

Lewis and Clark County Water Quality Protection District

Board Meeting Agenda Tuesday, February 25, 2020 City-County Building 316 N. Park, Room 226 Helena, MT 59623

What (Content)	How (Process)	Who	Page	Time (When)
1. Call to Order & Establish Quorum	Roll Call	Jamie Schell		5:30 p.m.
2. Review of Agenda	Discuss Vote	Board	1	5:30 p.m.
3. Previous Minutes Review and Approval	Present	Board	2	5:35 p.m.
4. FY 20 2nd Quarter Finance/District Update FY 21 Budget	Discuss	Jennifer McBroom	8	5:40 p.m.
5. ENH Presentation	Present	James Swierc	24	5:50 p.m.
6. Data Applications	Discuss	Valerie Stacey	66	6:20 p.m.
7. Updates and Announcements Watershed <ul style="list-style-type: none">• DEQ Comments• Citizen Requested Policy	Discuss	Staff	67	6:35 p.m.
8. Board Member Discussion	Discuss	Board	72	6:50 p.m.
9. Public comment	Present	Board	73	6:55 p.m.
10. Adjourn Meeting	Present	Board		7:00 p.m.

**LEWIS & CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
Helena, Montana**

BOARD AGENDA ITEM

Meeting Date

February 25, 2020

Agenda Item No.

2

Minutes Board Member Discussion Staff & Other Reports Action Hearing of Delegation

AGENDA ITEMS: Review of Agenda

PERSONNEL INVOLVED: Board Members

BACKGROUND: Time is allowed for board members to review the agenda and place any items under action or to add any new agenda items.

RECOMMENDATION: n/a

ADDITIONAL INFORMATION ATTACHED

BOARD ACTION:

NOTES:

	M O T I O N	S E C O N D	A Y E	N A Y	A B S T A I N	O T H E R
Frasier						
Harrow						
Good Geise						
Johnson						
Leland						
Ryan						
Schell						
Scott						

**LEWIS & CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
Helena, Montana**

BOARD AGENDA ITEM

Meeting Date

February 25, 2020

Agenda Item No.

3

Minutes Board Member Discussion Staff & Other Reports Action Hearing of Delegation

AGENDA ITEMS: Minutes of the December 10, 2019, meeting

PERSONNEL INVOLVED: Board Members

BACKGROUND: Upon approval, the minutes represent official actions of the Water Quality Protection District. Every effort is made to have these recommended minutes accurately portray the proceedings and procedures of the board.

RECOMMENDATION: Approval

ADDITIONAL INFORMATION ATTACHED

BOARD ACTION:

NOTES:

	M O T I O N	S E C O N D	A Y E	N A Y	A B S T A I N	O T H E R
Frasier						
Good Geise						
Harrow						
Johnson						
Leland						
Ryan						
Schell						
Scott						

LEWIS AND CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
BOARD MEETING
316 North Park, Room 226
Helena, MT 59623
December 10, 2019

Members Present

Mayor Jamie Schell, chair
Jeff Ryan, vice-chair (arrived at 5:33 pm)
Kammy Johnson
Catherine Scott
Amanda Harrow

Staff

Kathy Moore
Jennifer McBroom
Peter Schade
James Swierc
Jolene Helgerson
Drenda Niemann

Members Absent

Stan Frasier
Commissioner Andy Hunthausen
Ryan Leland

Guests Present

Lois Steinbeck
Dave Brown
Val Jaffe

Mayor Jamie Schell, chair, called the 242nd meeting of the Lewis and Clark County Water Quality Protection District (WQPD) Board of Directors to order at 5:31 p.m. A quorum was established. Introduction of Board members were made.

REVIEW OF AGENDA

No changes were made. No public comment was given.

MINUTES

Mayor Schell asked if there were any corrections or additions to the October 22, 2019, minutes. Mayor Schell provided changes to the board member discussion of the minutes. He requested the word “ex” placed in front of the word Asarco Plant and the word “only” added to the following sentence “Mr. Schell noted that some individuals in East Helena were not happy that the City of East Helena would receive “only” a portion of the 5.8 million.” Mayor Schell made a motion to approve the amended minutes as written. Jeff Ryan seconded the motion. The motion carried 5-0. No public comment was given.

ONSITE WASTEWATER TREATMENT REGULATIONS

Kathy Moore, Environmental Services Division Administrator, highlighted some of the following changes made to the current 2016 Onsite Wastewater Treatment Regulations:

- Additional requirements for submittal of periodic pumping receipts of sewage holding tank systems.
- All minimum construction requirements have been removed and adopted by reference to DEQ Circular, DEQ 4. The appendices A-V at the end of the regulation have all been struck to reflect this.
- Allows for production of a permit by electronic means, not just hard copy. The software that the Department uses will allow for online access to permits.

- Installation of pump systems by a homeowner. A homeowner may install any type of septic system (not just gravity fed systems) on their own property if it serves no more than one single family dwelling and they submit a design for review that is compliant with DEQ Circular DEQ 4 prior to issuance of the permit.
- Appendix W: Struck from the regulation because it is tied to Section 8.3(4) that has also been struck from the regulation.

The Board of Health (BOH) opened the Onsite Wastewater Regulations Hearing up for public comment at their October board meeting. Public and written comments were heard at the December board meeting. Only one written comment was provided and no public comment was given. The BOH will approve the regulations at their February board meeting. Lois Steinbeck, 6000 Fairy Drive, commented that she believes that the Septic Maintenance Program is a good program and that she feels we are being protected.

BOARD LEADERSHIP TRAINING

Mayor Schell and Mr. Ryan attended the annual County Board Training on December 4 at the Montana Associations of Counties (MACo). Dan Clark, from the Montana State University Local Government Center, facilitated the meeting. The main takeaways from the meeting were administrative requirements, proper public notification, and the opportunity for public comment. No public comment was given.

DISTRICT POLICY ON CITIZEN REQUESTED WATER RESOURCES STUDIES

Jennifer McBroom, WQPD Program Supervisor, presented a copy of the Gallatin Local Water Quality Protection District Policy on Citizen Requested Water Resources Studies (on pages 10-11 of the board packet) along with a draft project proposal (see Attachment “A”) for board review. After board member review and discussion, the Board directed staff to draft a similar policy for review at the next board meeting, include the project proposal as a required attachment to the policy and too include possible availability of staff resources. No public comment was given.

L& C County Planning Board Request regarding WQPD Recommendations for the Grand Vista Estates

Ms. Moore presented the Community Development and Planning Staff Report (see Attachment “B”) that was given to the Lewis and Clark County Commission on December 4, 2019, regarding the public hearing that was held on November 19, 2019, for the proposed Phased Major Subdivision, Grand Vista Estates. Ms. Moore noted that at the meeting WQPD staff corrected the planning department language in the report and requested that they remove words “shall and will” and replace with “may and might” regarding water quantity and quality monitoring assistance that the WQPD may offer homeowners in Grand Vista Estate. The Board recommended that staff ensure that the language is changed before the approval of the subdivision is made. The Board also requested that the work done for this subdivision and future subdivisions aligns with the District’s strategic plan, that the staff availability and cost to the district is considered before work is done, support from developers and subdivisions, and that the Board is updated regularly. Mayor Schell opened the discussion for public comment.

Val Jaffe, 2623 Tea Road, said that she is attending tonight’s meeting to better understand the status of water monitoring along with the letter about Grand Vista Estates. Ms. Jaffe’s concerns were about government agencies needing to be more proactive and have more clarification for the public. The public should know whom to contact in order to address their concerns about their own property. The public should be allowed to participate in water quantity discussions and actions more equally.

She also noted that the evaluation for Grand Vista Estates is still problematic. Ms. Jaffe would like to see additional monitoring of wells around Grand Vista Estates. She would like to see more Well Intel's added to other wells in the valley. Ms. Jaffe gave an example of a pump test of two wells near her property that was conducted by a Carroll College class and the developer of the subdivision. The developers pump test was recorded in the MT Bureau of Mines and Geology Groundwater Information Center as being higher than what was conducted in the test..

Lois Steinbeck and Dave Brown, 6000 Fairy Drive, said that their well is 200 feet deep and that they have been having water pressure issues during the summer. They have lived on their property for 15-years. Ten to 20 new homes have been built around them in that time span. They have not been having well problems until recently. She supports development but that those who already live there and have investments taken into consideration regarding future development. She believes that in the future that she will have to deepen their well or drill a new one by the time the Grand Vista Estates development is completed. Ms. Steinbeck believe that developers should be paying for the some of the work that WQPD is doing for subdivision development. She also believes that pump tests alone are not enough. According to discussions with Mr. Swierc, a new kind of study to predict how many wells can be drilled before it effects the aquifer needs to occur. Lot size is also a concern of hers.

There being no further board member discussion or public comment, Kammy Johnson made a motion for staff to participate with the Community Development and Planning Staff report. Amanda Harrow seconded the motion. Ms. McBroom clarified the changes that will be made to the planning department's report. Ms. Jaffe suggested that staff or other entities go before the Helena Civic Studio to discuss the limits of governmental purview that the public will understand. The motion carried 6-0.

UPDATES AND ANNOUNCEMENTS

Re-watering Update: Peter Schade, Water Quality Specialist, provided an update on the Prickly Pear Creek Rewatering Summary (on pages 13-20 of the board packet). The Water Quality Protection District has received a \$125,000 federal grant to continue a re-watering project on Prickly Pear Creek. The money will be used to buy replacement water from the U.S. Bureau of Reclamation for use by the Prickly Pear Water Users Association. In return for this temporary service, the association has agreed to stop diverting Prickly Pear Creek water, restoring flow to a creek that has historically gone dry. The re-watering project began in 2007 and has led to improvements in the watershed and aquatic habitat. No public comment was given.

Joslyn Tailings: James Swierc, Hydrologist, referenced the Joslyn Tailings Feasibility Study Report that he submitted to Joslyn Tailings Site Management/Oversight Team on November 22, 2019 (on pages -27-28 of the board packet). Mr. Swierc discussed the reason for the study and the preferred remedial alternatives. No public comment was given.

PFAS Update: The National Guard has completed testing 4 out of 6 targeted wells for PFAS (per- and polyfluoralkyl substances). The results should be available in February. No public comment was given.

BOARD MEMBER DISCUSSION

Mr. Ryan announced that the Lewis and Clark Conservation District would embark on an outreach program to inform the public about conservation districts. Discussion about the outreach program will be heard at a meeting before the Montana Conservation District. The Helena Conservation

District will be participating in the March Water Summit in Helena. This will be the first time a conservation district has participated in the summit.

Mayor Schell announced that Kelly Harris is a new council member to the City of East Helena. A new council member in Ward 1 has yet to be determined. Mayor Schell requested that Ms. McBroom give a WQPD presentation to the East Helena City Council at one of their February meetings.

Regarding tonight's discussion about what a subdivider is required to pay for and what a subdivider is not required to pay for and the discussion from the public, Mayor Schell requested that staff talk with Greg McNally in the Planning Department about what sub dividers can and cannot be made to pay for regarding well monitoring and pump testing for possible groundwater depletion in current subdivision and future subdivisions. Mr. Swierc announced that the Montana Department of Natural Resources (DNRC) required developers for the Holmberg Estates to put transducer well monitors into 5 wells east of the development. A precedence has been set but Mr. Swierc is uncertain of what regulatory authority could allow that. Mayor Schell suggested writing a letter to the DNRC for any enforcement necessary. Mr. Swierc said that transducers would be the best for well monitoring. In answer to a question from Ms. Jaffe, Mr. Swierc did say that this request to DNRC would be for new subdivisions. Ms. Jaffe asked what was out there from this board and other board that informs the public about how to protect existing wells from water depletion. She recommended that a list of agencies be created to show the public who is accountable and responsible for information regarding existing well monitoring during the creation of a subdivision. After further board member and public discussion, Drenda Niemann, Health Officer, said that staff should discuss Ms. Jaffe's list request with the County's Public Information Officer.

There being no public comment, the meeting adjourned at 7:04 p.m.

Mayor Jamie Schell, Chair

Action Items from the December 10, 2019 board meeting

- WQPD staff will give a WQPD presentation to the East Helena City Council in February
- WQPD staff will speak with Greg McNally regarding what subdividers can be asked to pay for during subdivision development when well monitoring/and pump testing is requested.
- WQPD staff will work with the county PIO regarding Ms. Jaffe's list request.

**LEWIS & CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
Helena, Montana**

BOARD AGENDA ITEM

Meeting Date

February 25, 2020

Agenda Item No.

4

Minutes Board Member Discussion Staff & Other Reports Action Hearing of Delegation

AGENDA ITEMS: Fiscal Year 2020 2nd Quarterly Budget Report and Fiscal Year 2021 Budget

PERSONNEL INVOLVED: Jennifer McBroom,

BACKGROUND: Ms. McBroom will present the quarterly budget report for review and discuss the upcoming FY21 budget process.

RECOMMENDATION: n/a

ADDITIONAL INFORMATION ATTACHED

BOARD ACTION:

NOTES:

	M O T I O N	S E C O N D	A Y E	N A Y	A B S T A I N	O T H E R
Frasier						
Good Geise						
Harrow						
Johnson						
Leland						
Ryan						
Schell						
Scott						

**WATER QUALITY DISTRICT
FUND 203.4430.441**

		50% Through the Year 2/18/2020				2/18/2020 payroll		50%	
EXPENDITURES: DESCRIPTION		BUDGETED FY 2020	OCTOBER	NOVEMBER	DECEMBER	YEAR TO DATE	BUDGET REMAINING	% USED	Prior Year
11.01	SALARIES & WAGES: PERM	239,796	19,651.50	30,689.37	16,475.21	\$117,618.13	\$122,177.87	49.0%	110,518.52
11.02	SALARIES & WAGES: TEMP					\$0.00		--	2,796.30
13.01	TERMINATION PAY					\$0.00		--	
15-17	EMPLOYER CONTRIBUTION:	75,260	6,245.49	8,108.29	5,647.21	\$37,276.97	\$37,983.03	49.5%	34,702.19
	TOTAL PERSONNEL	\$315,056	\$25,896.99	\$38,797.66	\$22,122.42	\$154,895.10	\$160,160.90	49.2%	148,017.01
21.10	OFFICE SUPPLIES	2,000	26.28	8.25	46.31	\$168.94	\$1,831.06	8.4%	249.52
21.20	MINOR EQUIPMENT	16,000	2,032.00	1,197.96		\$4,022.45	\$11,977.55	25.1%	5,674.90
22.10	OPERATING SUPPLIES	2,000	147.11	86.35	48.15	\$1,253.73	\$746.27	62.7%	8,649.08
22.27	SAMPLING	13,600	135.00	64.00		\$2,609.00	\$10,991.00	19.2%	10,841.25
23.10	REPAIR & MAINTENANCE	1,500	500.00			\$500.00	\$1,000.00	33.3%	56.95
23.20	GAS & OIL	1,500	84.59	88.19	24.93	\$416.13	\$1,083.87	27.7%	590.51
31.20	POSTAGE	750	70.08	103.10		\$173.18	\$576.82	23.1%	205.51
31.40	VEHICLE PARKING	804	204.00	204.00		\$408.00	\$396.00	50.7%	402.00
31.45	VEHICLES-REGISTRATION	0				\$42.75	(\$42.75)	--	
32.10	PRINTING	5,000	39.00		166.18	\$265.66	\$4,734.34	5.3%	1,170.52
33.20	ADVERTISING	1,000				\$0.00	\$1,000.00	0.0%	1,603.69
33.50	MEMBERSHIP	1,100				\$0.00	\$1,100.00	0.0%	250.00
33.70	EDUCATION AWARENESS	4,000	205.50			\$280.50	\$3,719.50	7.0%	1,262.57
33.80	HEALTH CLUB DUES	300	3.75		3.75	\$10.00	\$290.00	3.3%	3.75
34.50	TELEPHONE	2,153	512.37	18.30	512.06	\$1,084.85	\$1,068.15	50.4%	1,071.52
35.10	PROFESSIONAL SERVICES	0				\$222.60	(\$222.60)	--	505.10
36.20	OFFICE MACHINES	0		156.00		\$156.00	(\$156.00)	--	87.81
36.30	REPAIR&MAINTmotor veh		11.00	335.29	(335.29)	\$22.00	(\$22.00)	--	
37.10	TRAVEL	5,000	1,097.74	212.69	46.98	\$1,359.73	\$3,640.27	27.2%	2,400.84
37.50	BOARD MEETING EXPENSES	500				\$0.00	\$500.00	0.0%	0.00
38.10	TRAINING	10,000		2,470.00	192.50	\$3,405.00	\$6,595.00	34.1%	825.28
39.10	CONTRACTED SERVICES (usg)	60,000			8,747.25	\$36,469.02	\$23,530.98	60.8%	12,105.00
50.10	county admin fees	6,569			1,642.25	\$3,284.50	\$3,284.50	50.0%	3,251.00
50.11	ADMIN FEES	0				\$0.00	\$0.00	--	700.00
50.20	INSURANCE	2,925	731.00		732.00	\$1,463.00	\$1,462.00	50.0%	1,538.00
50.30	RENT	15,352	3,838.04	3,838.04		\$7,676.08	\$7,675.92	50.0%	7,676.08
50.40	TECHNOLOGY	10,360			2,590.00	\$5,180.00	\$5,180.00	50.0%	5,294.00
80.15	CAPITAL TRANSFER	4,274		2,137.00		\$2,137.00	\$2,137.00	50.0%	2,137.00
	TOTAL O&M	\$166,687	\$9,637.46	\$10,919.17	\$14,417.07	\$72,610.12	\$91,939.88	43.6%	68,551.88
TOTAL EXPENDITURES		\$481,743	\$35,534.45	\$49,716.83	\$36,539.49	\$227,505.22	\$252,100.78	47.23%	\$216,568.89

REVENUES: DESCRIPTION		BUDGETED FY 2020	OCTOBER	NOVEMBER	DECEMBER	YEAR TO DATE	BUDGET REMAINING	% RECEIVED	Prior Year
331.00-00	FEDERAL GRANTS					\$0.00	\$0.00	--	7,000.00
334.00-00	STATE GRANTS	25,000	26,379.75			\$36,317.25	(\$11,317.25)	145.3%	2,723.75
344.09-40	WELL MONITORING (USGS)	3,200				\$0.00	\$3,200.00	0.0%	0.00
362.01-00	OTHER MISC					\$0.00	\$0.00	--	0.00
363.01-00	MAINTENANCE ASSESSME	365,000	1,728.97	144,263.59	45,864.66	\$202,104.56	\$162,895.44	55.4%	200,685.92
363.04-00	MA PENALTY & INTEREST	0	70.10	57.77	87.32	\$683.48	(\$683.48)	--	724.51
365.02-00	DONATIONS-PRIVATE					\$0.00	\$0.00	--	0.00
383.01-00	HEALTH INSURANCE CREDI	17,942			9,136.39	\$9,136.39	\$8,805.61	50.9%	8,414.43
TOTAL REVENUE		\$411,142	\$28,178.82	\$144,321.36	\$55,088.37	\$248,241.68	\$162,900.32	60.38%	\$219,548.61

BEGINNING CASH BALANCE						
beg cash	fund 203 unrestricted	189251.62	\$102,303.89	\$196,908.42	\$215,457.30	Total WQPD Cash Available
	Lake Helena Working Group Restricted cash	5469.22	\$0.00	\$0.00	\$0.00	\$215,457.30
	total	194720.84	\$102,303.89	\$196,908.42	\$215,457.30	Total LHWG Cash Available
						\$0.00

WQPD Donated Funds
Fund 140 WQPD Gage and Rewatr Donations

50% Through the Year

grant year 7/1-6/30

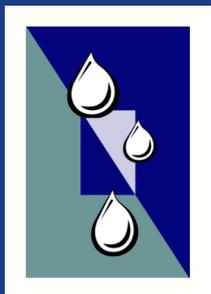
2/18/2020

payroll 50%

EXPENDITURES: DESCRIPTION	BUDGETED	OCTOBER	NOVEMBER	DECEMBER	YEAR TO DATE	2/18/2020	
	FY 2020					Contract budget Remaining	% USED
35.10 PROFESSIONAL SERVICES	15,220	7,500.00			\$7,500.00	\$7,720.00	49.3%
39.10 CONTRACTED SERVICES	4,230				\$0.00	\$4,230.00	0.0%
TOTAL O&M	\$19,450	\$7,500.00	\$0.00	\$0.00	\$7,500.00	\$11,950.00	38.6%
TOTAL EXPENDITURES	\$19,450	\$7,500.00	\$0.00	\$0.00	\$7,500.00	\$11,950.00	38.56%

REVENUES: DESCRIPTION	BUDGETED	OCTOBER	NOVEMBER	DECEMBER	YEAR TO DATE	BUDGET	%
	FY 2020					REMAINING	RECEIVED
365.02-00 Gage Donations	3750				\$1,500.00	\$2,250.00	40.0%
365.02-00 Rewatr Donations	15,220			10,000.00	\$10,000.00	\$5,220.00	65.7%
TOTAL REVENUE	\$18,970.00	\$0.00	\$0.00	\$10,000.00	\$11,500.00	\$5,220.00	60.62%

		GAGE		REWATR	
beginning cash bal gage	\$7,800.00	beg bal	(\$1,500.00)	\$54,340.00	
beginning cash bal rewatr	\$4,560.00	revenue	\$1,500.00	\$10,000.00	
		expenditures	\$0.00	\$7,500.00	
		current cash bal	\$0.00	\$56,840.00	\$56,840.00



Lewis & Clark County
Water Quality
Protection District

FISCAL YEAR 2020

2ND QUARTER

OCTOBER 1 - DECEMBER 31

*Our mission is to preserve, protect and
improve water quality and quantity within
District Boundaries*



Our Values

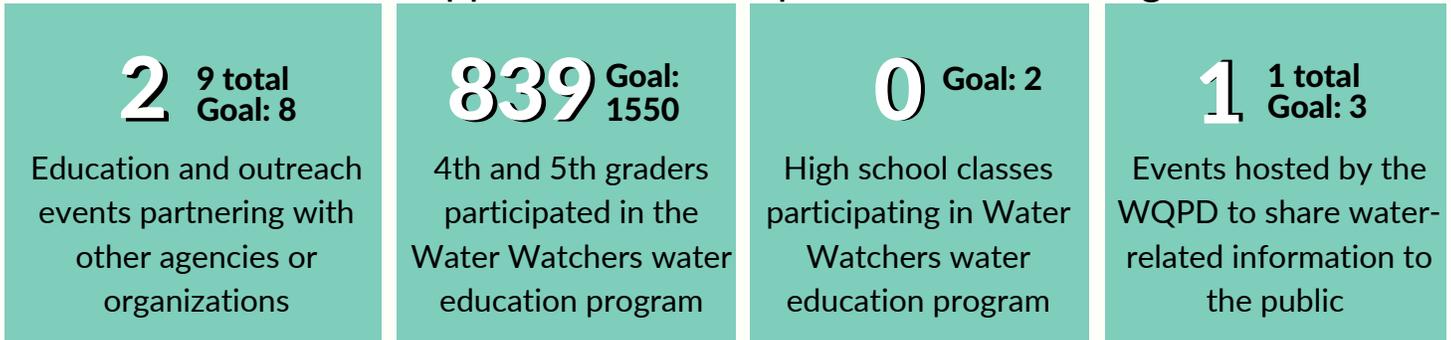
-  We strive for **competent, knowledgeable stewardship** of the environment
-  We practice **transparent** and **accountable** service.
-  We maintain a **culture of leadership, service, commitment, and integrity**
-  We **collaborate** with partners, customers, and our community to preserve, protect, and improve water resources.

Goal 1

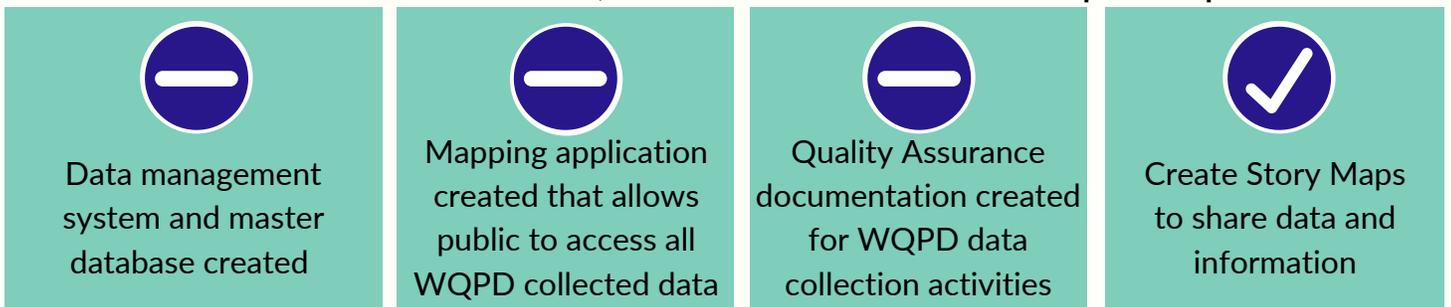


Improve the public's support for and understanding of the WQPD Mission

1.1 Provide educational opportunities to improve understanding of water issues



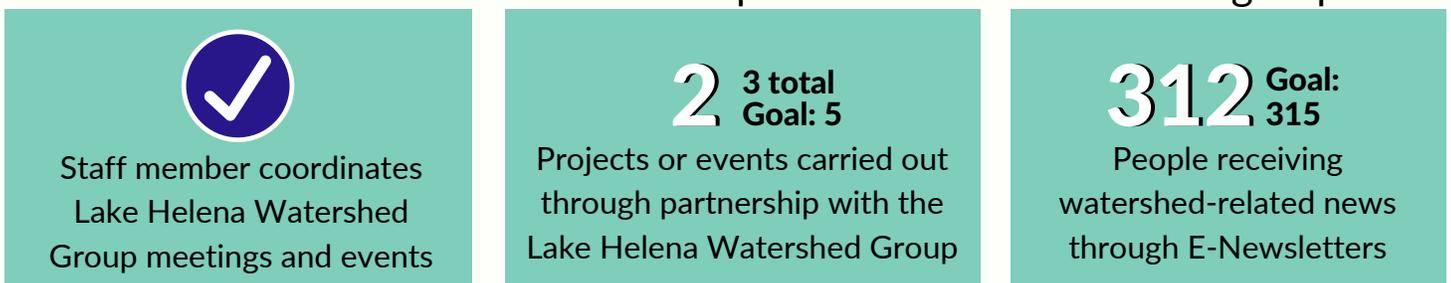
1.2 Provide access to clear, concise data and info on public platforms

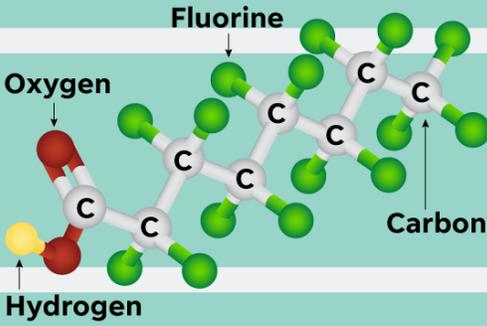


1.3 Encourage public participation across all District activities



1.4 Coordinate and assist with the operation of the watershed groups

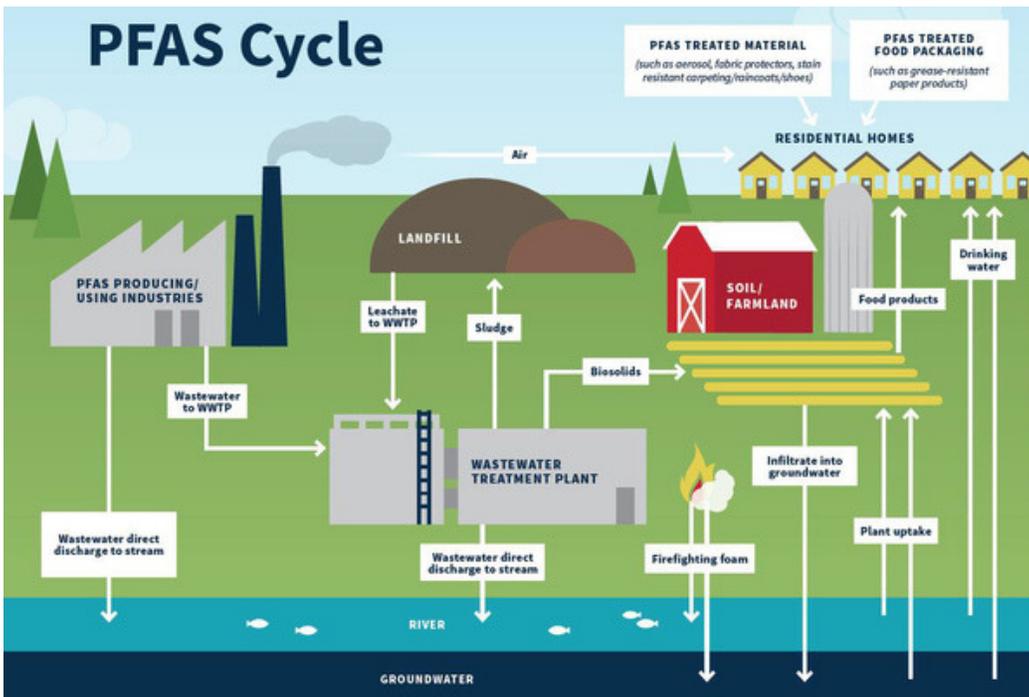
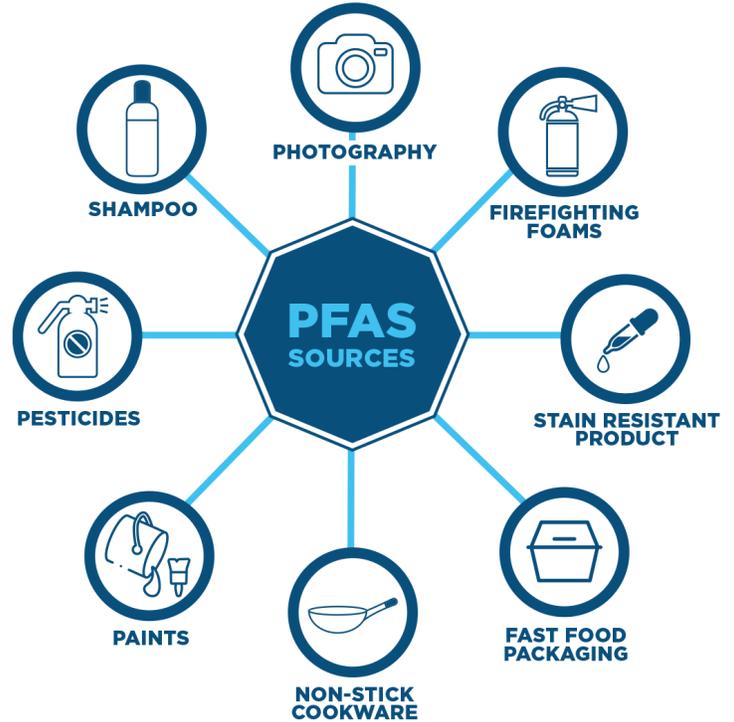




Working with the Army National Guard: PFAS

Prepared by Pete Schade, December 2019

Groundwater monitoring conducted by the Army National Guard (ARNG) at Fort Harrison detected polyfluoroalkyl substances (PFAS) in monitoring wells on the Fort property. PFAS is an environmental contaminant and is likely sourced from aqueous fire-fighting foam (AFFF) used at Fort Harrison. ARNG subsequently contacted adjacent property owners regarding the issue and requested permission to sample well water for PFAS at six homes. The ARNG contacted Lewis & Clark Public Health and the Water Quality Protection District for assistance with outreach to local residents regarding information on PFAS, public health concerns, or other environmental health issues. Water Quality Protection District staff presented information on PFAS and environmental health at a public meeting at Fort Harrison in October, and accompanied ARNG staff to nearby homes requesting permission to sample well water. Four of six homeowners provided permission, and sampling was completed in December. Water quality results from these 4 samples are expected in February, 2020.



For more information on PFAS, please visit the EPA's website at: <https://www.epa.gov/pfas>

Responding To Concerns in the East North Hills

Prepared by James Swierc, November 2019

Residents in the area north of Lincoln Road and East of the interstate, also known as the "East North Hills" (ENH) area (Figure 1), have expressed grave concern over future water supplies as development continues. In response to these concerns, in 2018 the WQPD launched a study to look at the groundwater properties and behavior of the East North Hills, collecting groundwater level measurements (depth of groundwater from the ground surface), as well as water chemistry information.

In 2004-2006, the Montana Bureau of Mines and Geology collected water level measurements at 12 wells throughout the ENH area. Looking at these same wells again in 2019, the WQPD did not observe signs of groundwater depletion (draw-down of water table from pumping). Most wells appeared to have stable water levels. Two wells did show slight declining

trends (see Figure 2 as an example). Additionally, the chemistry shows that recharge sources vary across the area. Specifically, there is a distinction between deeper, bedrock wells and the clay-rich tertiary sediments. The bedrock wells may be at less of a risk of depletion than the wells pulling from the clay-rich sediments.

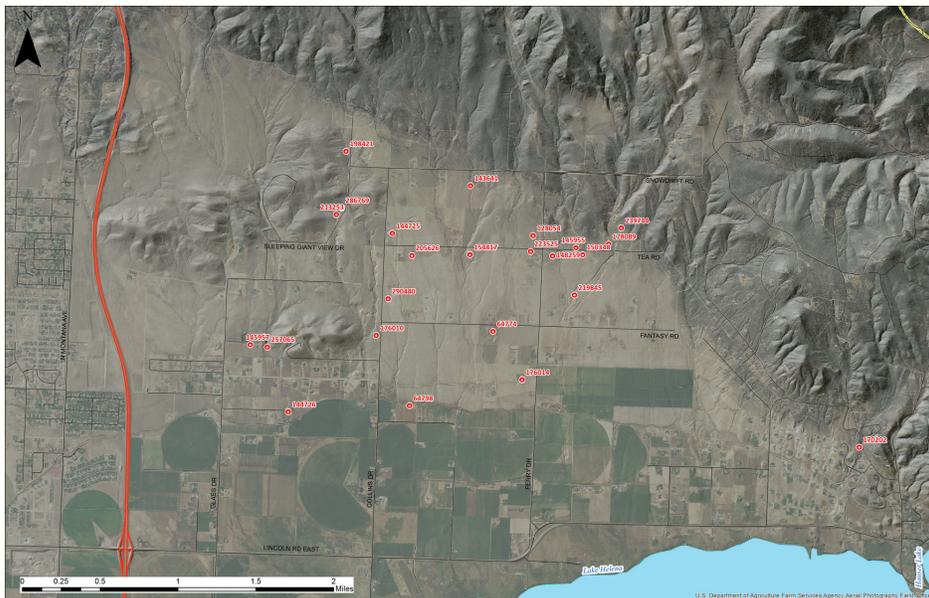


Figure 1. East North Hills Area and groundwater monitoring locations.

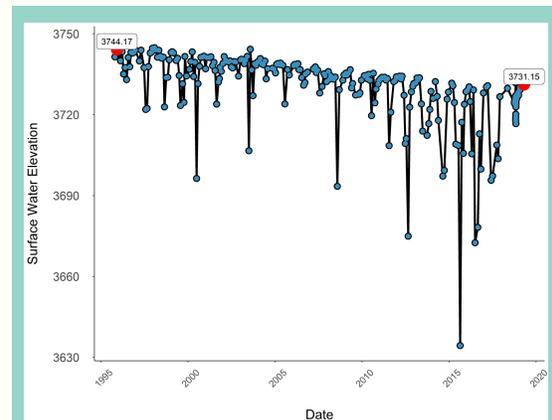


Figure 2. Surface water levels for GWIC ID = 148259. Over the past 24 years, this hydrograph shows a decline of about 10-15 feet

WQPD Recommendations for subdivision development:

- Wells to be installed as deep as practical, to ensure adequate supply and reduce surface pollution. Deep, bedrock aquifers have shown to have more reliable water supplies
- All wells to be sampled after installation for Arsenic, Uranium and Fluoride. Residents should test water biannually
- Water level monitoring to be continued by WQPD staff

Outline of WQPD plan for continued ENH monitoring:

- The ultimate goal is to provide baseline data to determine in the future whether groundwater depletion is occurring in the area from over-utilization and pumping
- Water levels will be monitored monthly in selected wells
- Transducers may be installed to supplement monthly measurements
- Data will be reported in a brief report annually, each winter, with an assessment of all year-to-date information



Hydrogeologist James Swierc presents data to East North Hills residents in October 2019

For more detailed summaries of the East North Hills groundwater study, please contact the WQPD at: 406-457-8584 or visit us at: lccountymt.gov/health/water

To report issues of water quantity, please fill out this online survey, surveymonkeys.com/r/WYVGCRC or contact us directly

Goal 2



Design and implement projects that protect and improve water quality and quantity

2.1 Operate surface water and groundwater monitoring networks

159/291

Groundwater level measurements.
155 unique wells; 68 monthly; 87 quarterly



Collect surface water measurements according to annual sampling plan

3/5

Sampling and analysis plans reviewed and updated for future monitoring

2.2 Identify, prioritize, and implement project opportunities



Work with landowners and partners to improve riparian areas and implement other water-related projects



Work with partners on water resources and other related projects

2.3 Encourage public participation across all District activities

20 20 total
Goal: 30

Number of volunteers recruited for projects and events

0 20 total
Goal: 30

Number of landowners reached to implement projects

2.4 Identify, prioritize and implement funding opportunities



Evaluate and update the Lake Helena Restoration Plan



Research and apply for appropriate grant opportunities

Prickly Pear Creek Re-Watering Project 2019 Summary

Prepared by Pete Schade, December 2019



Figure 1. Prickly Pear Creek Rewatering Project Area

Prickly Pear Creek at Wylie Dr
Station P-4

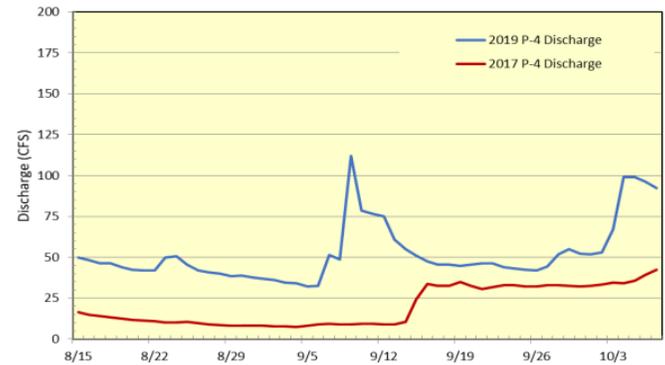


Figure 2. Station P-4 2019 compared to 2017 flows

Prickly Pear Creek at Canyon Ferry Drive
Station P-5

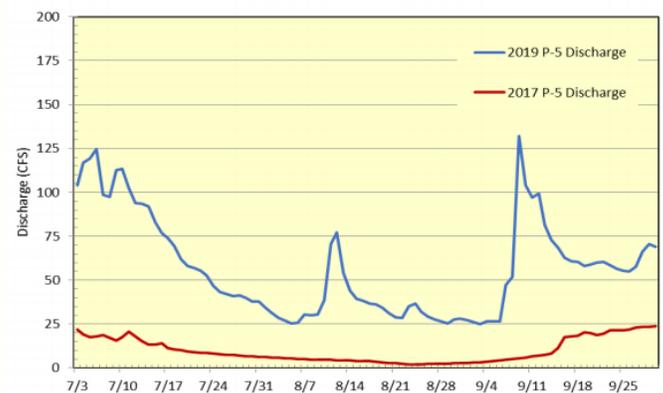


Figure 3. Station P-5 2019 compared to 2017 flows

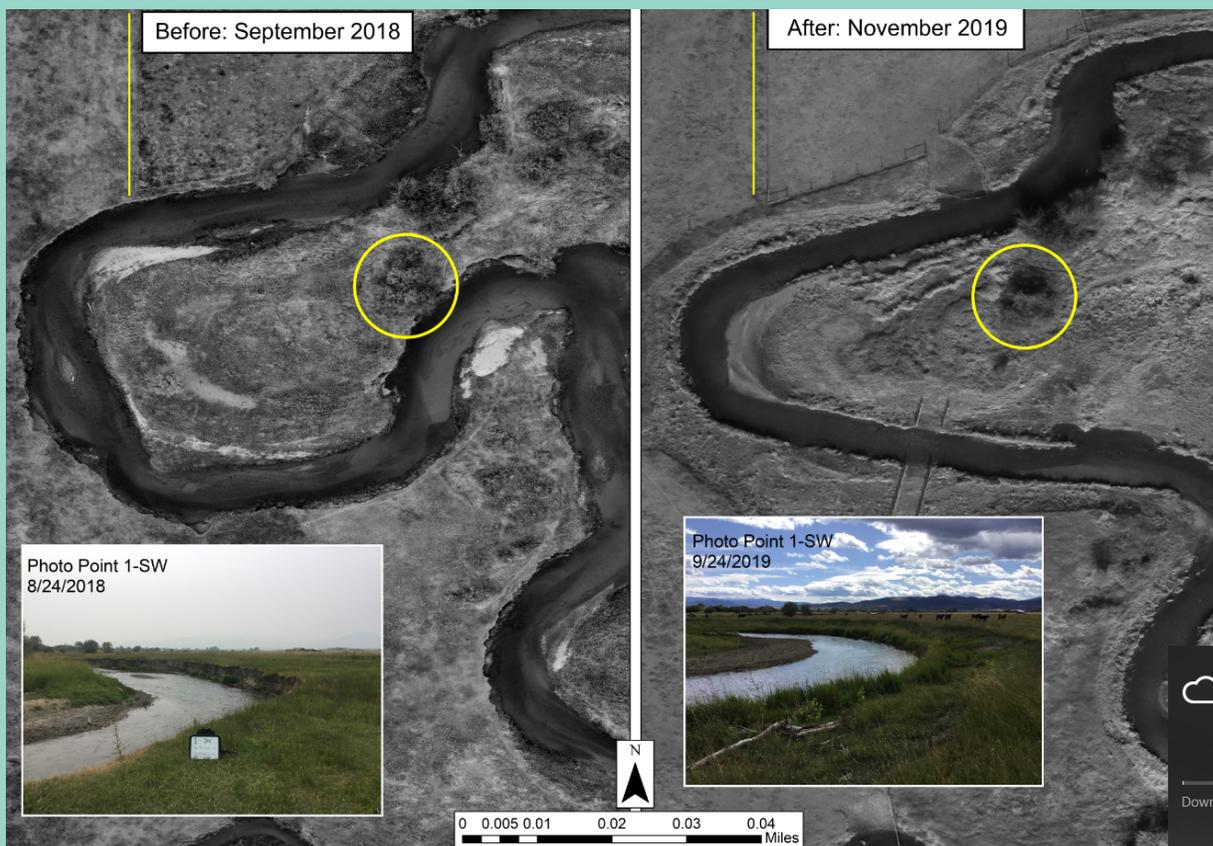
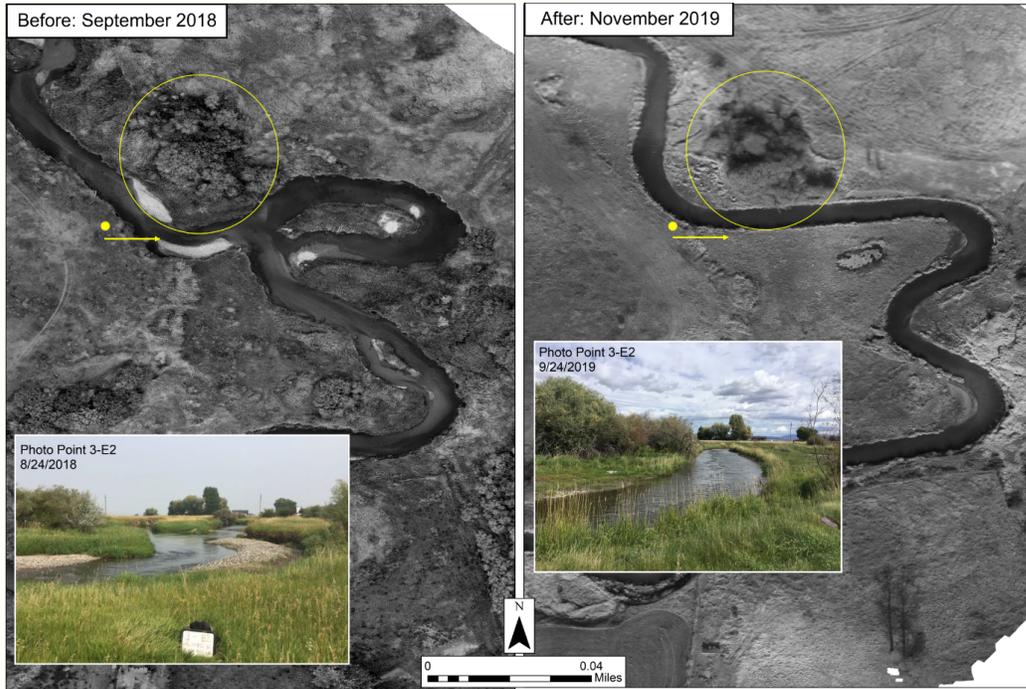
2019 was another exceptional flow year for Prickly Pear Creek. Heavy winter snowpack in the winters of both 2018 and 2019 combined with lingering cold temperatures and early spring snowpack contributed to higher than average flows on Prickly Pear Creek throughout the 2019 summer months. The lowest recorded flows were 32 CFS at Station P-4 on 09/05/2019 (Figure 2) and 25 CFS at Station P-5 on 09/03/19 (Figure 3). This is in sharp contrast to 2017 when the lowest flows recorded were 7.5 CFS and 1.7 CFS at Stations P-4 and P-5, respectively. (Note that early season high flows hampered the District's ability to install equipment and monitor flows at Station P-4 until August 2019.)

The Prickly Pear Rewatering Project agreement is scheduled to be implemented when flow triggers of 40 CFS at Station P-4 (Figure 3) or 20 CFS at Station P-5 (Figure 5) are reached. Notwithstanding seasonal (June/July) flows well above trigger values, the Prickly Pear Rewatering Project was implemented on July 2nd by the Helena Valley Irrigation District (HVID). On July 2nd, HVID closed the main headgate drawing water from Prickly Pear Creek, instead drawing water from the irrigation network fed by water delivered from the Helena Valley Regulating Reservoir. The attached water usage report (Table 1) shows the schedule of water delivery from the HVID network to water users as allowed by the Prickly Pear Rewatering Project agreement with HVID. In total, 2,000 acre-feet of water was delivered to water users that, prior to the Prickly Pear Rewatering Project, would have been sourced from Prickly Pear Creek itself.

For more detailed information on flow conditions and other project benefits, please refer to the Prickly Pear Creek 2019 Rewatering Project Final Report found at: lccountymt.gov/health/water

Tryan Restoration Project: The finishing touches

Using drone aerial imagery for before-after comparison



With the help from DEQ's James Strait, high-resolution drone imagery was captured over the 2 miles of stream restored for the Tryan restoration project. Having this high-resolution imagery helps District and DEQ staff evaluate the effectiveness of the project, potential problem areas, and areas of significant improvement. Coupling this aerial imagery with on-the-ground photo points, we have a comprehensive view of the construction and final design of the restoration effort, completed by Allen McNeal and Stream Works in December 2018.

Tryan Restoration Project: Vegetation Efforts

Strengthening partnerships with Carroll College and the Conservation Corps



For the third consecutive year, Dr. Travis Almquist from Carroll College partners with the District to give his students an opportunity to connect with professionals and work on local restoration projects. This helps the District out tremendously, as finding enough volunteers for projects can be challenging. Almquist's ecology class provides about 20, hard-working volunteers that are eager to learn and get their hands dirty. Students helped plant over 300 willow stakes along banks of the Tryan Restoration Project, and received valuable lessons on stream restoration from Allen McNeal.



Jennifer McBroom (left) and Kristy Fortman stand proudly by a water gap installed to improve grazing and riparian management. Kristy Fortman, Watershed Protection Supervisor at DEQ, has helped the District staff fulfill monitoring requirements set forth by DEQ.

About Willow Biology...



- Willows are from the genus "Salix" which are part of a larger family called "Salicaceae," including willow, aspen, poplar, birch, and cottonwood species
- One unique trait of willow is their ability to produce either roots or shoots (stems and leaves), from any point along its stem, depending on whether it is covered in soil or exposed to air and sunlight.
- Willow roots are rhizomes, meaning they grow horizontally (like strawberries!)
- Their roots are remarkably strong, aggressive, and have a great tenacity to survive
- These willow are imperative to protecting and armoring stream banks, providing shade to keep stream temperatures cool, and habitat for fish and wildlife.

Goal 3



Inform public policies for the management of water quality and quantity

3.1 Provide issue-specific information to stakeholders and decision makers.



Generate District reviewed summary materials on water quality or quantity issues



Attend County planning meetings

3.2 Advocate for legislation that supports the District's activities.



Provide or present information to Legislative Committees



Research and track bills that affect the District or water resources

Goal 4



Optimize internal organizational capacity to support the District's activities

4.1 Provide technical training to staff and Board.

0 0 total
Goal: 4

Provide WQPD staff
workforce development
training

1 1 total
Goal: 2

Provide the WQPD Board
with board development
and orientation

2 5 total
Goal: 12

Provide WQPD staff with
professional development

4.2 Develop internal policies and procedures that enhance District operations



Write policy that
directs WQPD
responses to public
requests and queries



Develop, implement and
evaluate work plans, reporting
and data review procedures
including project and funding
requests



Develop procedures and
protocols for external and
internal review of
documentation that is for public
consumption

4.3 Identify and implement Quality Improvement projects



Evaluate District activities and
conduct a QI project when necessary

A quick look at the stats for Q2:

The majority (58%) of public requests that the WQPD received came from phone calls, mostly concerning personal water quality issues, requests for well testing, and general information requests or assistance.

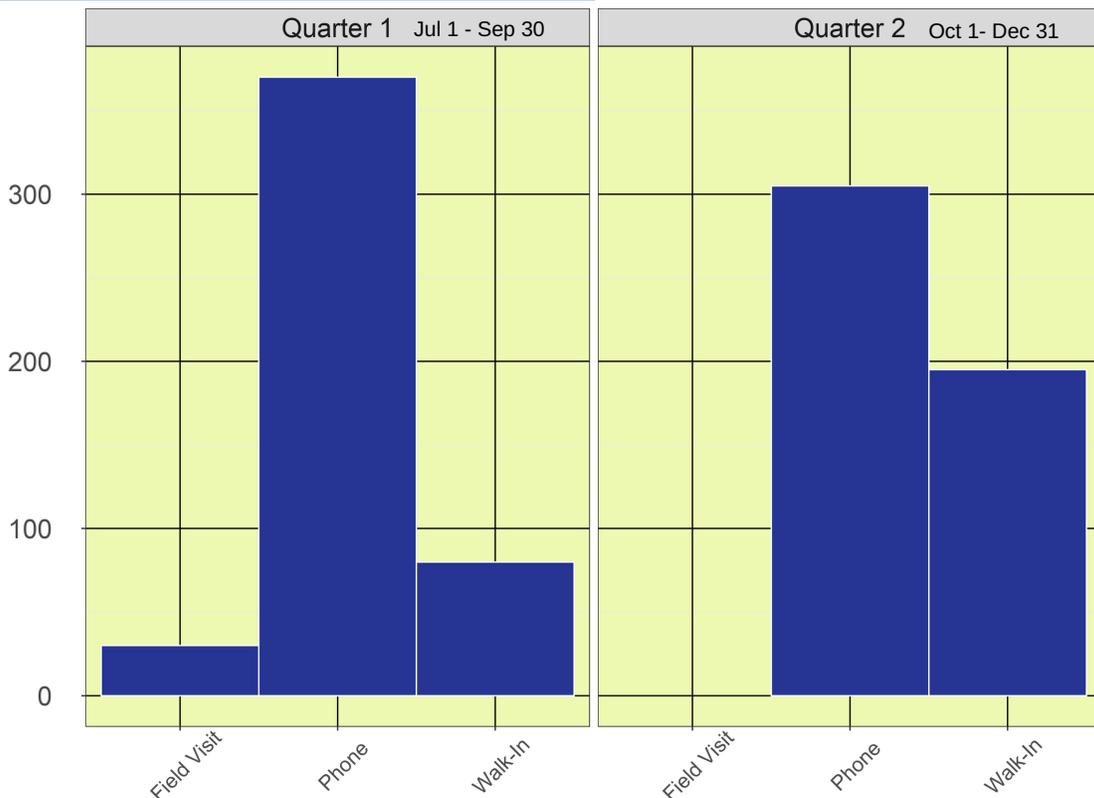
We only logged one phone call regarding water quantity-related issues in Quarter 2, a citizen from the East North Hills checking in on water level monitoring.

While we had no site visits this quarter, we spent about the same amount of time responding to the public in form of walk-ins, meetings, and phone calls.

Tracking Customer Service: A quality improvement project

WQPD staff are in and out of the office frequently due to commitments to field work, attending meetings, conferences and training, or responding to public investigation requests. Often, people calling the WQPD for any number of reasons will leave messages on more than one staff member's answering machine. Tracking down whether the individual has received the service or information they were looking for can be challenging. In order to eliminate that confusion and to improve our customer service, we created an online database that tracks any public interaction (phone call, field visit, or in-person visit), and important details associated with that interaction such as: the date of interaction, what type of request was received, whether or not the request was satisfied, who resolved the request, and any additional comments.

Staff can now check the database to see whether or not the individual already received service through another staff member. Additionally, tracking this information has shed light on the amount and types of services that people are most concerned with. Through this database, we also improved our tracking of the number of well-educated kits distributed.



Total time spent (minutes) per type of interaction

Quarter 2 stats:

8 Well-Educated Kits Distributed 
34 total distributed YTD

0 Site Visits 
Total time spent: 0 min

19 Phone Calls 
Total time spent: 3.8 hours

6 Walk-Ins/ Meetings 
Total time spent: 3.25 hours

Tracking Customer Service: types of interactions

As the WQPD began tracking the number and types of calls and requests that they receive as of July 1st, 2020 (Fiscal Year 2020), we have been able to get a better idea of the most common needs and concerns of residents living in the District.

Concern/Complaint

Example(s): reporting of improper sprinkler use, concern of unlawful dumping of sewage or other contaminants near waterways or near wells

Information Request/Assistance

Example(s): requests for professional opinions on development (such as gravel pit or subdivision), discussions of Harmful Algae Blooms (HABs), requests for guidance on flood-related issues, or interpreting water quality results

Surface Water: general

Example(s): discussions regarding surface water flows

Water Quality: other

Example(s): concerns regarding private water supply (discolorations or odors, for example)

Water Quality: well testing

Example(s): need for well testing by third party to comply with FHA loans, general requests for well testing (usually in response to a concern of potential contamination), distributing Well-Educated kits

Water Quantity

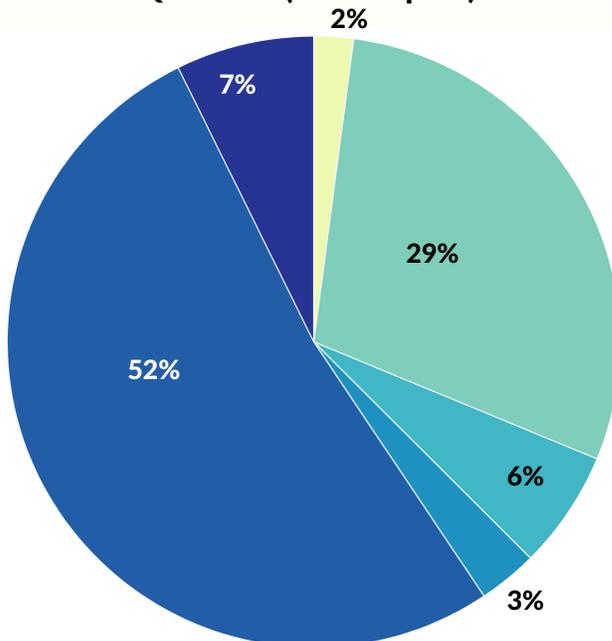
Example(s): concerns of water supply or yields, requests for water level monitoring, general discussions of local groundwater conditions or trends

WQPD Business

Example(s): discussions with partners and the public of upcoming meetings or events, other discussions with external companies or services

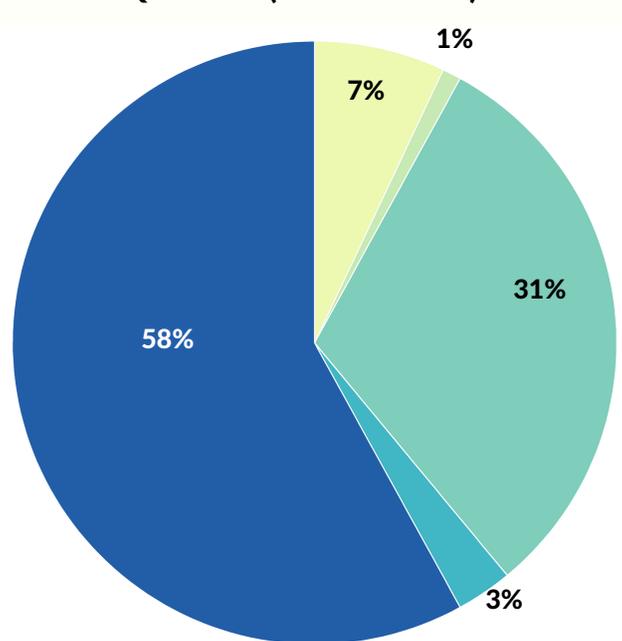
Time Spent per Issue

Quarter 1 (Jul 1-Sep 30)



480 min or ~8 hours

Quarter 2 (Oct 1-Dec 31)



500 min or ~8.25 hours

**LEWIS & CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
Helena, Montana**

BOARD AGENDA ITEM

Meeting Date

February 25, 2020

Agenda Item No.

5

Minutes Board Member Discussion Staff & Other Reports Action Hearing of Delegation

AGENDA ITEMS: East North Hills Presentation

PERSONNEL INVOLVED: James Swierc, Hydrologist

BACKGROUND: Mr. Swierc will give a brief presentation on the East North Hills.

ADDITIONAL INFORMATION ATTACHED

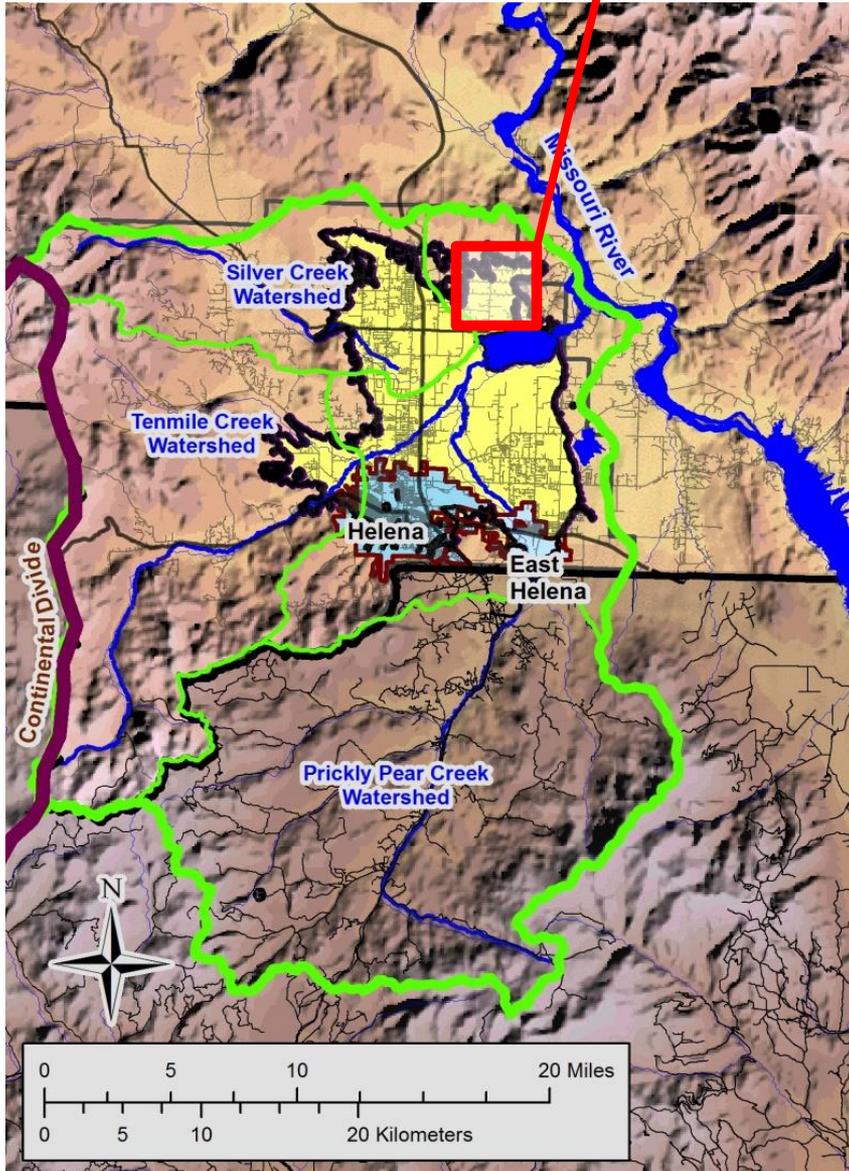
BOARD ACTION:

NOTES:

	M O T I O N	S E C O N D	A Y E	N A Y	A B S T A I N	O T H E R
Frasier						
Good Geise						
Harrow						
Johnson						
Leland						
Ryan						
Schell						
Scott						

**Lake Helena
Watershed**

Study Area



East North Hills Groundwater Hydrology

James Swierc, PG
Hydrogeologist
Lewis & Clark Water
Quality Protection
District
October 1, 2019

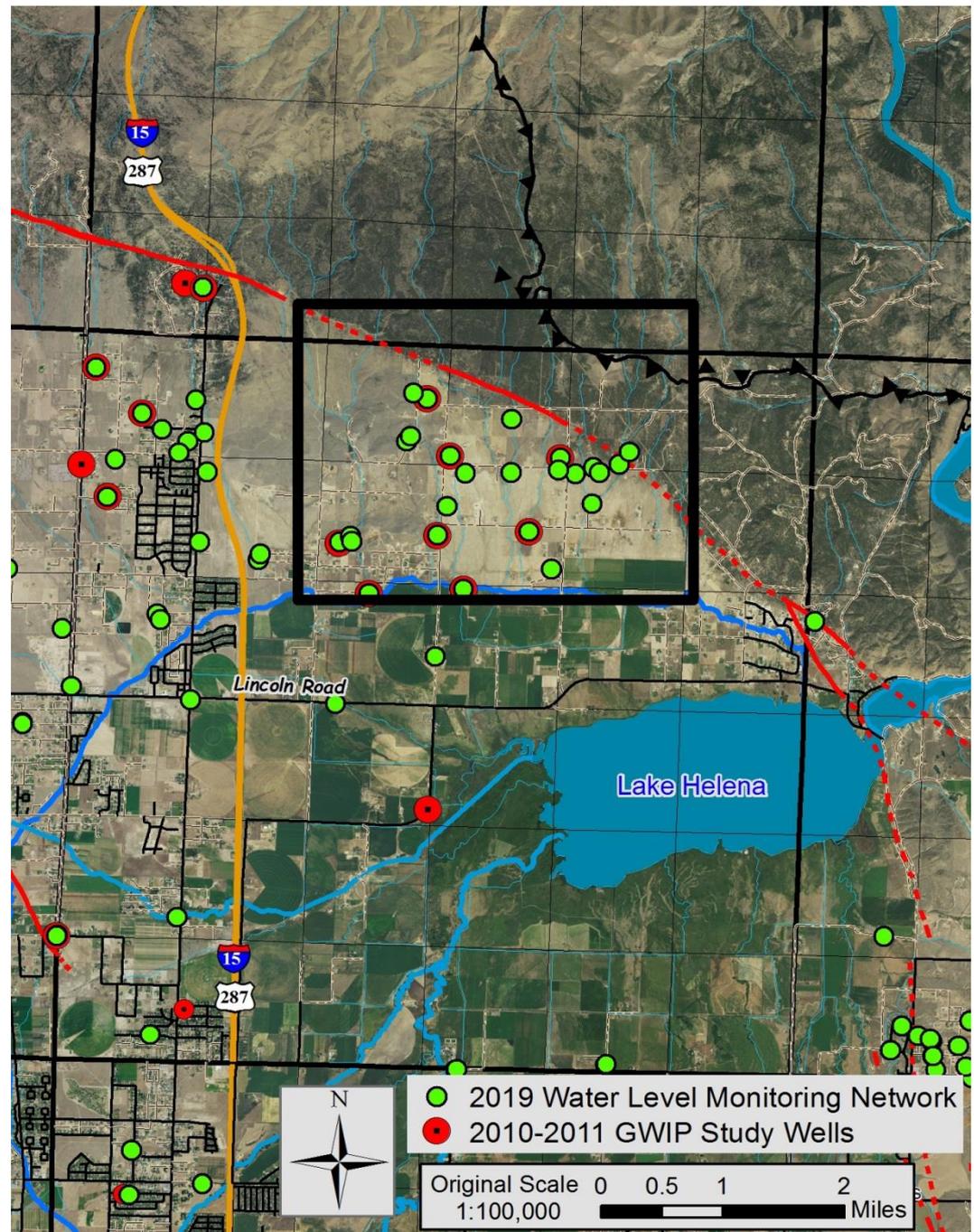
Introduction/Why We're Here

- Local Citizens Group Showed Concerns over Groundwater Depletion from Residential Growth
 - Hydrograph(s) shows declining water levels
 - Requested LCWQPD petition DNRC for a Controlled Ground Water Area
- Previous Studies – MBMG 2006; MBMG 2012
 - Temporary Controlled Ground Water Areas (CGWA)
 - “North Hills” Areas
 - focus – west side of area (where the growth/population is)

Note – copies of reports are available at MBMG website

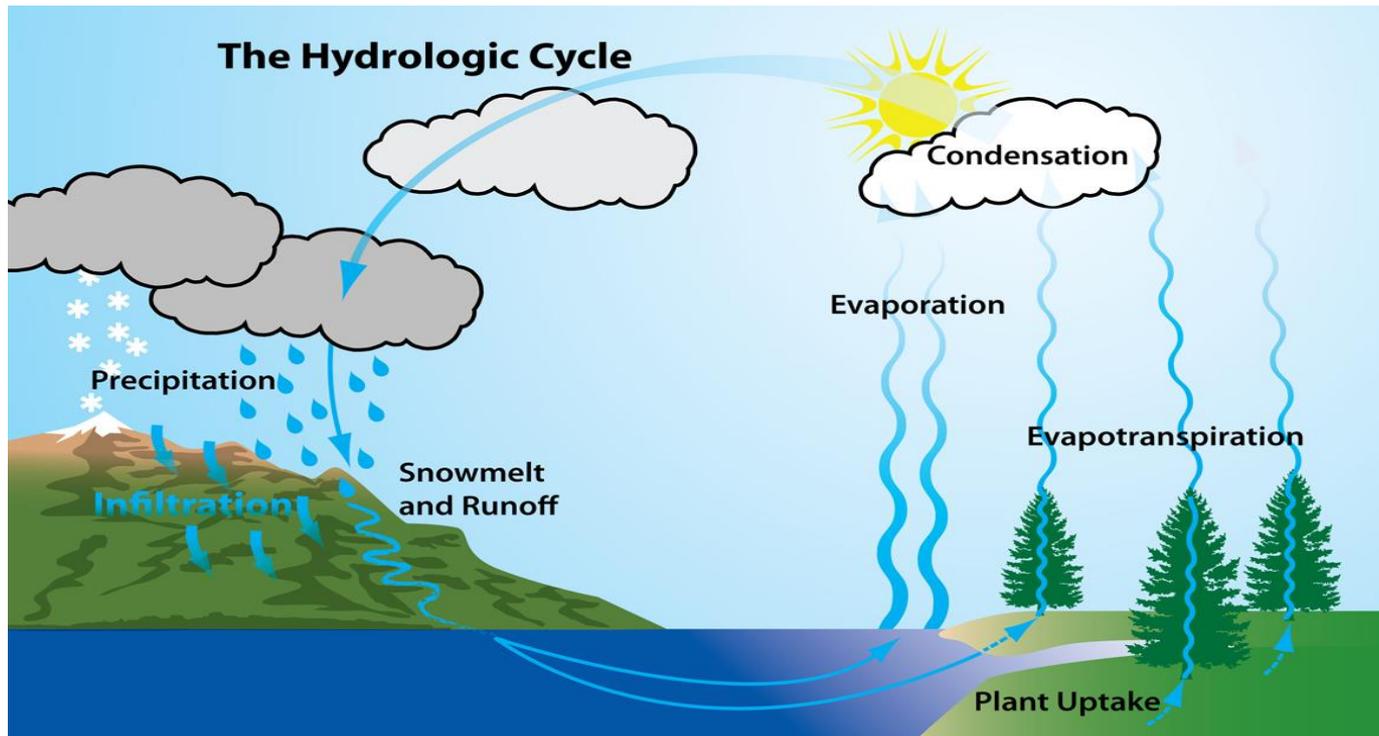
LCWQPD Study

- Focus – East Side of North Hills
 - North of HVID Canal
- Supplement Data from previous studies
 - Water Levels
 - Water Quality
 - Water Isotopes
 - Geology of Aquifer
 - Groundwater Temperature
- Evaluate feasibility of CGWA Proposal
 - Boundaries?



Basic Hydrology and Hydrologic Cycle

- Hydrologic Cycle – all water is connected
 - Evaporation, condensation in clouds
 - Precipitation and Infiltration/Runoff
- With respect to Groundwater and Study
 - Only a finite amount of groundwater available



Background Info

- **Groundwater Depletion**
 - long term decline in water levels **from pumping.**

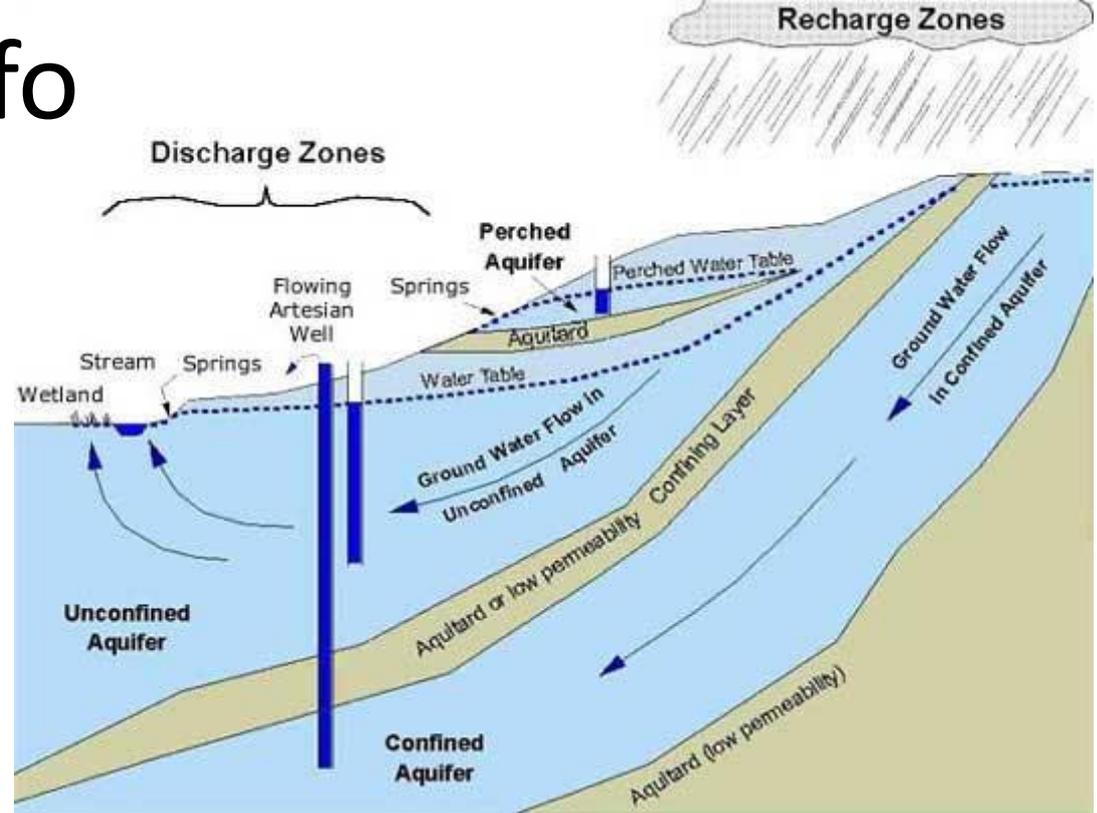
- Not related to changing precipitation patterns

- **Aquifer** – geologic underground layer which transmits water

- “usable” quantities, high permeability, yields

- **Unconfined** – water table surface

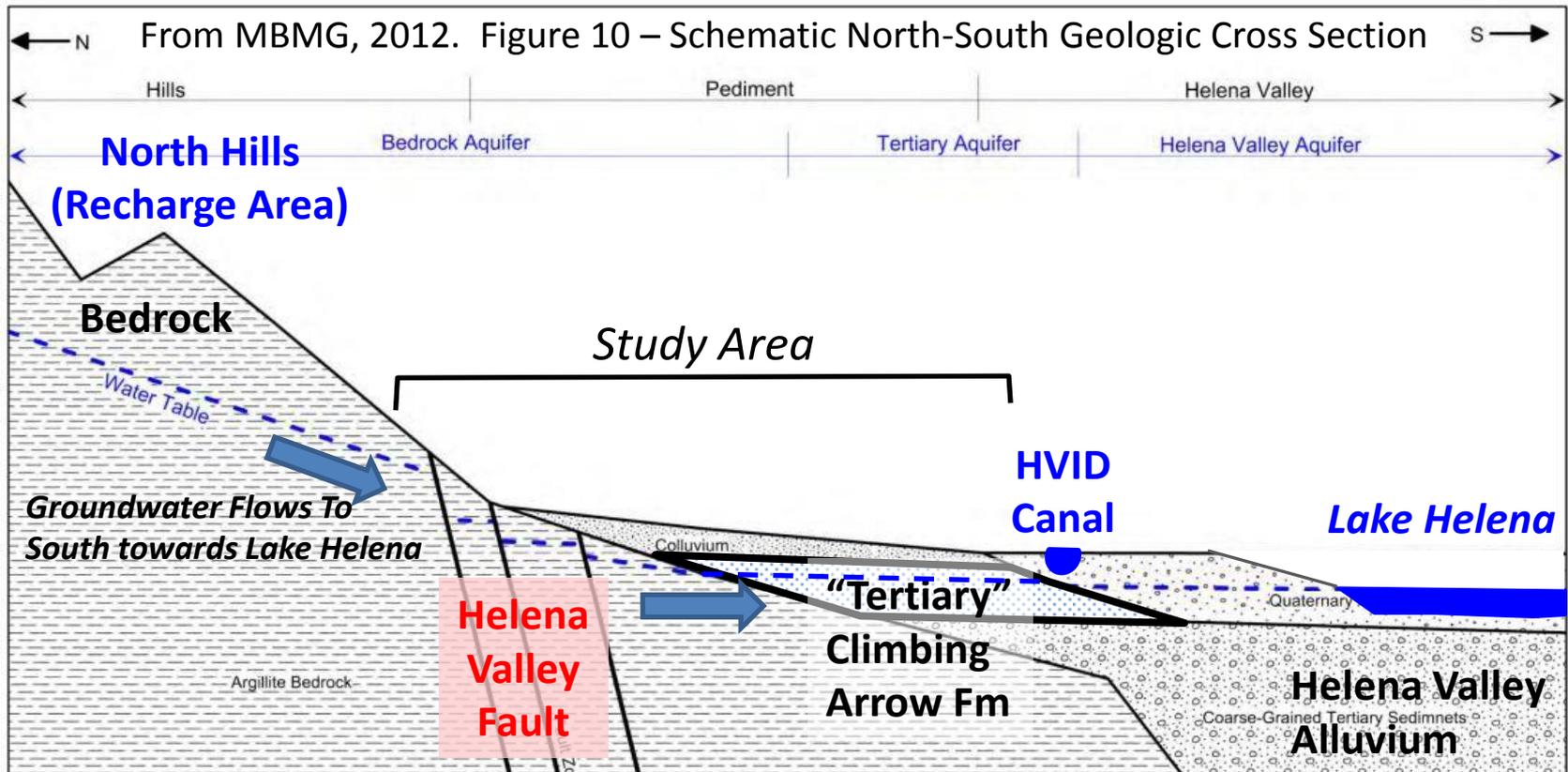
- **Confined** – “artesian” pressure, surface rises above top of aquifer



- **Water Balance**
 - Water in (recharge) = water out (discharge)
 - Equals water available for use
- **North Hills Area**
 - Recharge from **precipitation** in higher elevations
 - **Infiltration is main/only groundwater recharge**
 - HVID Canal in downgradient area

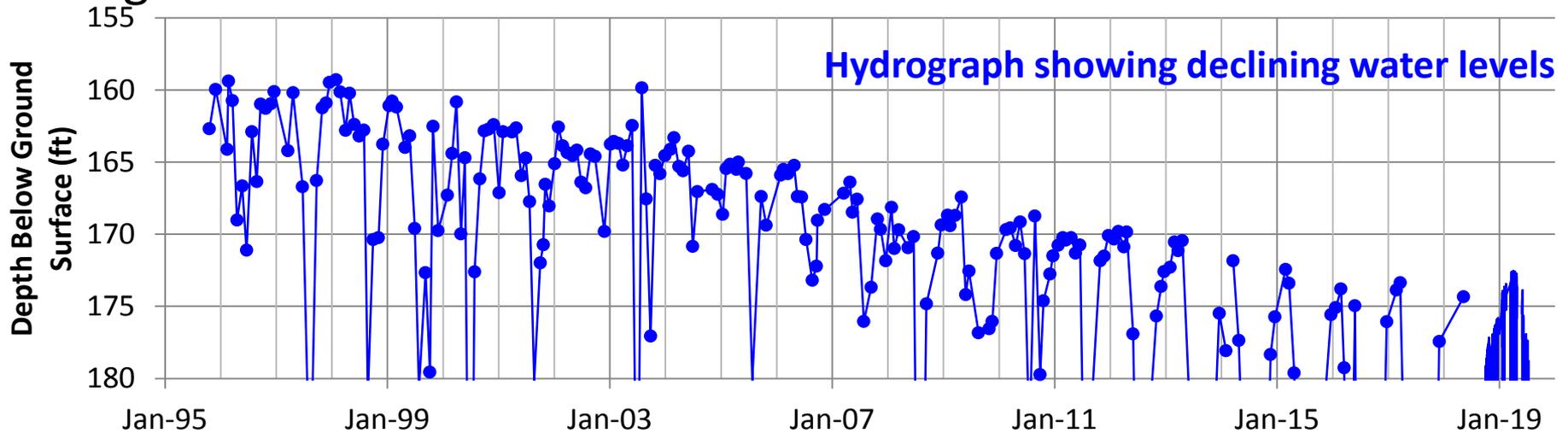
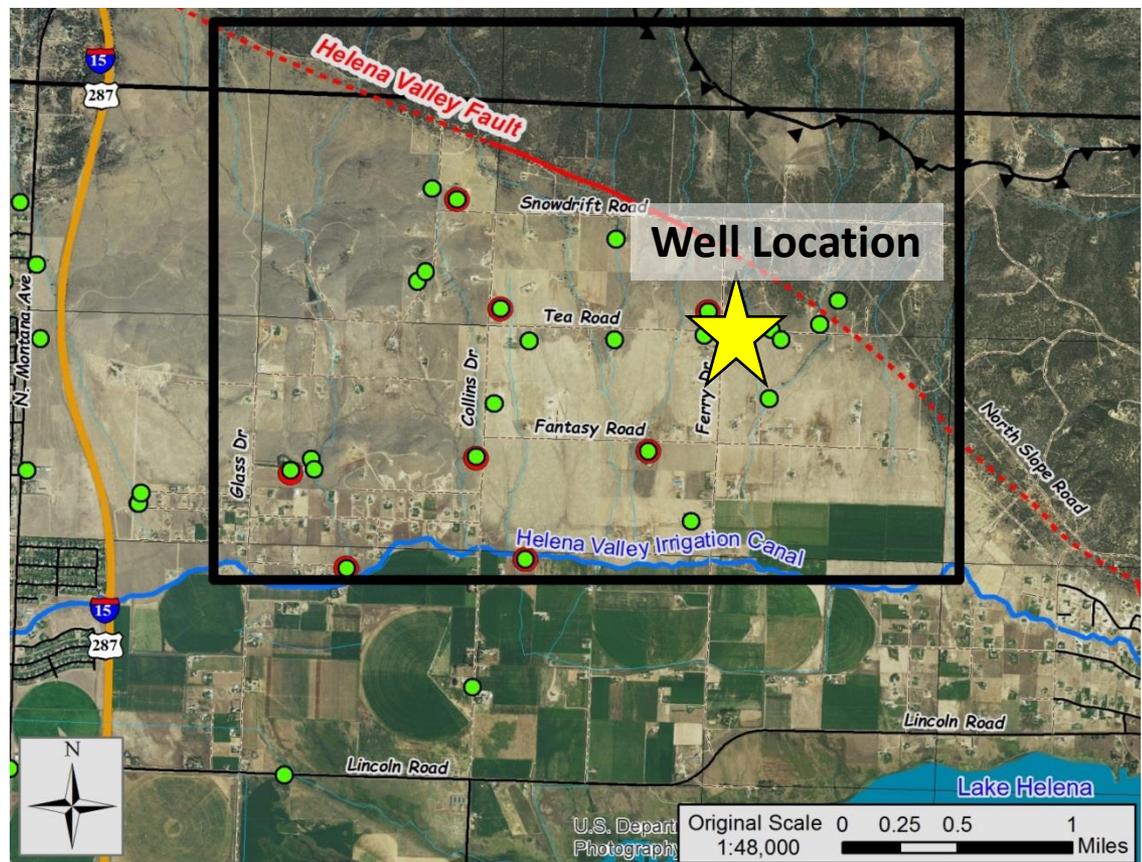
Concepts to East North Hills Area

- Recharge from precipitation.
- Groundwater flows south towards Lake Helena
- HVID Canal – adds water to downgradient area only
- MBMG Model (2012) – rain amount sufficient for water needs
 - Things are a little different than modeled conditions



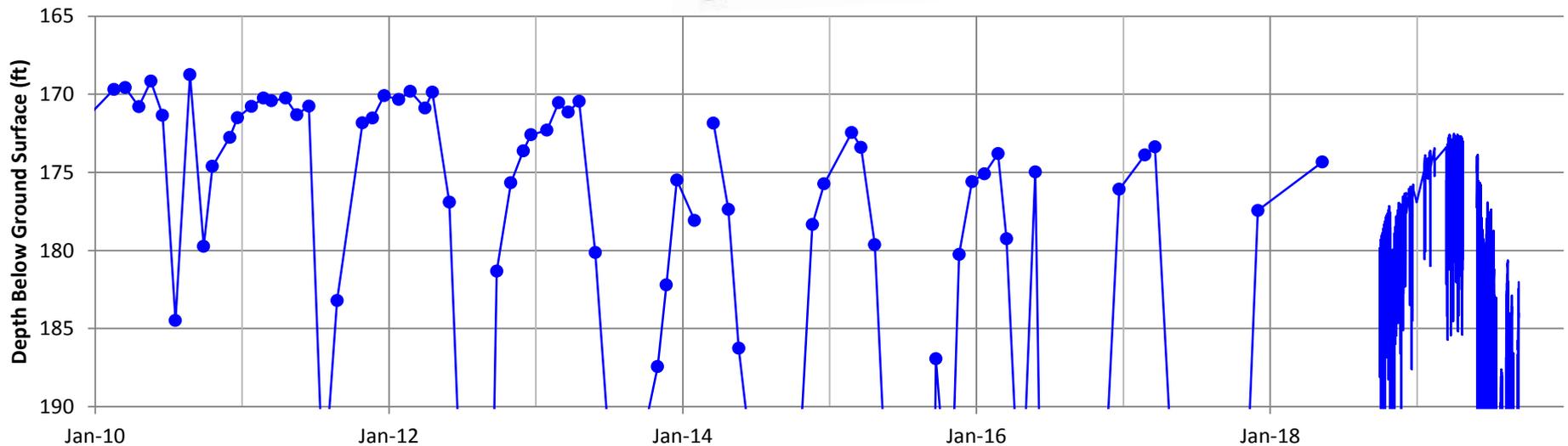
Water Levels

- **Hydrograph**
 - Graph showing changes in water levels over time
- Types (still same graph)
 - Depth to groundwater surface
 - Elevation of groundwater surface



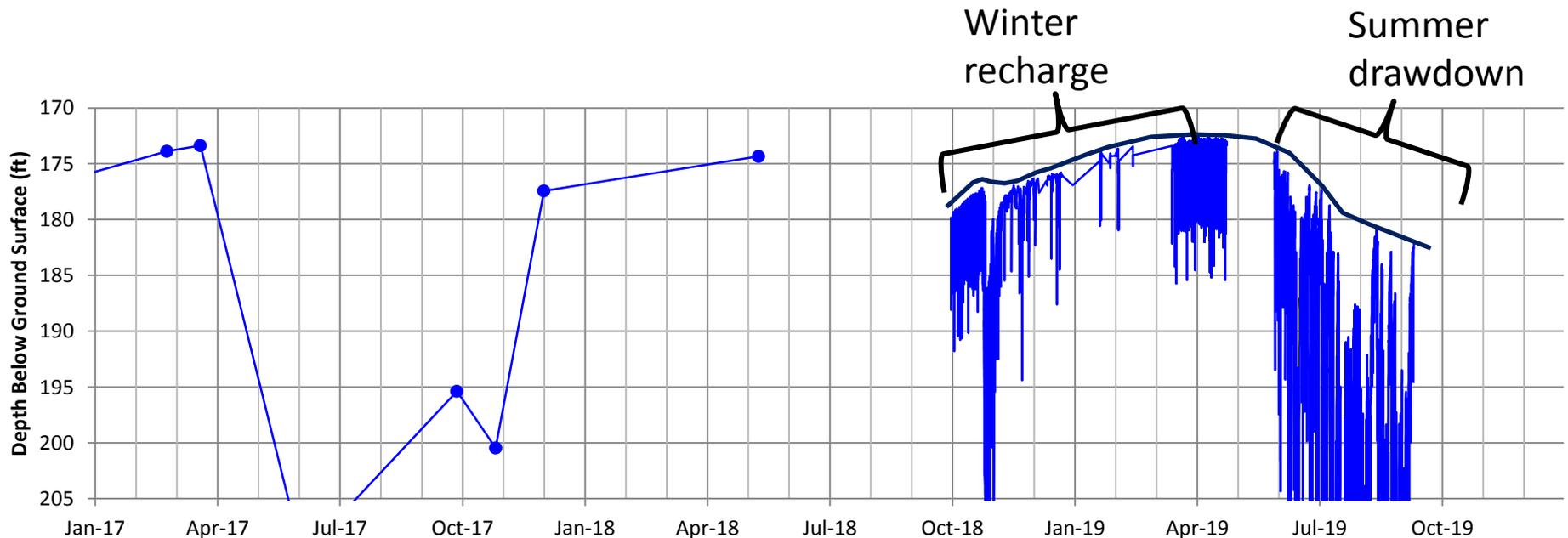
Note on Water Level Measurements

- Term – **Static Water Level** – depth to water
 - No drawdown from pumping
 - Reported on well logs (MBMG-GWIC)
- Term – **Drawdown**
 - How much water levels falls from static during pumping
- Regular measurements by hand
 - Potential for non-static results
 - LCWQPD Program – monthly measurements
- Dataloggers – frequent measurements
 - Sensors (pressure transducers)
 - Sonic sensors at wellhead



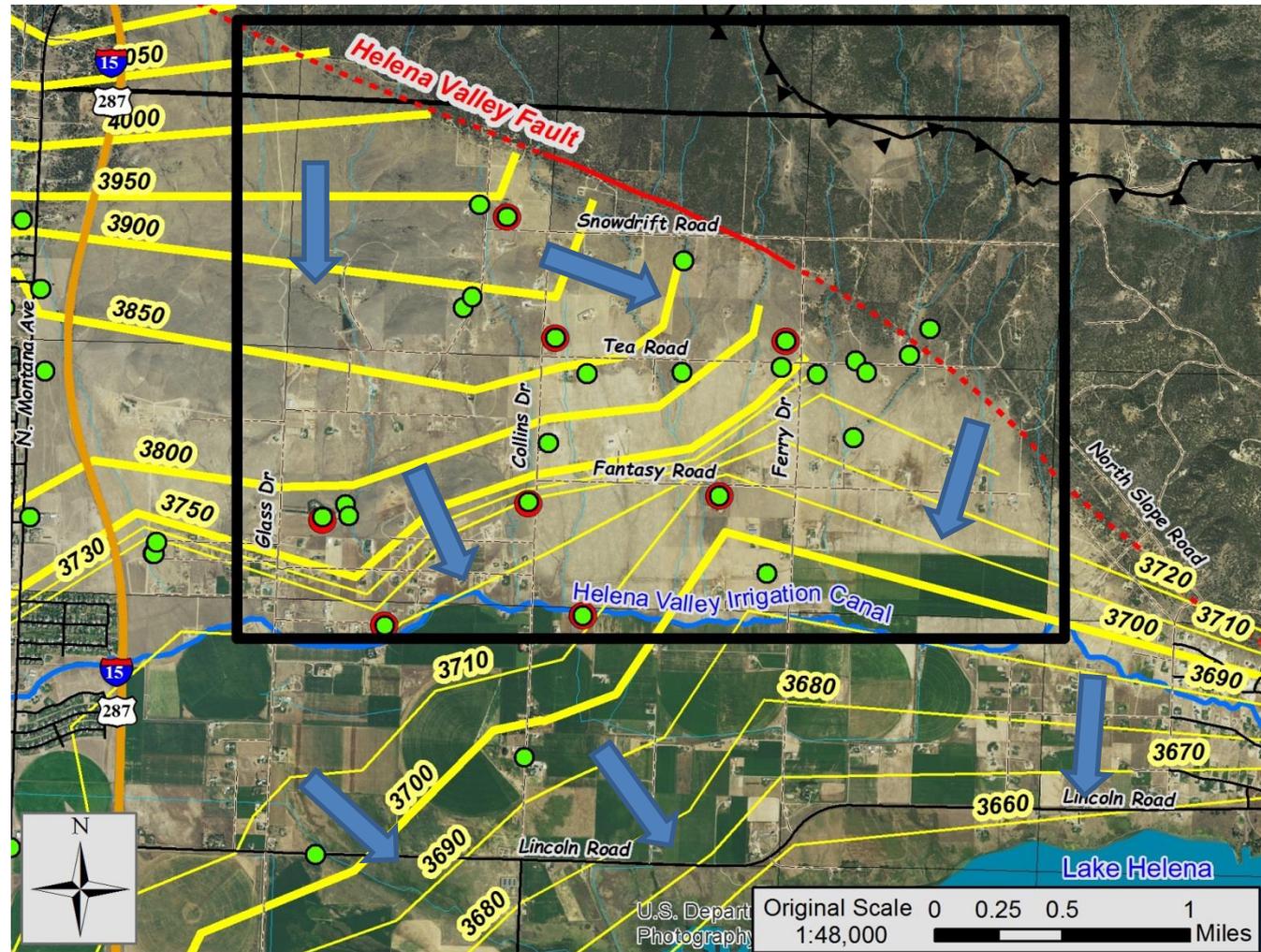
Note on Water Level Measurements

- Information from Datalogger and regular measurements
 - Drawdown from normal pumping
 - Low Yield Aquifers – recovery takes time
 - Extended period of time for return to static levels
 - Connect line at “peaks” to get “static” hydrograph
- East North Hills Study Area
 - “Aquifer” is clay-rich with sand seams providing water
 - Climbing Arrow Formation
 - Limited yield and permeability



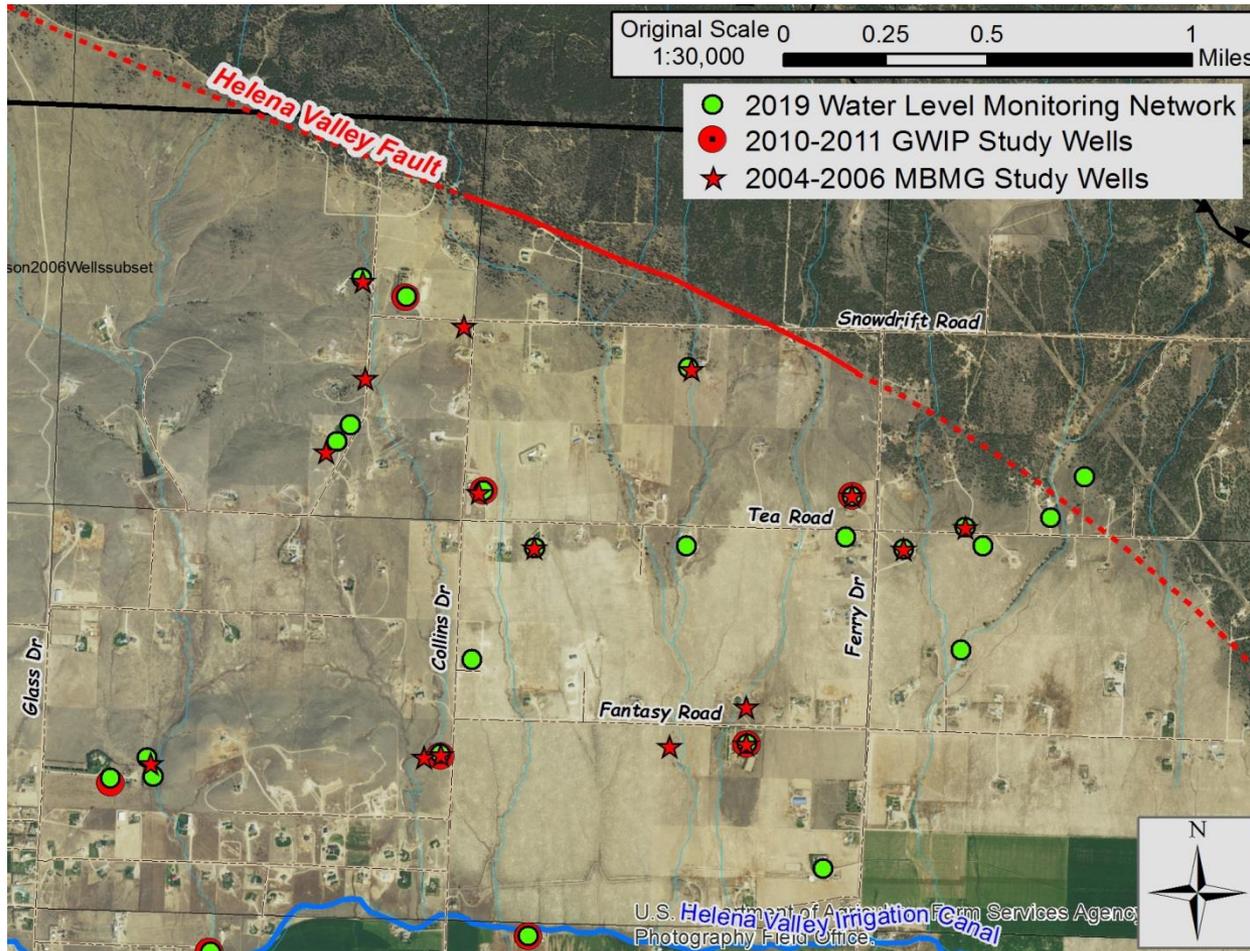
Water Levels and Groundwater Flow

- Elevation of water surface
 - Vs. depth to ground water below surface
- Contours made like topography
 - Interpolate between wells with data
 - But surface may be different than land surface
- Water flows perpendicular (90°) to contours



 Groundwater Flow Direction

2019 Water Level Program

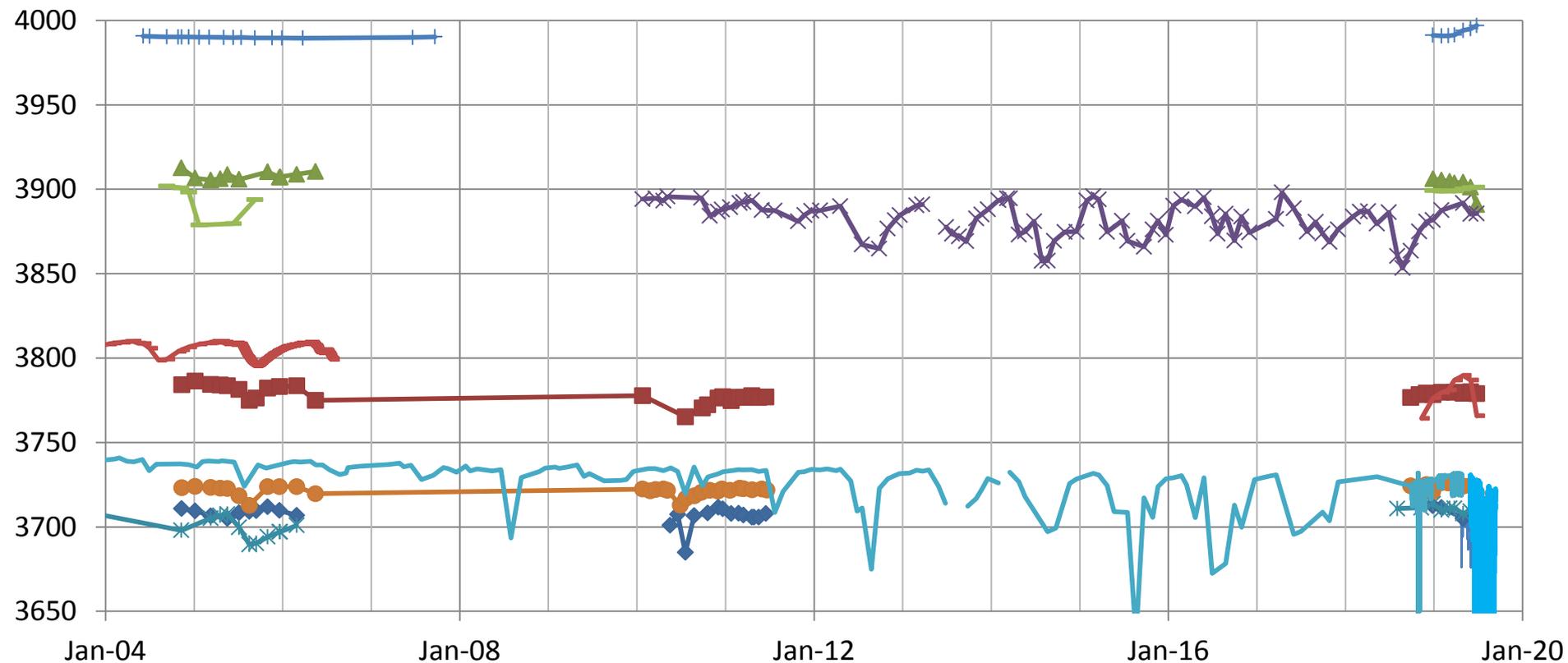
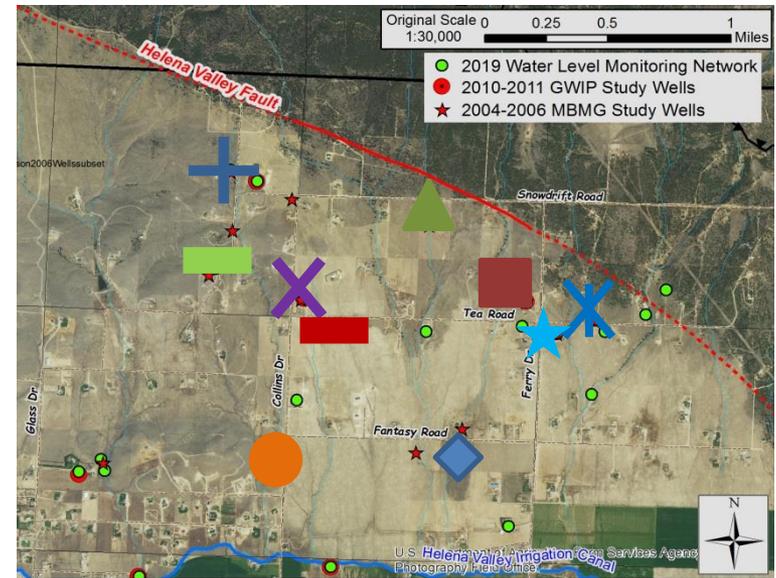


- Identify wells with data from previous projects
 - Collect monthly data to see how water levels have changed over time
 - Monthly to account for seasonal trends
- Dataloggers
 - Transducers placed into two bedrock wells
 - Well-n-tel sonic water level datalogger provide data from one location.

Remember link to precipitation – “wet” years more recharge
“dry” or “drought” years less

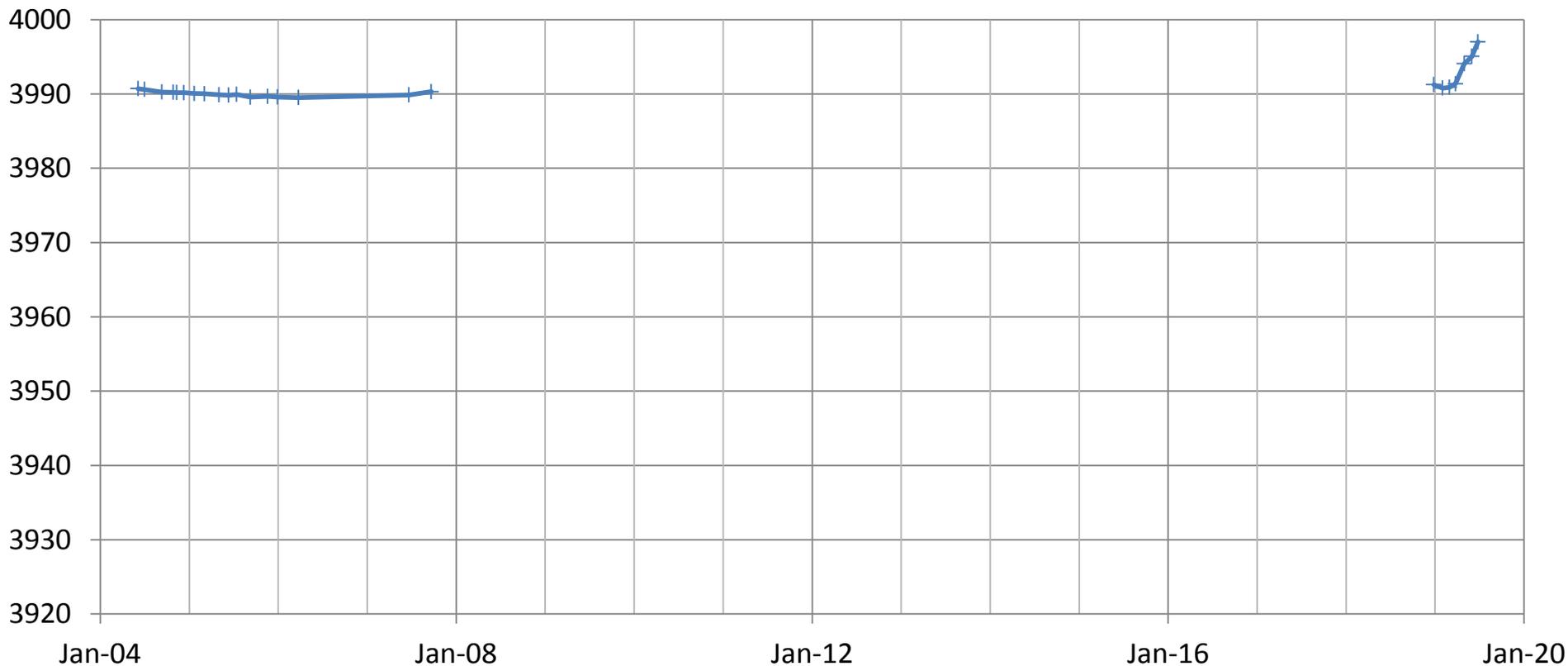
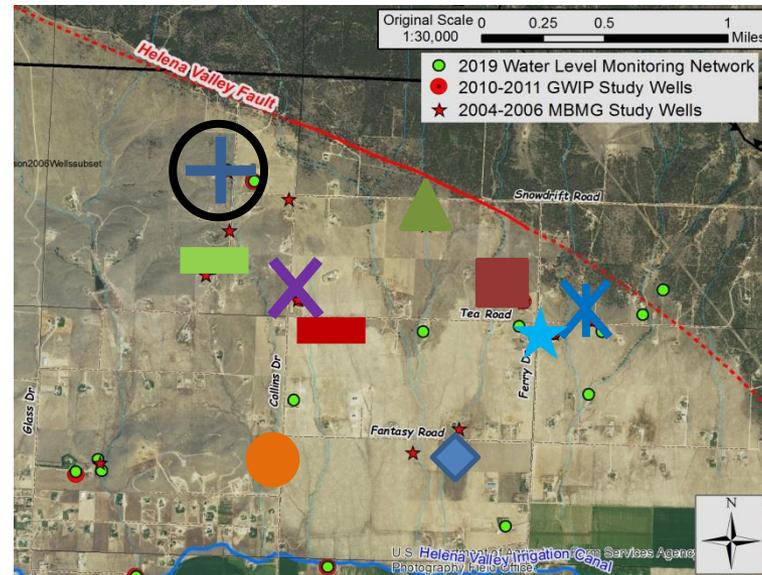
Water Levels and Hydrographs

- 10 location on map with data from 2004-2005
- Elevations from high to low



Water Levels and Hydrographs

- Upgradient Well
 - TD 48',
 - No change – rising WL 



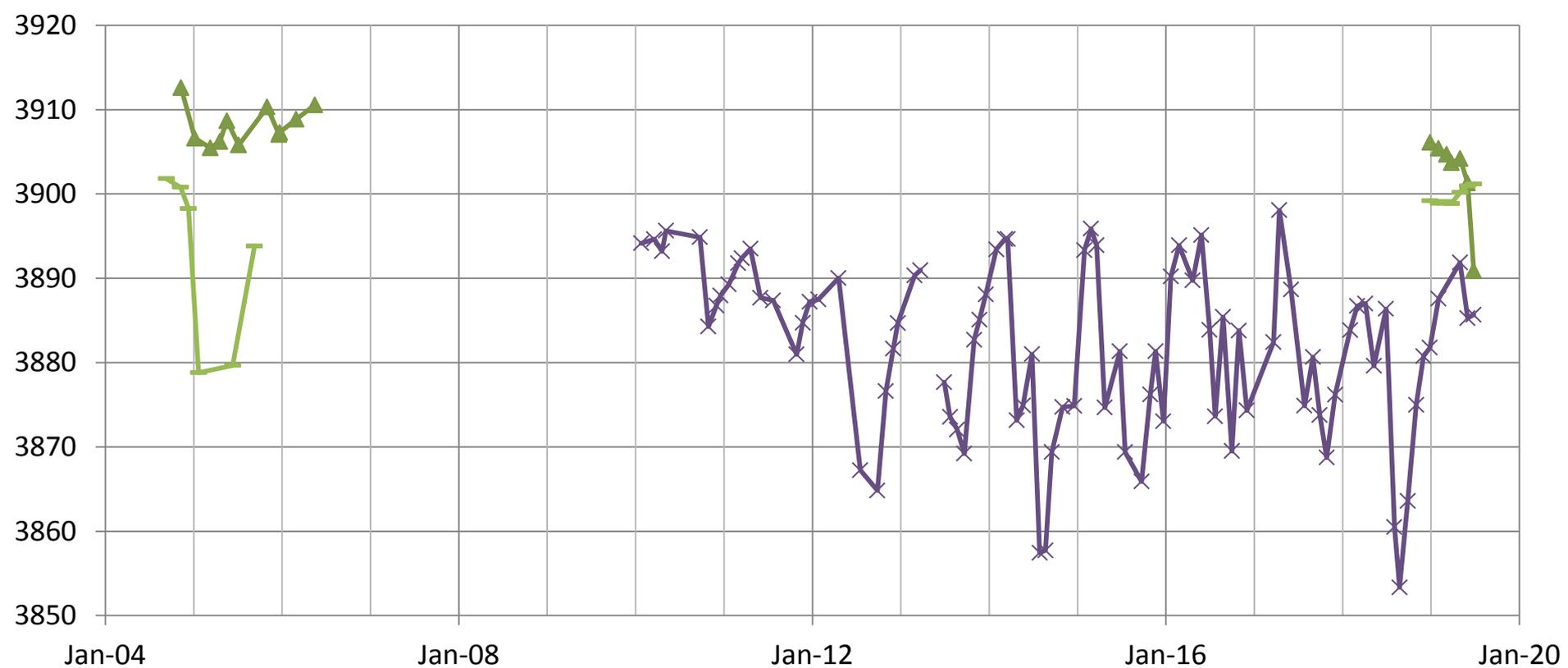
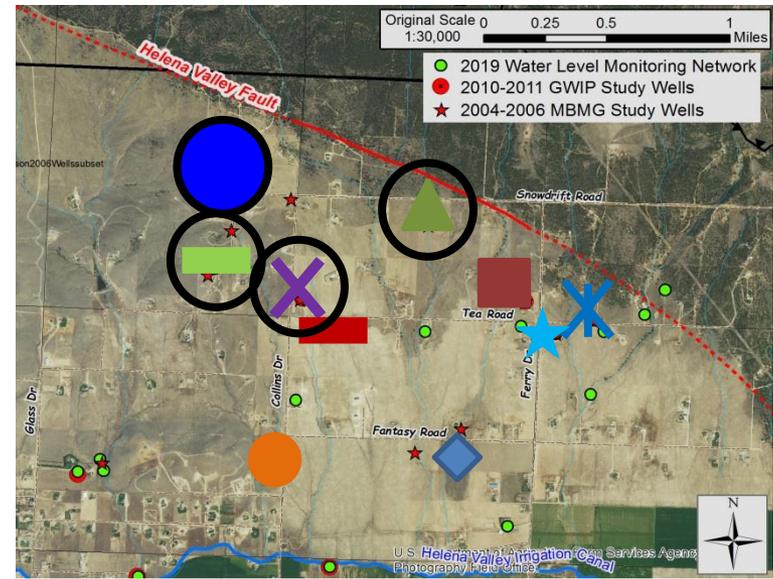
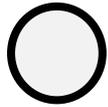
Water Levels and Hydrographs

- 3 Wells

▲ – TD 178', same

✕ – TD 192', same

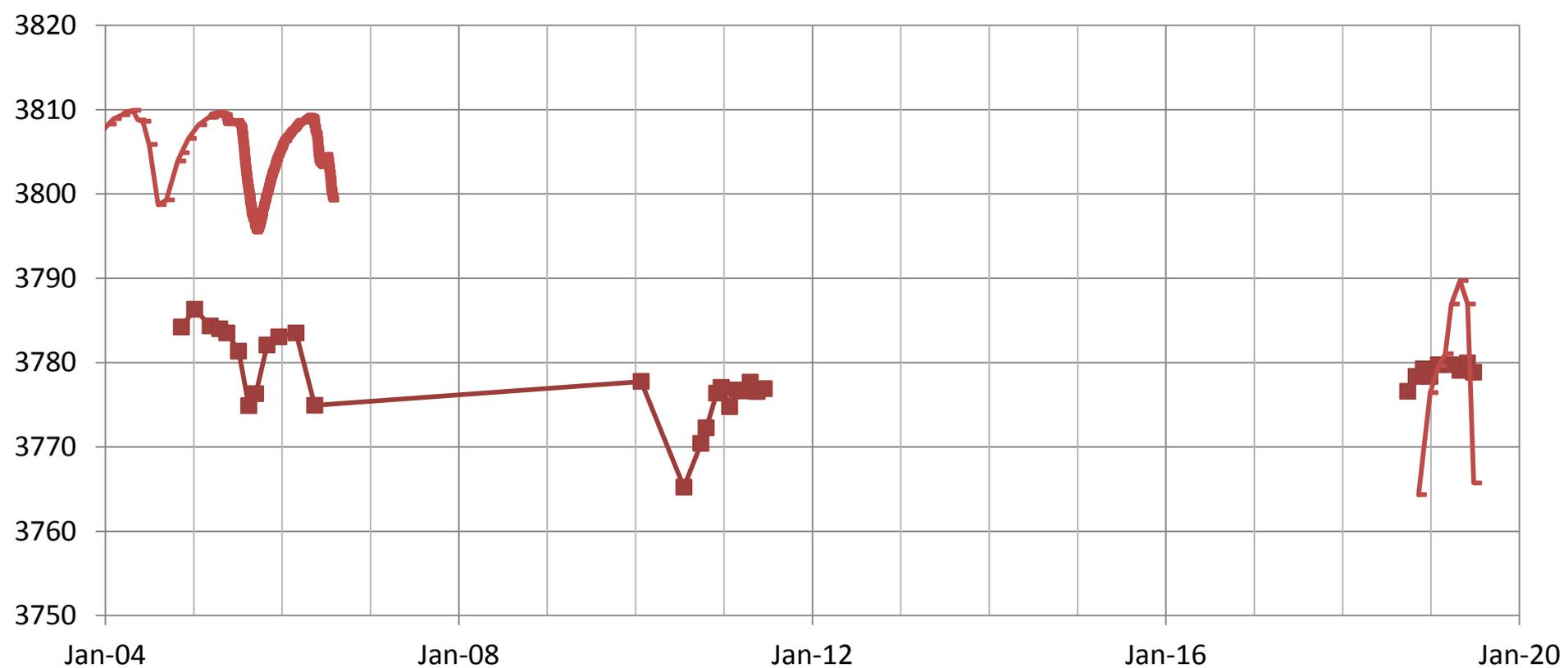
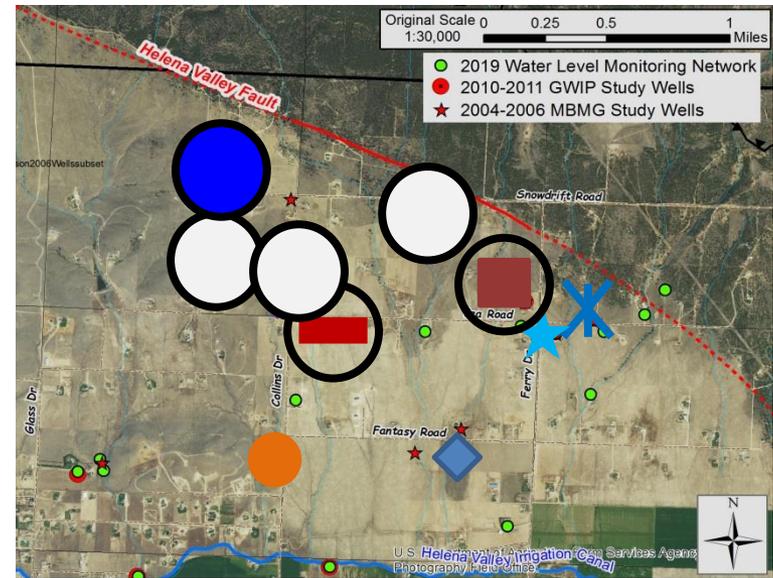
■ – TD 324', same



Water Levels and Hydrographs

- 2 wells

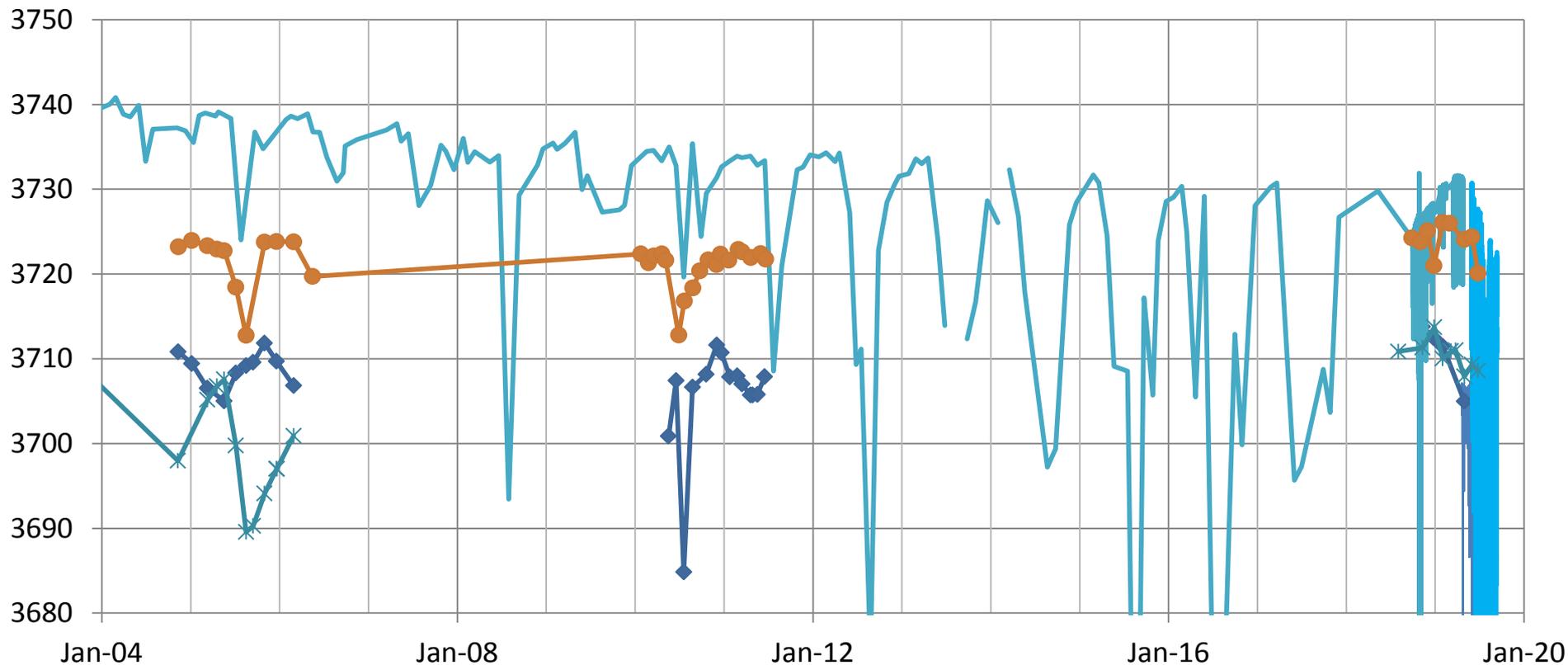
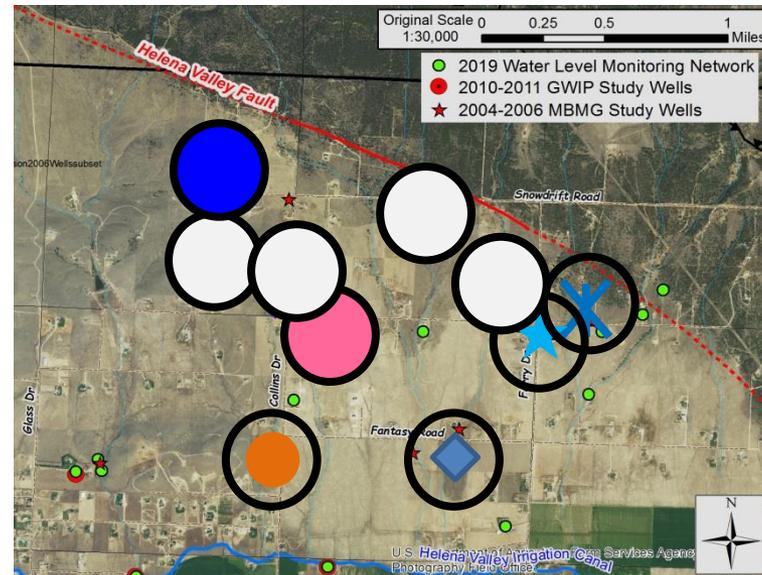
- – TD 420', drawdown 20' 
- – TD 390', same 



Water Levels and Hydrographs

- Downgradient 4 wells

- TD 259', same 
- ◆ TD 420', same 
- ★ TD 350', 10' drawdown 
- ✱ TD 254', same 



Hydrograph Information

- Do we see changes in water levels since 2004?
 - Generally No
 - Slight drawdown in 2 wells
 - 10' over 15 years

What drawdown do we see?

- Change in “Storage”

Concept - **Groundwater Storage**

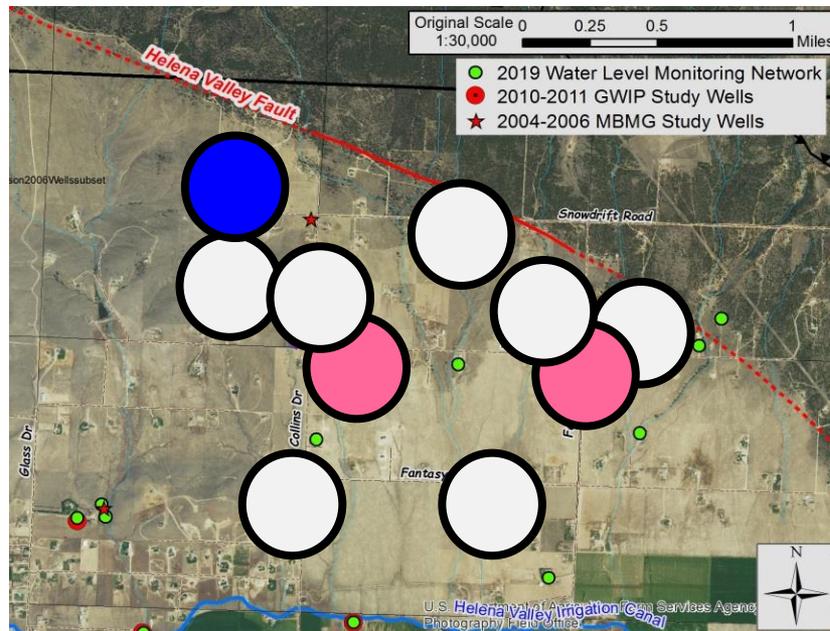
Clay rich aquifer

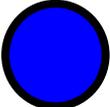
- Holds water in small pores – not available for pumping
- Slowly released over time

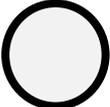
Difference between recharge and discharge

- Some aquifers have excess “storage” built up over time
- Pumping (discharge) exceeds natural recharge

- Aquifer may have “extra” water from prehistoric times
 - Recharge exceeds discharge



 Slight increase in Water Level

 “Stable” Water Levels

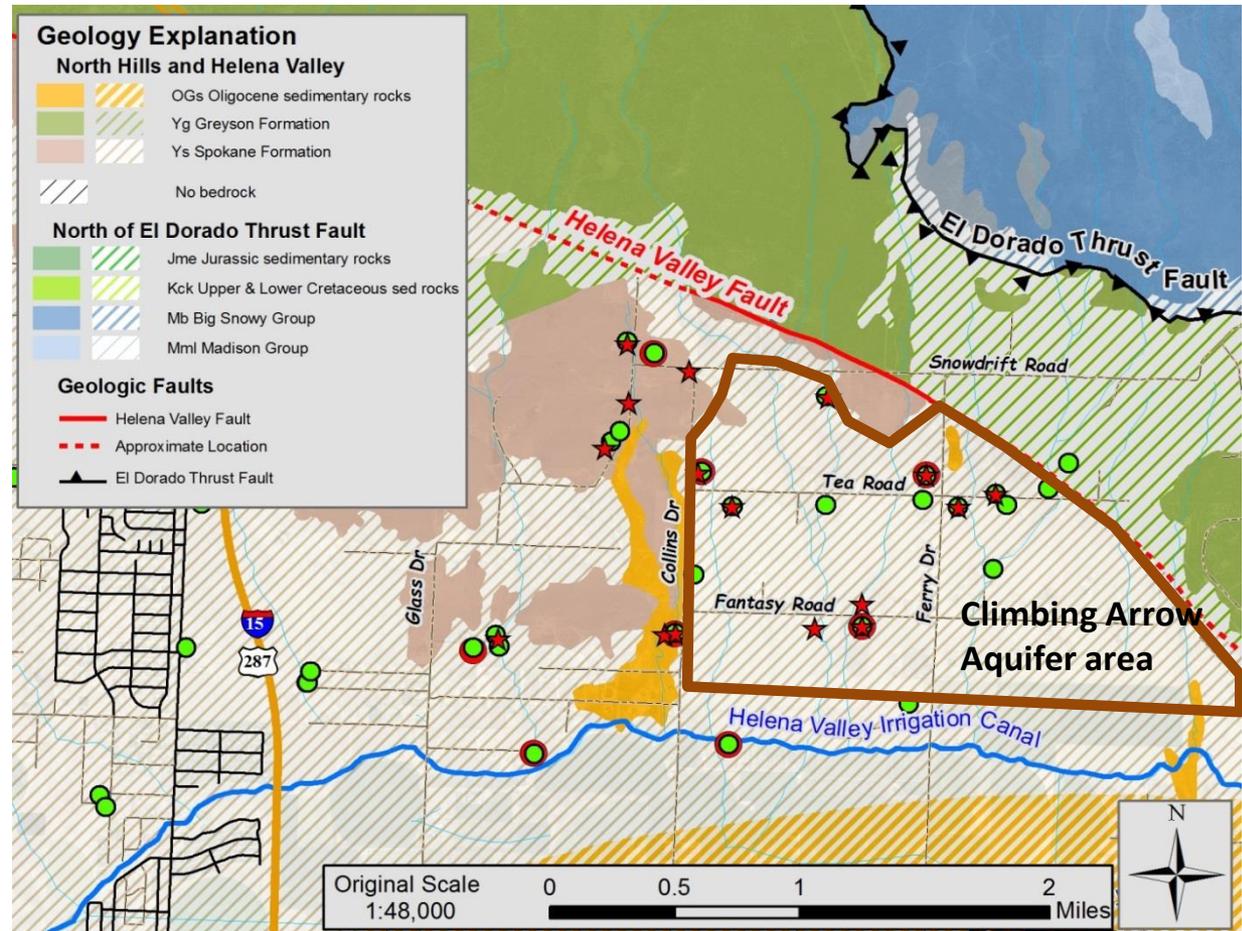
 Slight decrease in Water Level

Aquifers in Study Areas

- Geology (rock type) determines aquifer properties
 - Clay-rich aquifer system – most of East North Hills
 - Climbing Arrow Formation (MBMG, 2017)
 - Sand/gravels seams in mostly clay/silt aquifer
 - Low yields
 - Confined conditions
 - “Bedrock” wells – variable yields but generally good.
 - At surface in west side of study area
 - Water Table, unconfined aquifer
 - Beneath clay-rich system in central part of area
 - Confined conditions
 - Sand & Gravel wells – south side of study area
 - “Shallow” wells, water table (unconfined) system

Aquifer Delineation and Geology

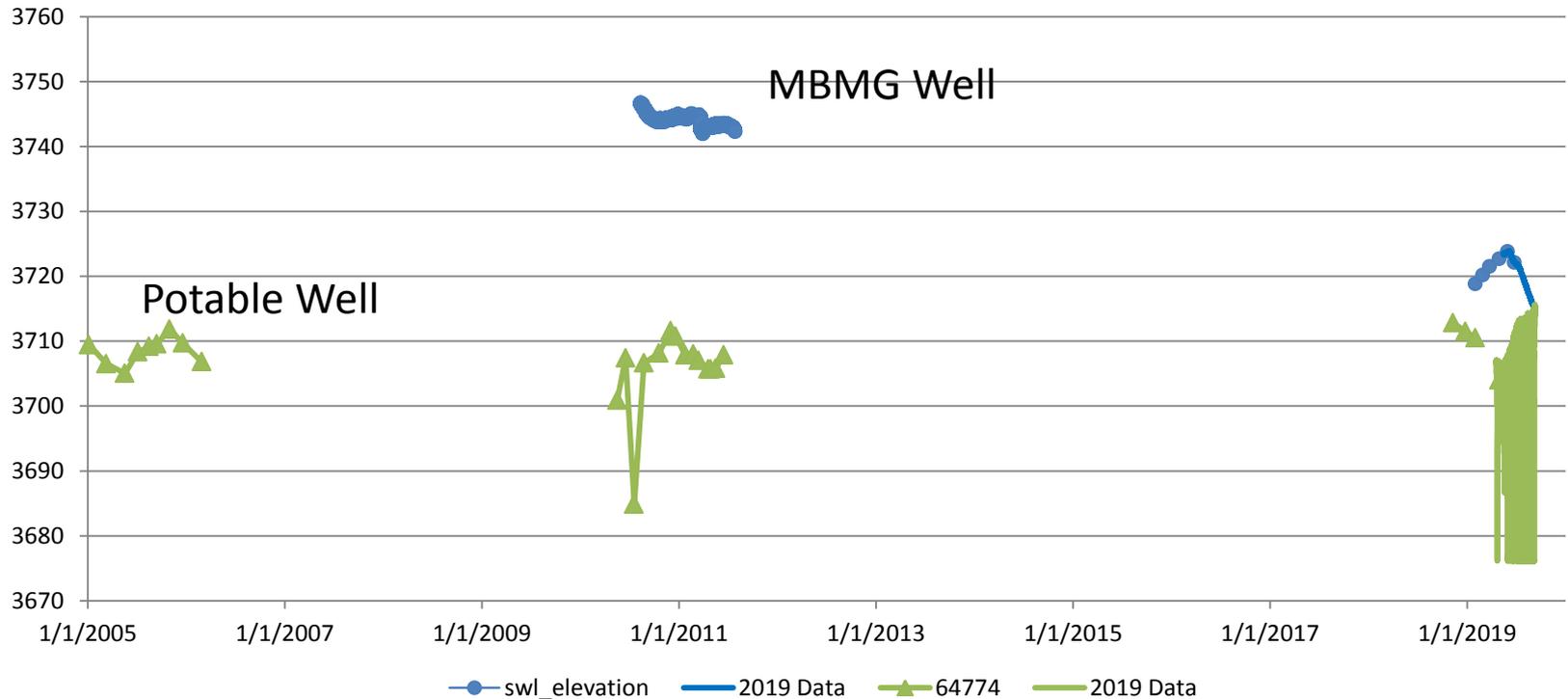
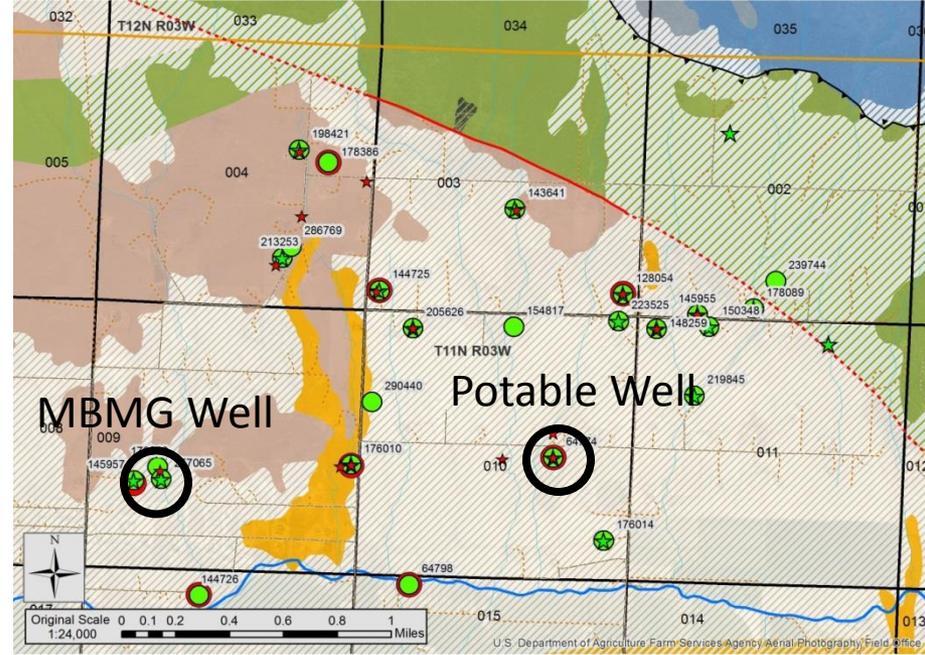
- Geology determines aquifer properties
 - Yield
- Ogs – Tertiary
 - Climbing Arrow Fm
 - Clay rich
 - Sand seams
 - Low yields
 - BEDROCK present beneath Climbing Arrow Fm
- Bedrock
 - Fracture flow
 - Variable Yields



(will come back to Geology later in presentation)

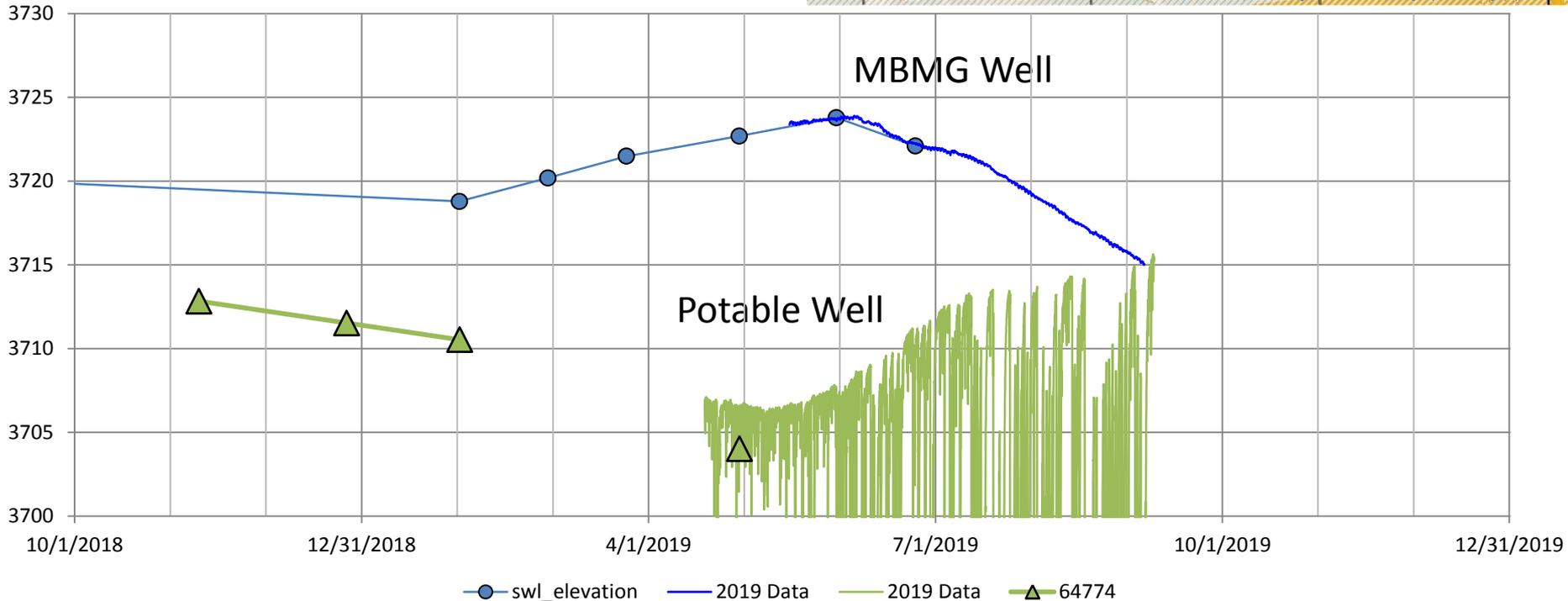
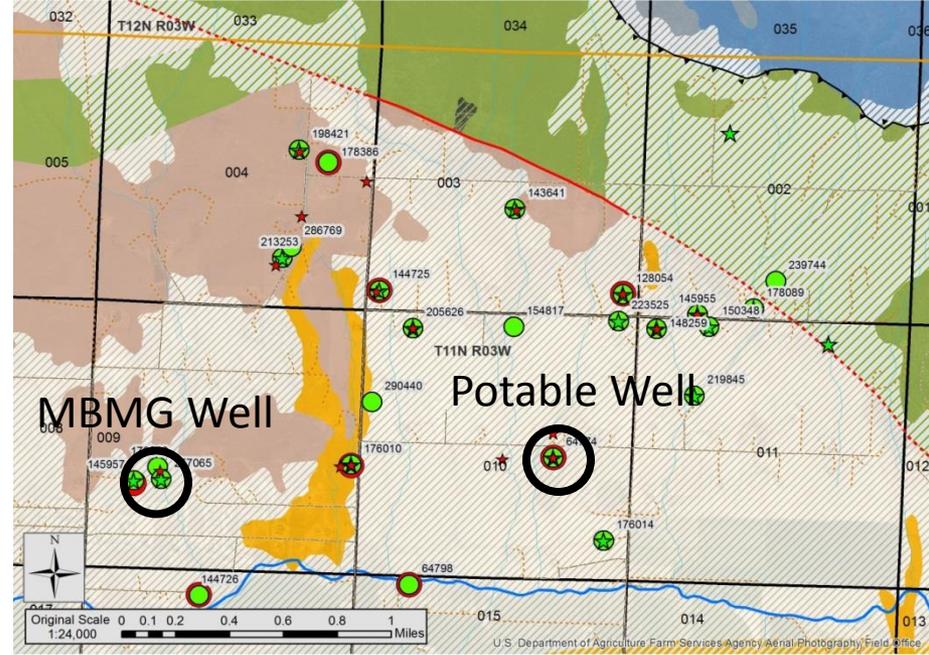
Bedrock Wells

- MBMG Pumping Well
 - Bedrock at surface, TD 360'
 - WL falls, STORAGE
- Potable well into bedrock
 - TD 420', Clay/shale to 380'
 - Argillite (bedrock) at 380'-420'



Bedrock Wells - 2019

- Two different recharge sources
 - West well – surface bedrock/recharge
 - East well – 300' of clay over bedrock
- ***Different Aquifers***



Summary of Hydrograph Conclusions

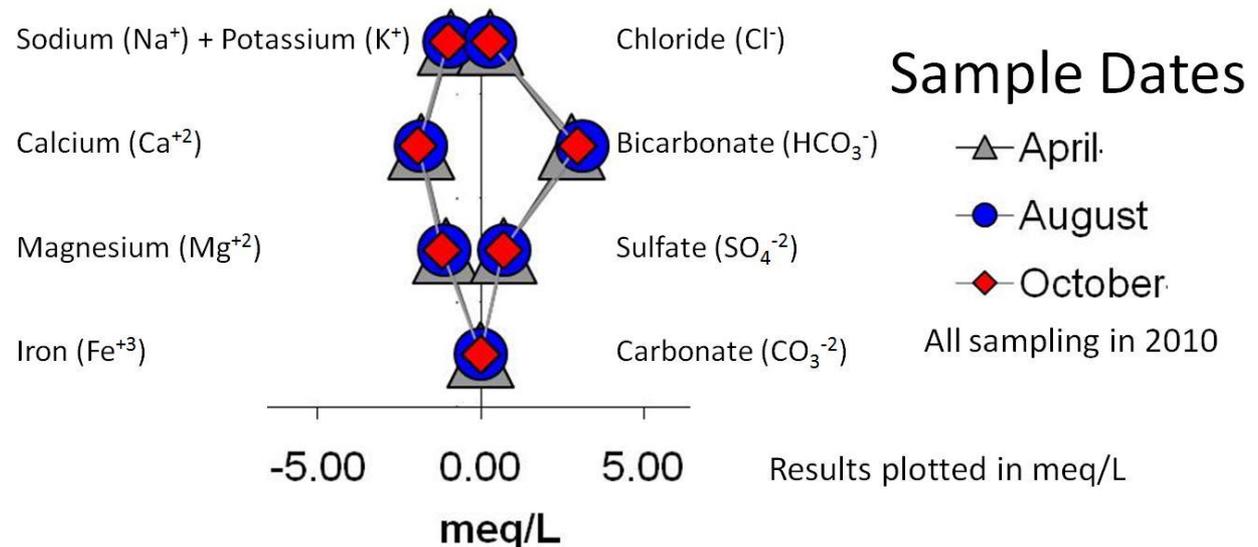
- Water Levels are generally stable
 - Limited drawdown in 2 wells attributed to storage
- Bedrock aquifer
 - Different when exposed at surface
 - “Water Table”, Unconfined
 - Beneath clay-rich sequence
 - Confined

Water Quality (Major Ions)

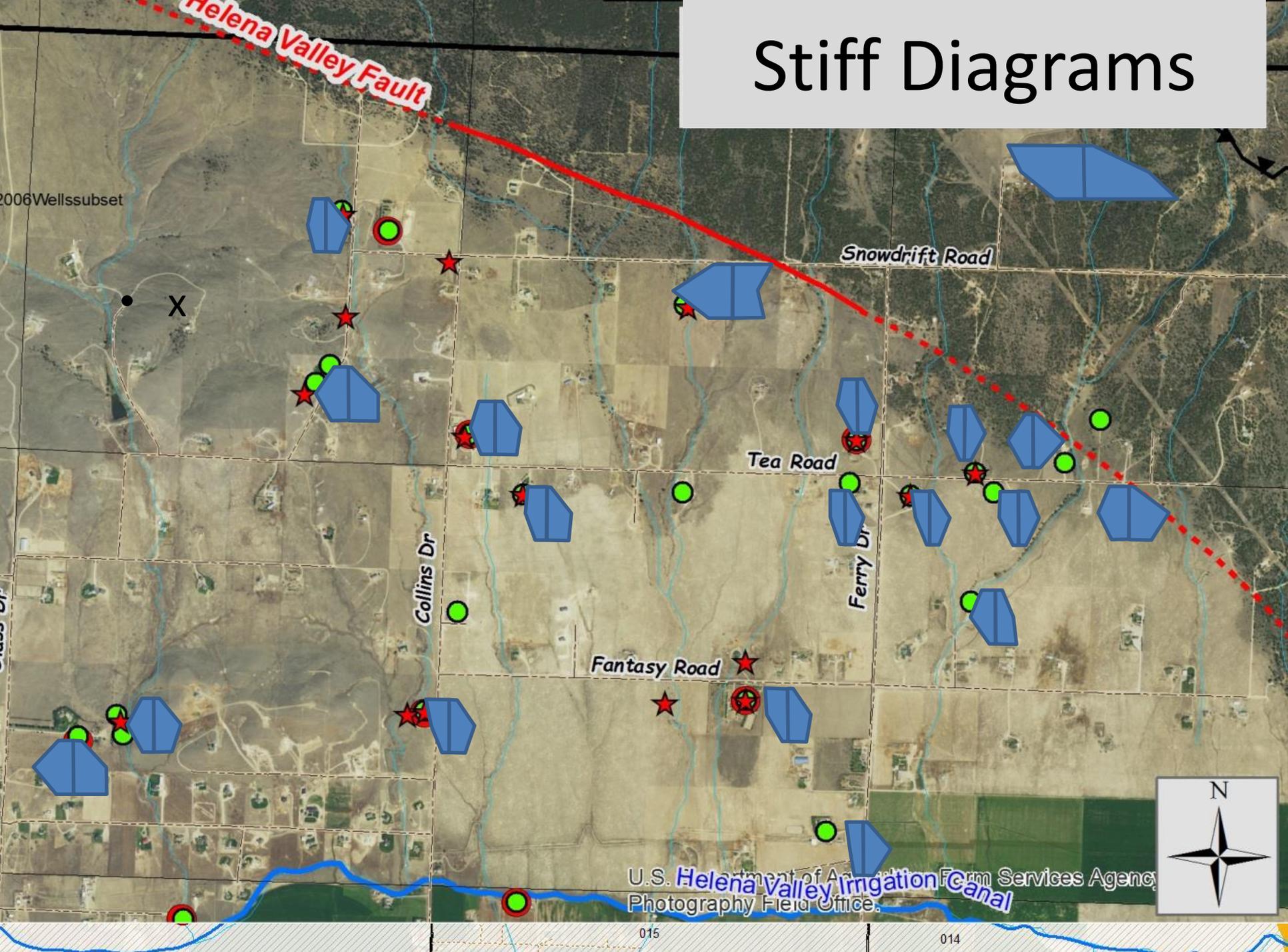
- Major ions to characterize water “type”
 - Example, “hard” water, “soft” water, etc
 - Process/Method applied to >500 sites in area
- Major ions comprise 99% of dissolved solids
 - Reflect geology/minerals of aquifer
 - Water quality type can change with time in subsurface
 - With geology, can link to trace elements (e.g. arsenic, uranium)

Stiff Diagram

Size of polygon reflect
Total Dissolved Solids
(TDS)



Stiff Diagrams



2006 Well subset

X

Helena Valley Fault

Snowdrift Road

Tea Road

Collins Dr

Ferry Dr

Fantasy Road

U.S. Department of Agriculture Farm Services Agency
Photography Field Office



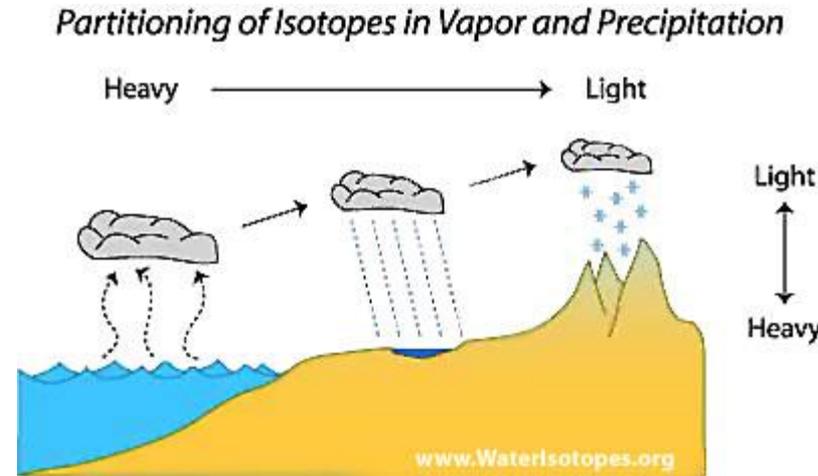
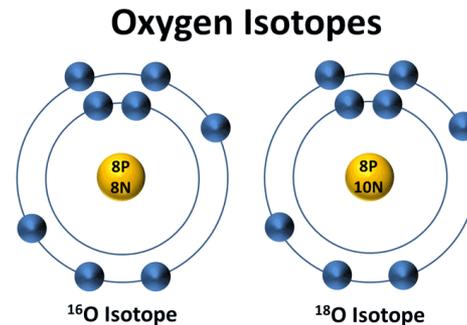
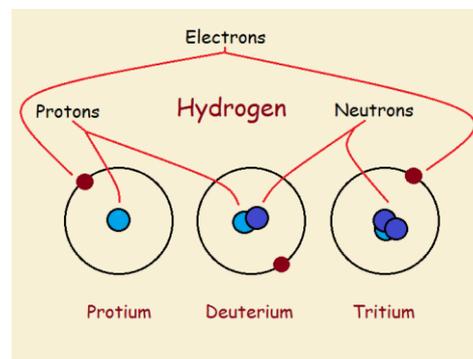
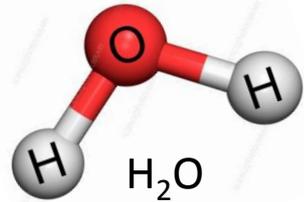
015

014

Chemistry Conclusions

- See Differences across study area
 - Some areas with same chemistry
- Bedrock wells – different aquifers
 - Different chemistry
- North of Helena Valley Fault – High TDS
 - Different Aquifer Properties

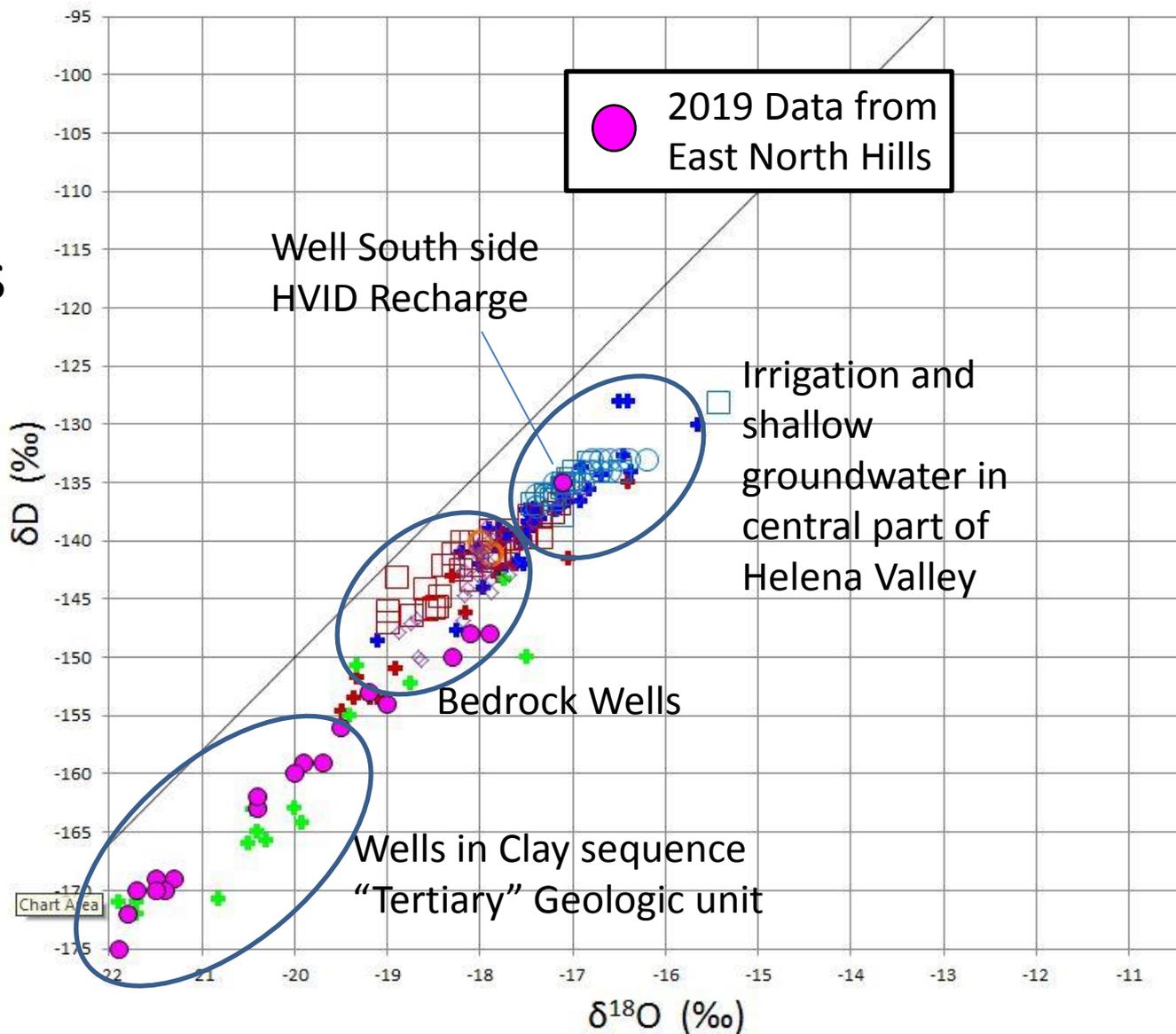
Water Isotopes



- Oxygen and Hydrogen in water molecules
- “Conservative” **tracer** since it doesn’t change with water quality
 - But can have “mixed” values, from mixed recharge sources
- Allows **tracing** from recharge (precipitation, stream or irrigation waters)
 - to discharge (well or spring)

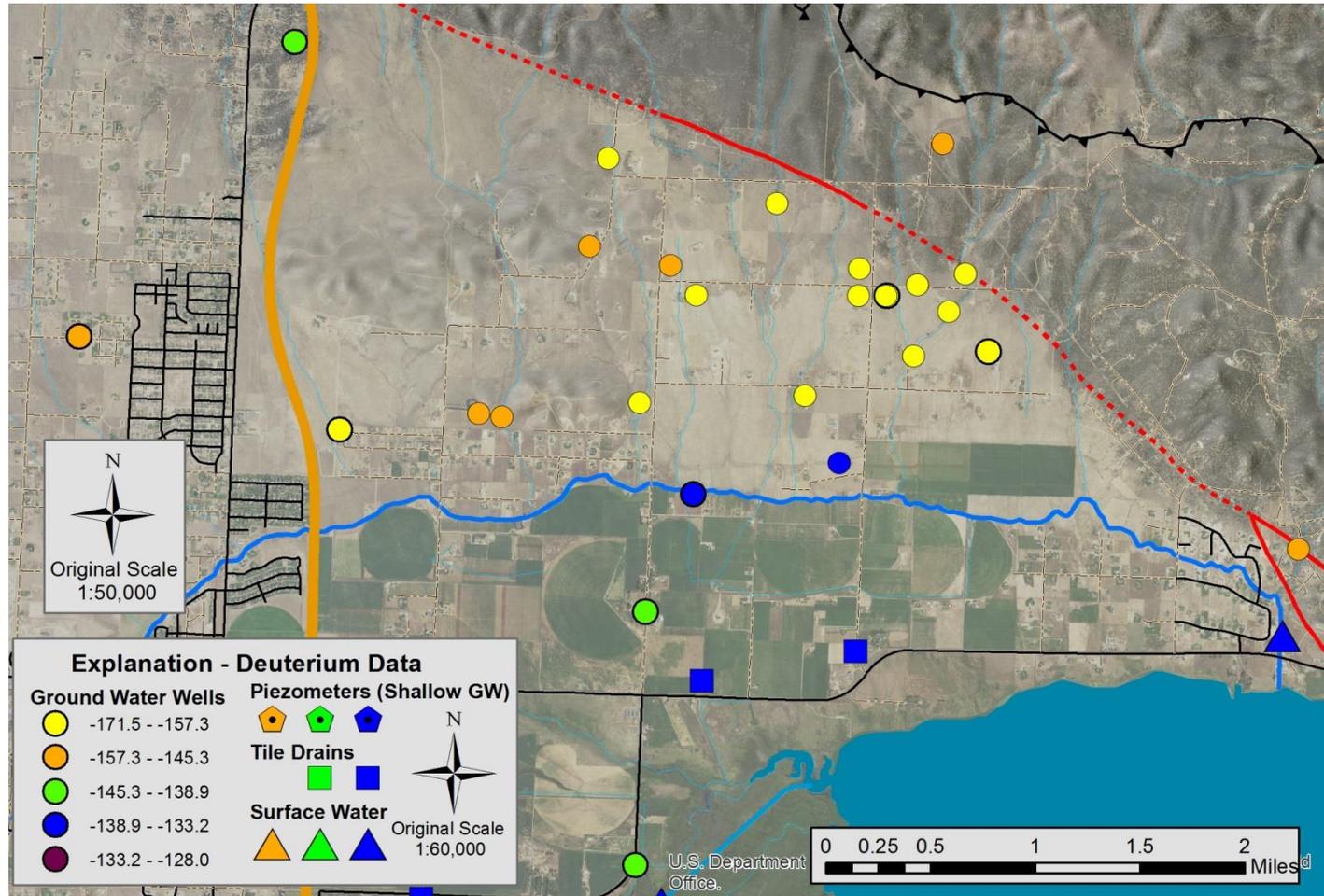
Graph of Groundwater Isotope Data

- Irrigation Waters
- Stream Waters
- Groundwater
 - Bedrock
 - HVA
 - “Tertiary” areas

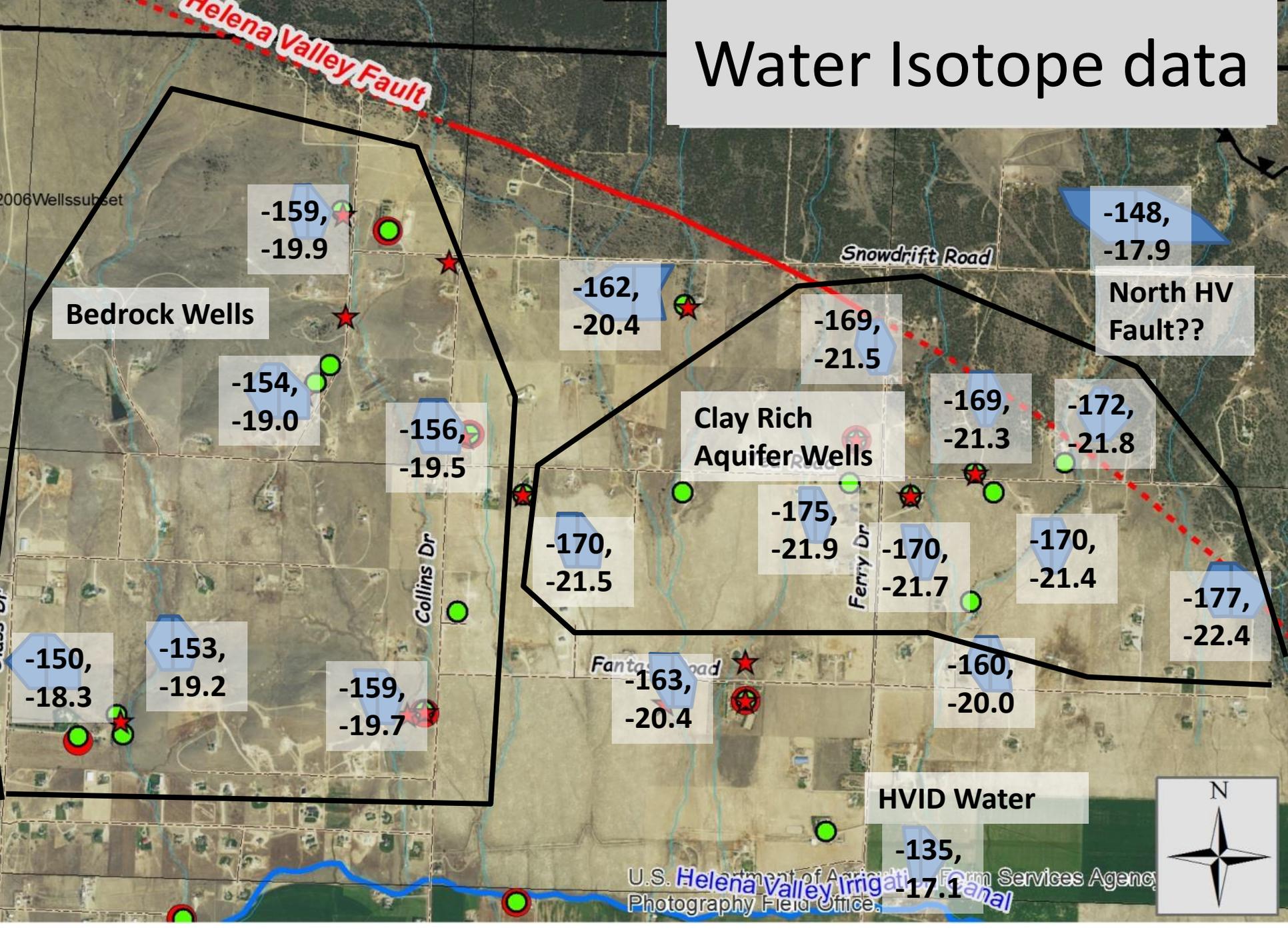


Water Isotopes

- Takeaway
- Different Recharge Sources
 - Different from valley
- See HVID Recharge



Water Isotope data



Water Isotope Conclusions

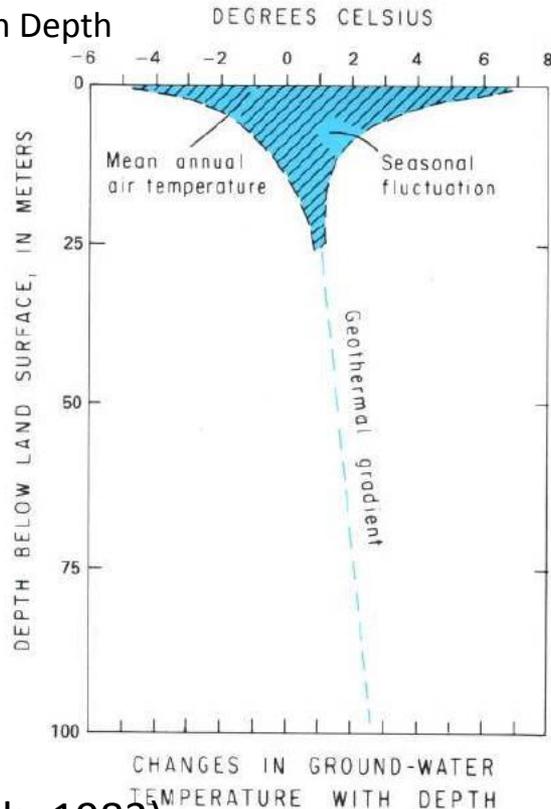
- Areas with different water isotopes
 - Different recharge sources
- Clay Rich Aquifer area
 - “lightest” results
- Bedrock area
 - “heavier” results
- Irrigation Canal Recharge to south side
- Area north of Helena Valley Fault different

Ground Water Temperature

- Another “**Tracer**” for groundwater– snowmelt recharge cold
- Average water temperature 1-2°C above mean annual temperature (8°C)
- Ground water temperature increases with depth at **Geothermal Gradient**
 - 1.8°C/100m (0.0055°C/ft) in “normal” areas (higher in volcanic locations)

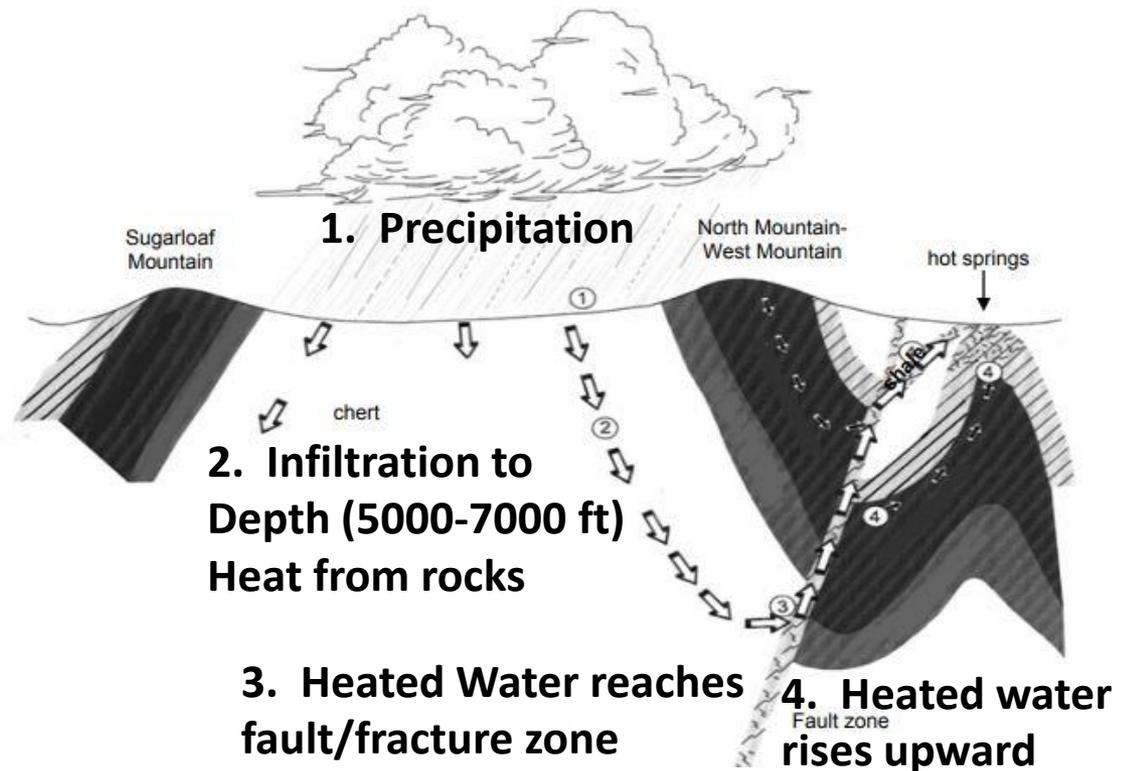
Geothermal Gradient

Ground Temperature Increases
with Depth



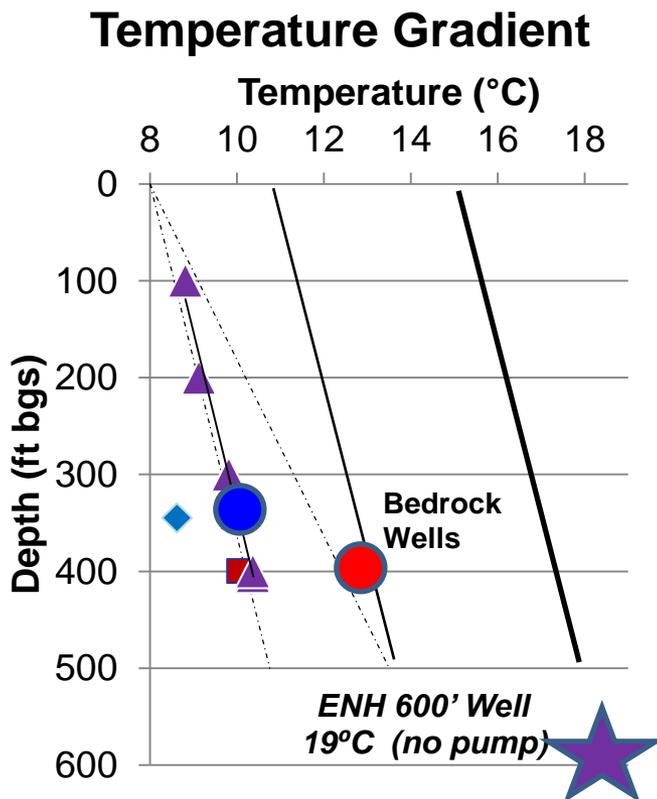
(Heath, 1983)

Hot Springs Formation e.g. Broadwater Hot Springs

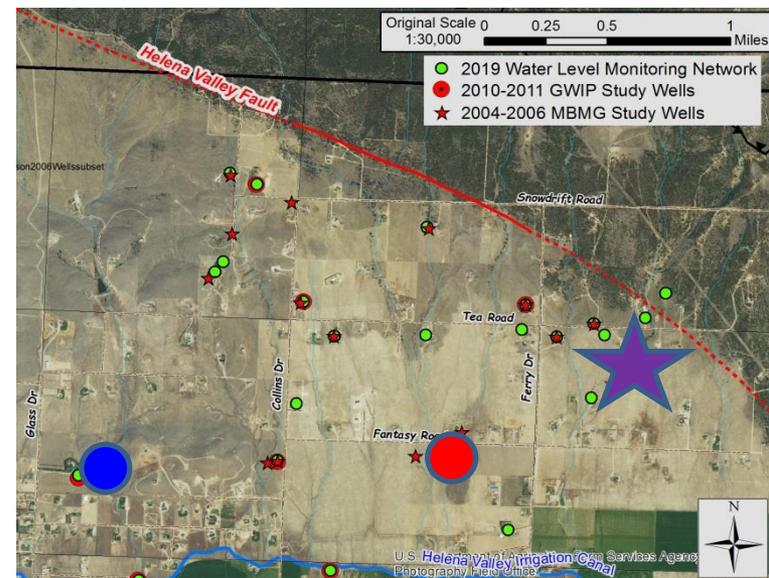


Study Area Ground Water Temperature

- Wells from North Hills, Scratchgravel Hills
 - Show “normal” geothermal gradient
 - Groundwater Temperature 8C at surface



Well Location



Warm water means recharge from depth, like hot springs

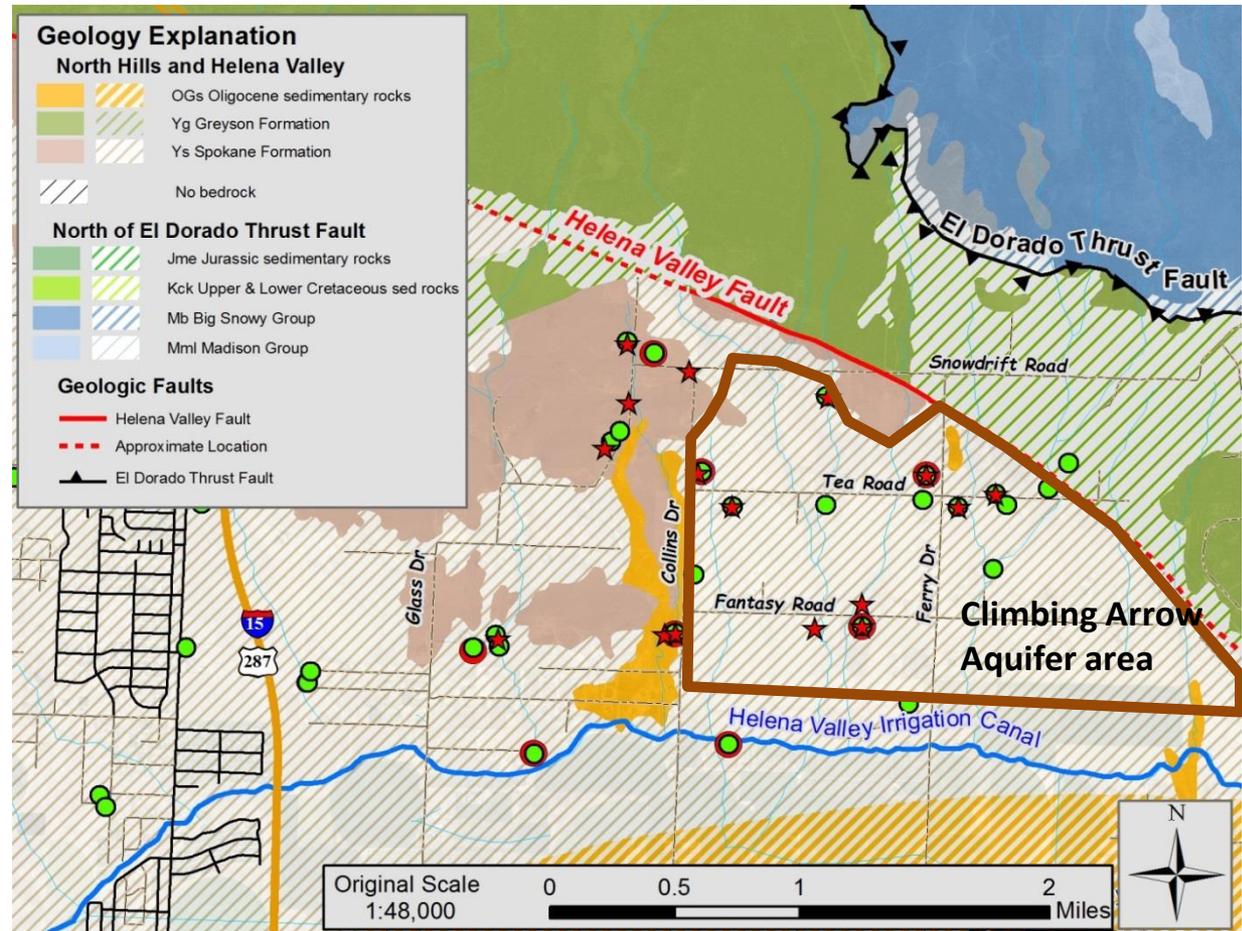
“Bedrock” Wells – Local Recharge;
Mixed Recharge gives cooler temps

Groundwater Temperature Conclusions

- Warm/heated water shows upwelling of groundwater
 - Recharge from below, not above
 - East side of Study Area
 - Bedrock waters beneath Climbing Arrow unit
- “Cool”/normal temperature water in bedrock
 - Local recharge from precipitation
- Separate Factors influence water in different areas
- Anecdotally hear of warm/hot waters near and north of **Helena Valley Fault**
 - Local groundwater system separate

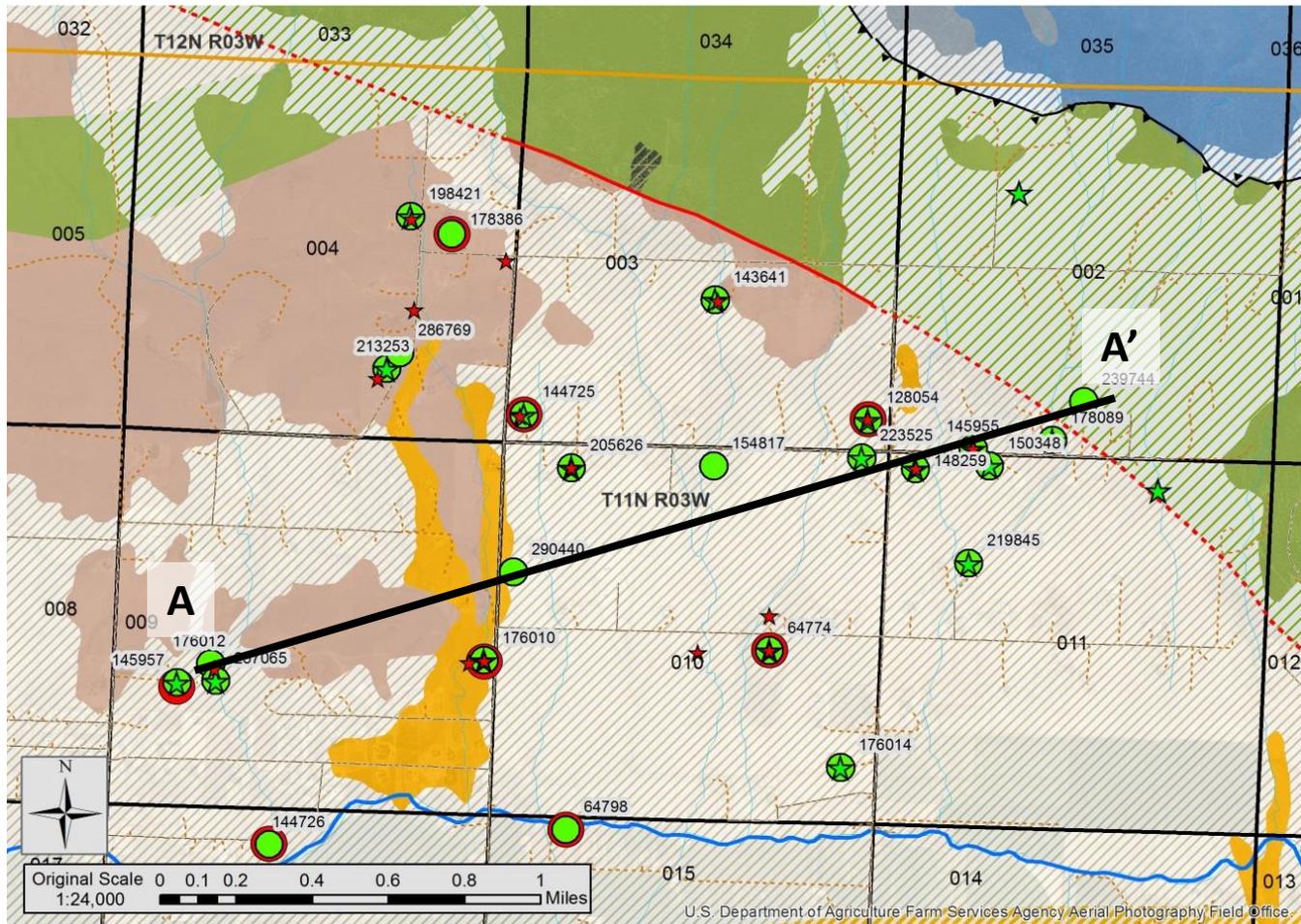
Aquifer Delineation and Geology

- Geology determines aquifer properties
 - Yield
- Ogs – Tertiary
 - Climbing Arrow Fm
 - Clay rich
 - Sand seams
 - Low yields
 - BEDROCK present beneath Climbing Arrow Fm
- Bedrock
 - Fracture flow
 - Variable Yields

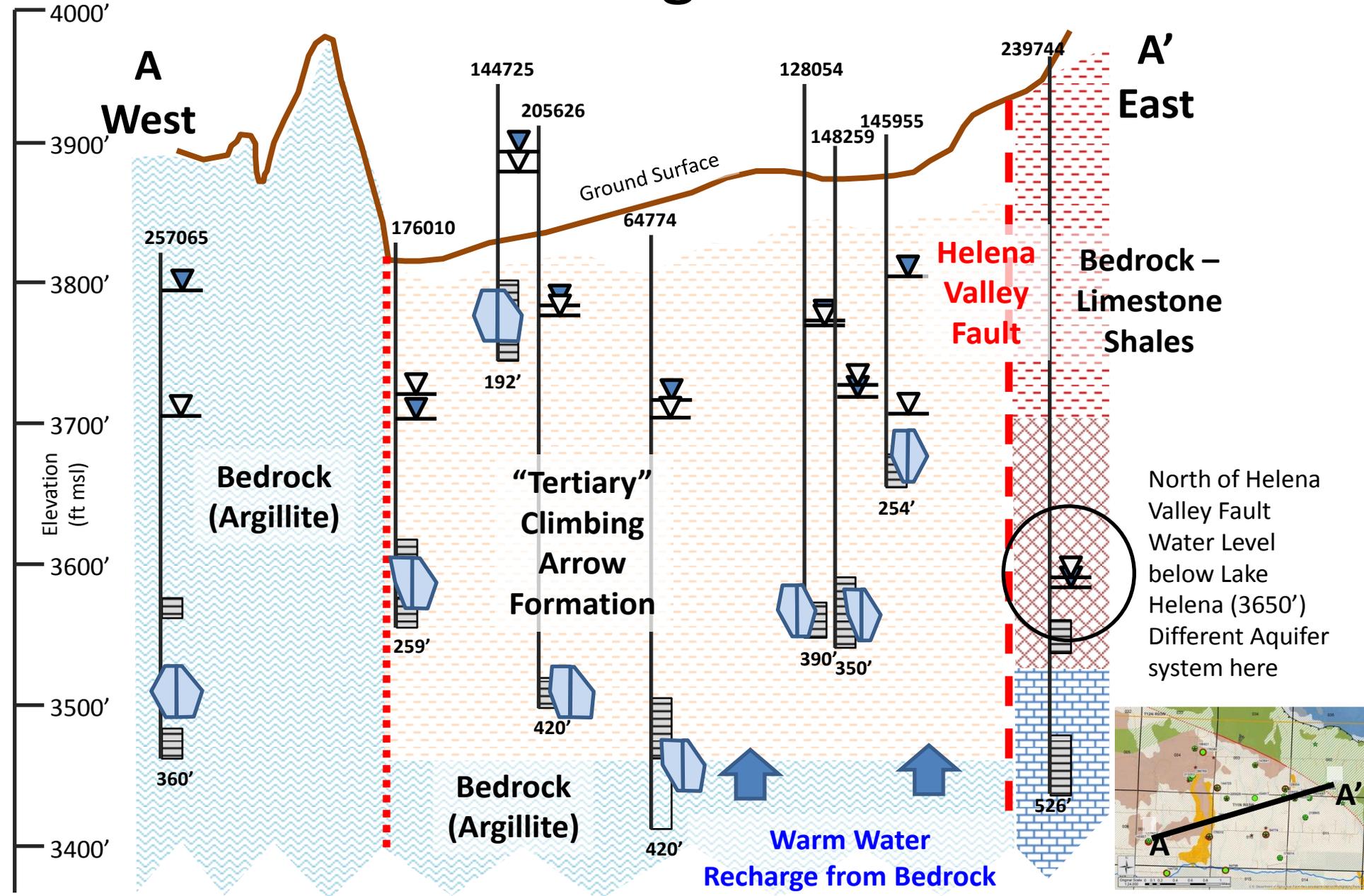


(Same map we saw before)

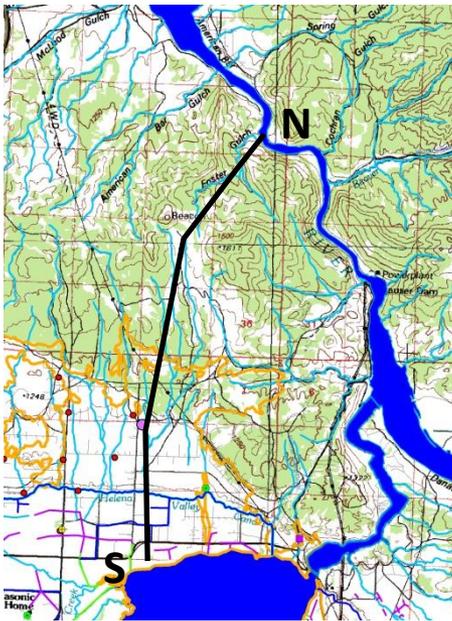
Geologic Cross Section A-A' West – East



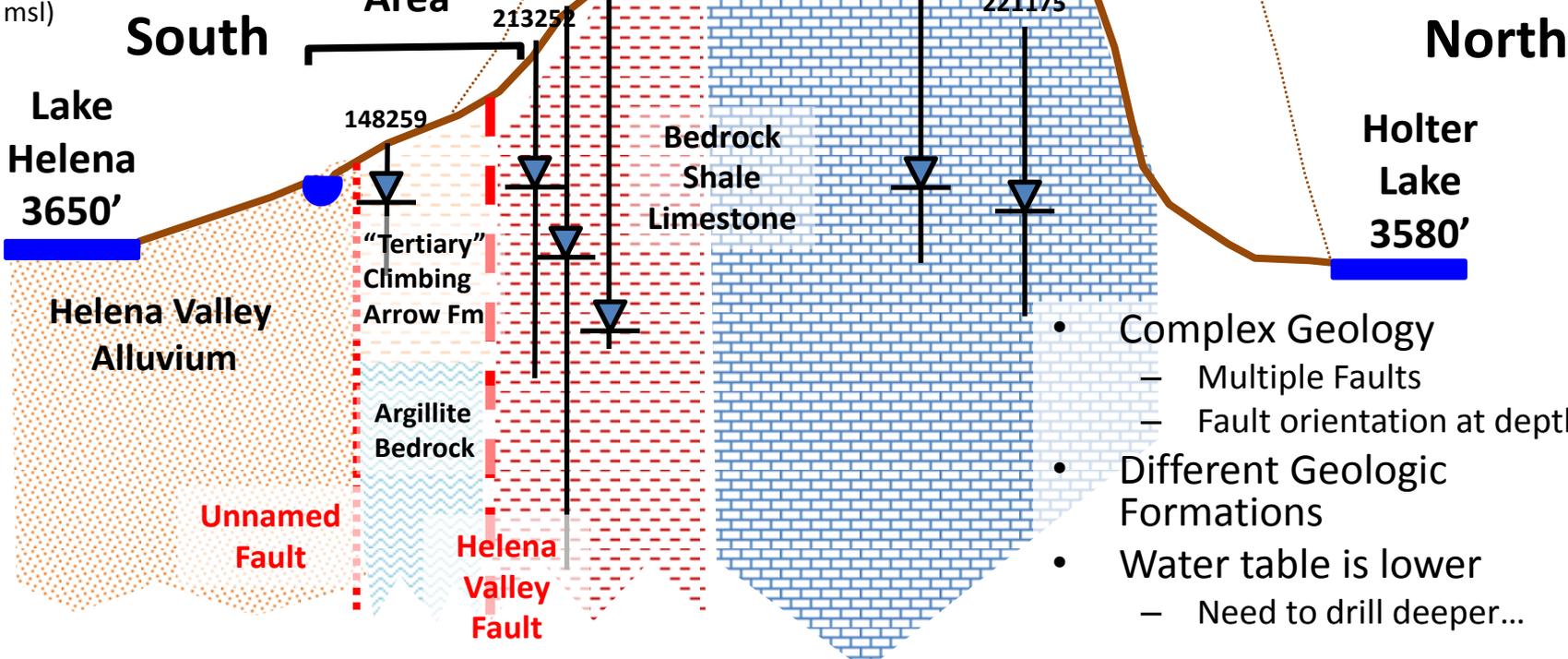
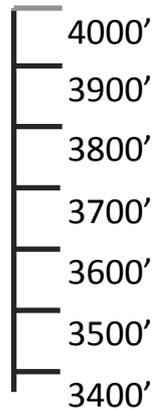
View North – Geologic Cross Section A-A'



View West – Geologic Cross Section Lake Helena (South) to Holter Lake (North)



Elevation (ft msl)



- Complex Geology
 - Multiple Faults
 - Fault orientation at depth
- Different Geologic Formations
- Water table is lower
 - Need to drill deeper...

Summary of Data Conclusions

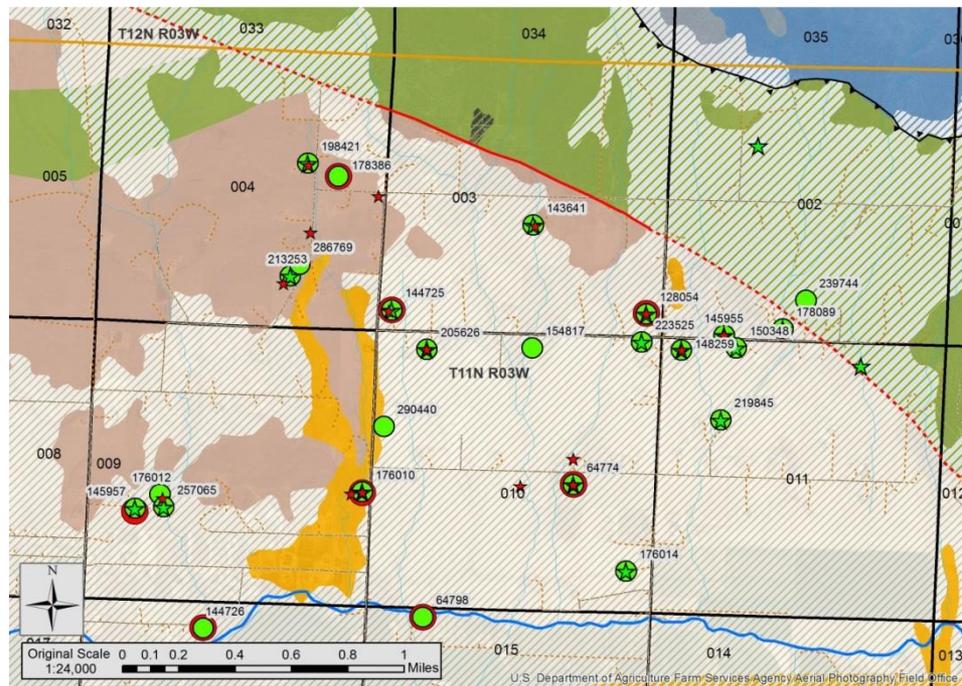
- Water Levels
 - No Depletion Observed
 - Some declining water levels from storage
- Water Chemistry and Isotopes
 - Differences in Study Area
 - Different in bedrock/deep/clay-rich aquifer
- Water Temperature
 - Local Recharge into Bedrock
 - Clay-Rich sequence, “deep” aquifer recharge (warm waters)
- Geology – Different Aquifer Systems
 - Bedrock Aquifers – recharge locally
 - Clay rich aquifers – warm water, recharge from base
 - **Helena Valley Fault** separates aquifer types
 - Little Data, Deep groundwater north of fault

Conceptual Model of Hydrologic System

- Bedrock Aquifers surrounding “Tertiary” Aquifer
 - Tertiary clay-rich Climbing Arrow Formation
 - Poor yields, recharge from base to deep
 - Surface recharge to bedrock, shallow Tertiary aquifers
 - Recharge to Tertiary Aquifers from bedrock across fault
- Yields and Depletion
 - Bedrock provides best yields, may need to drill to depth
 - Depletion not observed
 - Would see break in slope of declining water level wells

Groundwater Divide not at Drainage Divide

- Aligns with some of Helena Valley Fault / Complex System
- Flow appears to Align with “Tertiary Channel) to northeast
 - Water Quality, Isotopes similar
 - Recharge to Clay-rich sediments upward from base



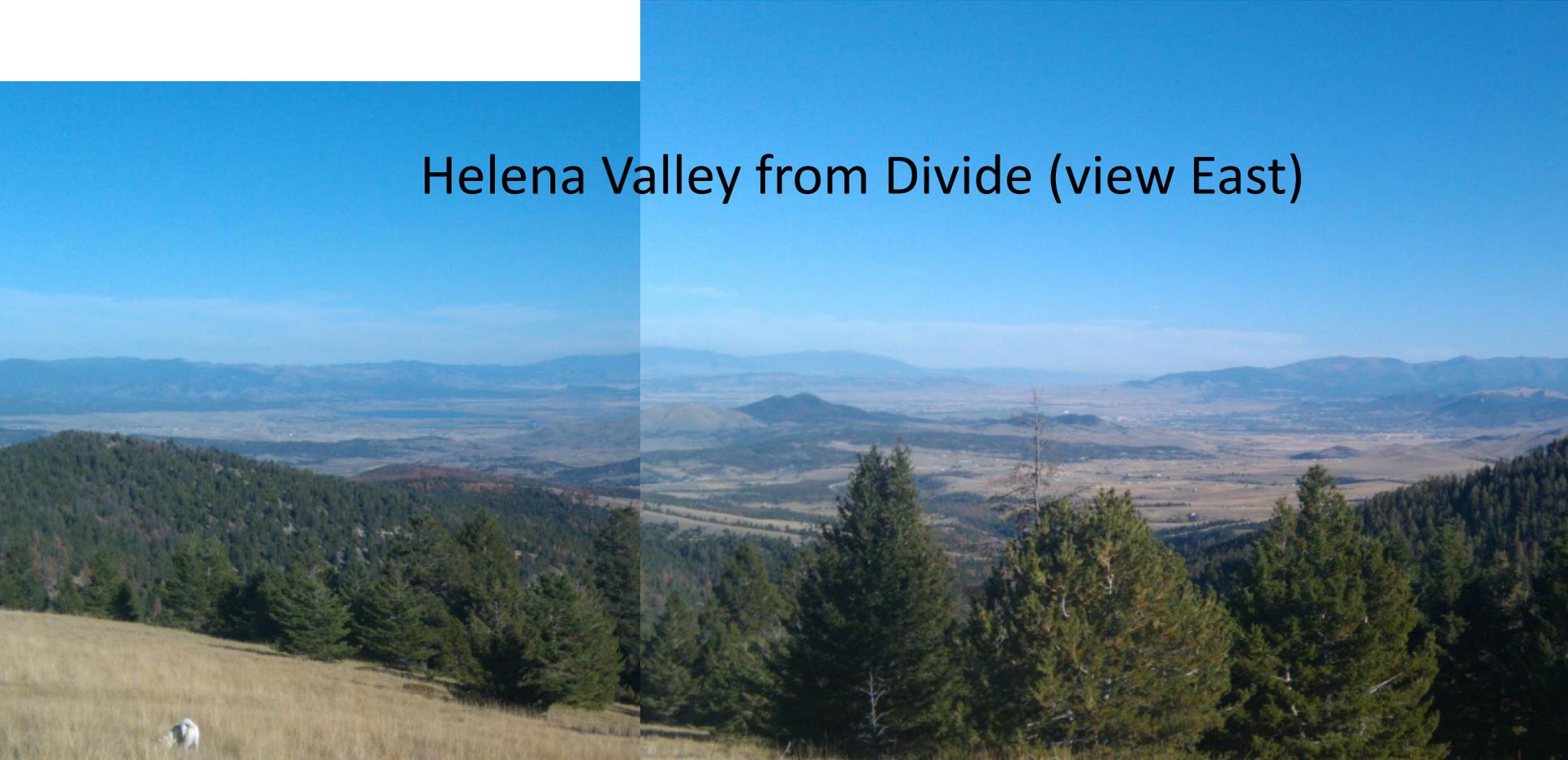
Conclusions

- Climbing Arrow Formation major local aquifer
 - Poor aquifer, low yields, recharge
- Groundwater available at depth in bedrock in East North Hills
 - Area South of Helena Valley Fault
 - Water much deeper, but still available in bedrock
- (Temporary) Controlled Ground Water Area
 - No basis to develop, water levels stable
 - No need to determine/propose boundaries
- Next Steps
 - Continue WL monitoring program at selected locations
 - Looking for Resident wells to monitor (& Sample) North of Helena Valley Fault

Questions/Discussion?

James Swierc, PG jswierc@lccountymt.gov

Project Report (est. Dec 2019) will be available at
<http://www.lccountymt.gov/health/water.html>



Helena Valley from Divide (view East)

**LEWIS & CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
Helena, Montana**

BOARD AGENDA ITEM

Meeting Date

February 25, 2020

Agenda Item No.

6

Minutes Board Member Discussion Staff & Other Reports Action Hearing of Delegation

AGENDA ITEMS: Data Applications

PERSONNEL INVOLVED: Valerie Stacey, Environmental Technician

BACKGROUND: Ms. Stacey will give a brief update on data applications

ADDITIONAL INFORMATION ATTACHED

BOARD ACTION:

NOTES:

	M O T I O N	S E C O N D	A Y E	N A Y	A B S T A I N	O T H E R
Frasier						
Good Geise						
Harrow						
Johnson						
Leland						
Ryan						
Schell						
Scott						

**LEWIS & CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
Helena, Montana**

BOARD AGENDA ITEM

Meeting Date

February 25, 2020

Agenda Item No.

7

Minutes Board Member Discussion Staff & Other Reports Action Hearing of Delegation

AGENDA ITEMS: Updates and Announcements

PERSONNEL INVOLVED: Staff/board

BACKGROUND: Updates will be given on the following: DEQ Gravel Pit Comments, Grand Citizen Request Policy.

ADDITIONAL INFORMATION ATTACHED

BOARD ACTION:

NOTES:

	M O T I O N	S E C O N D	A Y E	N A Y	A B S T A I N	O T H E R
Frasier						
Good Geise						
Harrow						
Johnson						
Leland						
Ryan						
Schell						
Scott						

Jolene Helgerson

From: Jennifer McBroom
Sent: Tuesday, February 18, 2020 2:04 PM
To: Jolene Helgerson
Subject: FW: Gravel Pit public meeting summary
Attachments: Gravel Pit Map.pdf

Board Packet

From: Peter Schade
Sent: Tuesday, February 18, 2020 11:10 AM
To: Kathy Moore
Cc: Jennifer McBroom
Subject: Gravel Pit public meeting summary

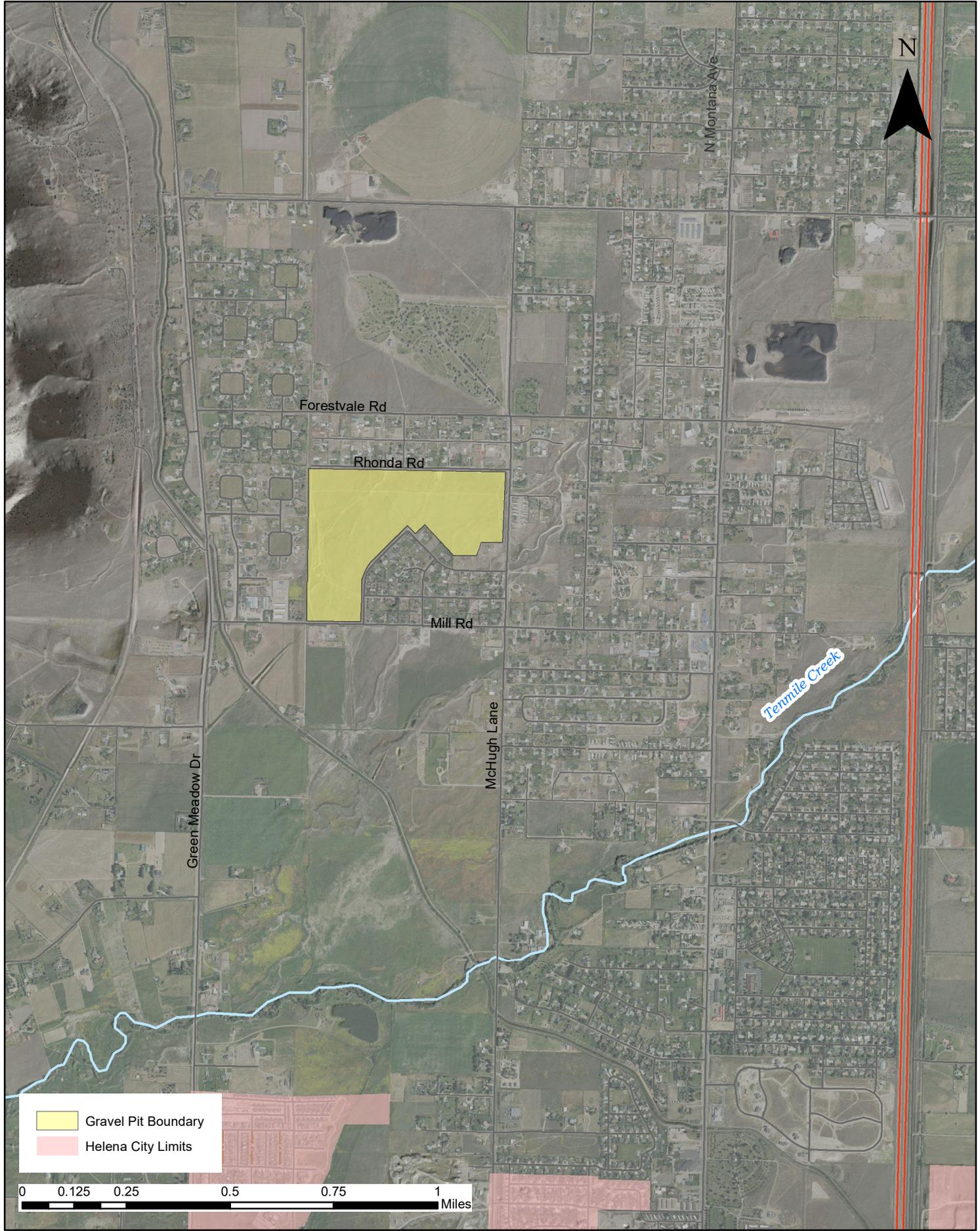
The Montana DEQ has received a permit application from Valley Sand & Gravel (VSG) to mine gravel from a parcel north of the City of Helena within Lewis & Clark County (see attached map). DEQ held an open house and public meeting on Feb 12th, at the Helena Middle School auditorium to solicit public comment on the permit application. The meeting began with an informal open house at which specialists from DEQ, DNRC, and Lewis & Clark County (LCC) were available to answer questions. County employees that were on-hand to answer question from the public during the open house portion of the venue included Lindsay Morgan (Community Planning & Development), Jeni Garcin (Public Information Officer), and Pete Schade (Water Quality Protection District). After the open house, DEQ scientists provided a short presentation on the application, after which participants had an opportunity to submit written questions for a panel of participants. Panel participants included J J Connor (DEQ), Kenley Stone (DEQ), Kevin Krogstad (DEQ), Julie Merkel (DEQ), Ryan Weiss (DEQ), Bryan Gartland (DNRC), Lindsay Morgan (LCC), Kim Smith (VSG), and Larry Cawlfeld (Tetra Tech). The meeting concluded with a formal public comment/testimony period from 7:30 p.m. to 9 p.m where participants were allowed 3 minutes to provide oral comments. DEQ is also accepting written comments, and requests that all written comments be received for consideration by Feb 21, 2020. Written comments may be submitted by email using the "Public Comment for Valley Sand and Gravel, LLC— McHugh 2" link under "Opencut News" at <http://deq.mt.gov/Mining/Opencut>, or by U.S. Mail addressed to the DEQ Opencut Mining Section, P.O. Box 200901, Helena, MT 59620-0901.

Approximately 200 members of the public (estimated) attended the Feb 12th public meeting. Over 35 written questions were addressed by panel participants, and over 30 individuals provide oral comments.

The proposed gravel pit lies within the boundaries of the Lewis & Clark County Water Quality Protection District (WQPD) and has experienced flooding twice in the past ten years. Consequently, the WQPD is reviewing the permit application as it pertains to hydrology and water quality, and will be submitting formal comments to the DEQ prior to their requested Feb 21 deadline.

Opencut Permit Application #3088, [Valley Sand and Gravel, LLC-McHugh 2 Gravel Pit](https://valleysandandgravel.com), may be viewed online at <https://appecm.mt.gov/PerceptiveDEQOpencutSearch/> by entering "3088" in the "Opencut #" box and clicking the "Submit" button.

Peter Schade
Hydrogeologist
Lewis & Clark County Water Quality Protection District
(406) 457-8927
316 North Park Ave



N



N Montana Ave

Forestvale Rd

Rhonda Rd

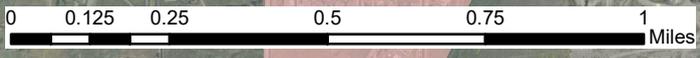
Mill Rd

McHugh Lane

Green Meadow Dr

Temmele Creek

- Gravel Pit Boundary
- Helena City Limits



**LEWIS AND CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
POLICY ON CITIZEN REQUESTED WATER RESOURCE STUDIES**

I. Adoption

The Lewis and Clark County Water Quality Protection District Board of Directors adopted the following policy for addressing citizen requested studies by motion at the **February 25, 2020** Board meeting.

II. Background

The Lewis and Clark County Water Quality Protection District (District) has been involved in a number of area studies as a result of citizen requested assistance. Past studies that the District has participated in include the Upper Tenmile Creek, North Hills, Green Meadow and East Valley Controlled Ground Water Area. Useful water resource information has been obtained from these past studies, but they typically require a significant commitment of staff time and money by the District.

III. Purpose

The purpose of this policy is to clarify how the District will respond to citizen requested water resource studies, and to provide guidance in when, and to what extent the District will be involved in a study.

IV. Policy Detail

1. District Response to Citizen Requests

- ❑ Only requests for study of areas partially or entirely within the boundary of the District will be considered.
- ❑ Citizens must present all requests for studies or assistance to the Board of Directors for consideration.
- ❑ If the Board of Directors feels the citizen requested study would provide valuable information on water resources and would help the District achieve its goals and objectives, the Board shall pass a motion directing staff and their available resources to work with the citizens making the request to develop a scope of work for Board approval. Work with the citizen's request is also contingent on staff availability.

2. Scope of Work Requirements as Outlined in Project Proposal (attached)

- ❑ A detailed scope of work must be developed by the citizens with assistance of District staff prior to initiation of any studies by the District.
- ❑ The scope of work must include the following: 1) A statement of the problem, 2) a summary of the study objectives, 3) a detailed listing of the specific tasks that will be completed for the study, 4) a schedule for completion of the study, 5) a detailed budget for the study, including required staff and volunteer hours, and 6) a

description of the level of assistance that will be provided by the citizens interested in the study.

3. Citizen/Homeowner Assistance

- The Board of Directors shall require some level of support by the citizens/homeowners in the study area. This support can be in the form of financial support, volunteer time, or both.
- If the Board agrees to support a citizen initiated study and the citizens/homeowners in the area later decline to provide the agreed upon level of assistance to staff, the Board may direct staff to stop work on the study.

4. Utilization of local University Students

- District staff shall try and incorporate the use of Carroll College and Helena College students in approved citizen requested studies.
- If applicable, local college students will submit a Lewis and Clark Internship Proposal

5. Reporting Requirements as Outlined in the Project Proposal (Attached)

- Staff will draft a final report for the project upon completion.
- The report shall be presented to the citizens/homeowners within the study area.
- The report shall be presented to the Board upon request.

4. Disclaimer Statement

The following disclaimer statement shall be included in all reports prepared by the District under this policy:

The Lewis and Clark County Water Quality Protection District has a non-regulatory focus. Comments are provided for information purposes only and are not to be construed to be regulatory in nature. This does not preclude other agencies or organizations from developing regulations or making regulatory decisions based on information provided by the District.

V. Contact Information

(Developed Jan 2020)

Questions and comments regarding this policy should be directed to Jennifer McBroom, District Supervisor by phone at (406) 457-8584, email at jmcbroom@lccountymt.gov, or by mail at the following address:

Lewis & Clark County
Water Quality Protection District
316 North Park Ave, Room 230
Helena, MT 59623

**LEWIS & CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
Helena, Montana**

BOARD AGENDA ITEM

Meeting Date

February 25, 2020

Agenda Item No.

8

Minutes Board Member Discussion Staff & Other Reports Action Hearing of Delegation

AGENDA ITEMS: Board Member Discussion

PERSONNEL INVOLVED: Board Members

BACKGROUND: This time has been set-aside for the board members to bring up any topics they would like to discuss or add to the agenda of future meetings.

ADDITIONAL INFORMATION ATTACHED

BOARD ACTION:

NOTES:

	M O T I O N	S E C O N D	A Y E	N A Y	A B S T A I N	O T H E R
Frasier						
Good Geise						
Harrow						
Johnson						
Leland						
Ryan						
Schell						
Scott						

**LEWIS & CLARK COUNTY
WATER QUALITY PROTECTION DISTRICT
Helena, Montana**

BOARD AGENDA ITEM

Meeting Date

February 25, 2020

Agenda Item No.

9

Minutes Board Member Discussion Staff & Other Reports Action Hearing of Delegation

AGENDA ITEMS: Public Comment

PERSONNEL INVOLVED: Public and Board Members

BACKGROUND: Time is allowed for public comment on matters within the Water Quality Protection District's boundaries not mentioned on the agenda.

RECOMMENDATION: n/a

ADDITIONAL INFORMATION ATTACHED

BOARD ACTION:

NOTES:

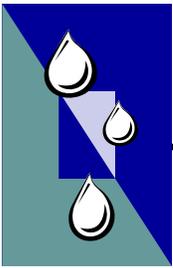
	M O T I O N	S E C O N D	A Y E	N A Y	A B S T A I N	O T H E R
Frasier						
Good Geise						
Harrow						
Johnson						
Leland						
Ryan						
Schell						
Scott						

**Attendance Record for the
Lewis & Clark County Water Quality Protection District
FY 2020**

	Jul	Aug	Sep	Oct	Nov/Dec	Jan	Feb	Mar	Apr	May	Jun
Frasier	*	X	T	X	O	*					
Geise	---	---	---	---	---	*					
Harrow	*	X	T	O	X	*					
Hunthausen	*	O	T	X	O	---	---	---	---	---	---
Johnson	*	X	T	X	X	*					
Leland	*	X	T	X	O	*					
Ryan	*	X	T	X	X	*					
Schell	*	X	T	X	X	*					
Scott	---	---	T	X	X	*					
Sloan	*	X	T	X	---	---	---	---	---	---	---

Legend:

- X = Present
- = Not a member of the board at that time.
- * = No meeting held
- O = Absent
- / = Work Session
- T = Tour



Lewis and Clark County Water Quality Protection District

316 N. Park. Rm. 230
P.O. Box 1723
Helena, MT 59624
Ph: 406.447.8584
Fax: 406.447.8398

Susan Good Geise

316 N. Park
Helena, MT 59623
447-8304 (W)
E-mail: sgeise@lccountymt.gov

Representing the Board of County
Commissioners

Jamie Schell, chair

P.O. Box 1610
East Helena, MT 59635
227-7044(H) 465-2921 (C)
E-mail: mayorschell@easthelenamt.us

Representing the East Helena City Council

Stan Frasier

PO Box 5841
Helena, MT 59604
442-2705 (H) 439-2705 (C)
E-mail: sfrasier@mt.net

Representing the L & C Conservation District

Ryan Leland

316 N. Park
Helena, MT 59623
447-8433 (W)
E-mail: rleland@helenamt.gov

Representing the Helena City Commission

Vacant

Representing the Helena Citizen's Council

Kammy Johnson

2030 Cromwell Dixon Ln
Ste F, PMB 202
Helena, MT 59602
799-3654 (W) 458-1956 (H) 439-0914 (C)
E-mail: kjohnsonmt@gmail.com

Representing the Board of Health

Catherine Scott

P.O Box 5631
Helena, MT 59604
458-4910 (H)
E-Mail: cs1028cs@gmail.com

Term ends 06/30/22 – General Public

Amanda Harrow

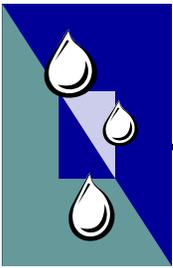
627 1st Street
Helena, MT 59601
(508) 577-4959 (C)
E-mail: lcwqpd.generalpublic1@gmail.com

Term ends 06/30/21 – General Public

Jeff Ryan, vice chair

6425 Jasper Road
Helena, MT 59602
(C) 202-4003
E-mail: jeff@rfryan.com

Term ends 06/30/20– General Public



Lewis and Clark County Water Quality Protection District

316 N. Park. Rm. 230
P.O. Box 1723
Helena, MT 59624
Ph: 406.447.8351
Fax: 406.447.8398

All board meetings are held in room 226 of the City-County Building, 316 N. Park, Helena, Montana at 5:30 p.m. The meetings are generally completed by 7:30 p.m.

MEETING DATES FOR FISCAL YEAR 2020

July 23, 2019- Canceled

August 27, 2019

September 24, 2019

October 22, 2019

December 4, 2019

January 28, 2020-Canceled

February 25, 2020

March 24, 2020

April 28, 2020

May 26, 2020

June 23, 2020