	5,000	294.24
2012	829.47	967.55	-	1,797.02	5,000	320.86
2013	835.52	1,205.91	-	2,041.43	5,000	364.49
2014	950.37	914.41	-	1,864.78	5,000	332.95
2015	856.95	801.01	-	1,657.96	5,430	272.58
2016	799.54	1,012.03	-	1,811.56	5,490	294.58
2017	815.53	818.29	270.17	1,903.99	5,610	302.99
2018	850.95	754.52	213.97	1,819.44	5,690	285.46
2019	868.64	597.19	163.94	1,629.77	5,775	251.94
2020	996.01	533.84	137.46	1,667.31	5,670	262.52





No data

**Possible Sections for Water Board
6-9-21**

Section 2.5 - Water Quality

Section 2.5 - Geology

Section 2.5 - Threats to Water Quality

Section 6.1 - Introduction to Water Conservation

Section 6.2 - Overall Water Use Reduction Goal and State of the System

Section 6.5 - New Conservation Measures for Next Five Years (Intro)

Section 6.5.2 - Greywater (*Arne*)

Section 7 - Intro to Other Considerations

Section 7.1 - Ecological Concerns

Section 7.1.1 - Matheson Wetlands (*Arne*)

Section 7.1.2 - Mill Creek in-stream flow

Section 7.1.3 - Colorado River

Section 7.1.4 - Pack Creek

Section 7.2 - Water Banking

Section 7.3 - Drought Management Plan

City of Moab Water Conservation Plan Section on Matheson Wetlands;

Matheson Wetlands:

The Matheson Wetland is a unique and rare wetland in the American Southwest along the Colorado River. The wetlands are not incorporated into the City of Moab's town limits but they are sandwiched between the City of Moab and the Colorado River. They are effected by the City of Moab and the entire Mill/Pack Creek hydrobasins surface and groundwater practices. The wetlands are owned by the State of Utah Department of Natural Resources and The Nature Conservancy in approximately 50/50 split. The Wetlands are co-managed by the same two agencies.

The wetlands have had difficulty maintaining hydric vegetation during the previous two decades due to several anthropogenic and natural impacts. Climate change and drought have reduced the regularity of high seasonal flows in the Colorado that would flood the wetlands. Mill Creek historically provided some surface water and maintained the groundwater table but currently it is entrenched and several feet below the surface area of the wetlands. Increased domestic use of springs on the North West portion of the valley has also altered the water budget. There is also some concern that decreases in the fresh water layer by any of the previously stated means could affect the level of the brine layer under the fresh water layer and allow it to reach the surface or leach to the Colorado River.

This conservation plan suggests that the City of Moab support the wetland monitoring plan being developed by the State of Utah Division of Water Rights and management agencies of the wetlands. It is further suggested that the City of Moab and other Spanish Valley institutions pursue stormwater management plans the slow water down as opposed to diverting directly to Mill and Pack Creek.

Morning all,

I've been researching what other communities, when Safe Yield is reached (or exceeded), have responded. Many communities are decades ahead of the Valley's current condition. It would be good to avoid some of their missteps.

First a definition- The Valley- this will include everyone using the aquifer, Moab City, Grand County, and San Juan County. We are all sucking out of the same straw.

Safe Yield means a balanced aquifer, the water in equals water out. Well water rights must be below recharge. In all the communities I've studied, a common problem is too many wells. As the Valley approaches Safe Yield there are steps, we can take now to lessen the impact later.

- 1) During the Division of Water Rights (DWR) well permit review (adjudication), the Valley should ask to be involved. Why? Many, if not all, well rights are under-utilized. Under state law, water rights are "use it or lose it". For example- many well owners have 1 AF/Y for household use, but they are hooked to city water. Same with the 5 AF/Y to "irrigate one acre of alfalfa", I don't see many alfalfa fields in folk's yards. The Division of Water Rights (DWR), in their current review, doesn't appear to be reducing the right by the unused amount. This is what the Valley should check. Changing the "paper" rights to "wet water" rights is a big step toward Safe Yield.

Adjusting the well rights to current use is important to do two things: 1) get an accurate list of the actual, current water use in the Valley, 2) after the aquifer is closed, folks needing to drill a new well will buy an existing right from someone. If sellers can sell "paper rights vs wet water", the new wells could increase the actual amount of water withdrawn from the aquifer.

I'm not sure how to do this. It would probably be good to have the city/county attorneys look at this. Probably good to look at the 2019 adjudication also.

- 2) New water right applications. The DWR is still accepting well applications. Even after the aquifer is closed, new wells can be drilled using existing rights. A property owner, with one acre, can apply for 6.33 AF/Y. 1 AF for household use, 5 AF for irrigation, and 0.33 AF to water ten animals.

The Valley should formally request that new well applications reflect the Valley's water conservation policies and the usage goals (GPD/dwelling) for homes in 2030(?). New homes need to be built to meet these goals. Example- household use- in 2015 Moab's average household use was 0.54 AF/Y.

New well applications for residential units should also conform to the land use regulations for outdoor watering and allowable numbers of livestock.

These are steps we can take now.

Steve