ANNUAL SUMMARY OF GROUNDWATER CONDITIONS IN THE SOUTHEAST BOISE GROUNDWATER MANAGEMENT AREA CALENDAR YEAR 2022

Prepared by Gus Womeldorph 5/11/2023

This report describes the groundwater conditions in and around the Southeast Boise Groundwater Management Area (GWMA) based on the groundwater level observation network established in the spring of 2000 under the guidance of the Southeast Boise Groundwater Advisory Committee (Advisory Committee). The network is a cooperative effort among Micron Technology, Inc., Veolia Water Idaho, Inc., and the Idaho Department of Water Resources (IDWR). The cooperators submit water level data to IDWR and/or provide support and access to wells for monitoring. The data is maintained in the IDWR groundwater database. The J.R. Simplot Co., City of Boise, Sunroc Corp., Idaho Transportation Department, Idaho Department of Lands, Boise Gun Club, and other landowners provide access to wells within the monitoring network.

Status of Monitoring Network

The network currently consists of 35 active monitoring sites (**Table A1**), with one site (03N 02E 14ABC) containing a set of five nested wells for a total of 39 active wells (**Figure B1**). In 2022, IDWR removed a transducer from a recent new addition to the network, the Surprise Valley Well (03N 03E 33CDB1), as the transducer had become stuck in the well.

IDWR manually measured water levels in 32 of the 39 wells in quarterly measurements in 2022, with well access limiting some measurements due to weather or pumping. Pressure transducers recorded water level observations at 25 wells at a minimum of two times per day (**Figure B1**), with most storing hourly readings. IDWR downloaded the transducer data at all 25 wells during manual measurement visits. Veolia Water Idaho, Inc. measured the remaining seven wells bi-monthly.

Groundwater Level Trends

Groundwater level hydrographs showing the complete period of record through December 31, 2022, for active wells in the monitoring network are shown in **Appendix C**. Groundwater level hydrographs displaying data only for the period from January 1, 1990, to December 31, 2022, for all active monitoring wells are shown in **Appendix D**. All available data has been included in this report. Several wells are subject to significant seasonal trends and/or pumping effects, which can make it difficult to draw meaningful conclusions from the hydrographs. Similarly, nearby pumping and/or management changes may impact apparent water level trends. Periodic data collection in wells lacking continuous measurements from pressure transducers can make it difficult to conclude trends due to the uncertainty regarding the seasonal peaks and troughs of the hydrographs relative to the instantaneous manual measurements. The magnitude of the observed water level changes can also be such that determining trends independent of factors such as systematic and random errors can be challenging. All qualitative and quantitative analyses should recognize the limitations of the data as well as the associated uncertainties. Qualitative trends have been completed for each well in the network, and Mann-Kendall trend analyses have been completed for each well with at least four years of fall measurements.

Qualitative trends were determined by subtracting the minimum depth to water for a given calendar year from the minimum depth to water for calendar year 2022, and by subtracting the maximum depth to water for a given calendar year from the maximum depth to water for calendar year 2022 (**Table A2**). If the calculated difference for the minimum depth to water and the maximum depth to water values are both negative, the water level trend is said to be increasing (measured water levels are becoming shallower). If the calculated difference for the minimum depth to water and the maximum depth to water values are both positive, the water level trend is said to be decreasing (measured water levels are becoming deeper). If the calculated difference for the minimum depth to water and the maximum depth to water values have different arithmetic signs, the water level trend is said to be undetermined.

Qualitative trends for 5-, 10-, and 15-year intervals were developed for the active monitoring network (**Table A2**). In the last five years (2017 to 2022), there have been apparent decreasing water level trends in 16 of the 39 active wells. In that same time period, there have been apparent increasing water level trends in 13 of the 39 active wells. Water level trends for the remaining 10 wells were said to be undetermined due to water level ambiguity, and/or insufficient data.

The Southeast Boise Monitoring Network fall water level measurements were used to test for groundwater level trends using the Mann-Kendall computer program described by Helsel et al., 2006 (**Table A3**). The Mann-Kendall test describes trend over time while providing a measure of the trend's statistical significance (Helsel & Hirsch, 2002). High quality hand measurements from the fall time period, with no pumping or recovering groundwater conditions, were used in the trend analysis, and wells with at least four years of measurements were selected for the analysis. Results were considered statistically significant if the p-value was < 0.05. Mann-Kendall trend results show a statistically significant decreasing water level trend in six of the 36 qualifying wells, and a statistically significant increasing water level trend in 18 wells. It should be noted that in some of the wells with increasing trends, the oldest measurements were excluded from the analysis as those measurements did not sit within the fall timeframe or did not qualify for another reason, e.g. the well was pumping/recovering during the measurement. An example of such a well is 02N 02E 02BBC2, where the oldest measurement, in 1989, was not recorded within the fall timeframe. In 12 of the 36 qualifying wells, the results were not statistically significant.

Recommendations

In May 2022 the Advisory Committee requested that IDWR continue to pursue additional groundwater monitoring wells for the monitoring network, develop improved elevation data for the wells that currently utilize data based on topographic map data, utilize a statistical trend test methodology, produce hydrographs in the annual report using consistent scales whenever possible, and recommended that transducers be upgraded as appropriate and within a reasonable time frame to improve data collection. This annual report has detailed the progress made in the previous year towards furthering those Advisory Committee requests and recommendations. IDWR will continue to look for opportunities to pursue Advisory Committee requests and recommendations.

Bibliography

Helsel, D. R., & Hirsch, R. M. (2002). Statistical Methods in Water Resources. United States Geological Survey.

Helsel, D. R., Mueller, D. K., & Slack, J. R. (2006). Computer program for the Kendall family of trend tests.

Appendix A

Tables

Table A1. Summary of the groundwater monitoring network for the Southeast Boise GWMA.

Map ID	Well Number	Well Name	Period of Water Level Record	Status of Well	Comments
1	01N 01E 34AAA1	City of Boise Farm	2018 - 2023	Active	Transducer installed January 2018
2	01N 03E 04BBD1	Prigge	1994 - 2023	Active	Transducer installed October 2014, vented transducer installed April 2019
3	01N 04E 28CAC1	Ken Agenbroad	1979 - 2023	Active	
4	02N 01E 36BBB1	Harris South Cole	1969 - 2023	Active	Transducer installed May 2018
5	02N 02E 02BBC2	JR Flat	1989 – 2023	Active	
6	02N 02E 04CBB1	IDL House	1973 - 2023	Active	Transducer installed March 2017
7	02N 02E 07CBC1	Hollilynn	1993 - 2023	Active	Transducer installed May 2018
8	02N 02E 17ABD1	Ten Mile	1996 – 2023	Active	
9	02N 02E 21CBB1	SunRoc	2018 - 2023	Active	Transducer installed April 2018
10	02N 02E 22BBB1	Pioneer	1998 - 2023	Active	
11	02N 02E 34CCD1	Boise Gun Club	1976 - 2023	Active	Transducer installed November 2016
12	02N 03E 06DCA1	Micron Test #1	1986 - 2023	Active	Transducer installed October 2019
13	02N 03E 07BAC1	Micron Test #2	1983 - 2023	Active	Transducer installed October 2019
14	02N 03E 07CDA1	Pettibone	1997 - 2023	Active	Transducer installed October 2019
15	02N 03E 07DBB1	Micron Shallow Obs	1998 - 2023	Active	Transducer installed October 2019
16	02N 03E 07DBB2	Micron Deep Obs	1998 - 2023	Active	Transducer installed October 2019
17	02N 03E 09BAA2	Christensen	1993 - 2023	Active	Transducer installed October 2019
18	02N 03E 19DBB1	Micron South	2017 - 2023	Active	Vented transducer installed April 2019

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Map ID	Well Number	Well Name	Period of Water Level Record	Status of Well	Comments
19	02N 03E 28CAA1	Blacks Creek Rest Area Westbound	2007 - 2023	Active	Transducer installed May 2018
20	02N 03E 34ACC1	Blacks Creek Exit ITD	2012 - 2023	Active	Transducer installed October 2014, vented transducer installed April 2019
21	03N 02E 11DDD1	TV Lenzi	1977 - 2023	Active	Transducer installed June 2016
22	03N 02E 14ABC	TVHP 4-1 through 4-5	2002 - 2023	Active	Transducers installed August 2016
23	03N 02E 25ACBC1	Helen Lowder Park	1992 - 2023	Active	
24	03N 02E 25CAA1	Centennial	1976 - 2023	Active	
25	03N 02E 26DBA1	Bergeson	1990 - 2023	Active	
26	03N 02E 35BAB1	Market	1991 - 2023	Active	
27	03N 02E 36ABC1	Terteling	1972 - 2023	Active	
28	03N 03E 30BCBD1	Hurok	1969 - 2023	Active	
29	03N 03E 30DDAA1	E Boise Ave	1987 - 2023	Active	Lost access to site in Summer of 2019, Regained access 7/26/2022
30	03N 03E 31ADD1	Simplot Golden Development	1993 – 2023	Active	
31	03N 03E 32BBA1	Whitney Fire	1975 – 2023	Active	
32	03N 03E 32CDD1	Micron Columbia	1990 – 2023	Active	Transducer installed October 2019, Removed January 2020 due to malfunction. Reinstalled October 2020.
33	03N 03E 33DAA1	Hammer Flats	1969 – 2023	Active	
34	02N 02E 03DDC1	Boise Airport	2019 – 2023	Active	Drilled June 2019, Transducer installed July 2019
35	03N 03E 33CDB1	Surprise Valley	2021-2023	Active	Transducer installed January 2022. Transducer became stuck and was then removed summer 2022

Appendix A

Map ID	Well Number	Well Name	Period of Water Level Record	Status of Well	Comments
N/A	02N 02E 04CAA1	SEB IDL Field	2000 - 2009	Inactive	Discontinued in 2010
N/A	02N 03E 09BCA2	Vern Guyer	1993 - 2007	Inactive	Discontinued in 2007
N/A	03N 02E 25CBCA1	Motive Power 41A	1997 - 2015	Inactive	Discontinued in 2015
N/A	03N 03E 31BDD1 - DESTROYED	Oregon Trail - Destroyed	1977 - 2012	Inactive	Discontinued in 2013
N/A	03N 02E 36CDA1	Cromon	1991-2018	Inactive	Homeowner requested an end to monitoring activity. Discontinued in 2020

Table A2. Qualitative trend results for the 39 active monitoring wells.

Well Number	Well Name	5 Year Trend (2022-2017)	10 Year Trend (2022-2012)	15 Year Trend (2022-2007)
01N 01E 34AAA1	City of Boise Farm	N/A	N/A	N/A
01N 03E 04BBD1	Prigge	Increasing	Increasing	Increasing
01N 04E 28CAC1	Ken Agenbroad	Increasing	Undetermined	Decreasing
02N 01E 36BBB1	Harris South Cole	Decreasing	Decreasing	Decreasing
02N 02E 02BBC2	JR Flat	Increasing	Increasing	Increasing
02N 02E 04CBB1	IDL House	Decreasing	Decreasing	N/A
02N 02E 07CBC1	Hollilynn	Decreasing	Decreasing	Decreasing
02N 02E 21CBB1	SunRoc	N/A	N/A	N/A
02N 02E 22BBB1	Pioneer	Decreasing	Decreasing	Decreasing
02N 02E 34CCD1	Boise Gun Club	Decreasing	Decreasing	Decreasing
02N 03E 06DCA1	Micron Test #1	Increasing	Increasing	Increasing
02N 03E 07CDA1	Pettibone	Decreasing	Decreasing	Increasing
02N 03E 07DBB1	Micron Shallow Obs	Decreasing	Decreasing	Increasing
02N 03E 07DBB2	Micron Deep Obs	Decreasing	Decreasing	Increasing
02N 03E 09BAA2	Christensen	Increasing	Increasing	Increasing
02N 03E 28CAA1	Blacks Creek Rest Area Westbound	N/A	Decreasing	Undetermined
02N 03E 34ACC1	Blacks Creek Exit ITD	Increasing	Undetermined	N/A
03N 02E 11DDD1	TV Lenzi	Decreasing	Increasing	Increasing
03N 02E 14ABC1	TVHP 4-1	Decreasing	Decreasing	Decreasing
03N 02E 14ABC2	TVHP 4-2	Decreasing	Decreasing	Decreasing
03N 02E 14ABC3	TVHP 4-3	Decreasing	Undetermined	Decreasing
03N 02E 14ABC4	TVHP 4-4	Decreasing	Undetermined	Undetermined
03N 02E 14ABC5	TVHP 4-5	Decreasing	Undetermined	Undetermined
03N 02E 25CAA1	Centennial	Increasing	Undetermined	Increasing
03N 02E 26DBA1	Bergeson	Increasing	Increasing	Increasing
03N 02E 35BAB1	Market	Undetermined	Undetermined	Increasing
03N 02E 36ABC1	Terteling	Increasing	Increasing	Increasing
03N 03E 30BCBD1	Hurok	Decreasing	Decreasing	Undetermined
03N 03E 30DDAA1	E Boise Ave	Undetermined	Increasing	Increasing
03N 03E 32BBA1	Whitney Fire	Increasing	Increasing	Increasing
03N 03E 31ADD1	Simplot Golden Development	Increasing	Increasing	Increasing
03N 03E 32CDD1	Micron Columbia	Increasing	Increasing	Increasing
03N 03E 33DAA1	Hammer Flats	Undetermined	Decreasing	Decreasing
02N 03E 07BAC1	Micron Test #2	N/A	Increasing	Increasing
02N 02E 17ABD1	Ten Mile	N/A	N/A	N/A
02N 03E 19DBB1	Micron South	Increasing	N/A	N/A
03N 02E 25ACBC1	Helen Lowder Park	Decreasing	Decreasing	Decreasing
02N 02E 03DDC1	Boise Airport Well	N/A	N/A	N/A
03N 03E 33CDB1	Surprise Valley	N/A	N/A	N/A

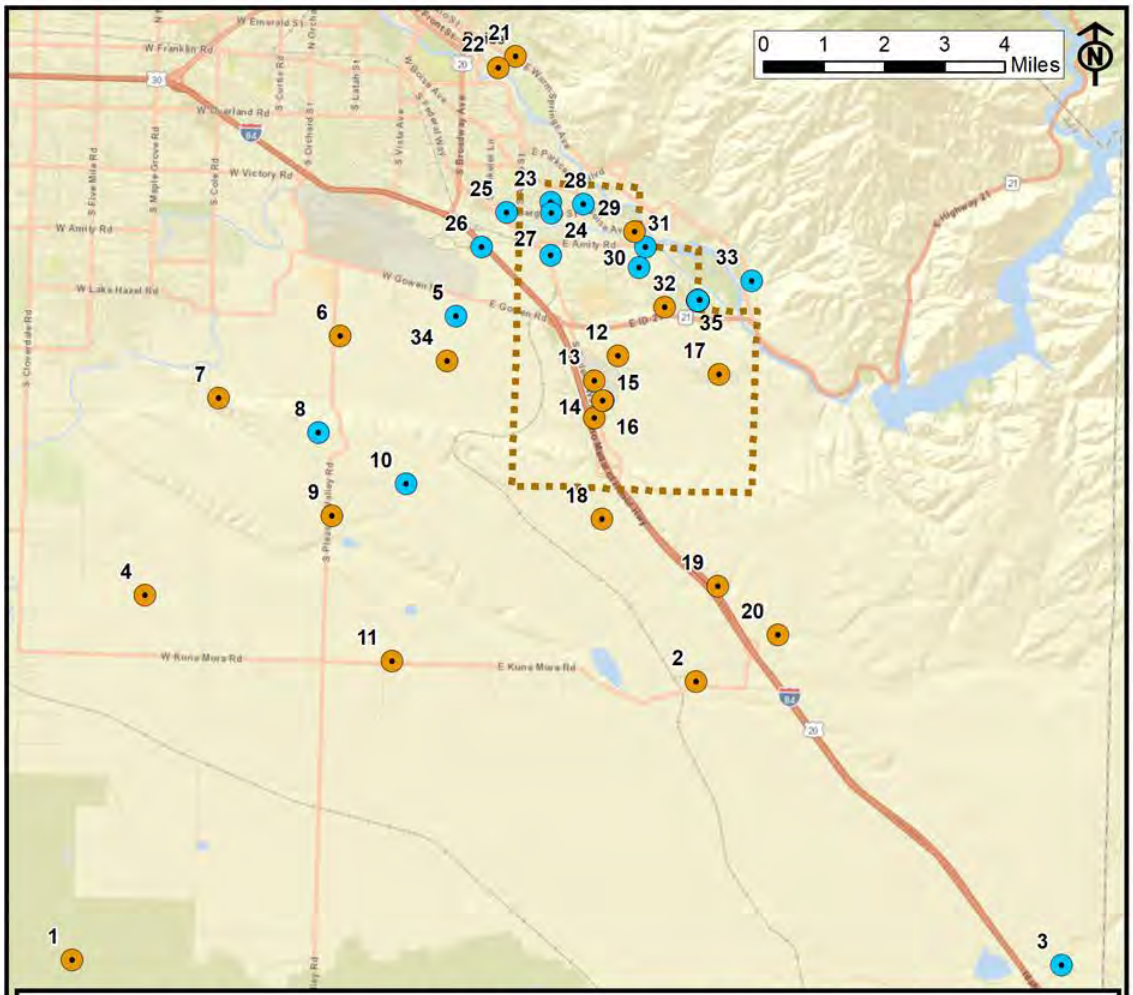
Table A3. Mann-Kendall trend results for fall depth to water measurements in 36 active monitoring wells. Wells with sufficient data, at least 4 years of fall measurements, were included in the analysis. Shaded results represent a statistically significant slope trend, $p < 0.05$. A negative slope value indicates a rising water trend.

Well Number	Well Name	slope (ft/yr)	p-value
01N 01E 34AAA1	City of Boise Farm	0.98	0.462
01N 03E 04BBD1	Prigge	**-0.22**	**0.001**
01N 04E 28CAC1	Ken Agenbroad*	0.17	0.172
02N 01E 36BBB1	Harris South Cole	**0.40**	**0.000**
02N 02E 02BBC2	JR Flat	**-0.98**	**0.002**
02N 02E 04CBB1	IDL House	**0.73**	**0.000**
02N 02E 07CBC1	Hollilynn	**0.84**	**0.000**
02N 02E 17ABD1	Ten Mile*	**0.89**	**0.024**
02N 02E 22BBB1	Pioneer	0.56	0.062
02N 02E 34CCD1	Boise Gun Club	**0.38**	**0.000**
02N 03E 06DCA1	Micron Test #1	-0.28	0.178
02N 03E 07BAC1	Micron Test #2	**-0.89**	**0.000**
02N 03E 07CDA1	Pettibone	**-1.30**	**0.004**
02N 03E 07DBB1	Micron Shallow Obs	**-1.54**	**0.008**
02N 03E 07DBB2	Micron Deep Obs	**-0.91**	**0.050**
02N 03E 09BAA2	Christensen	**-0.28**	**0.006**
02N 03E 19DBB1	Micron South*	-0.31	0.734
02N 03E 28CAA1	Blacks Creek Rest Area WB	-0.11	0.452
02N 03E 34ACC1	Blacks Creek Exit ITD	-0.03	0.173
03N 02E 11DDD1	TV Lenzi	**-0.09**	**0.000**
03N 02E 14ABC1	TVHP 4-1	0.00	0.787
03N 02E 14ABC2	TVHP 4-2	**-0.11**	**0.001**
03N 02E 14ABC3	TVHP 4-3	**-0.10**	**0.005**
03N 02E 14ABC4	TVHP 4-4	-0.06	0.893
03N 02E 14ABC5	TVHP 4-5	-0.06	0.893
03N 02E 25ACBC1	Helen Lowder Park	-0.11	0.096
03N 02E 25CAA1	Centennial	**-0.84**	**0.048**
03N 02E 26DBA1	Bergeson	**-1.87**	**0.000**
03N 02E 35BAB1	Market	**-0.95**	**0.001**
03N 02E 36ABC1	Terteling	**-1.44**	**0.003**
03N 03E 30BCBD1	Hurok	-0.02	0.472
03N 03E 30DDAA1	E Boise Ave	**-1.07**	**0.000**
03N 03E 31ADD1	Simplot Golden Development	**-0.83**	**0.000**
03N 03E 32BBA1	Whitney Fire	**-3.16**	**0.000**
03N 03E 32CDD1	Micron Columbia	**-0.30**	**0.030**
03N 03E 33DAA1	Hammer Flats	**0.43**	**0.000**

*No suitable Fall 2022 data (either absent or pumping/recovering).

Appendix B

Figures

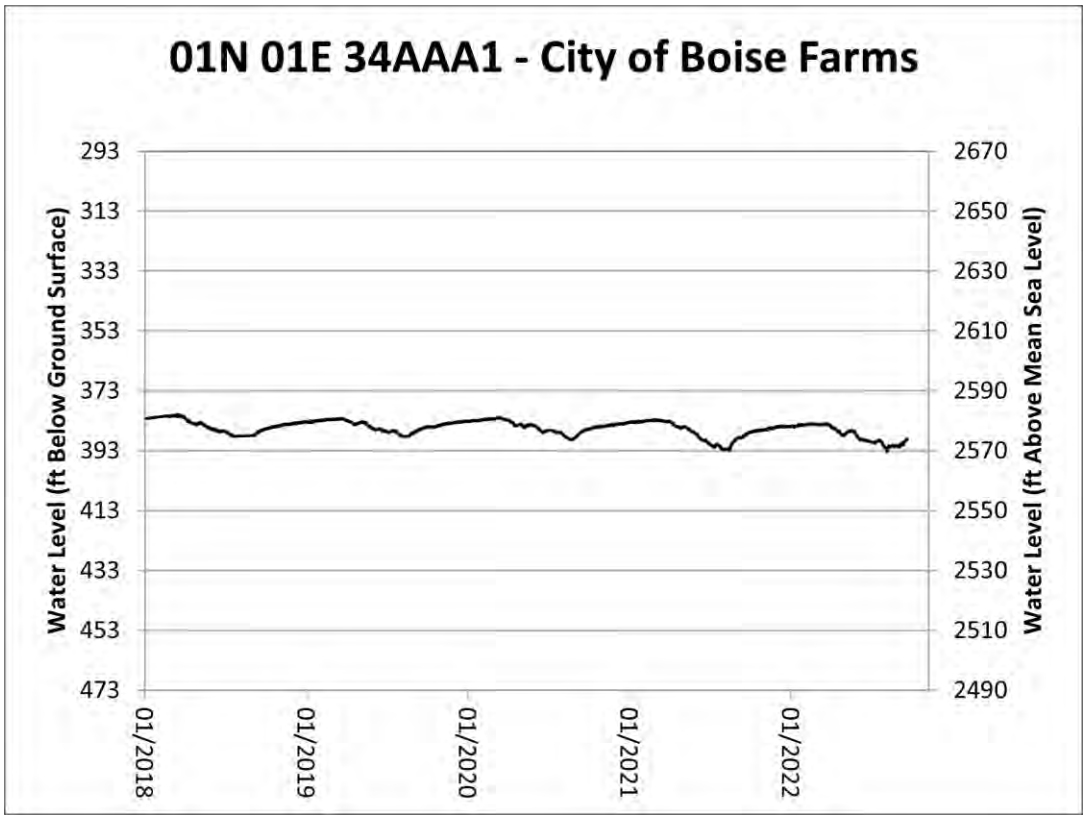


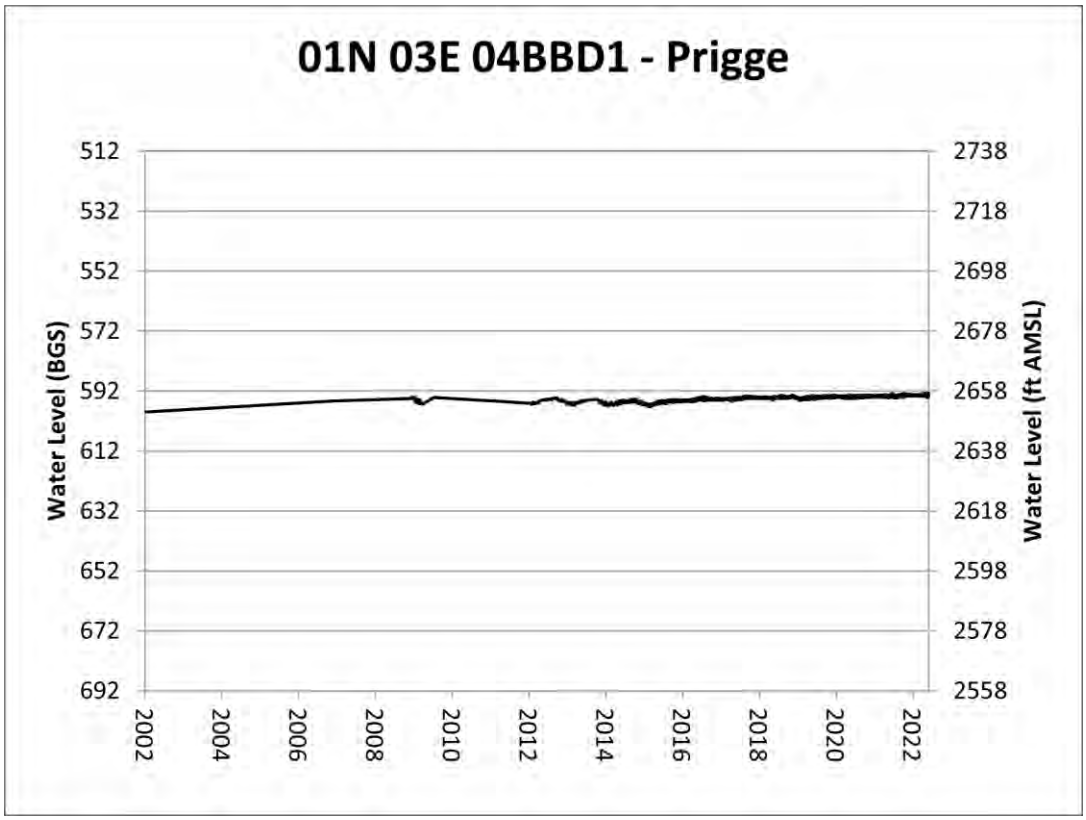
1	01N 01E 34AAA1	City of Boise Farm	13	02N 03E 07BAC1	Micron Field Test #2	25	03N 02E 26DBA1	Bergeson
2	01N 03E 04BBD1	Prigge	14	02N 03E 07CDA1	Micron Pettibone	26	03N 02E 35BAB1	Market
3	01N 04E 28CAC1	Ken Agenbroad	15	02N 03E 07DBB1	Micron Shallow Obs	27	03N 02E 36ABC1	Terteling
4	02N 01E 36BBB1	Harris South Cole	16	02N 03E 07DBB2	Micron Deep Obs	28	03N 03E 30BCBD1	Hurok
5	02N 02E 02BBC2	JR Flat	17	02N 03E 09BAA2	Micron Christensen	29	03N 03E 30DDAA1	E Boise Ave
6	02N 02E 04CBB1	IDL House	18	02N 03E 19DBB1	Micron South	30	03N 03E 31ADD1	Simplot Golden Development
7	02N 02E 07CBC1	Hollilynn	19	02N 03E 28CAA1	Blacks Creek Rest Area Westbound	31	03N 03E 32BBA1	Whitney Fire
8	02N 02E 17ABD1	Ten Mile	20	02N 03E 34ACC1	Blacks Creek Exit ITD	32	03N 03E 32CDD1	Micron Columbia
9	02N 02E 21CBB1	SunRoc	21	03N 02E 11DDD1	TV Lenzi well	33	03N 03E 33DAA1	Hammer Flats
10	02N 02E 22BBB1	Pioneer	22	03N 02E 14ABC1	TVHP 4-1 through 4-5	34	02N 02E 03DDC1	Boise Airport
11	02N 02E 34CCD1	Boise Gun Club	23	03N 02E 25ACBC1	Helen Lowder Park	35	03N 03E 33CDB1	Surprise Valley
12	02N 03E 06DCA1	Micron Field Test #1	24	03N 02E 25CAA1	Centennial			

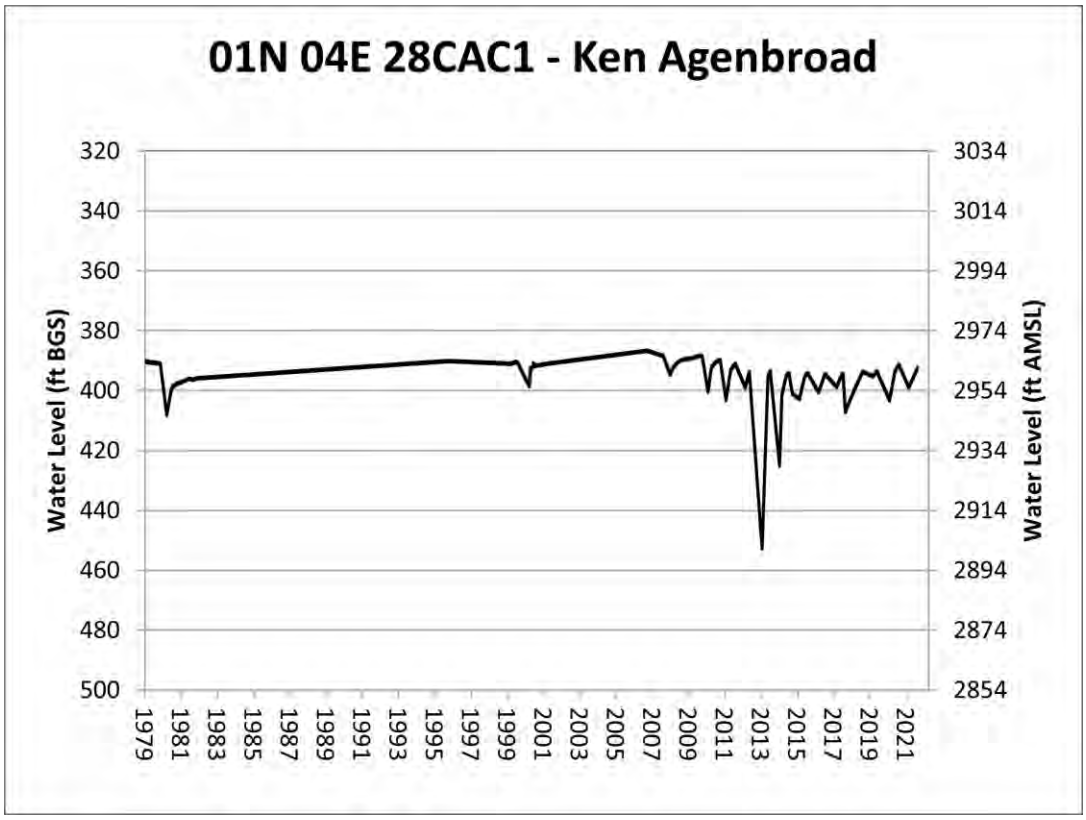
Figure B1. Current Southeast Boise GWMA monitoring network.

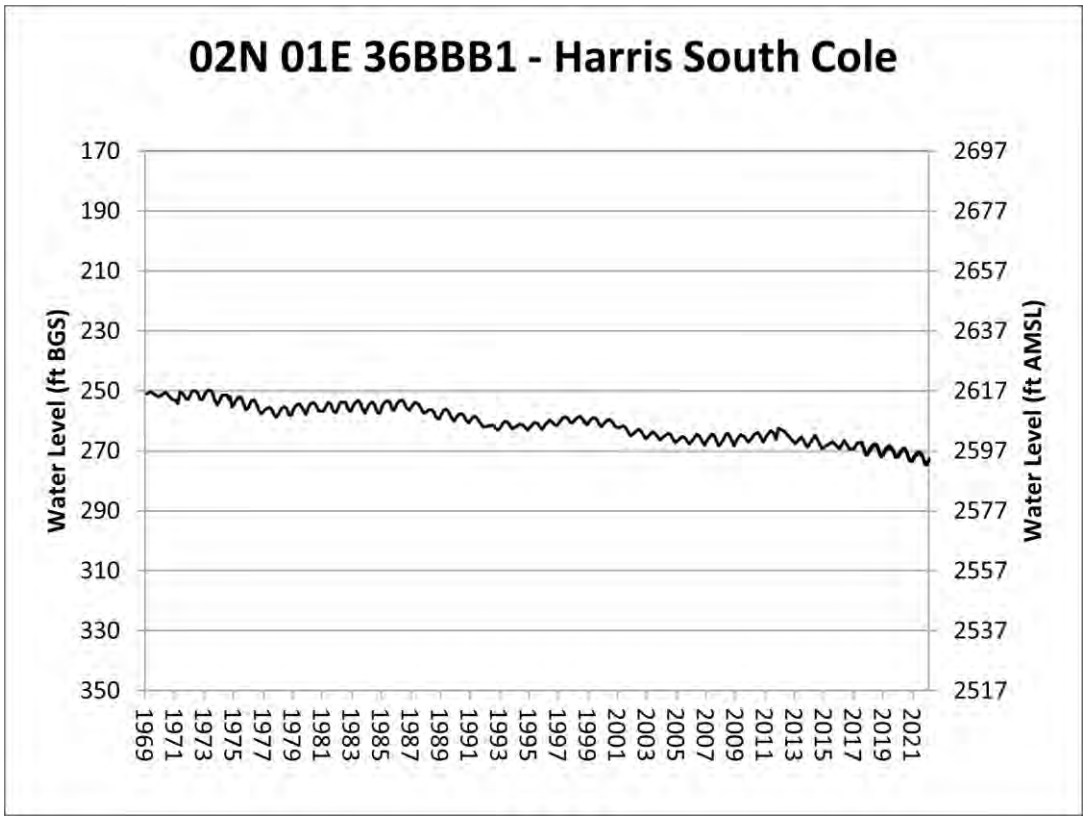
Appendix C

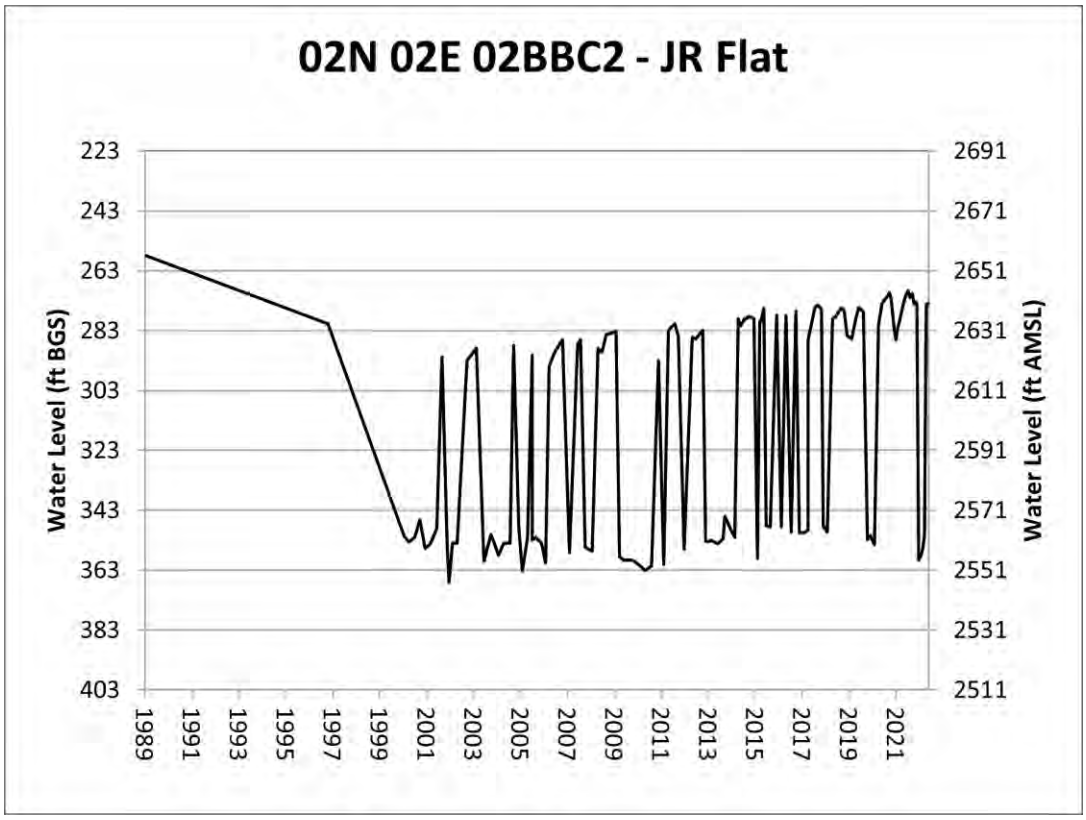
Hydrographs for Active Monitoring Wells

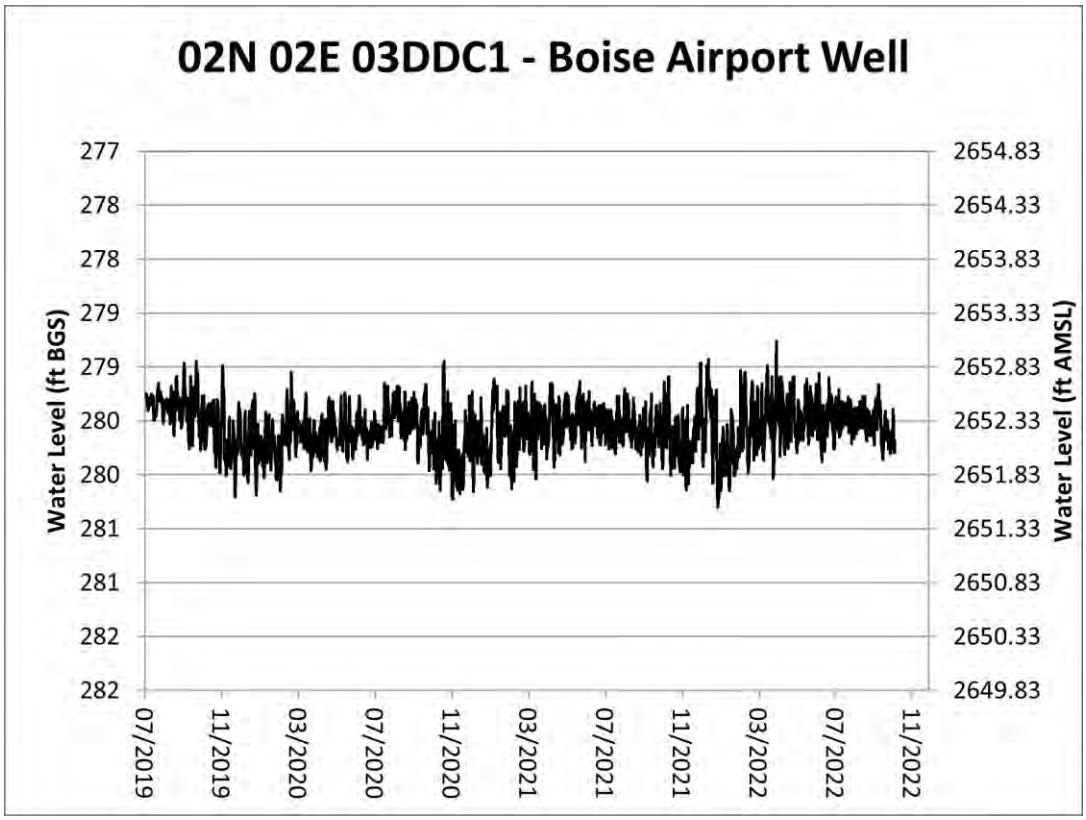

01N 01E 34AAA1 - City of Boise Farms
Water Level (ft Below Ground Surface)
293
313
333
353
373
393
413
433
453
473
Water Level (ft Above Mean Sea Level)
2670
2650
2630
2610
2590
2570
2550
2530
2510
2490
01/2018
01/2019
01/2020
01/2021
01/2022


01N 03E 04BBD1 - Prigge
Water Level (BGS)
512
532
552
572
592
612
632
652
672
692
Water Level (ft AMSL)
2738
2718
2698
2678
2658
2638
2618
2598
2578
2558
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022


01N 04E 28CAC1 - Ken Agenbroad
Water Level (ft BGS)
320
340
360
380
400
420
440
460
480
500
Water Level (ft AMSL)
3034
3014
2994
2974
2954
2934
2914
2894
2874
2854
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021


02N 01E 36BBB1 - Harris South Cole
Water Level (ft BGS)
170
190
210
230
250
270
290
310
330
350
Water Level (ft AMSL)
2697
2677
2657
2637
2617
2597
2577
2557
2537
2517
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021


02N 02E 02BBC2 - JR Flat
Water Level (ft BGS)
223
243
263
283
303
323
343
363
383
403
Water Level (ft AMSL)
2691
2671
2651
2631
2611
2591
2571
2551
2531
2511
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021


02N 02E 03DDC1 - Boise Airport Well
Water Level (ft BGS)
277
278
278
279
279
280
280
281
281
282
282
Water Level (ft AMSL)
2654.83
2654.33
2653.83
2653.33
2652.83
2652.33
2651.83
2651.33
2650.83
2650.33
2649.83
07/2019
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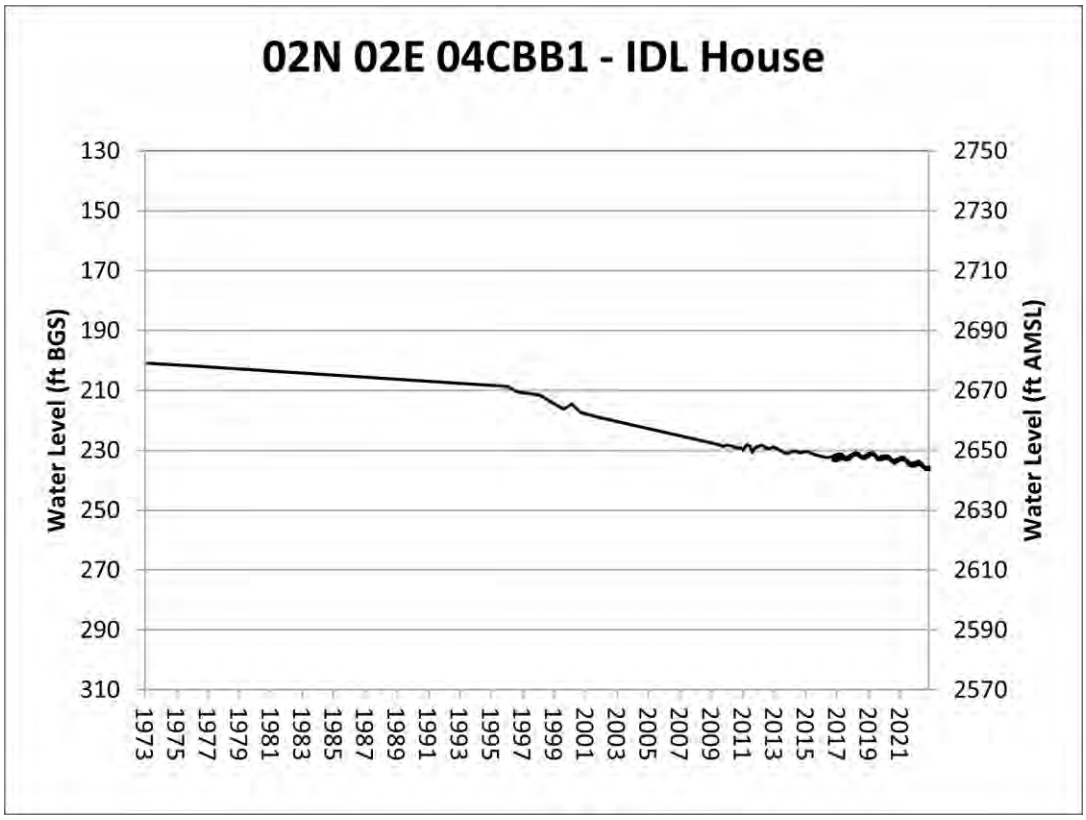
07/2020
11/2020
03/2021
07/2021
11/2021
03/2022
07/2022
11/2022


02N 02E 04CBB1 - IDL House
Water Level (ft BGS)
130
150
170
190
210
230
250
270
290
310
Water Level (ft AMSL)
2750
2730
2710
2690
2670
2650
2630
2610
2590
2570
1973
1975
1977
1979
1981
1983
1985
1987
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2003
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2007
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2011
2013
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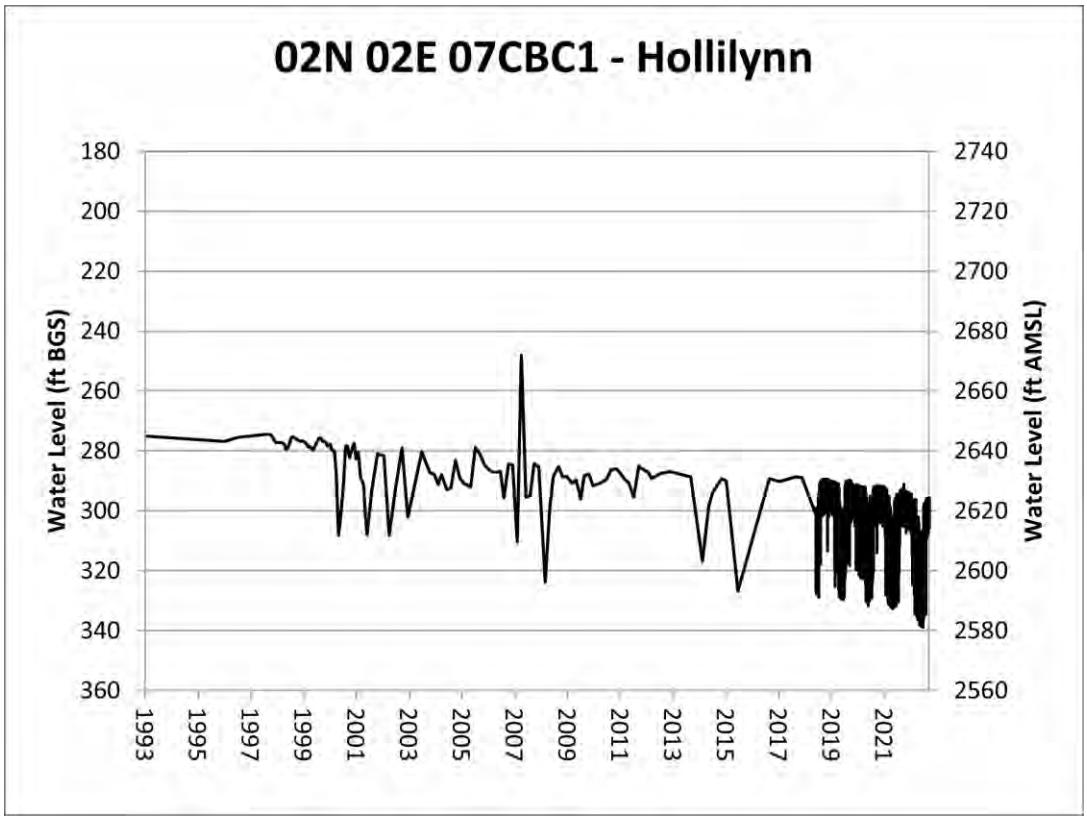
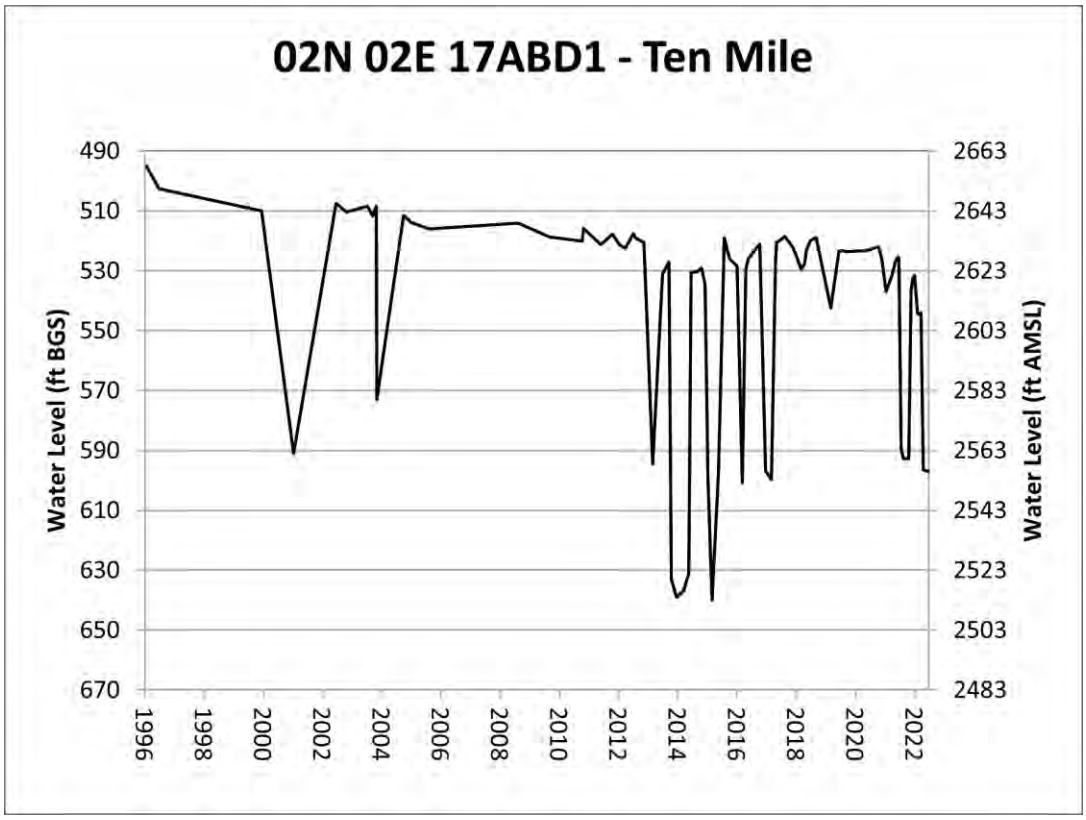
2019
2021


02N 02E 07CBC1 - Hollilynn
Water Level (ft BGS)
180
200
220
240
260
280
300
320
340
360
Water Level (ft AMSL)
2740
2720
2700
2680
2660
2640
2620
2600
2580
2560
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021


02N 02E 17ABD1 - Ten Mile
Water Level (ft BGS)
490
510
530
550
570
590
610
630
650
670
Water Level (ft AMSL)
2663
2643
2623
2603
2583
2563
2543
2523
2503
2483
1996
1998
2000
2002
2004
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2008
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2012
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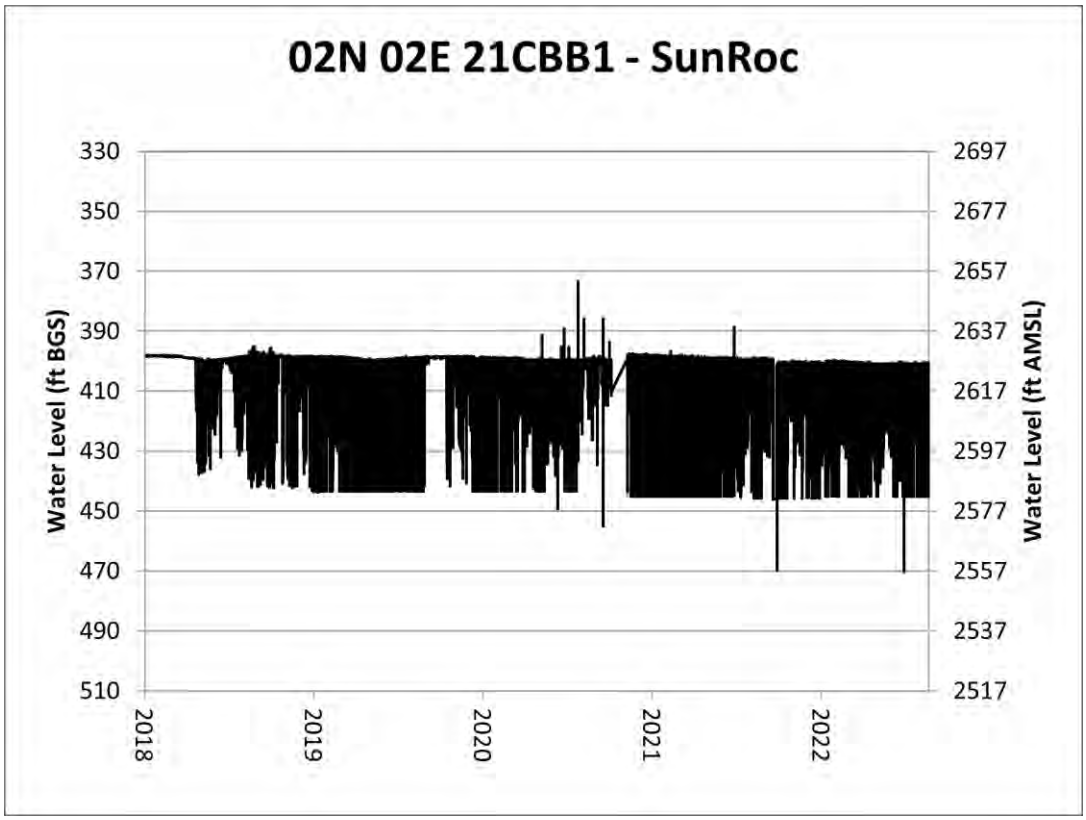
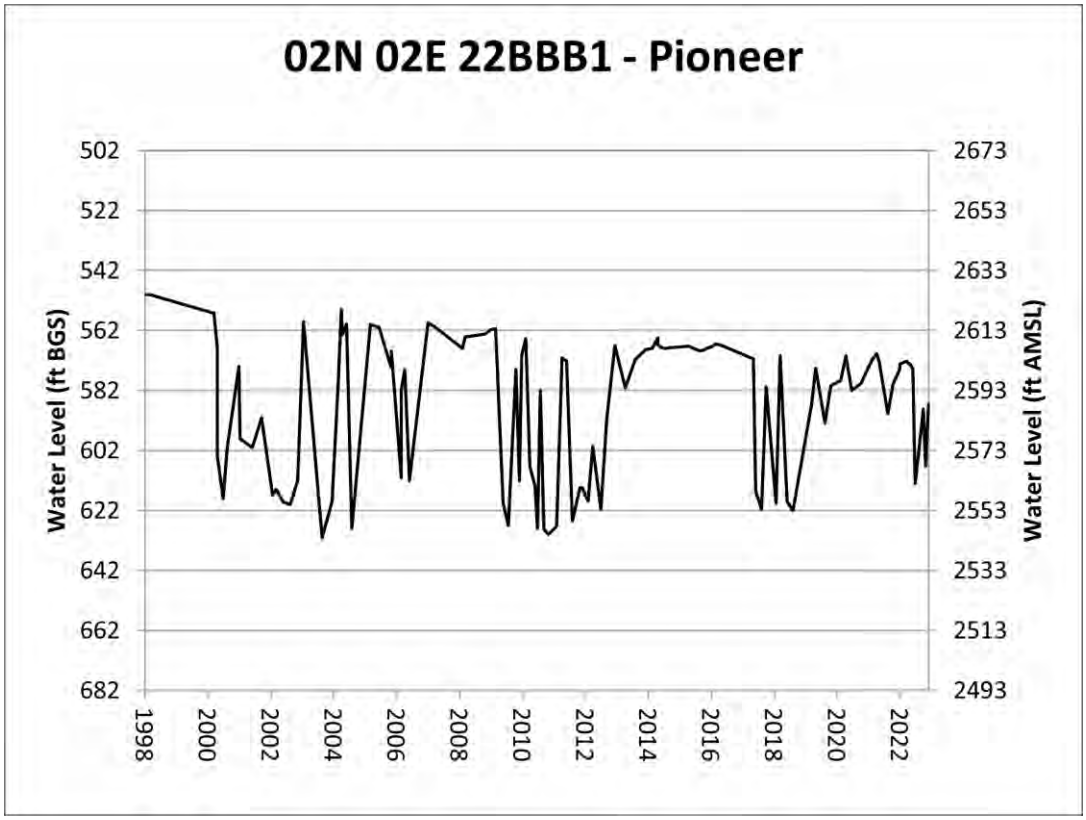
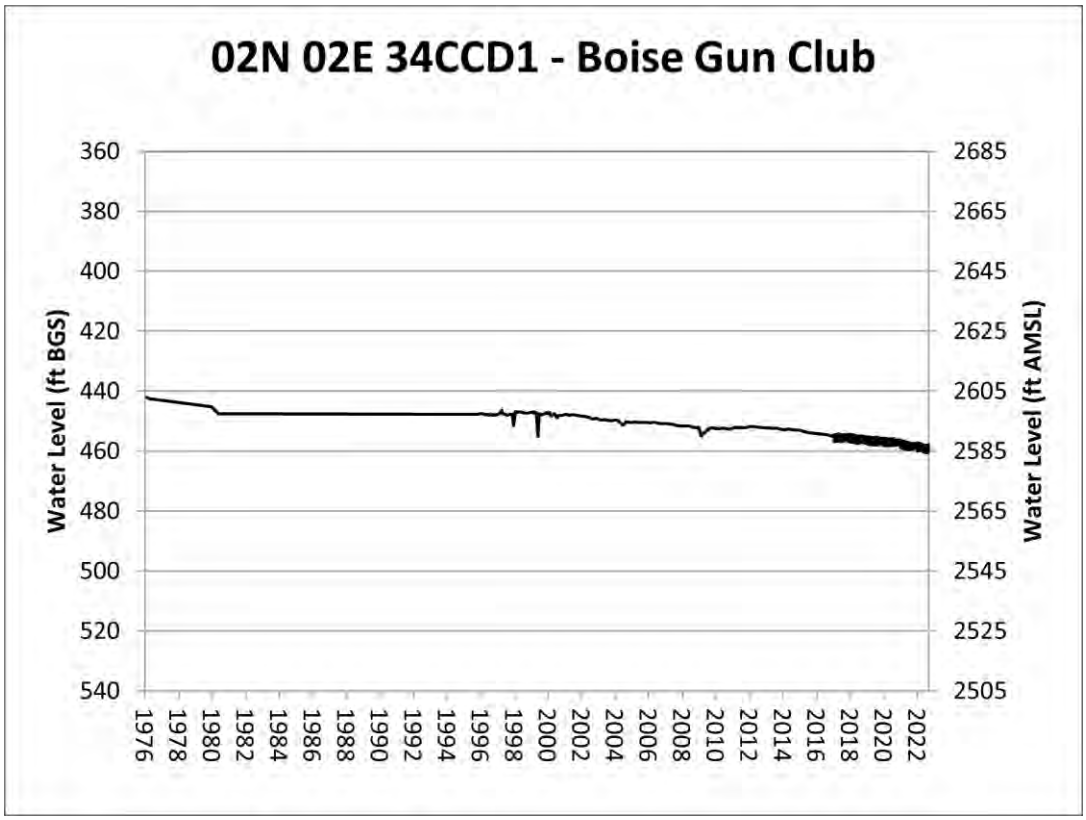
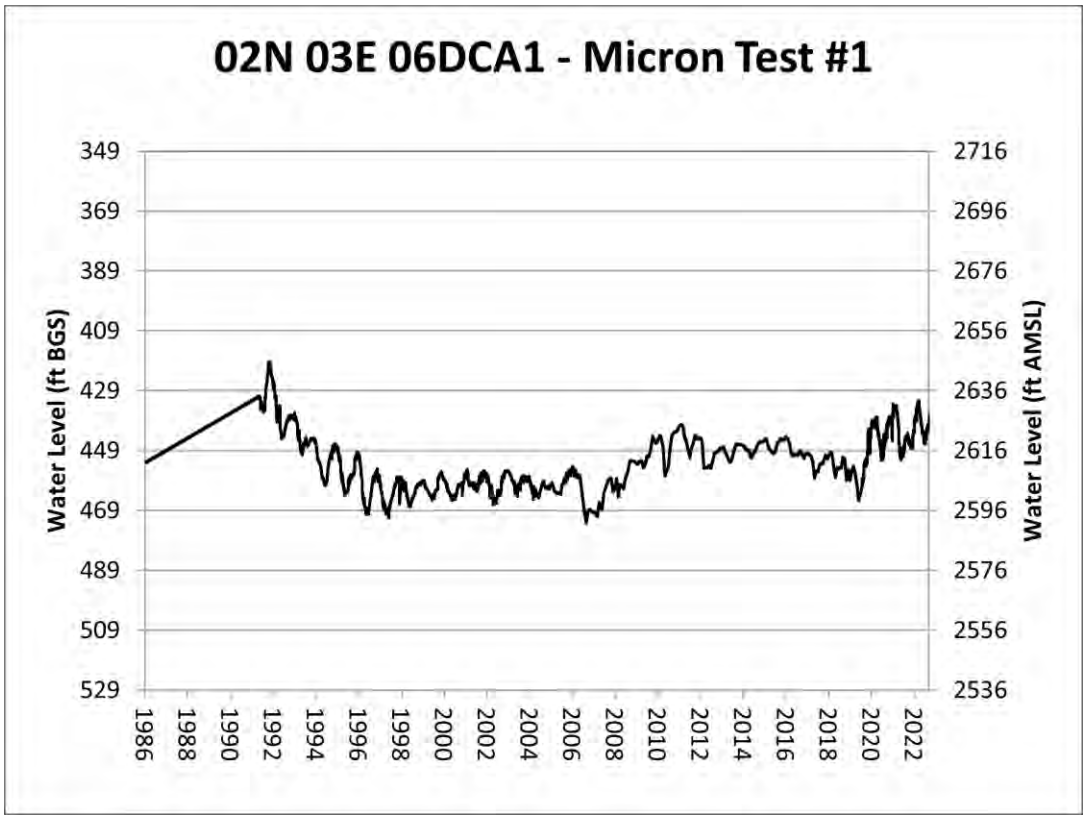
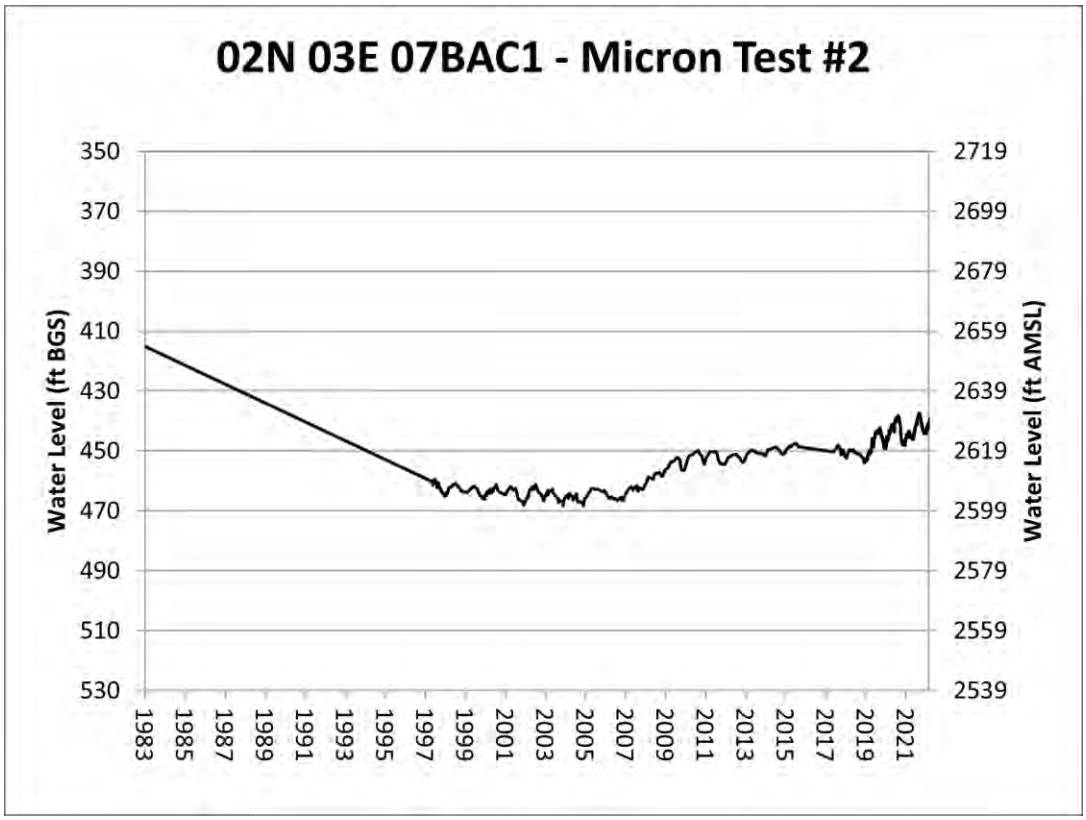
2016
2018
2020
2022

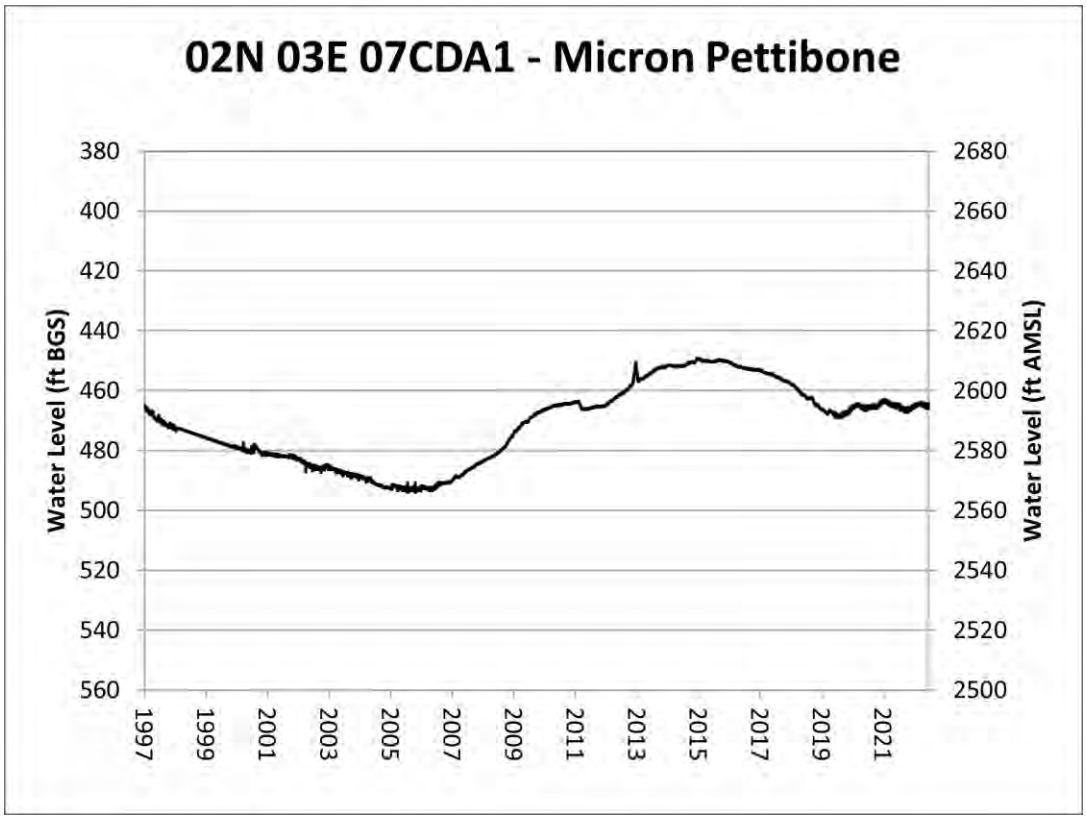

02N 02E 21CBB1 - SunRoc
Water Level (ft BGS)
330
350
370
390
410
430
450
470
490
510
Water Level (ft AMSL)
2697
2677
2657
2637
2617
2597
2577
2557
2537
2517
2018
2019
2020
2021
2022

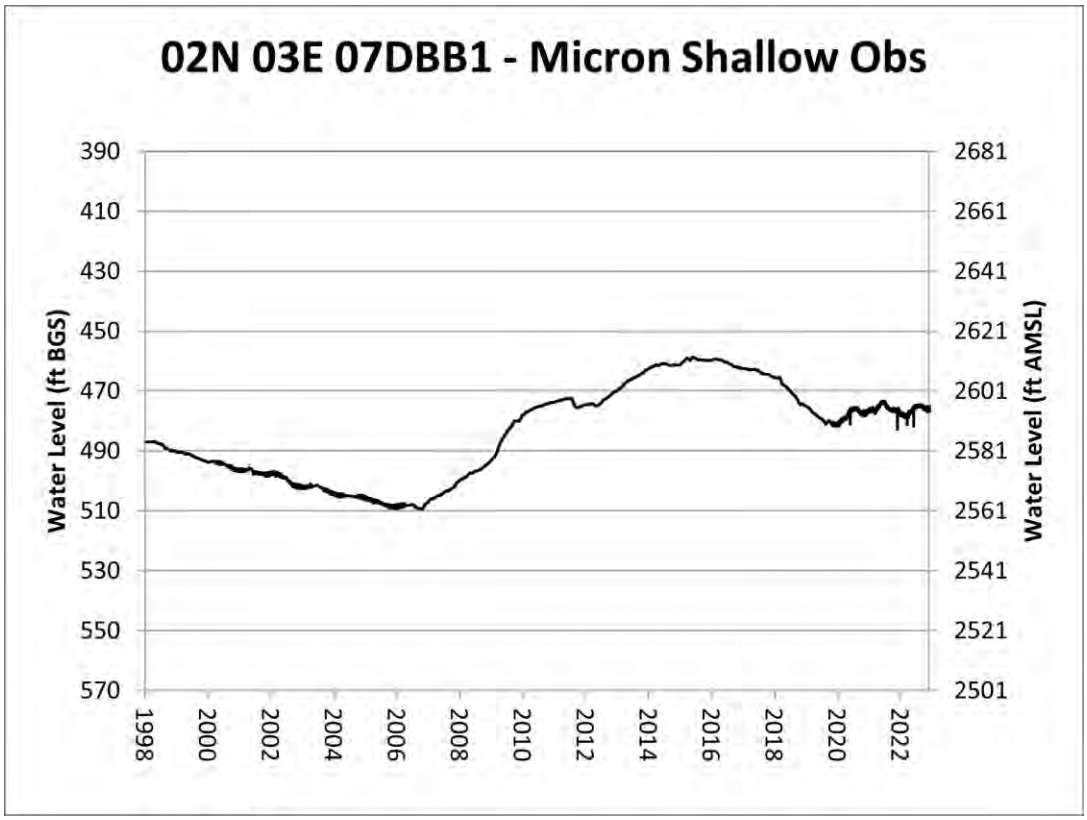

02N 02E 22BBB1 - Pioneer
Water Level (ft BGS)
502
522
542
562
582
602
622
642
662
682
Water Level (ft AMSL)
2673
2653
2633
2613
2593
2573
2553
2533
2513
2493
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

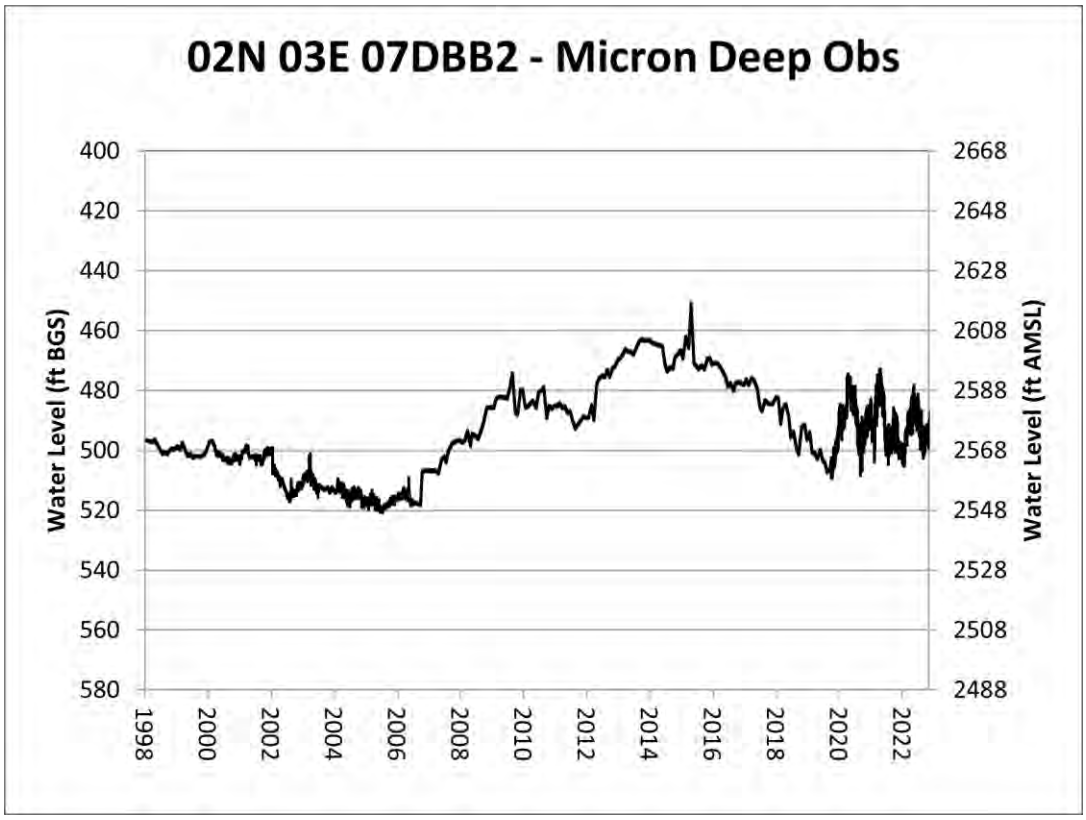

02N 02E 34CCD1 - Boise Gun Club
Water Level (ft BGS)
360
380
400
420
440
460
480
500
520
540
Water Level (ft AMSL)
2685
2665
2645
2625
2605
2585
2565
2545
2525
2505
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

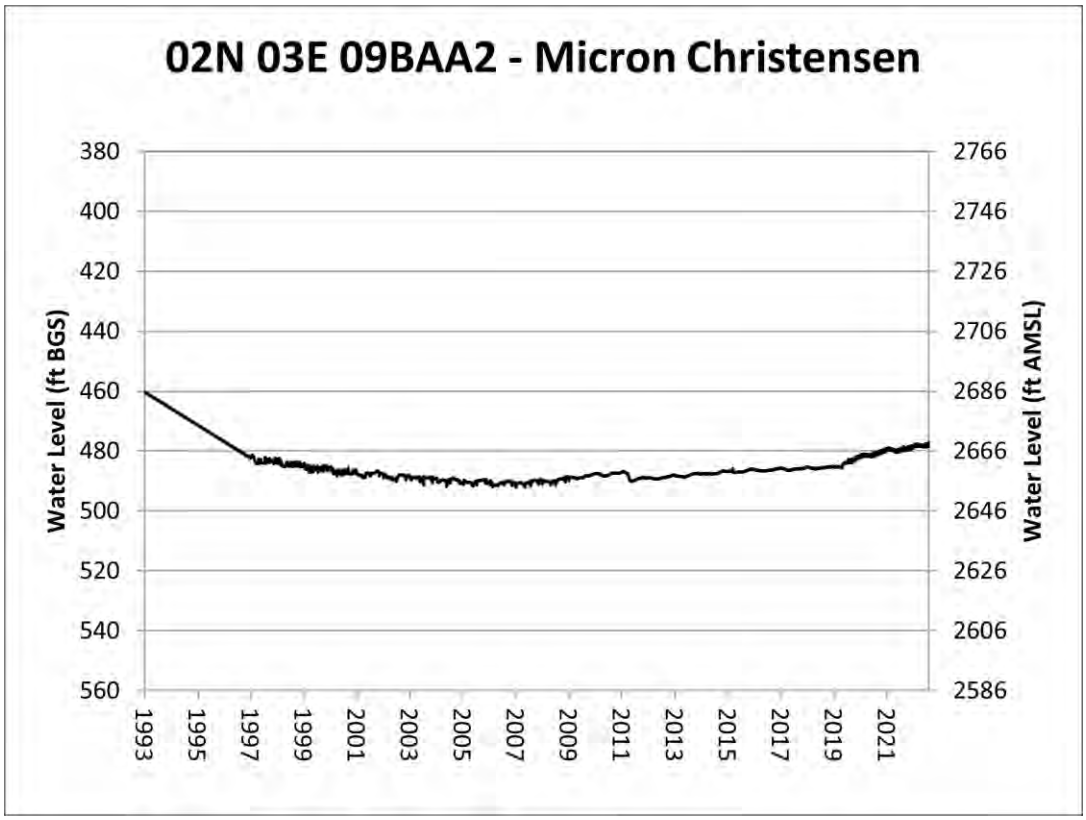

02N 03E 06DCA1 - Micron Test #1
Water Level (ft BGS)
349
369
389
409
429
449
469
489
509
529
Water Level (ft AMSL)
2716
2696
2676
2656
2636
2616
2596
2576
2556
2536
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

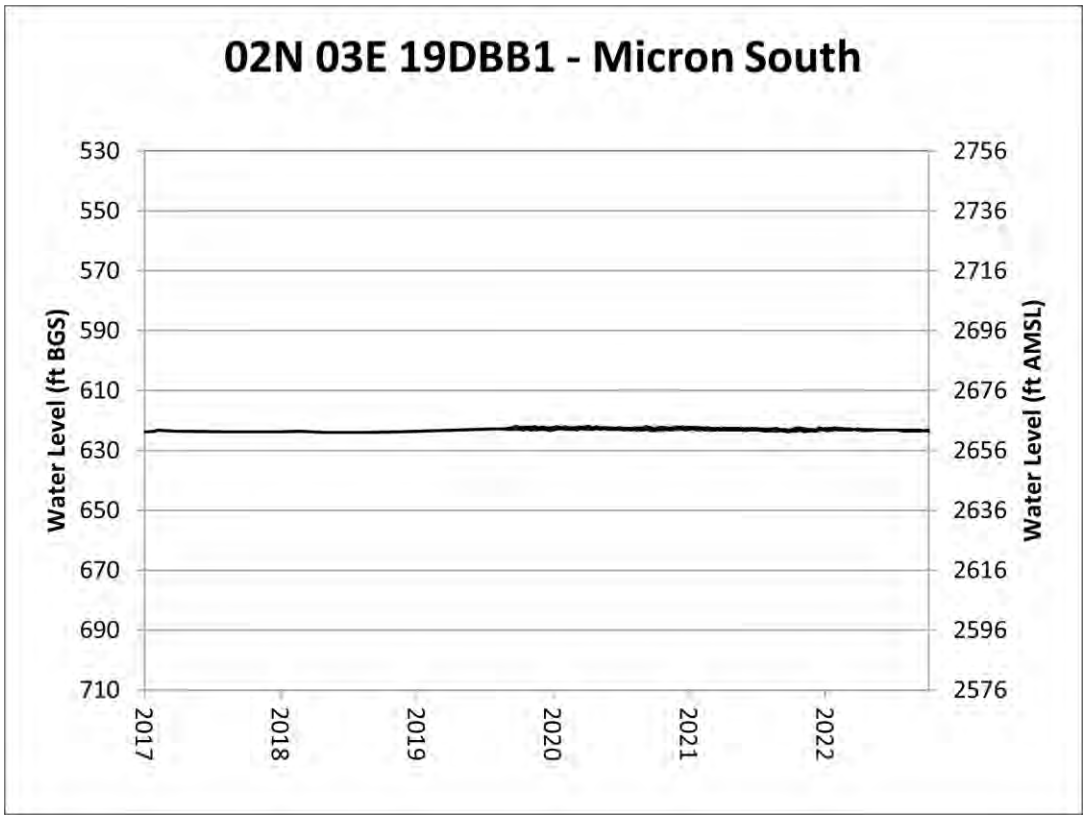

02N 03E 07BAC1 - Micron Test #2
Water Level (ft BGS)
350
370
390
410
430
450
470
490
510
530
Water Level (ft AMSL)
2719
2699
2679
2659
2639
2619
2599
2579
2559
2539
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

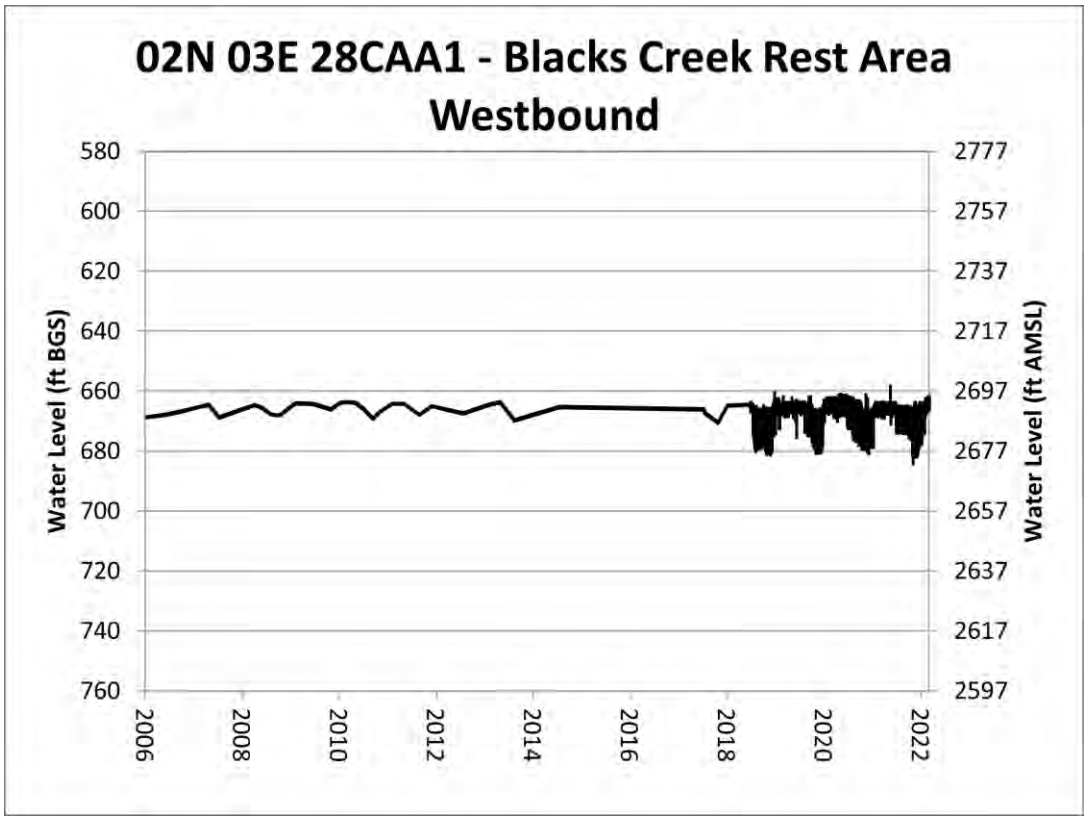

02N 03E 07CDA1 - Micron Pettibone
Water Level (ft BGS)
380
400
420
440
460
480
500
520
540
560
Water Level (ft AMSL)
2680
2660
2640
2620
2600
2580
2560
2540
2520
2500
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

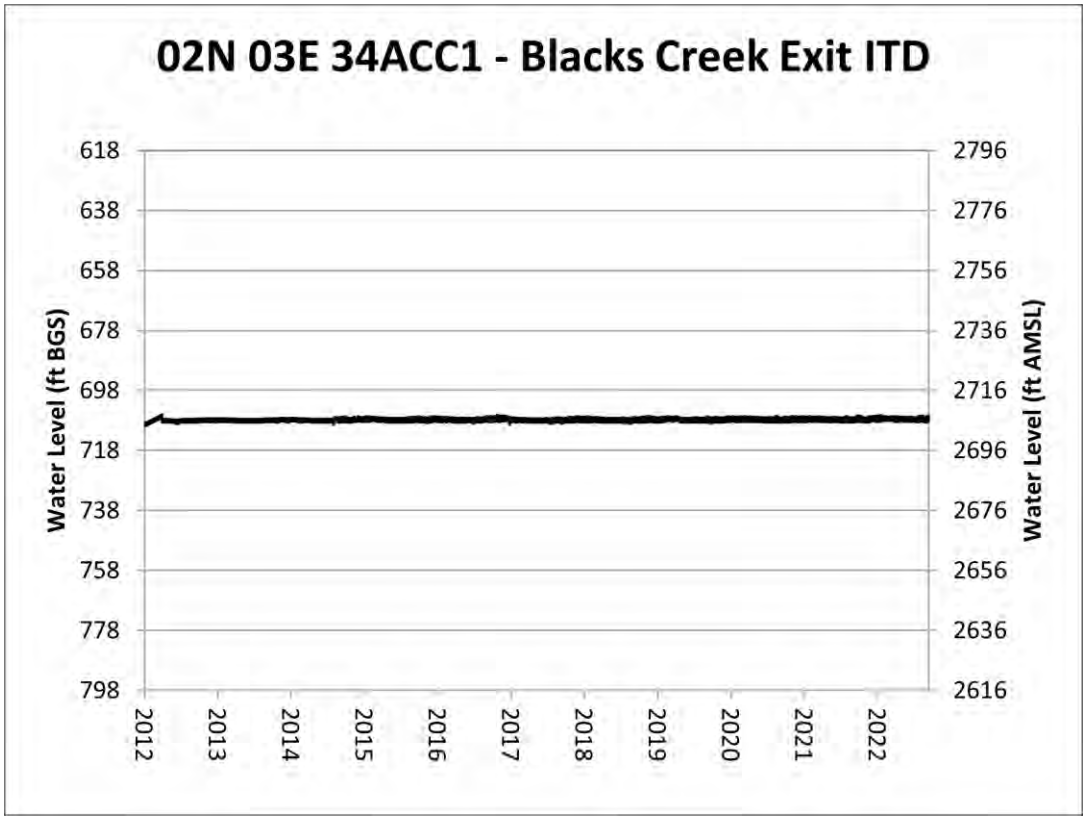

02N 03E 07DBB1 - Micron Shallow Obs
Water Level (ft BGS)
390
410
430
450
470
490
510
530
550
570
Water Level (ft AMSL)
2681
2661
2641
2621
2601
2581
2561
2541
2521
2501
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

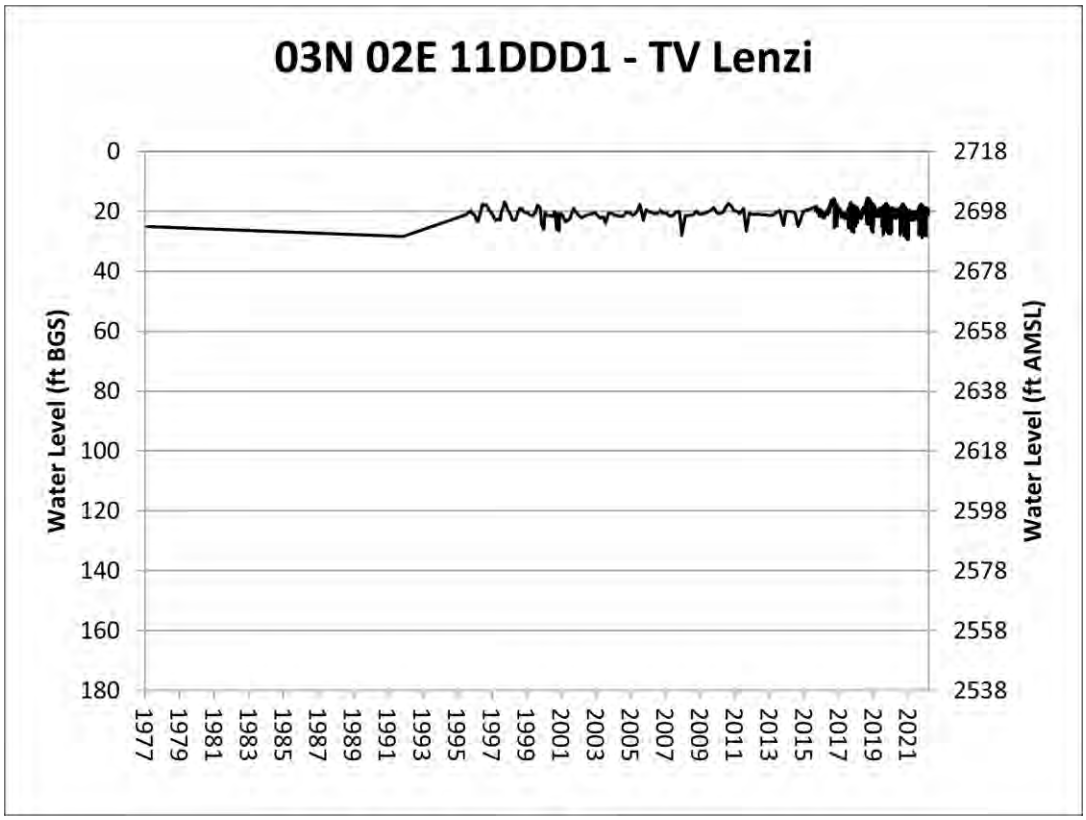

02N 03E 07DBB2 - Micron Deep Obs
Water Level (ft BGS)
400
420
440
460
480
500
520
540
560
580
Water Level (ft AMSL)
2668
2648
2628
2608
2588
2568
2548
2528
2508
2488
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

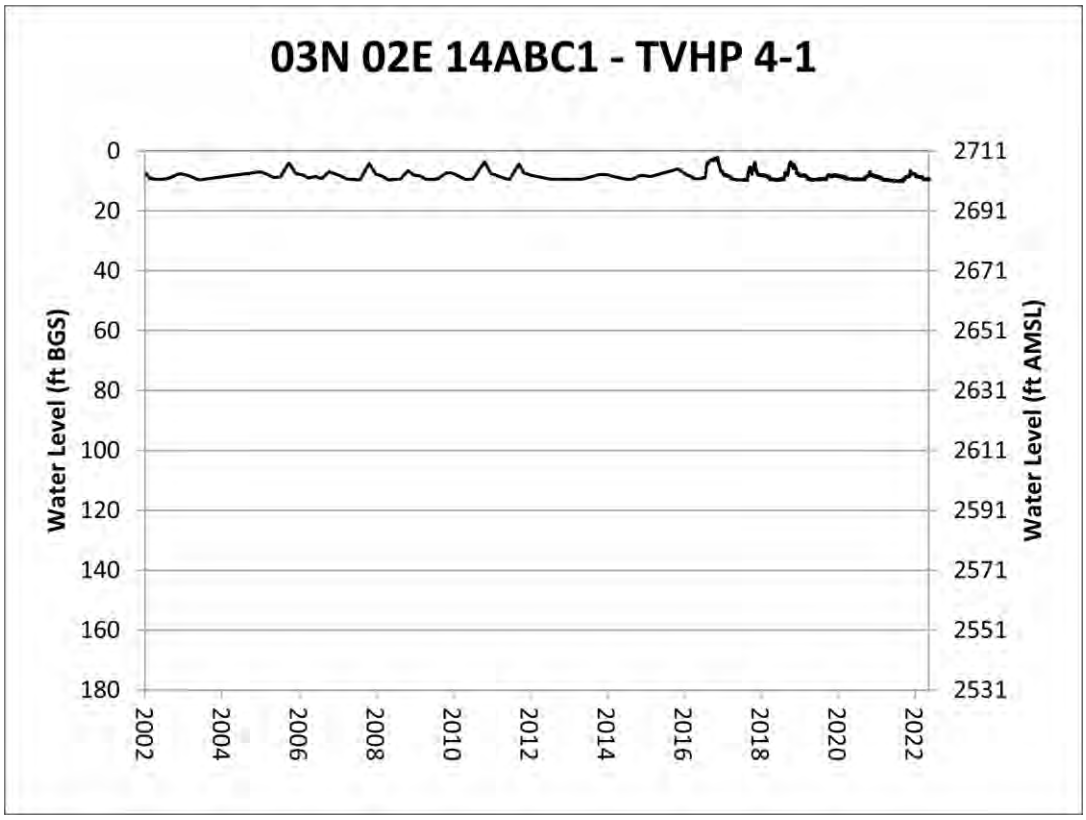

02N 03E 09BAA2 - Micron Christensen
Water Level (ft BGS)
380
400
420
440
460
480
500
520
540
560
Water Level (ft AMSL)
2766
2746
2726
2706
2686
2666
2646
2626
2606
2586
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

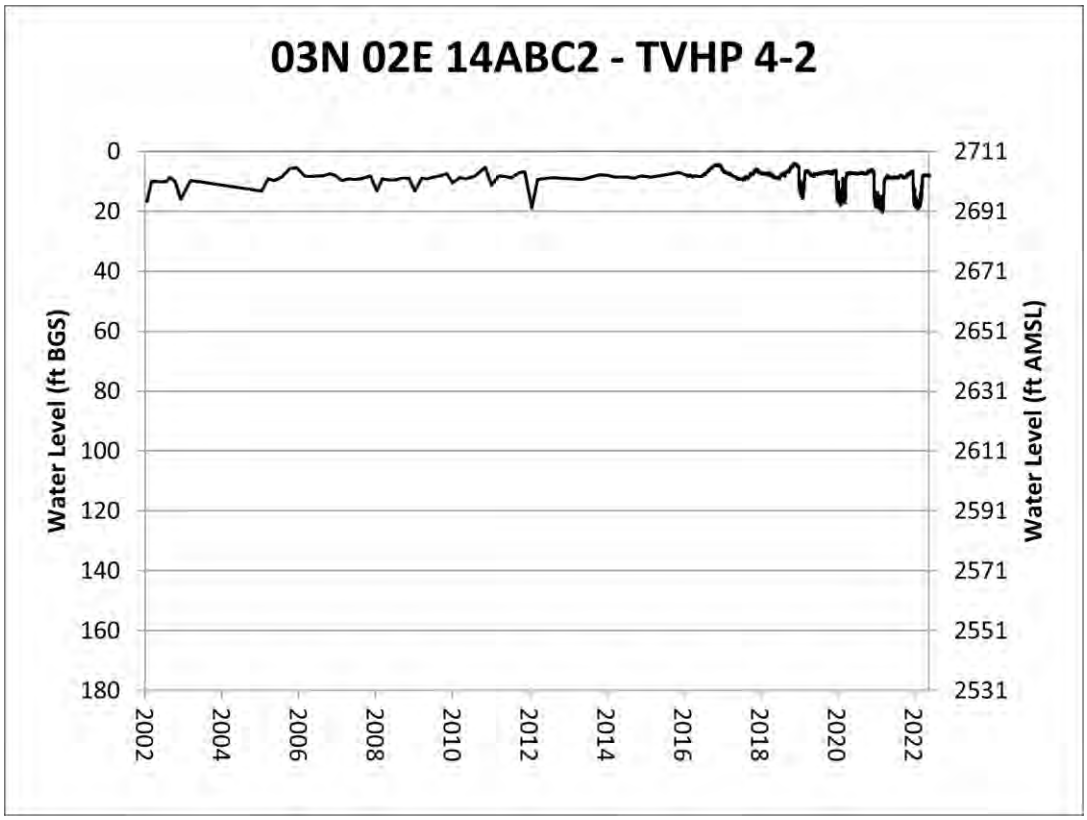

02N 03E 19DBB1 - Micron South
Water Level (ft BGS)
530
550
570
590
610
630
650
670
690
710
Water Level (ft AMSL)
2756
2736
2716
2696
2676
2656
2636
2616
2596
2576
2017
2018
2019
2020
2021
2022

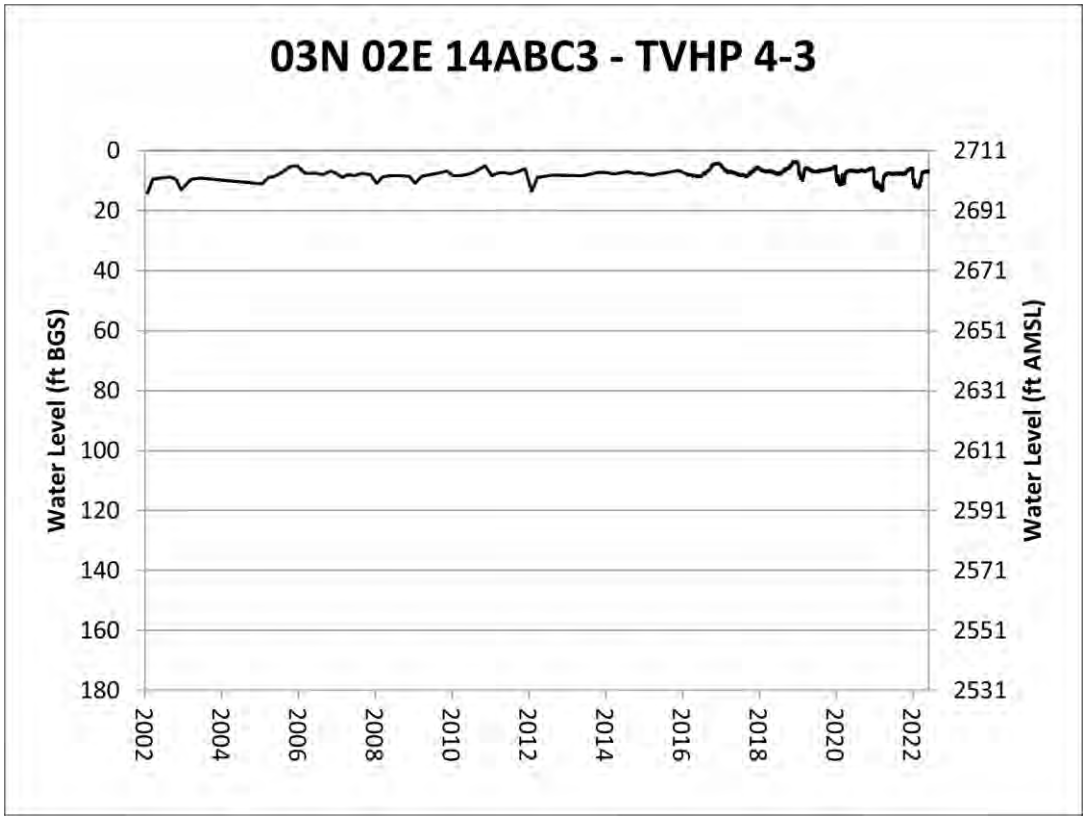

02N 03E 28CAA1 - Blacks Creek Rest Area Westbound
Water Level (ft BGS)
580
600
620
640
660
680
700
720
740
760
Water Level (ft AMSL)
2777
2757
2737
2717
2697
2677
2657
2637
2617
2597
2006
2008
2010
2012
2014
2016
2018
2020
2022

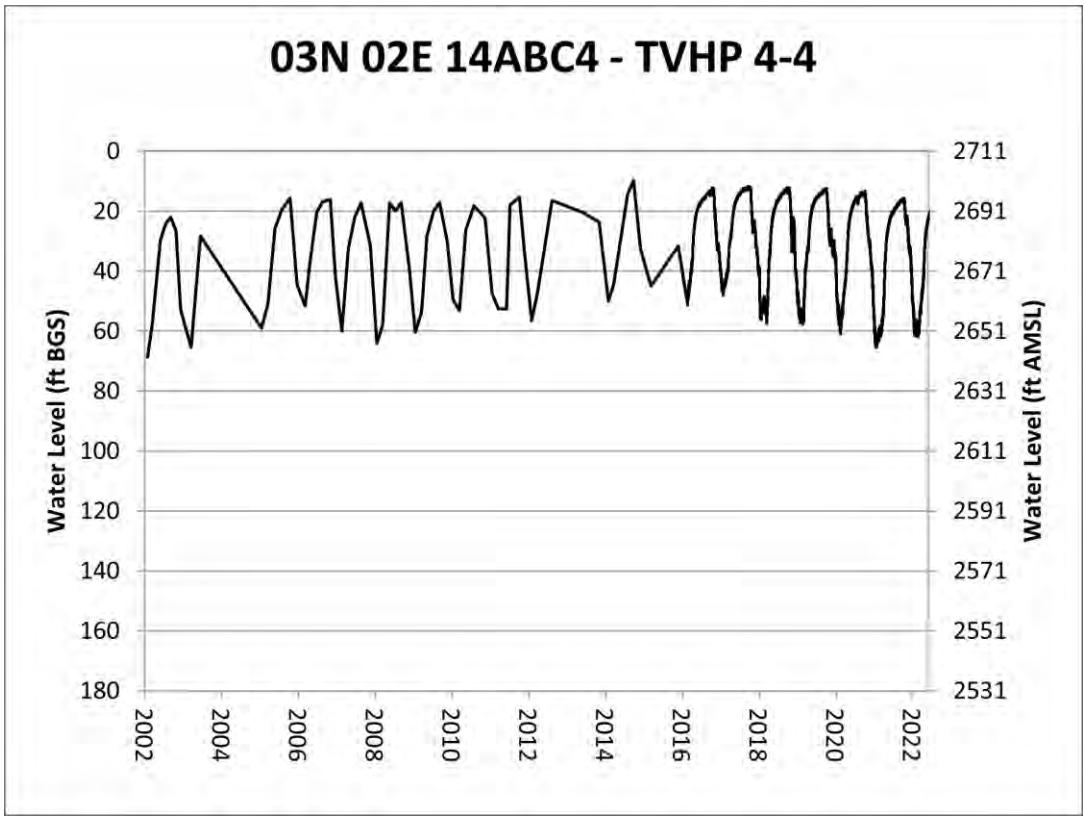

02N 03E 34ACC1 - Blacks Creek Exit ITD
Water Level (ft BGS)
618
638
658
678
698
718
738
758
778
798
Water Level (ft AMSL)
2796
2776
2756
2736
2716
2696
2676
2656
2636
2616
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022

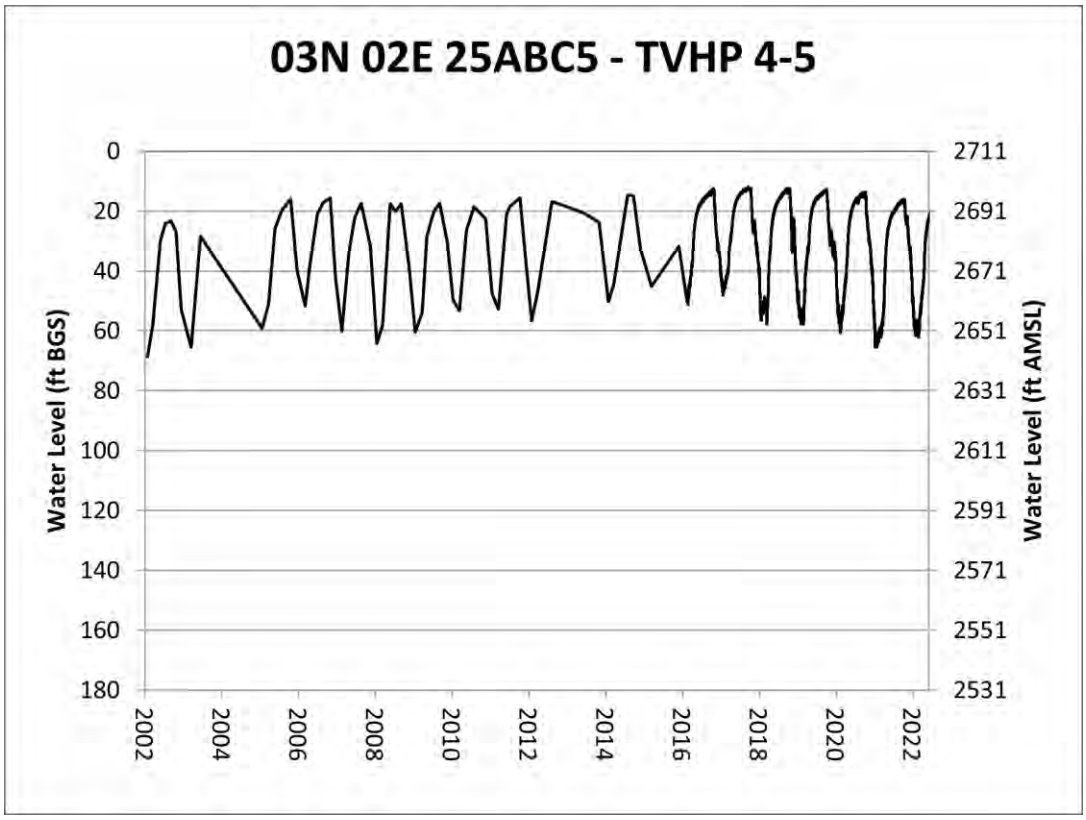

03N 02E 11DDD1 - TV Lenzi
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2718
2698
2678
2658
2638
2618
2598
2578
2558
2538
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

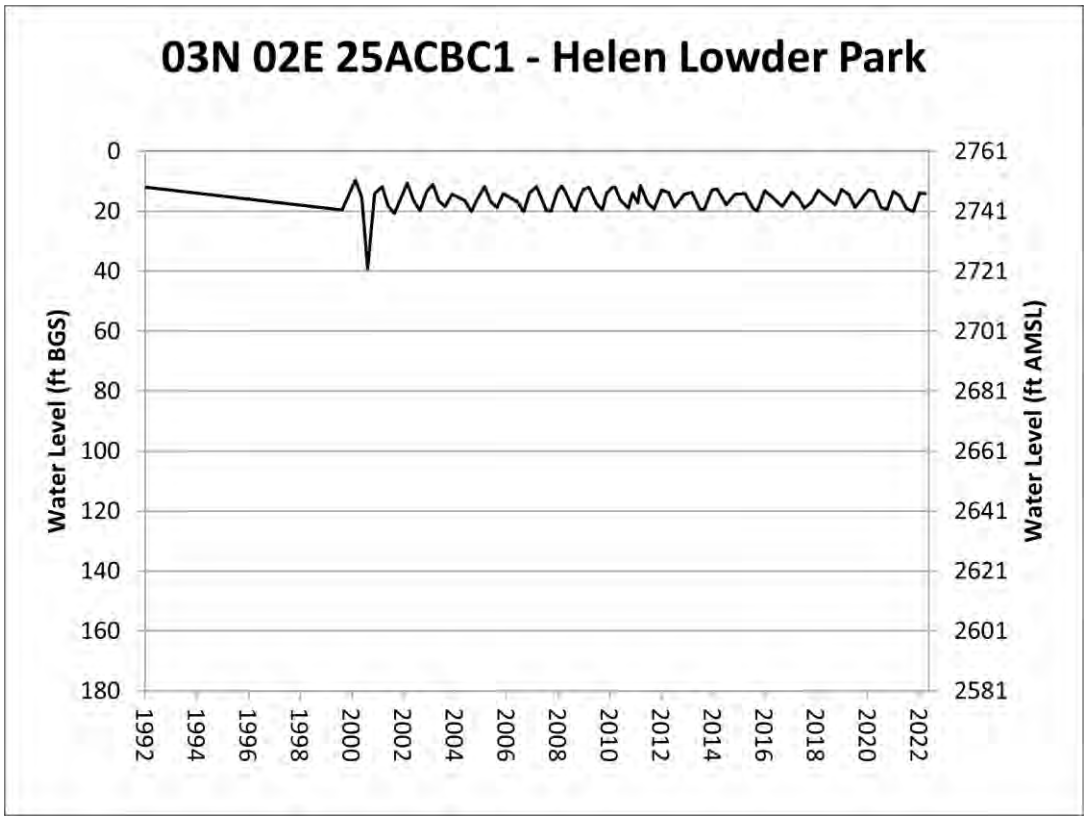

03N 02E 14ABC1 - TVHP 4-1
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

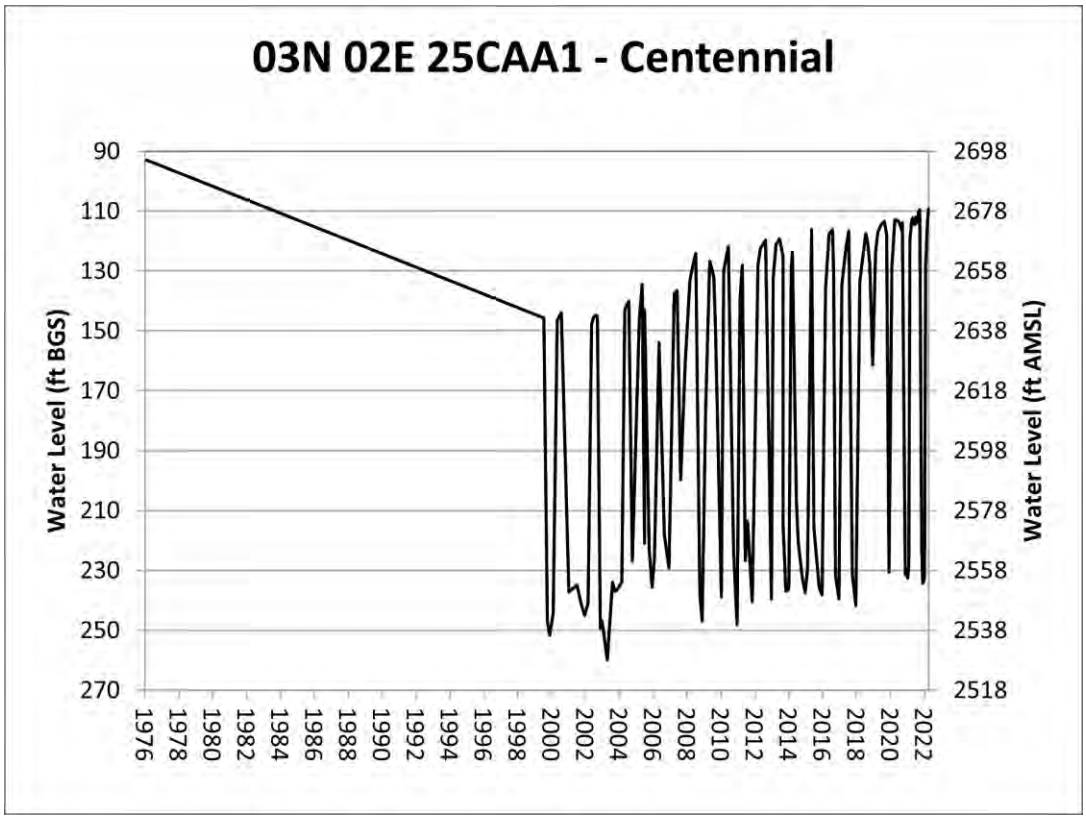

03N 02E 14ABC2 - TVHP 4-2
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

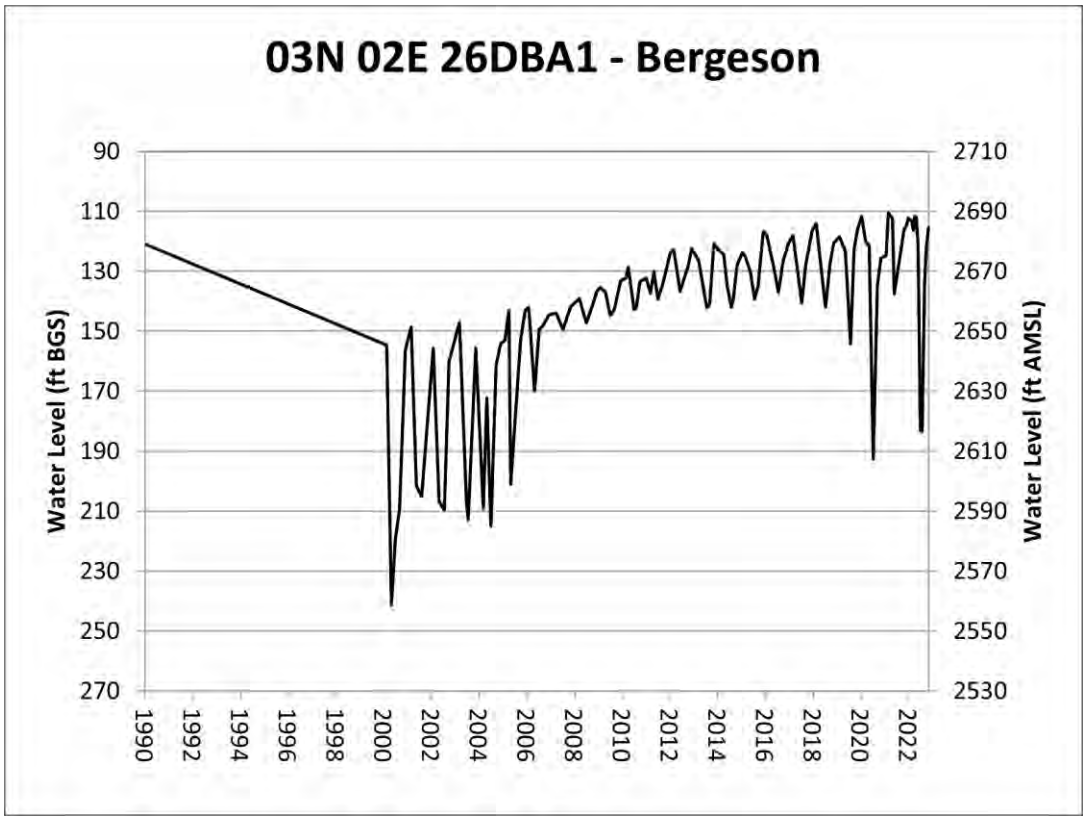

03N 02E 14ABC3 - TVHP 4-3
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

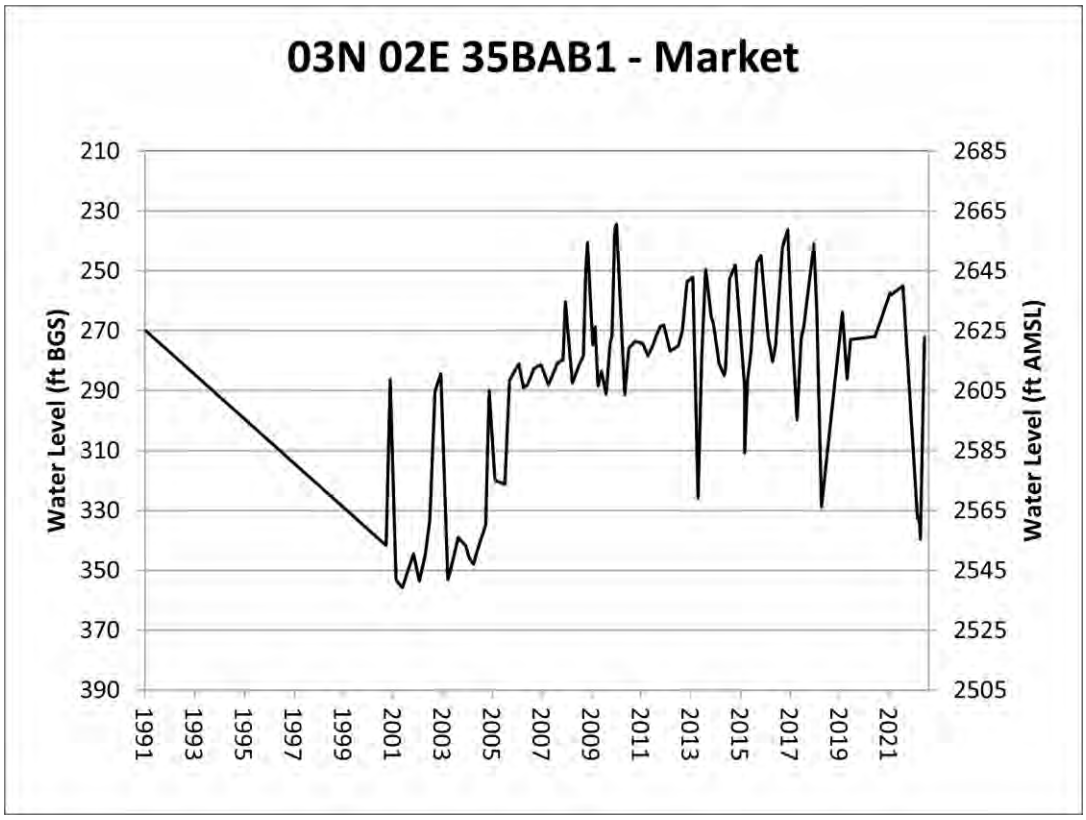

03N 02E 14ABC4 - TVHP 4-4
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

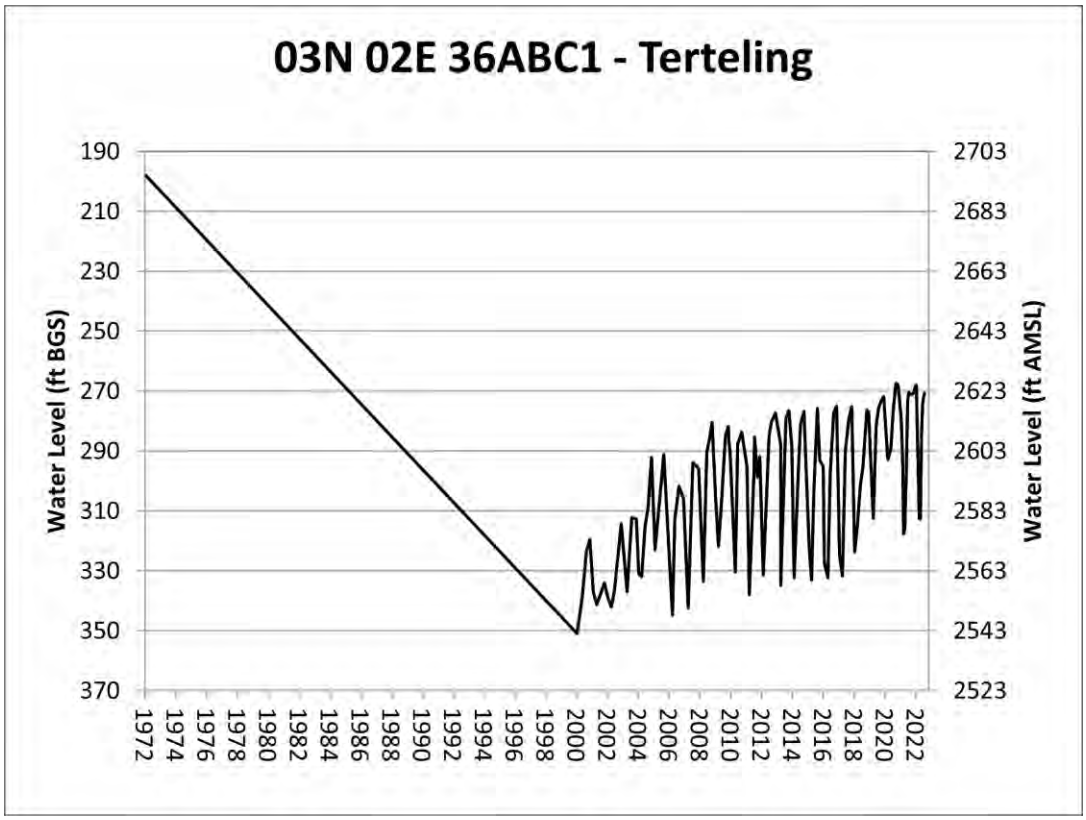

03N 02E 25ABC5 - TVHP 4-5
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

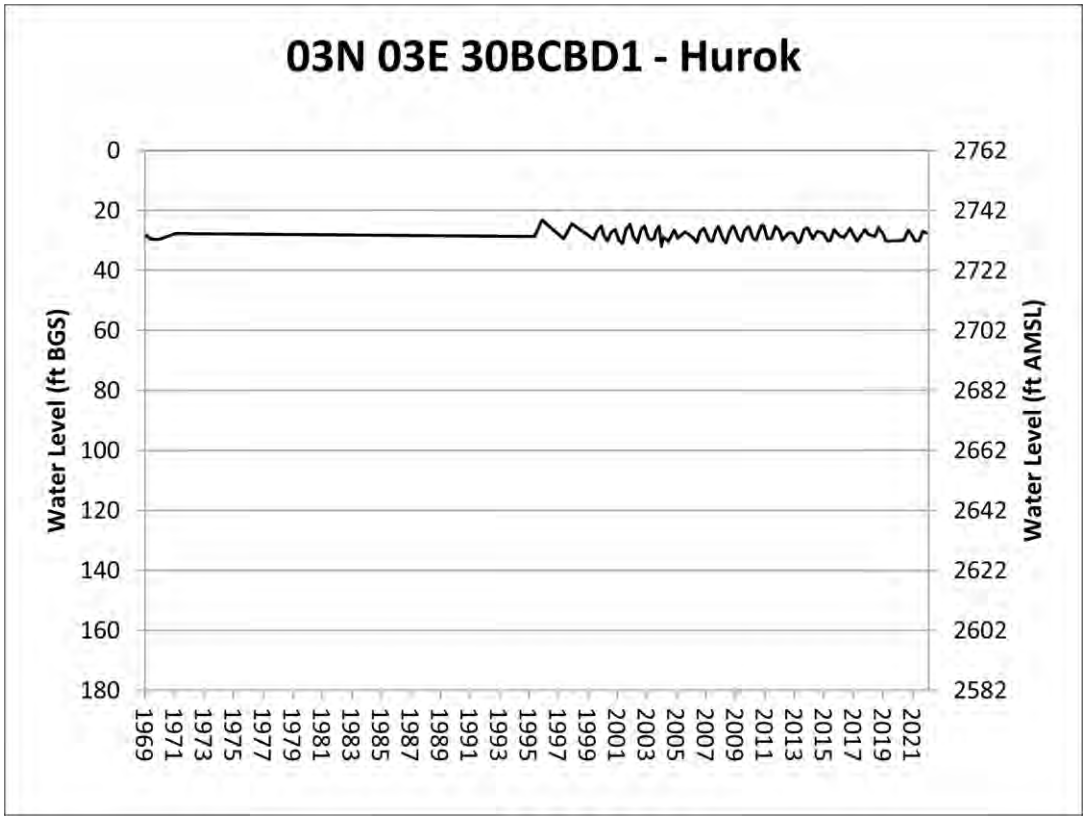

03N 02E 25ACBC1 - Helen Lowder Park
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2761
2741
2721
2701
2681
2661
2641
2621
2601
2581
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

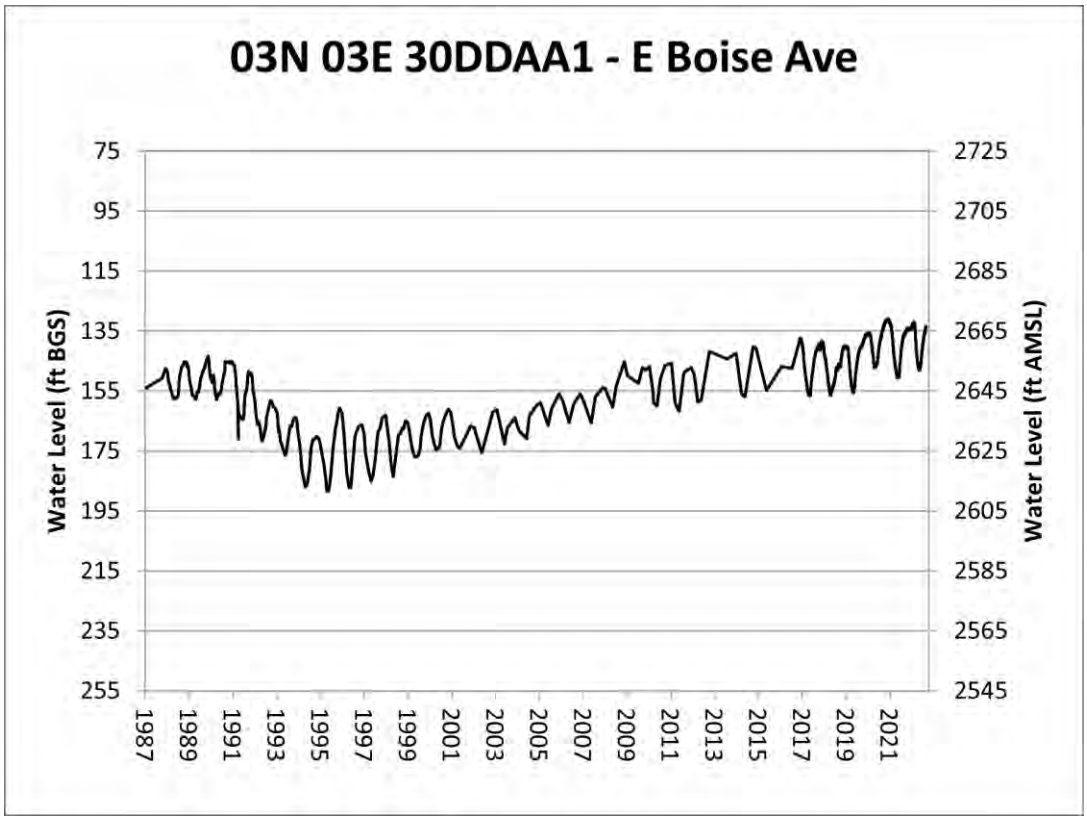

03N 02E 25CAA1 - Centennial
Water Level (ft BGS)
90
110
130
150
170
190
210
230
250
270
Water Level (ft AMSL)
2698
2678
2658
2638
2618
2598
2578
2558
2538
2518
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

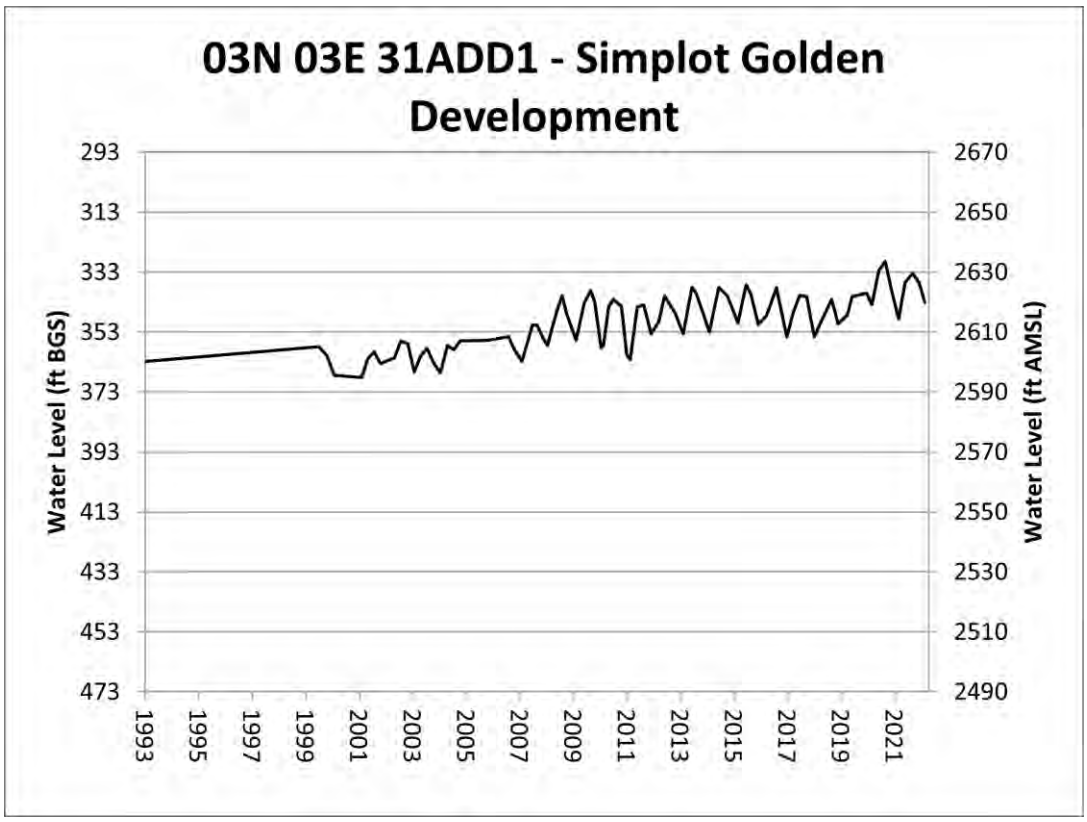

03N 02E 26DBA1 - Bergeson
Water Level (ft BGS)
90
110
130
150
170
190
210
230
250
270
Water Level (ft AMSL)
2710
2690
2670
2650
2630
2610
2590
2570
2550
2530
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

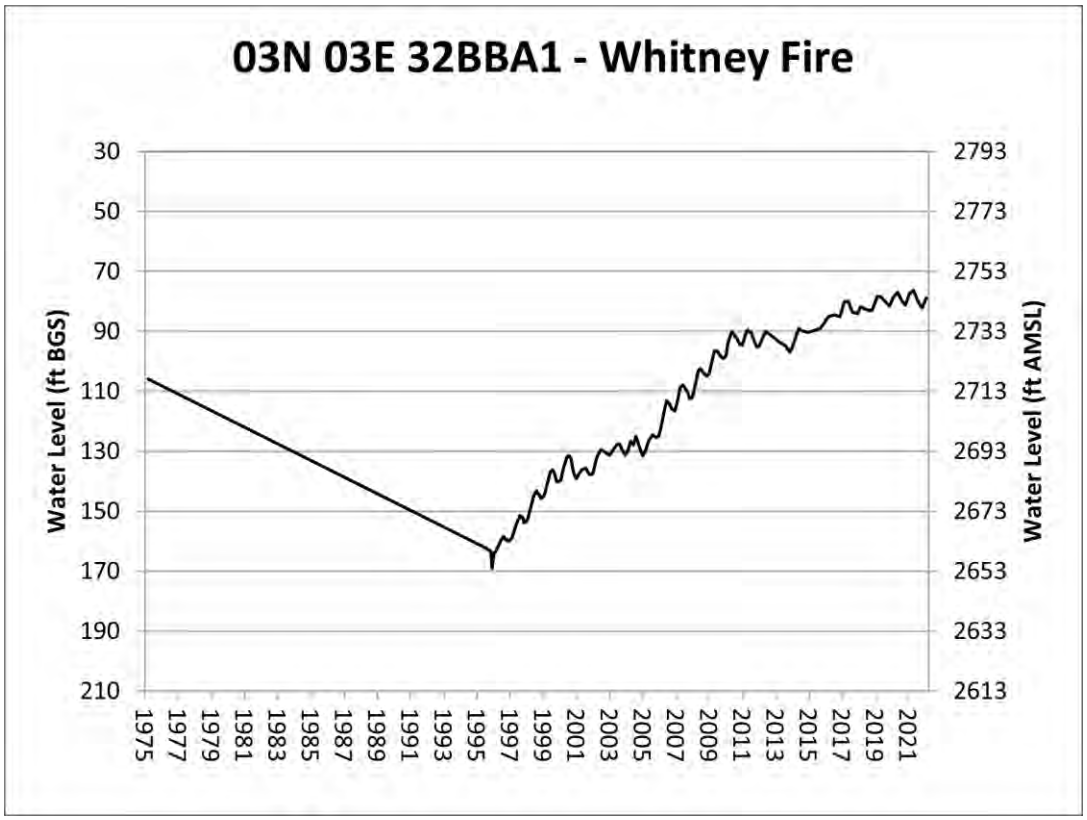

03N 02E 35BAB1 - Market
Water Level (ft BGS)
210
230
250
270
290
310
330
350
370
390
Water Level (ft AMSL)
2685
2665
2645
2625
2605
2585
2565
2545
2525
2505
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

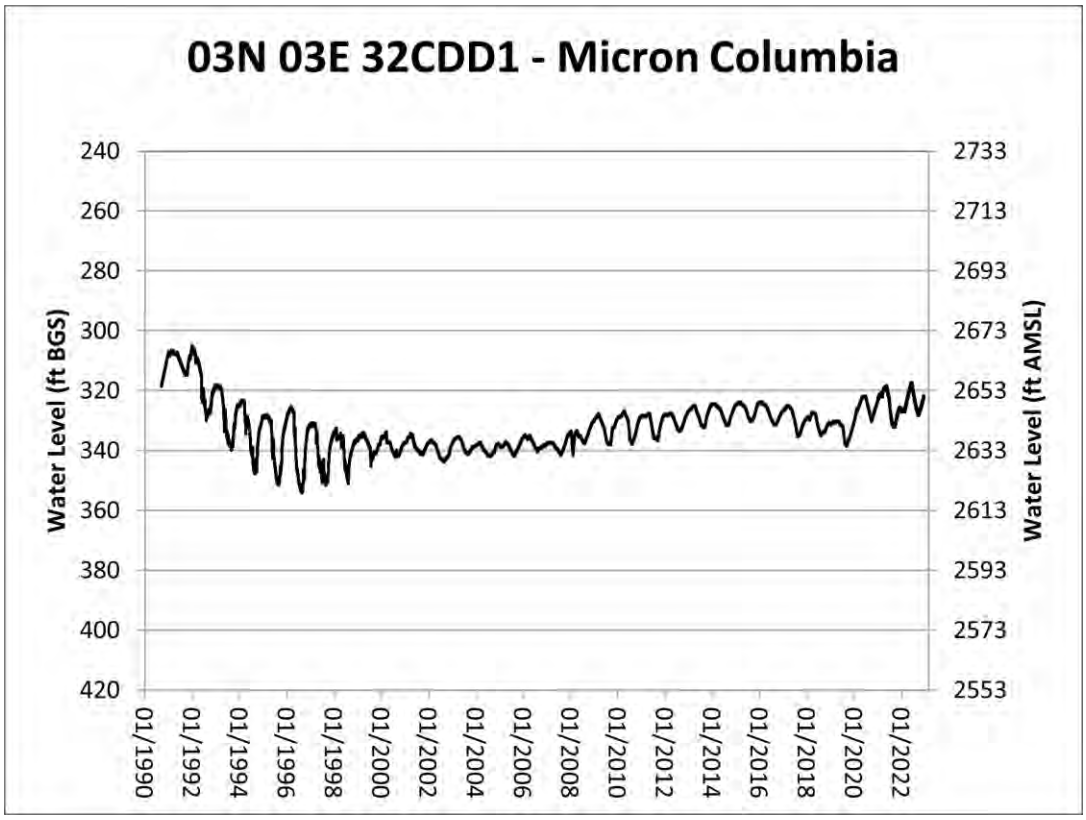

03N 02E 36ABC1 - Terteling
Water Level (ft BGS)
190
210
230
250
270
290
310
330
350
370
Water Level (ft AMSL)
2703
2683
2663
2643
2623
2603
2583
2563
2543
2523
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022

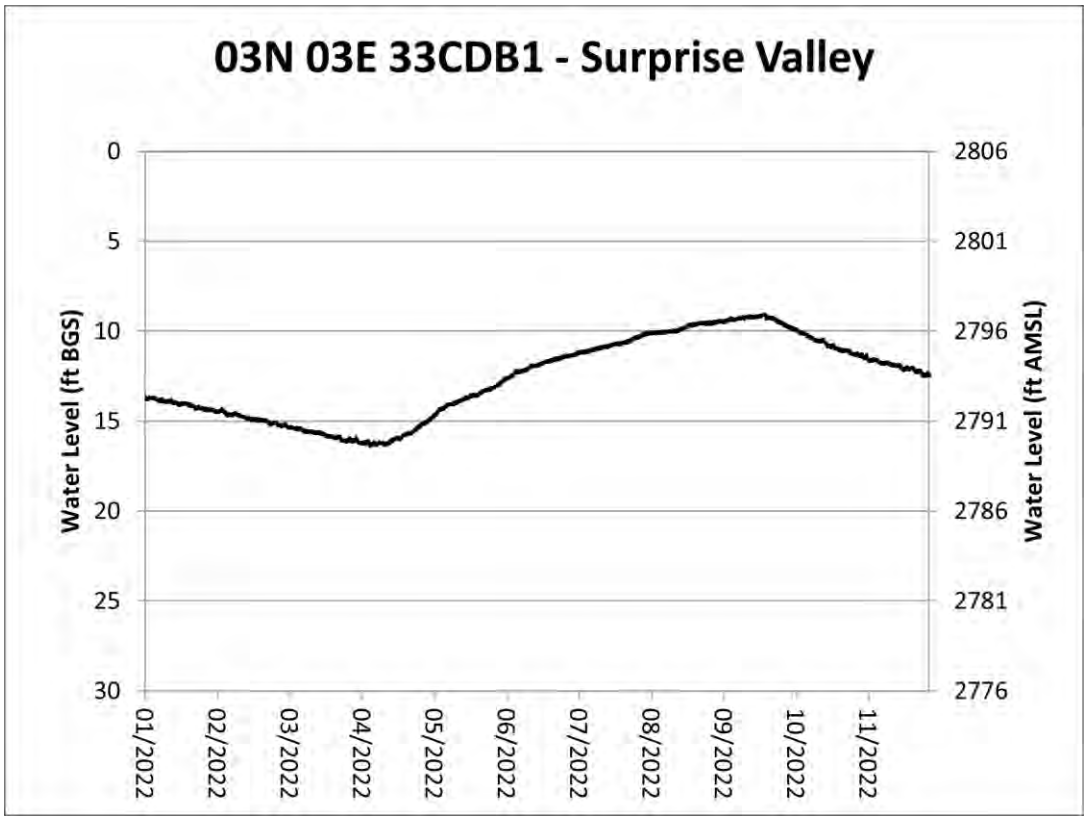

03N 03E 30BCBD1 - Hurok
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2762
2742
2722
2702
2682
2662
2642
2622
2602
2582
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

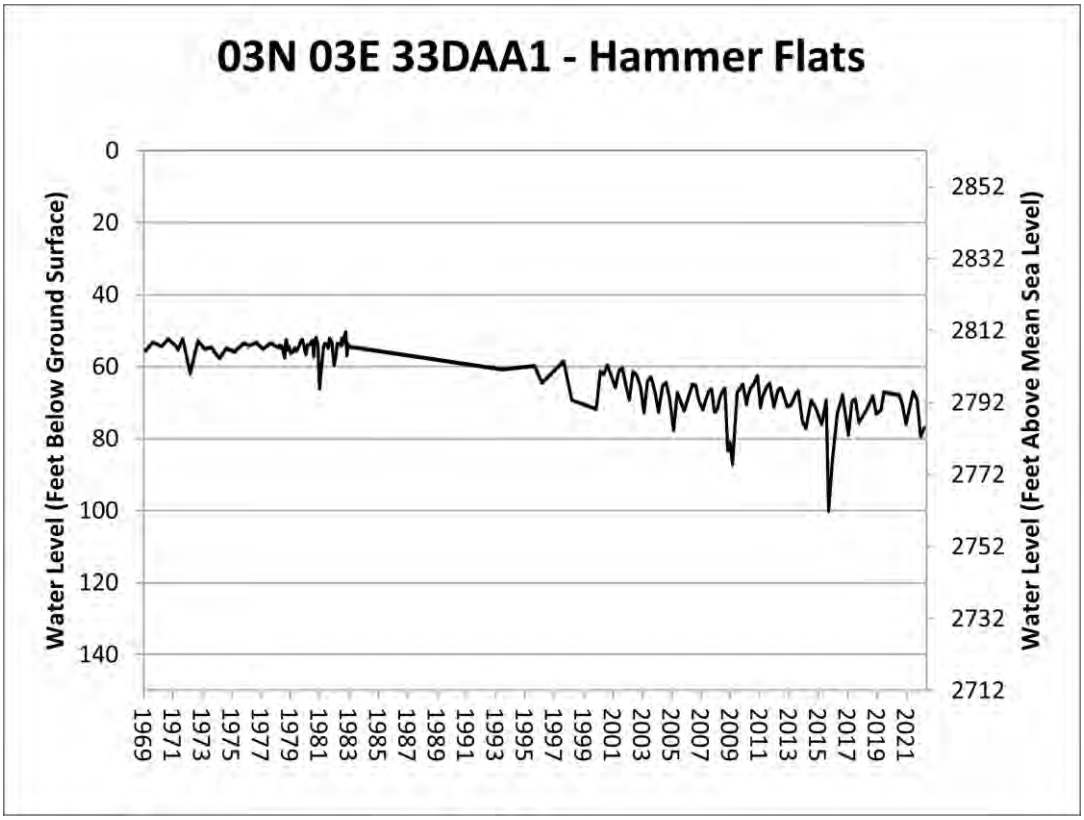

03N 03E 30DDAA1 - E Boise Ave
Water Level (ft BGS)
75
95
115
135
155
175
195
215
235
255
Water Level (ft AMSL)
2725
2705
2685
2665
2645
2625
2605
2585
2565
2545
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021


03N 03E 31ADD1 - Simplot Golden Development
Water Level (ft BGS)
293
313
333
353
373
393
413
433
453
473
Water Level (ft AMSL)
2670
2650
2630
2610
2590
2570
2550
2530
2510
2490
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021


03N 03E 32BBA1 - Whitney Fire
Water Level (ft BGS)
30
50
70
90
110
130
150
170
190
210
Water Level (ft AMSL)
2793
2773
2753
2733
2713
2693
2673
2653
2633
2613
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

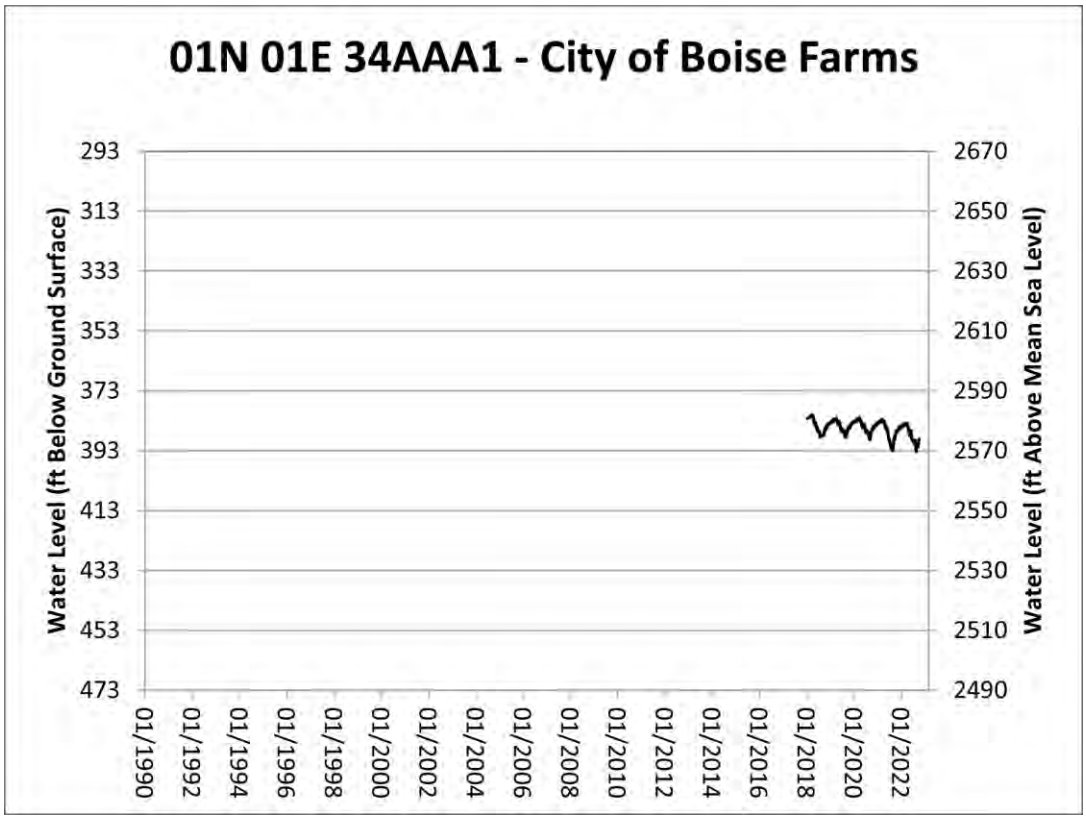

03N 03E 32CDD1 - Micron Columbia
Water Level (ft BGS)
240
260
280
300
320
340
360
380
400
420
Water Level (ft AMSL)
2733
2713
2693
2673
2653
2633
2613
2593
2573
2553
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

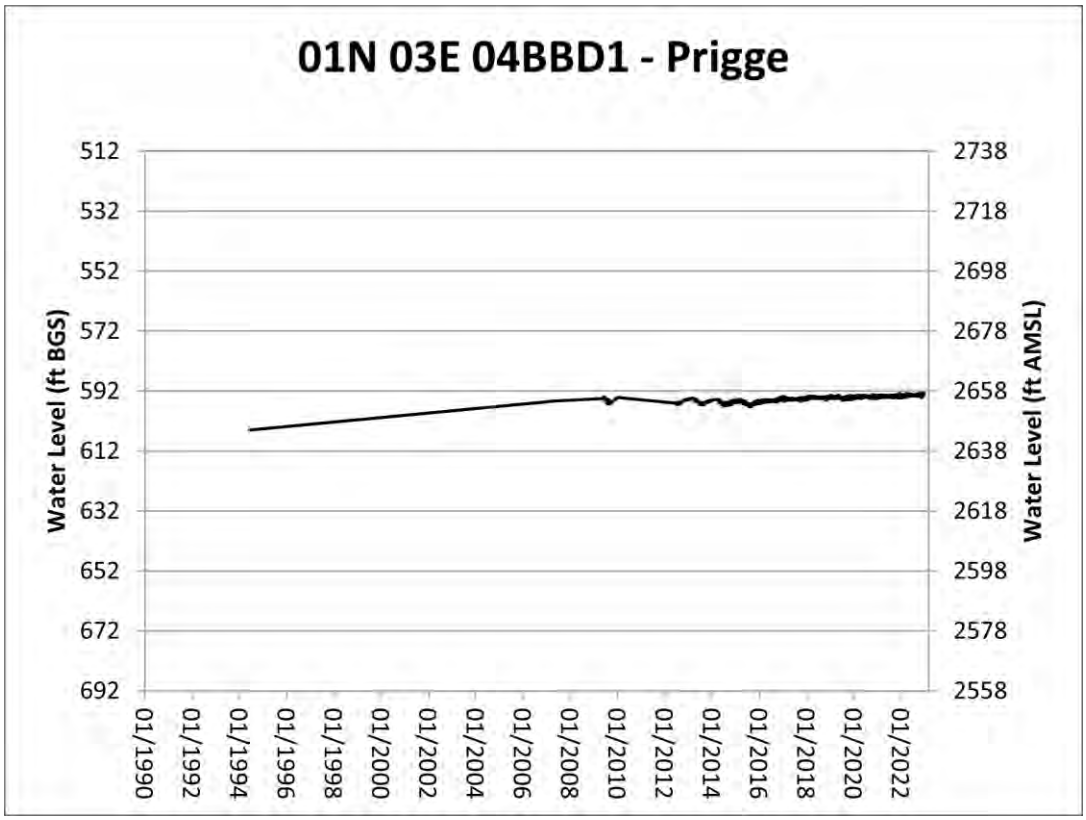

03N 03E 33CDB1 - Surprise Valley
Water Level (ft BGS)
0
5
10
15
20
25
30
Water Level (ft AMSL)
2806
2801
2796
2791
2786
2781
2776
01/2022
02/2022
03/2022
04/2022
05/2022
06/2022
07/2022
08/2022
09/2022
10/2022
11/2022

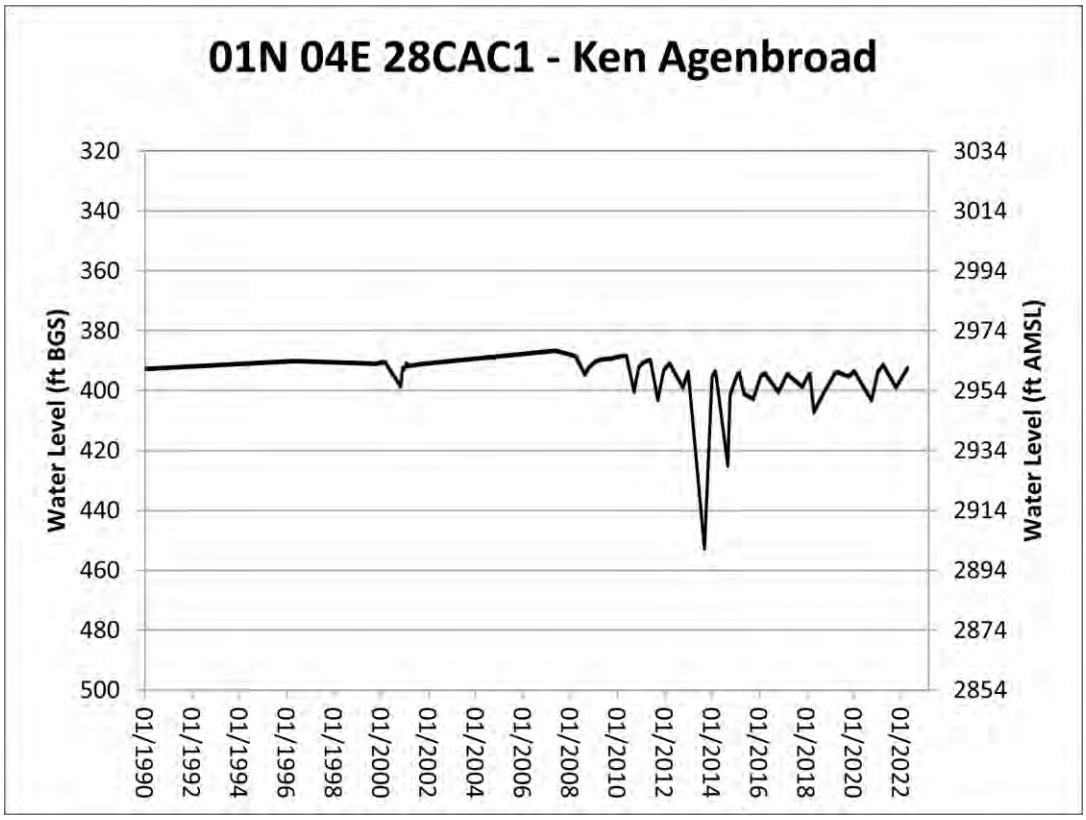

03N 03E 33DAA1 - Hammer Flats
Water Level (Feet Below Ground Surface)
0
20
40
60
80
100
120
140
Water Level (Feet Above Mean Sea Level)
2852
2832
2812
2792
2772
2752
2732
2712
1969
1971
1973
1975
1977
1979
1981
1983
1985
1987
1989
1991
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021

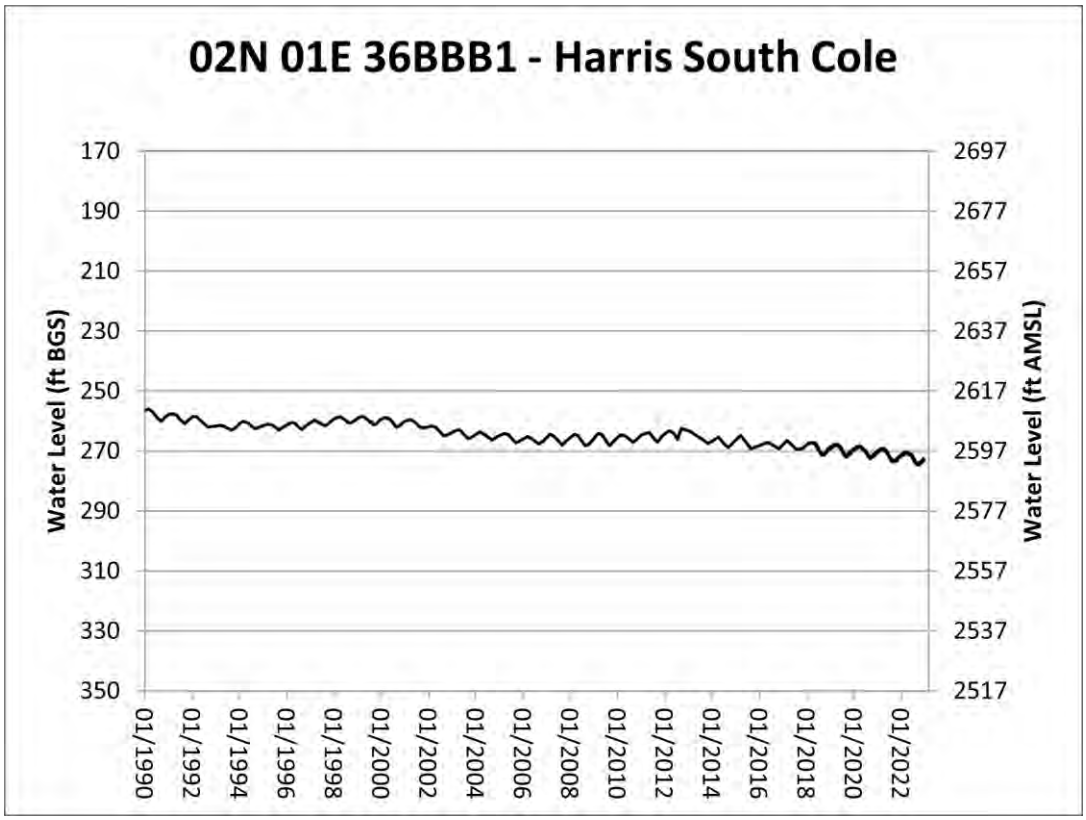
Appendix D

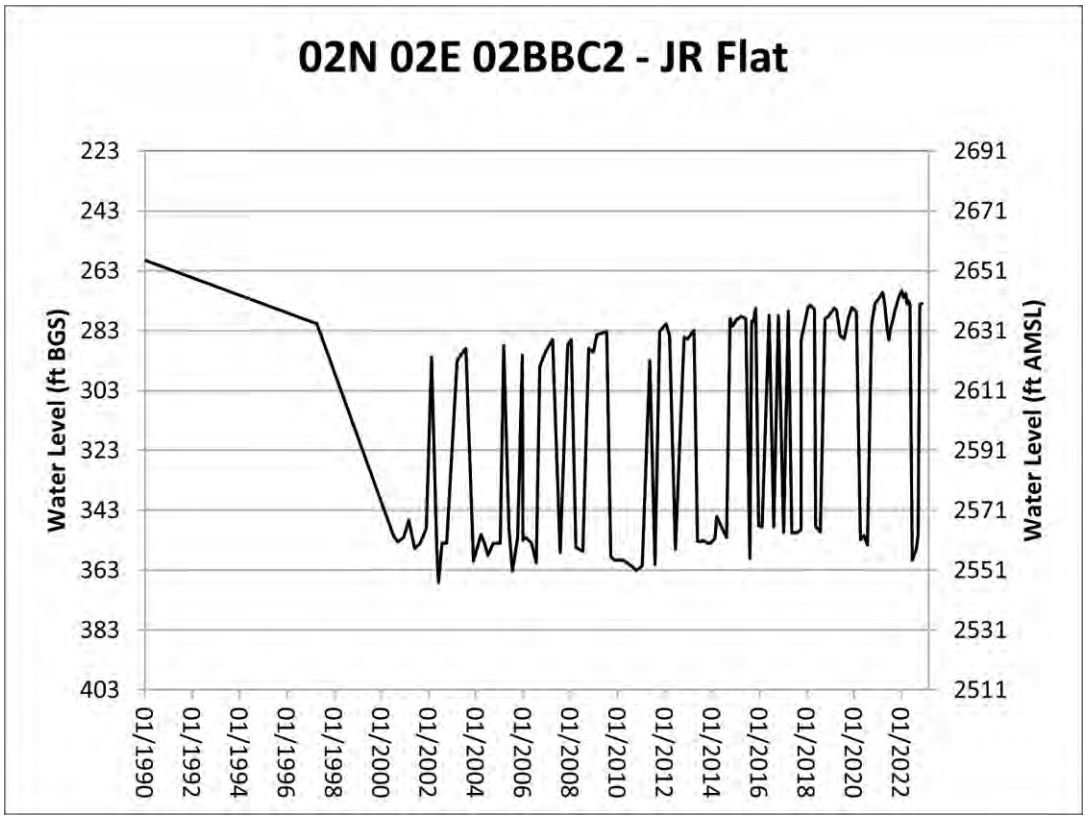
Hydrographs for Active Monitoring Wells from 1990 through 2021

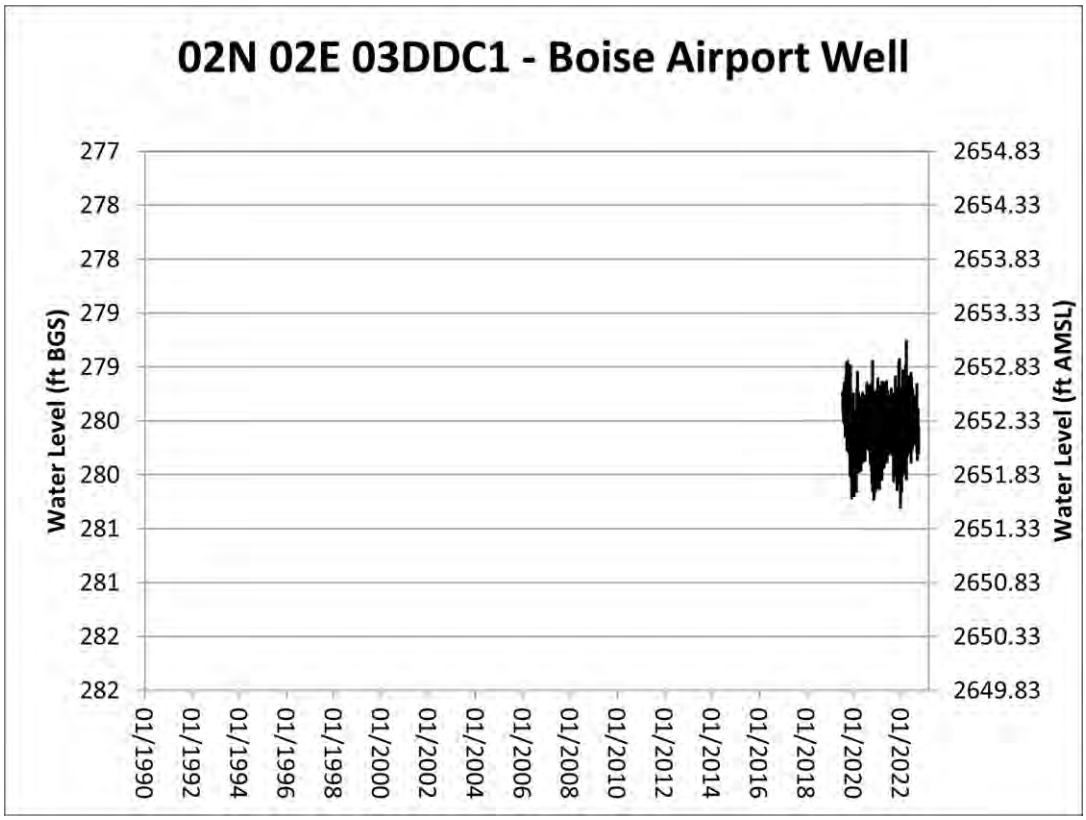

01N 01E 34AAA1 - City of Boise Farms
Water Level (ft Below Ground Surface)
293
313
333
353
373
393
413
433
453
473
Water Level (ft Above Mean Sea Level)
2670
2650
2630
2610
2590
2570
2550
2530
2510
2490
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

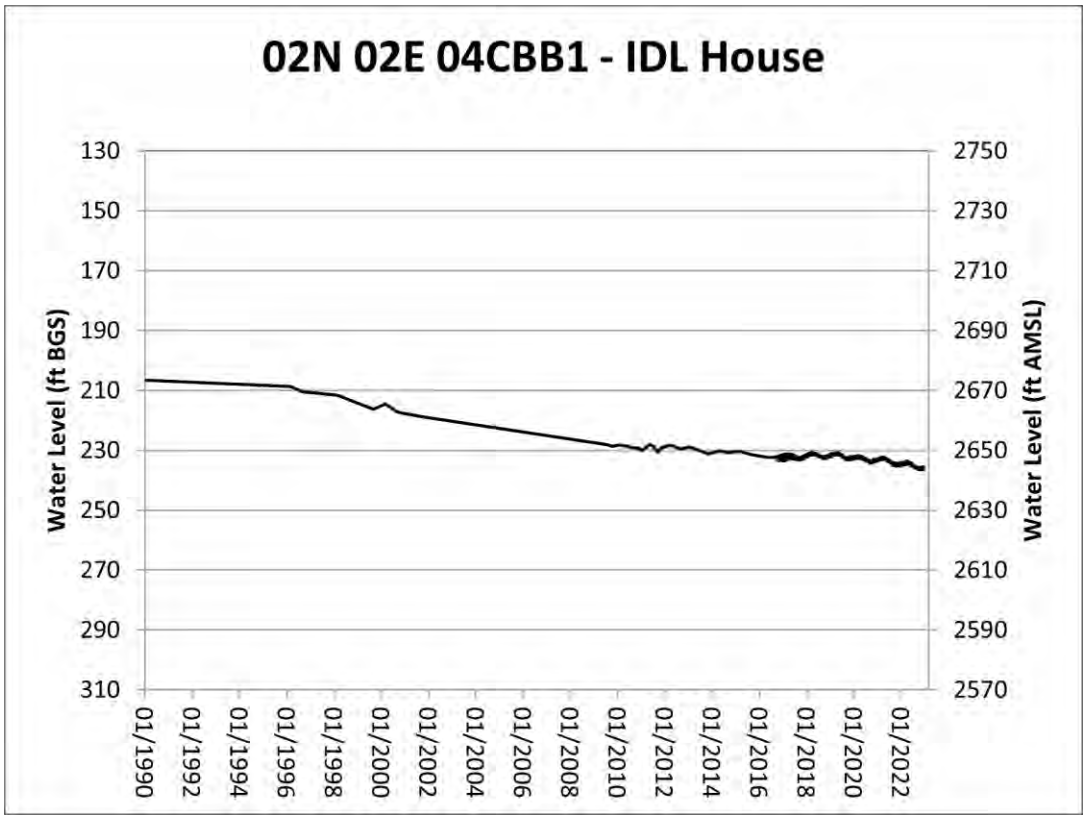

01N 03E 04BBD1 - Prigge
Water Level (ft BGS)
512
532
552
572
592
612
632
652
672
692
Water Level (ft AMSL)
2738
2718
2698
2678
2658
2638
2618
2598
2578
2558
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

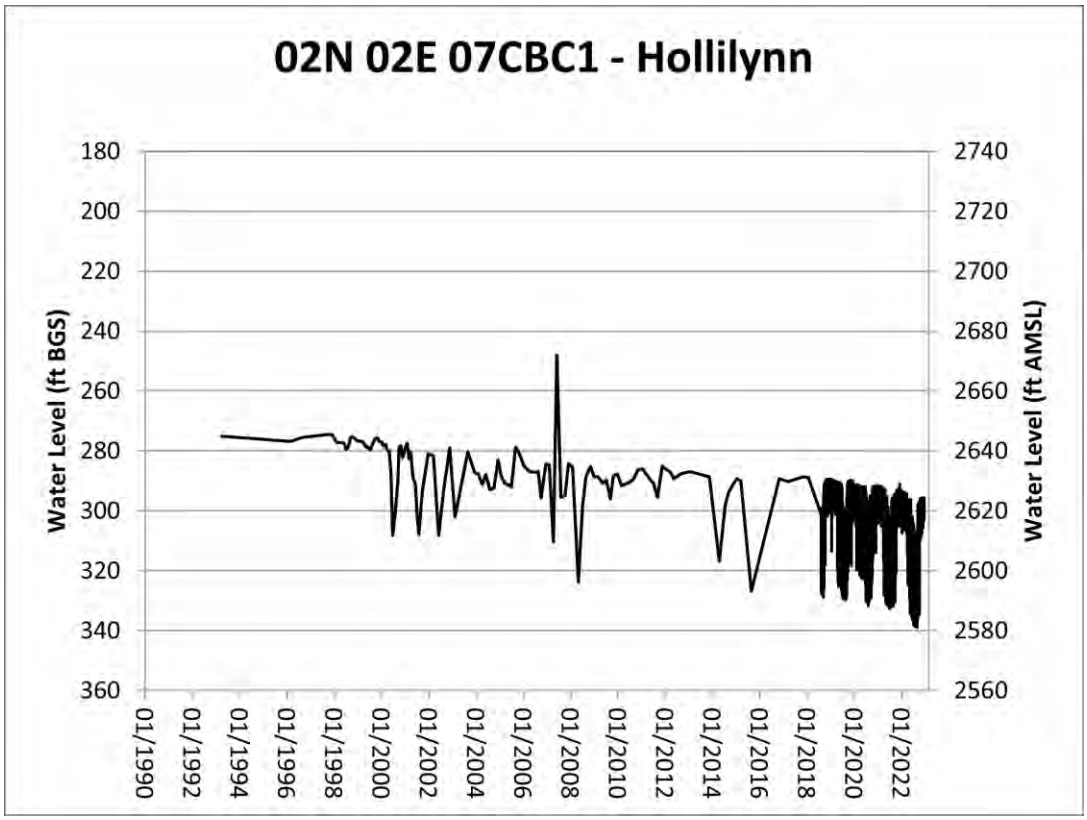

01N 04E 28CAC1 - Ken Agenbroad
Water Level (ft BGS)
320
340
360
380
400
420
440
460
480
500
Water Level (ft AMSL)
3034
3014
2994
2974
2954
2934
2914
2894
2874
2854
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

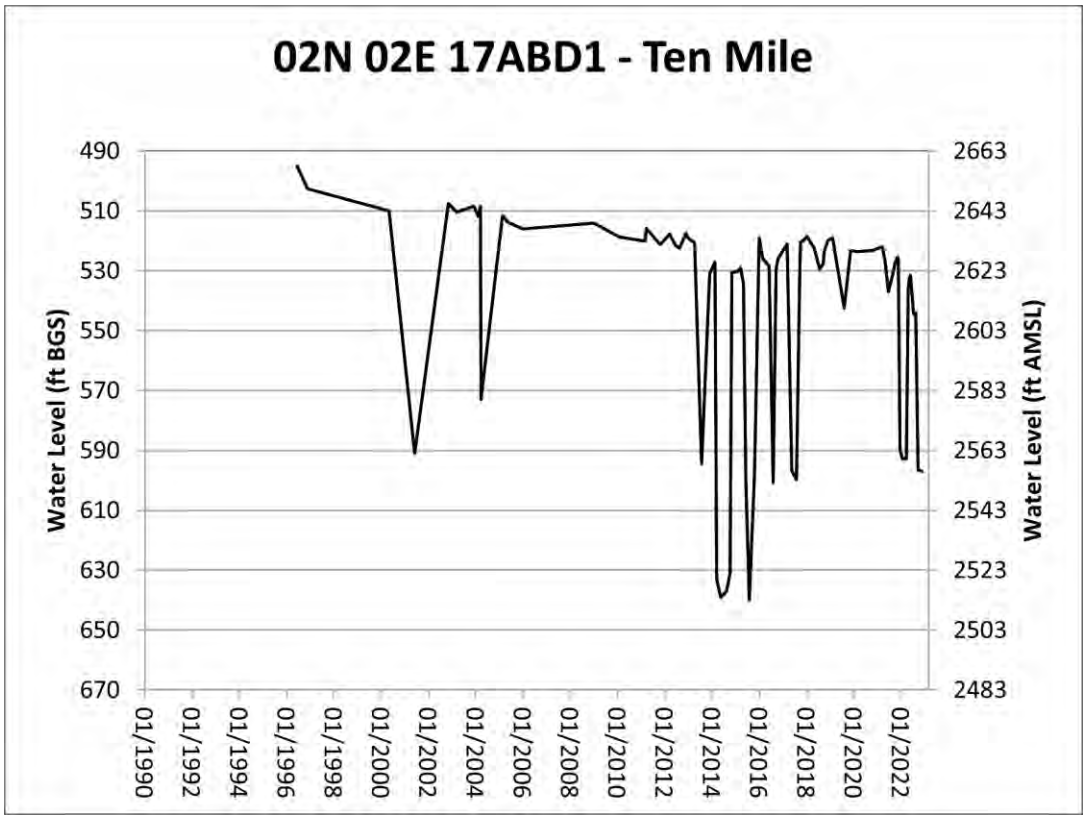

02N 01E 36BBB1 - Harris South Cole
Water Level (ft BGS)
170
190
210
230
250
270
290
310
330
350
Water Level (ft AMSL)
2697
2677
2657
2637
2617
2597
2577
2557
2537
2517
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

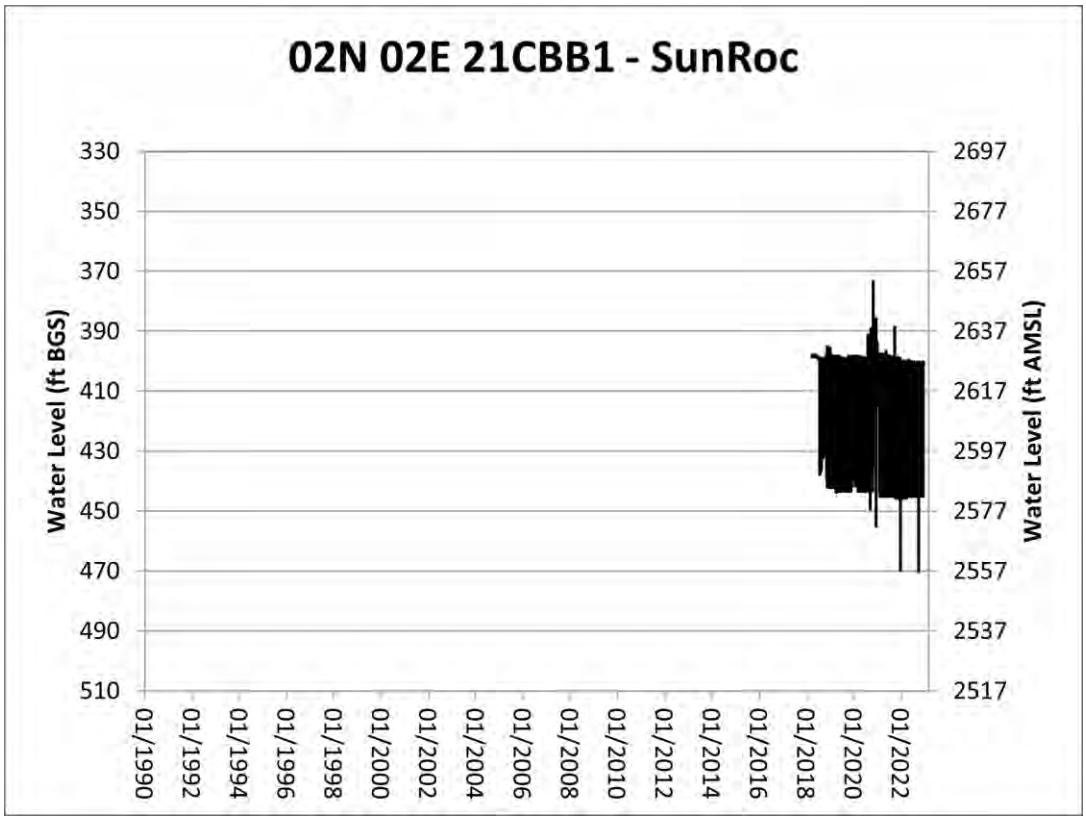

02N 02E 02BBC2 - JR Flat
Water Level (ft BGS)
223
243
263
283
303
323
343
363
383
403
Water Level (ft AMSL)
2691
2671
2651
2631
2611
2591
2571
2551
2531
2511
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

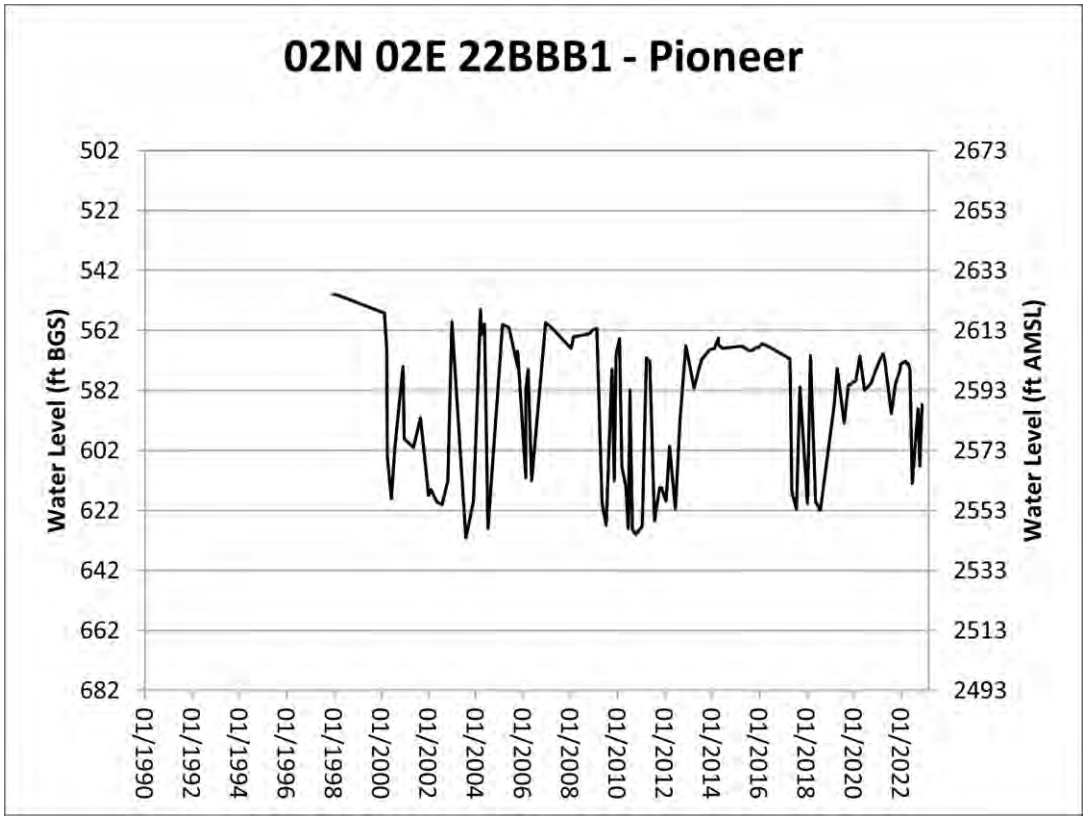

02N 02E 03DDC1 - Boise Airport Well
Water Level (ft BGS)
277
278
278
279
279
280
280
281
281
282
282
Water Level (ft. AMSL)
2654.83
2654.33
2653.83
2653.33
2652.83
2652.33
2651.83
2651.33
2650.83
2650.33
2649.83
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

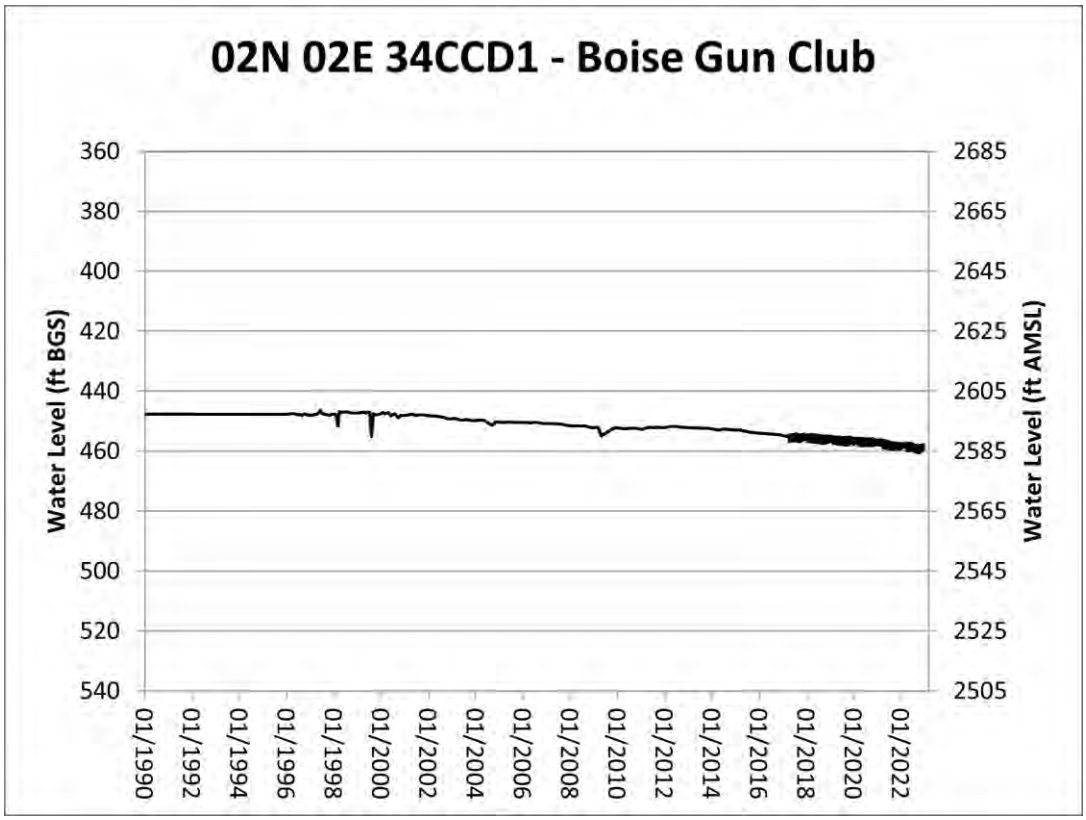

02N 02E 04CBB1 - IDL House
Water Level (ft BGS)
130
150
170
190
210
230
250
270
290
310
Water Level (ft AMSL)
2750
2730
2710
2690
2670
2650
2630
2610
2590
2570
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

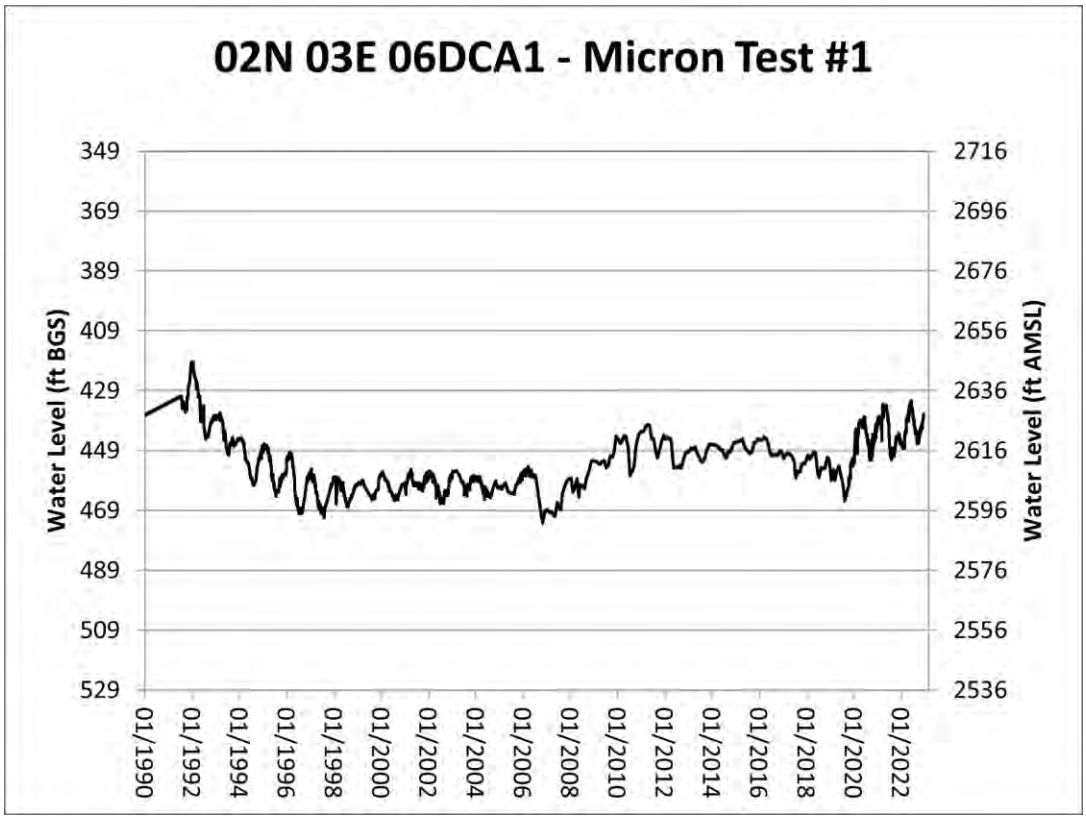

02N 02E 07CBC1 - Hollilynn
Water Level (ft BGS)
180
200
220
240
260
280
300
320
340
360
Water Level (ft AMSL)
2740
2720
2700
2680
2660
2640
2620
2600
2580
2560
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

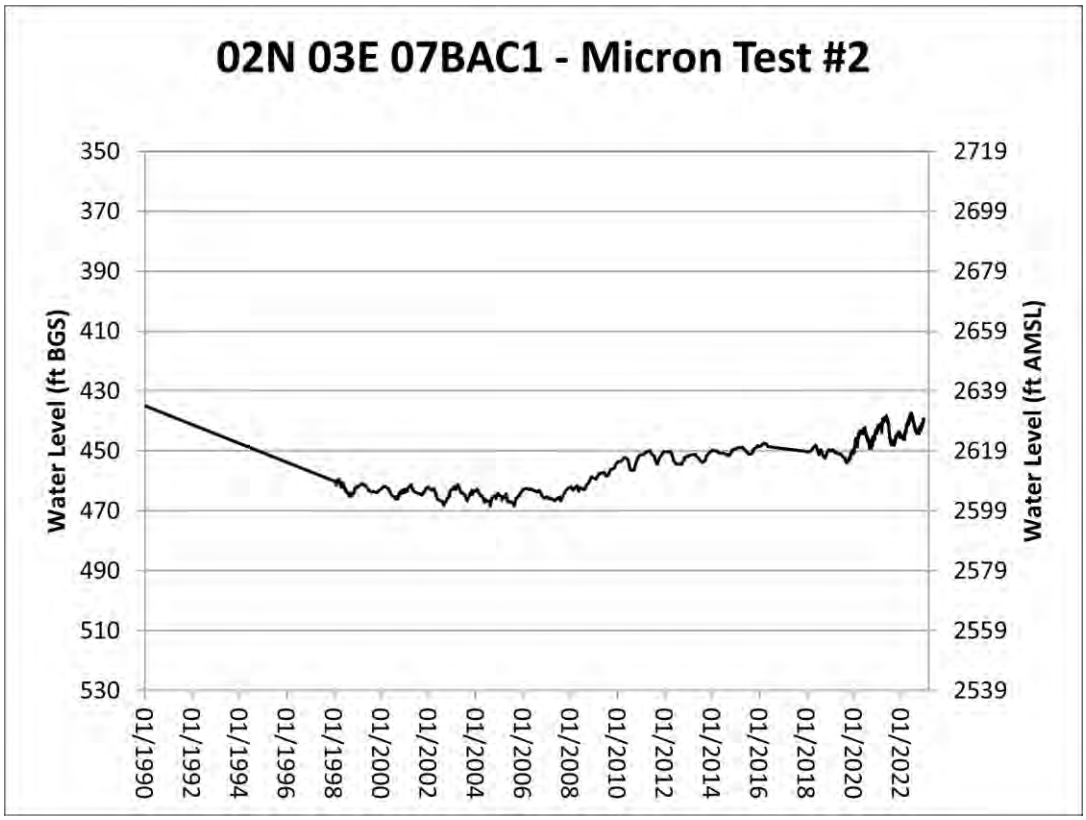

02N 02E 17ABD1 - Ten Mile
Water Level (ft BGS)
490
510
530
550
570
590
610
630
650
670
Water Level (ft AMSL)
2663
2643
2623
2603
2583
2563
2543
2523
2503
2483
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

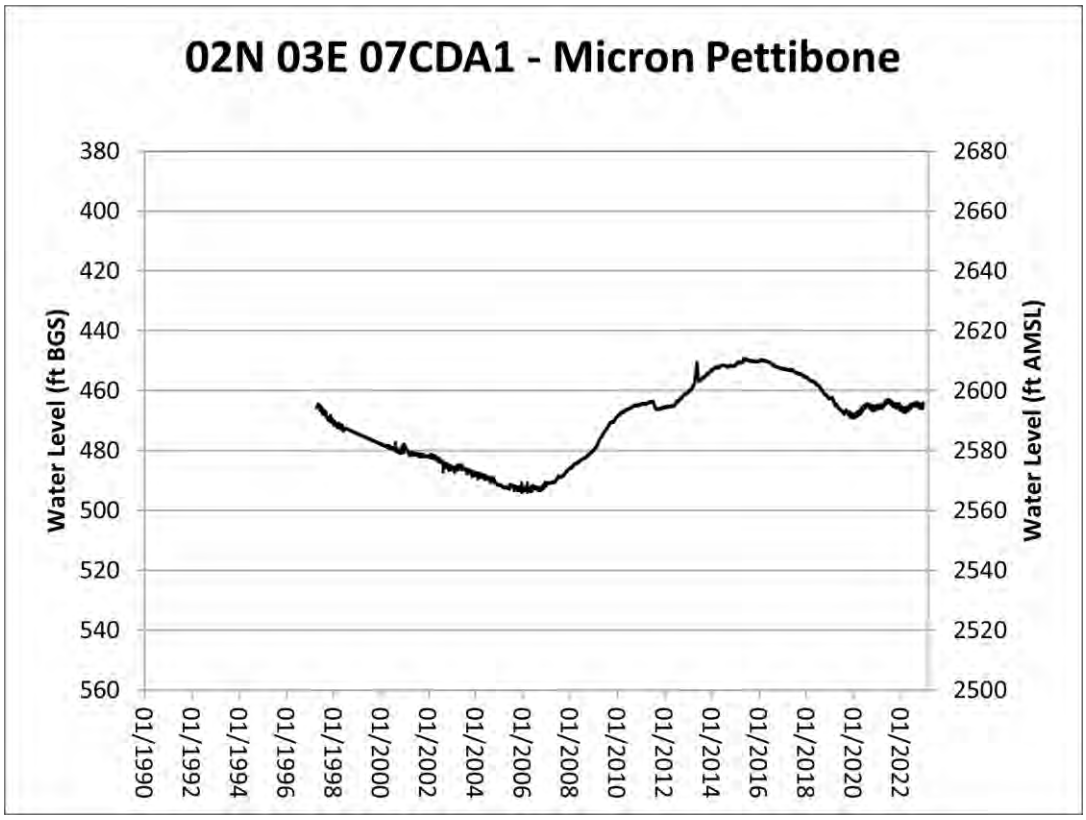

02N 02E 21CBB1 - SunRoc
Water Level (ft BGS)
330
350
370
390
410
430
450
470
490
510
Water Level (ft AMSL)
2697
2677
2657
2637
2617
2597
2577
2557
2537
2517
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

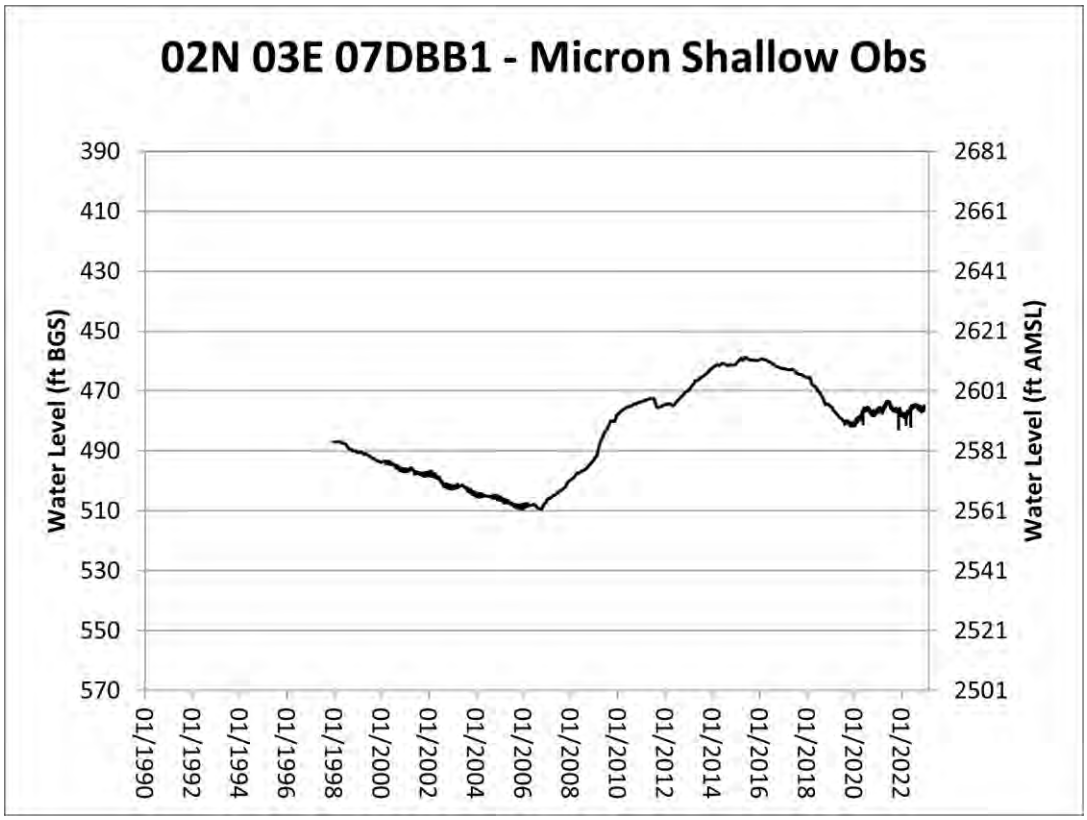

02N 02E 22BBB1 - Pioneer
Water Level (ft BGS)
502
522
542
562
582
602
622
642
662
682
Water Level (ft AMSL)
2673
2653
2633
2613
2593
2573
2553
2533
2513
2493
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

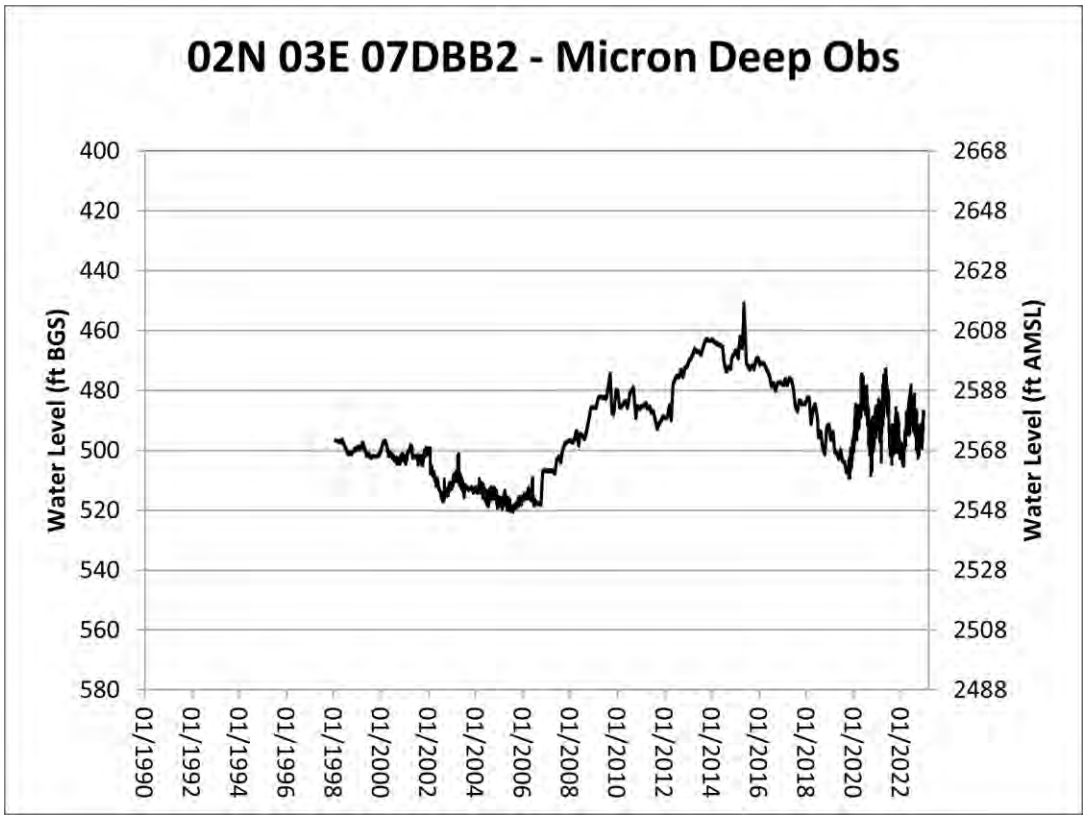

02N 02E 34CCD1 - Boise Gun Club
Water Level (ft BGS)
360
380
400
420
440
460
480
500
520
540
Water Level (ft AMSL)
2685
2665
2645
2625
2605
2585
2565
2545
2525
2505
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

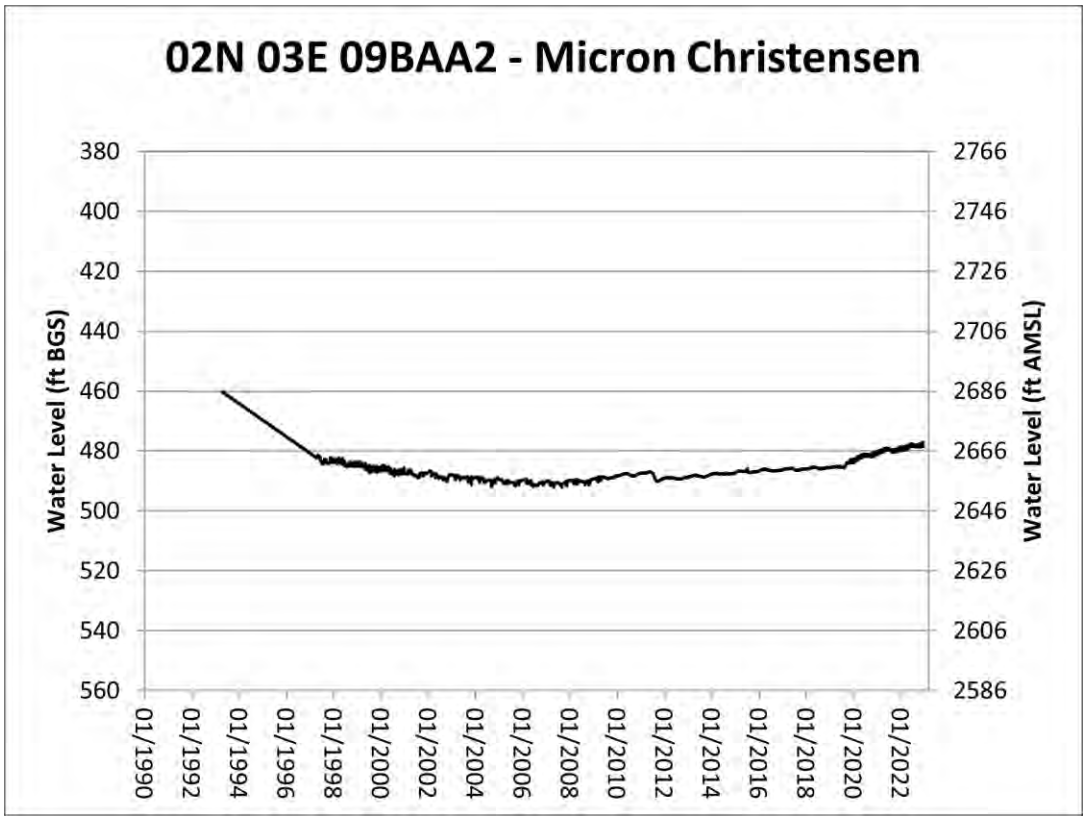

02N 03E 06DCA1 - Micron Test #1
Water Level (ft BGS)
349
369
389
409
429
449
469
489
509
529
Water Level (ft AMSL)
2716
2696
2676
2656
2636
2616
2596
2576
2556
2536
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

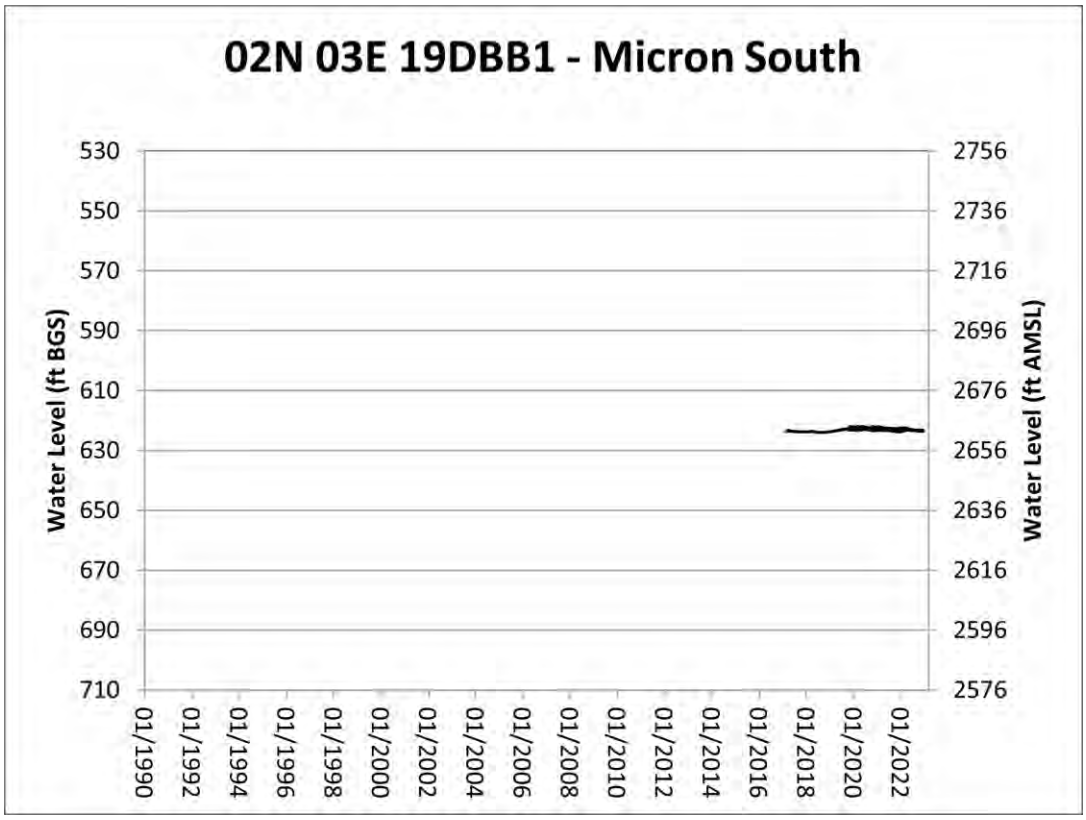

02N 03E 07BAC1 - Micron Test #2
Water Level (ft BGS)
350
370
390
410
430
450
470
490
510
530
Water Level (ft AMSL)
2719
2699
2679
2659
2639
2619
2599
2579
2559
2539
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

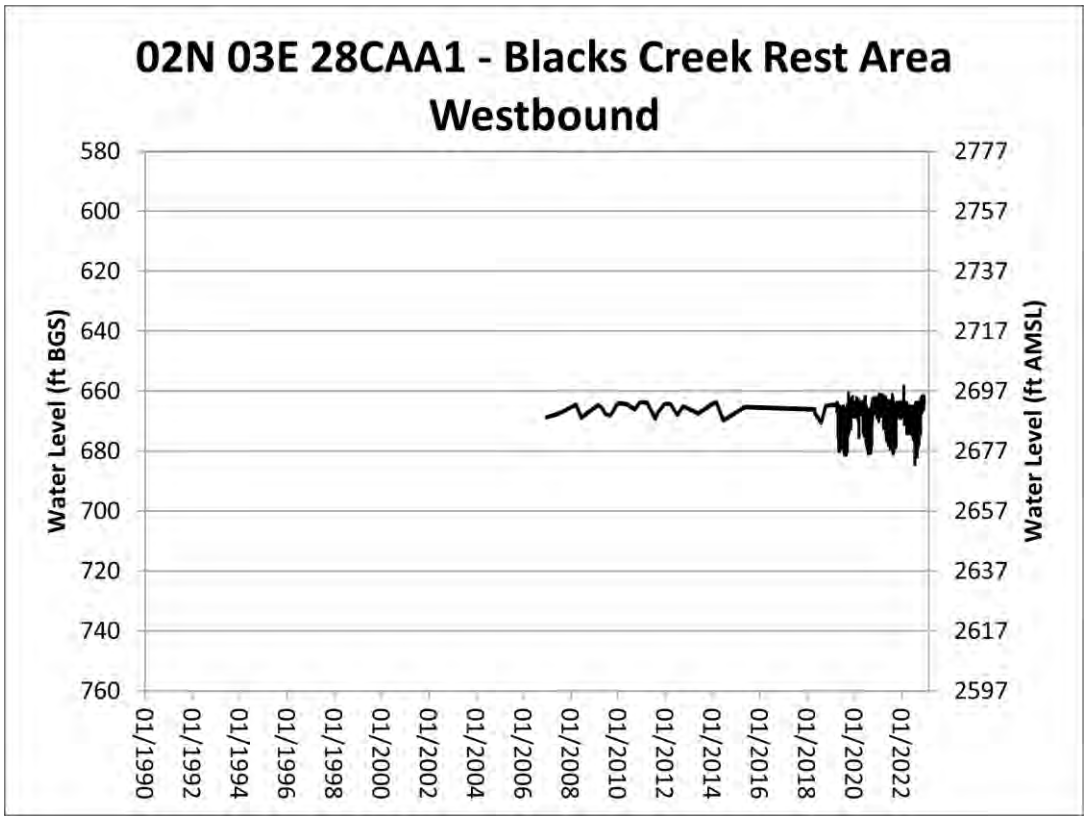

02N 03E 07CDA1 - Micron Pettibone
Water Level (ft BGS)
380
400
420
440
460
480
500
520
540
560
Water Level (ft AMSL)
2680
2660
2640
2620
2600
2580
2560
2540
2520
2500
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

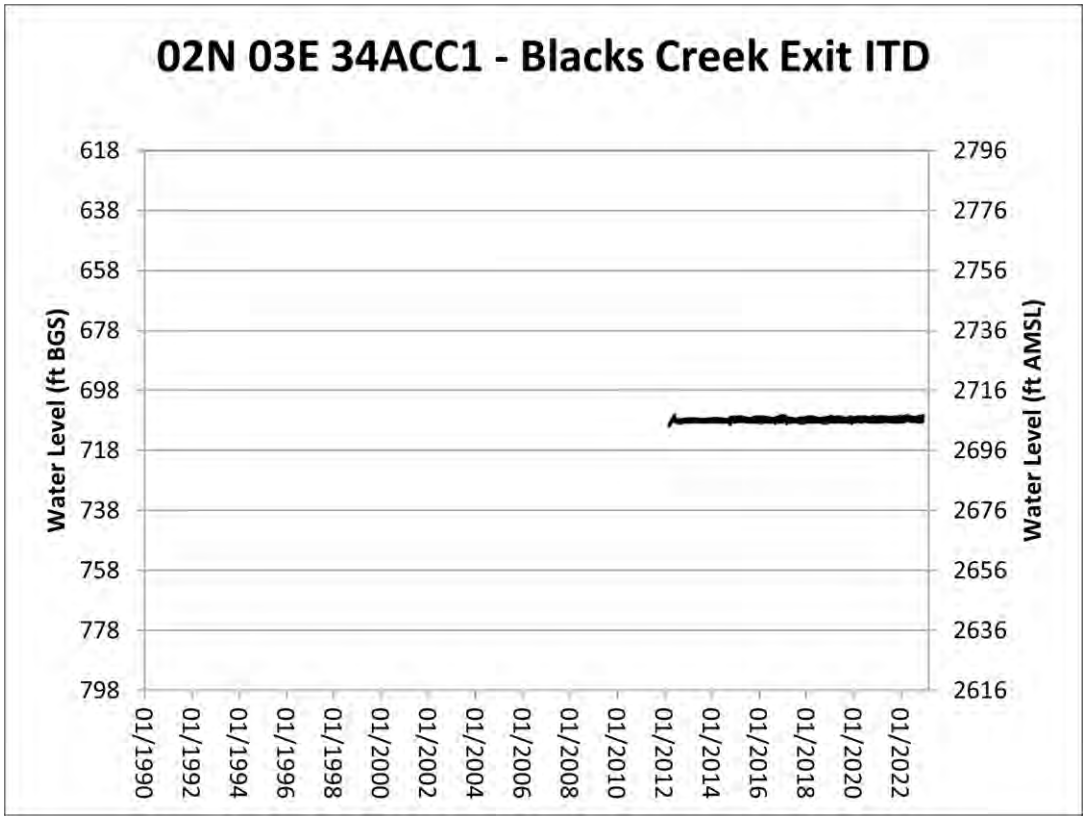

02N 03E 07DBB1 - Micron Shallow Obs
Water Level (ft BGS)
390
410
430
450
470
490
510
530
550
570
Water Level (ft AMSL)
2681
2661
2641
2621
2601
2581
2561
2541
2521
2501
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

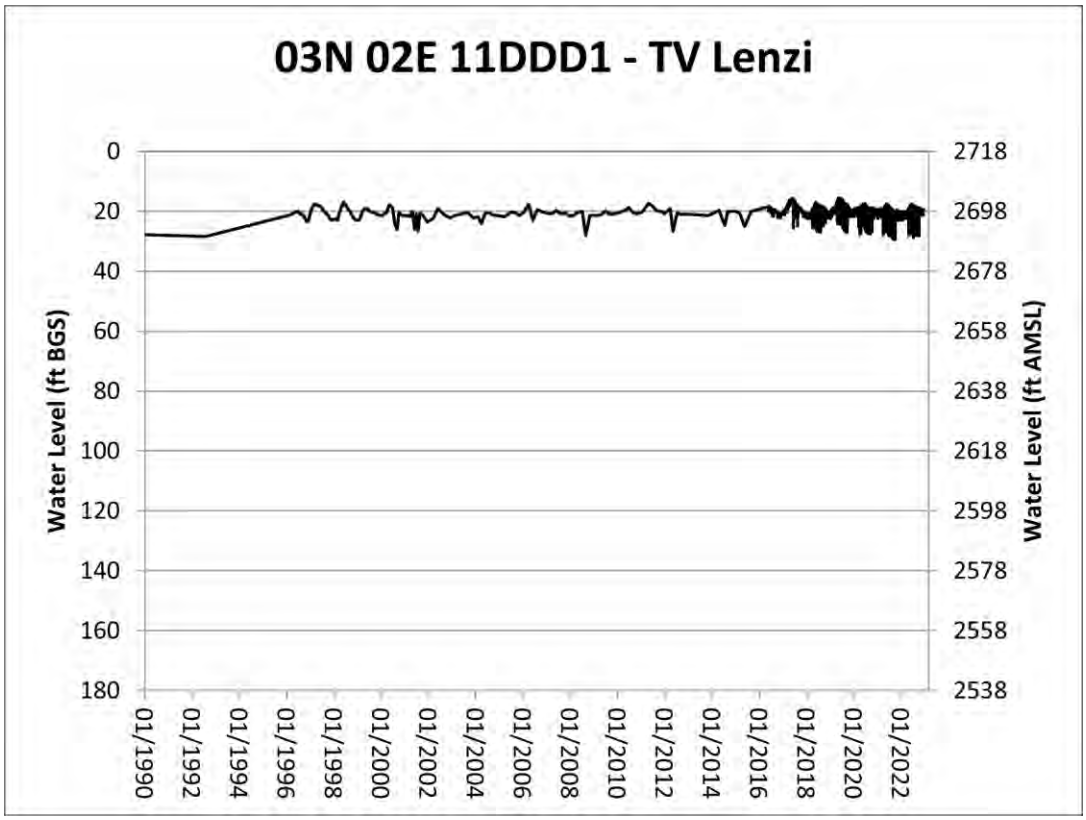

02N 03E 07DBB2 - Micron Deep Obs
Water Level (ft BGS)
400
420
440
460
480
500
520
540
560
580
Water Level (ft AMSL)
2668
2648
2628
2608
2588
2568
2548
2528
2508
2488
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

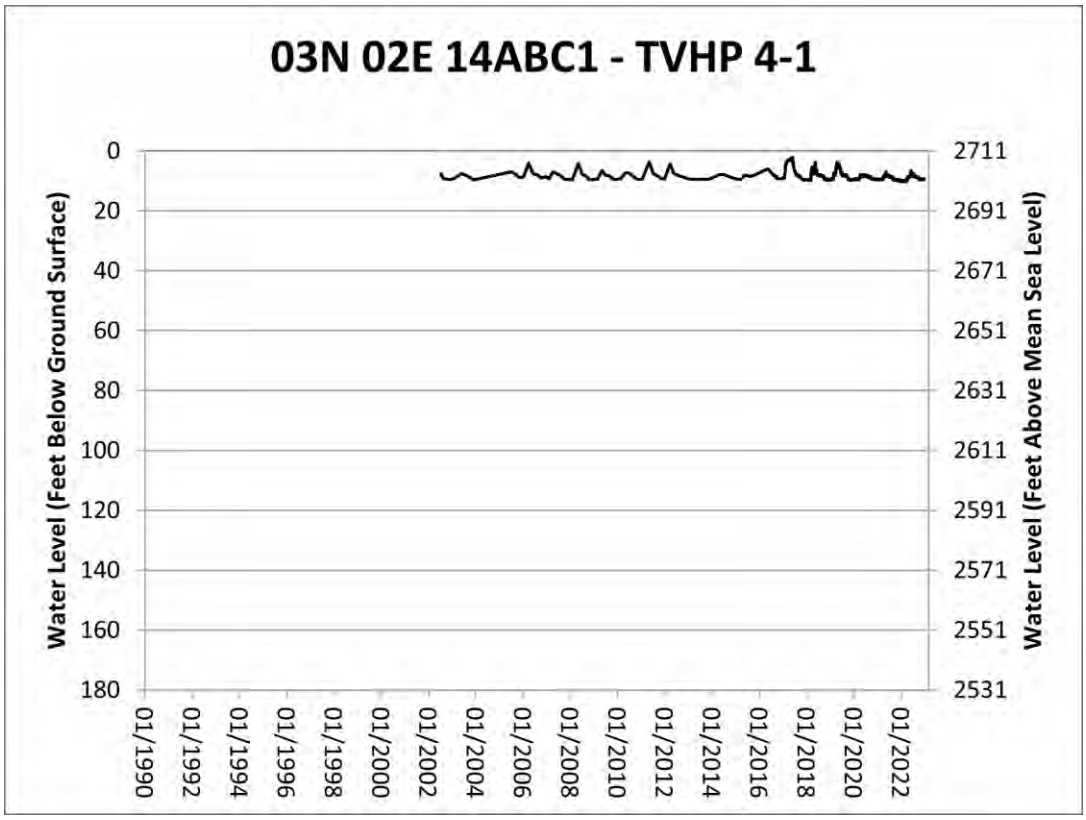

02N 03E 09BAA2 - Micron Christensen
Water Level (ft BGS)
380
400
420
440
460
480
500
520
540
560
Water Level (ft AMSL)
2766
2746
2726
2706
2686
2666
2646
2626
2606
2586
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

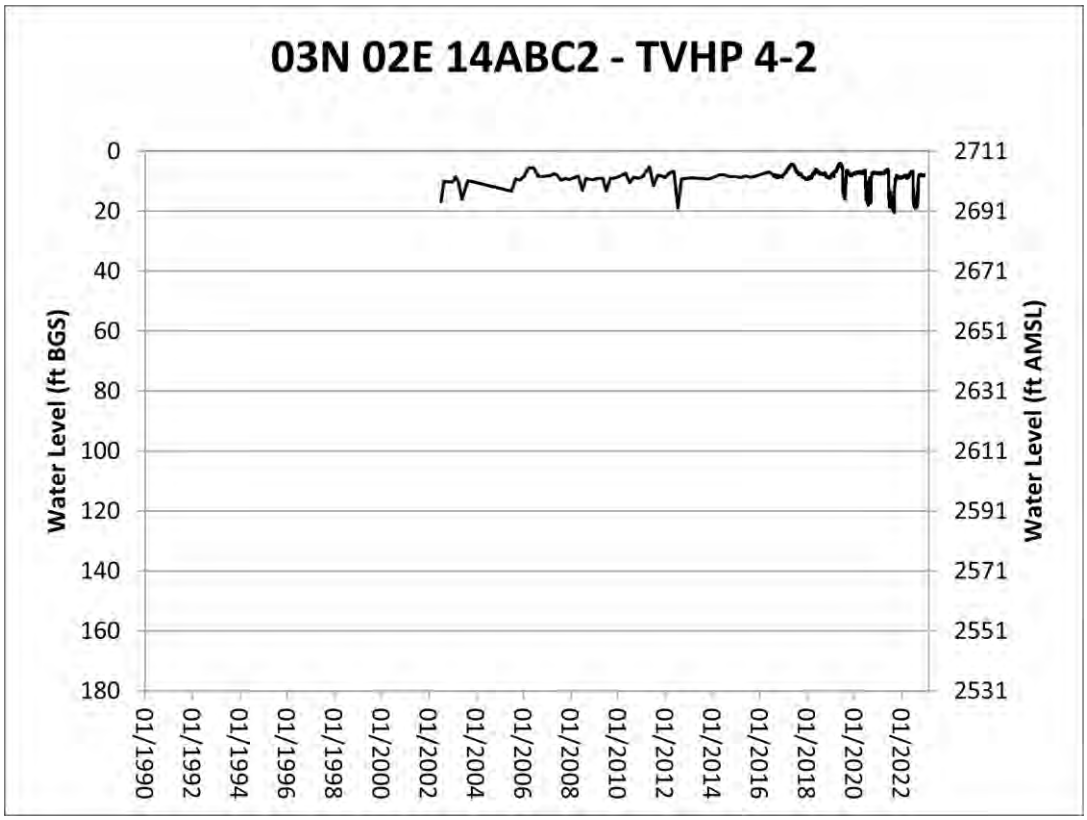

02N 03E 19DBB1 - Micron South
Water Level (ft BGS)
530
550
570
590
610
630
650
670
690
710
Water Level (ft AMSL)
2756
2736
2716
2696
2676
2656
2636
2616
2596
2576
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


02N 03E 28CAA1 - Blacks Creek Rest Area Westbound
Water Level (ft BGS)
580
600
620
640
660
680
700
720
740
760
Water Level (ft AMSL)
2777
2757
2737
2717
2697
2677
2657
2637
2617
2597
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


02N 03E 34ACC1 - Blacks Creek Exit ITD
Water Level (ft BGS)
618
638
658
678
698
718
738
758
778
798
Water Level (ft AMSL)
2796
2776
2756
2736
2716
2696
2676
2656
2636
2616
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


03N 02E 11DDD1 - TV Lenzi
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2718
2698
2678
2658
2638
2618
2598
2578
2558
2538
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


03N 02E 14ABC1 - TVHP 4-1
Water Level (Feet Below Ground Surface)
0
20
40
60
80
100
120
140
160
180
Water Level (Feet Above Mean Sea Level)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


03N 02E 14ABC2 - TVHP 4-2
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
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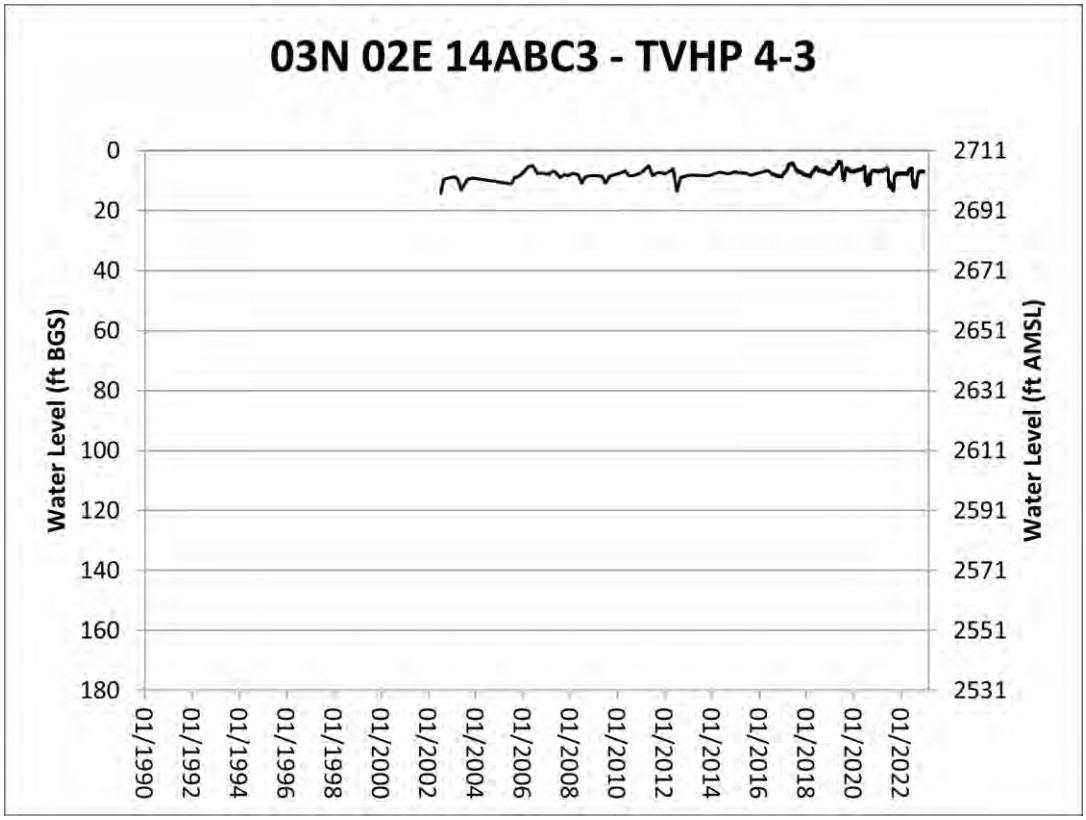
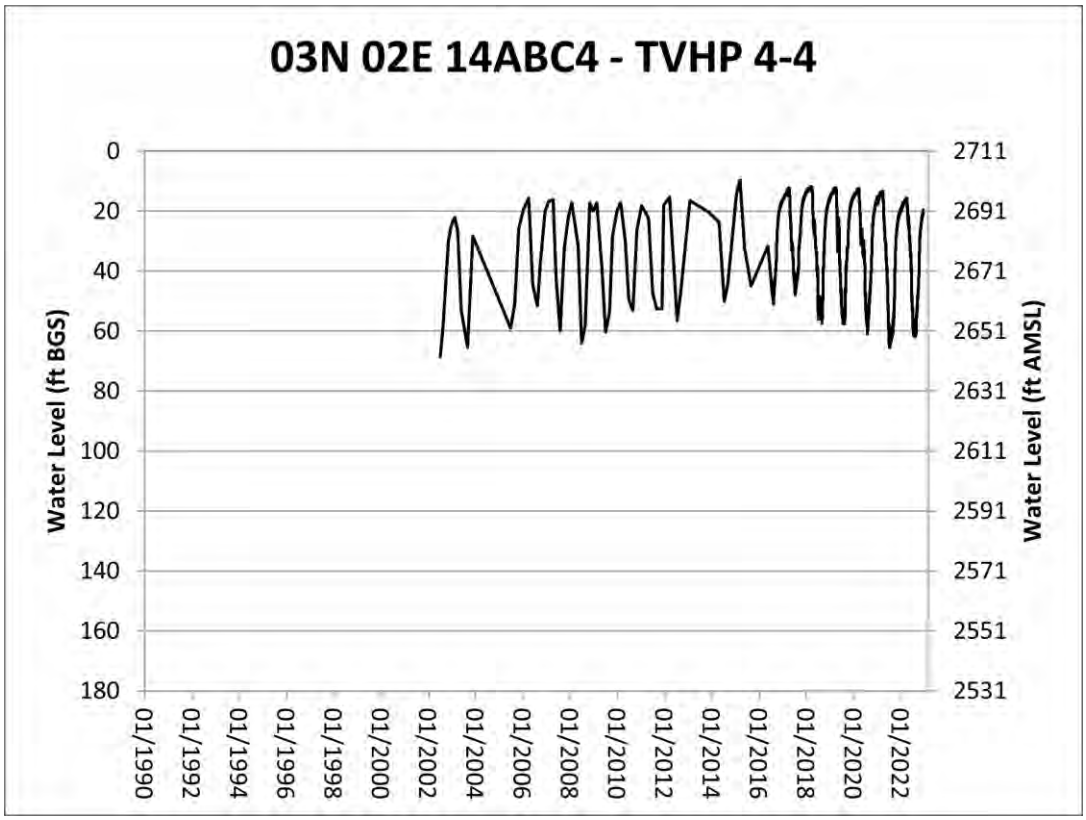
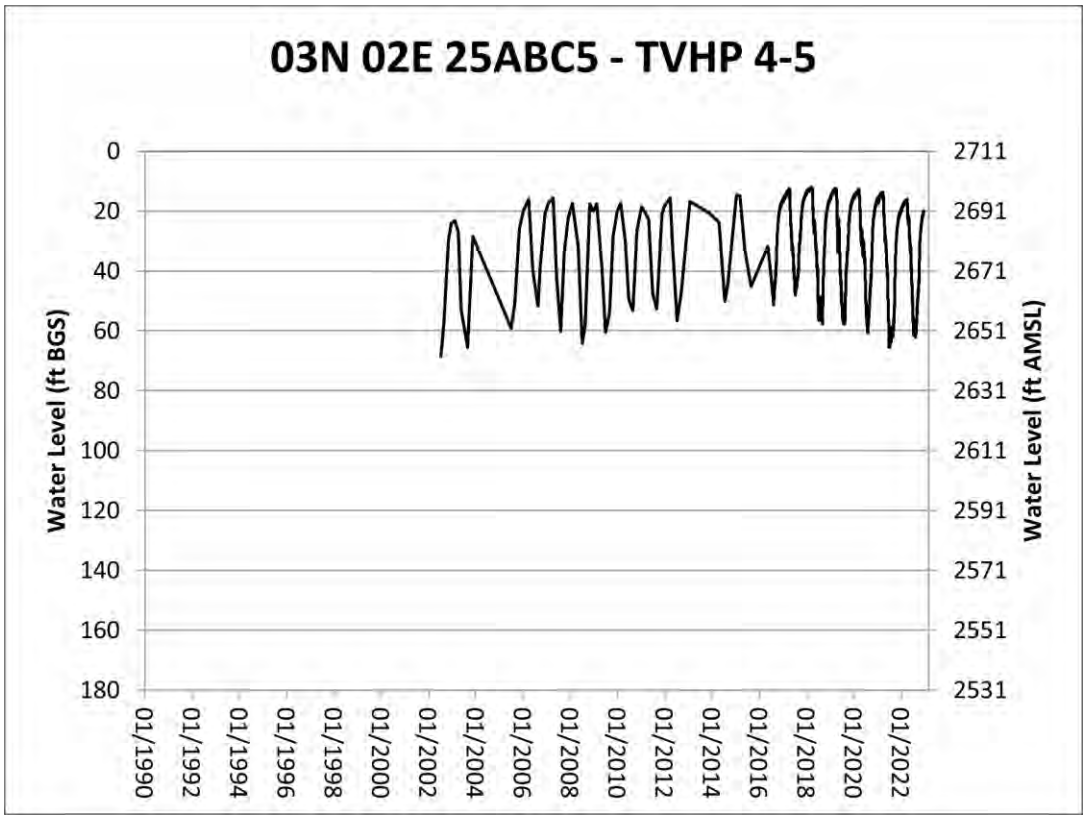
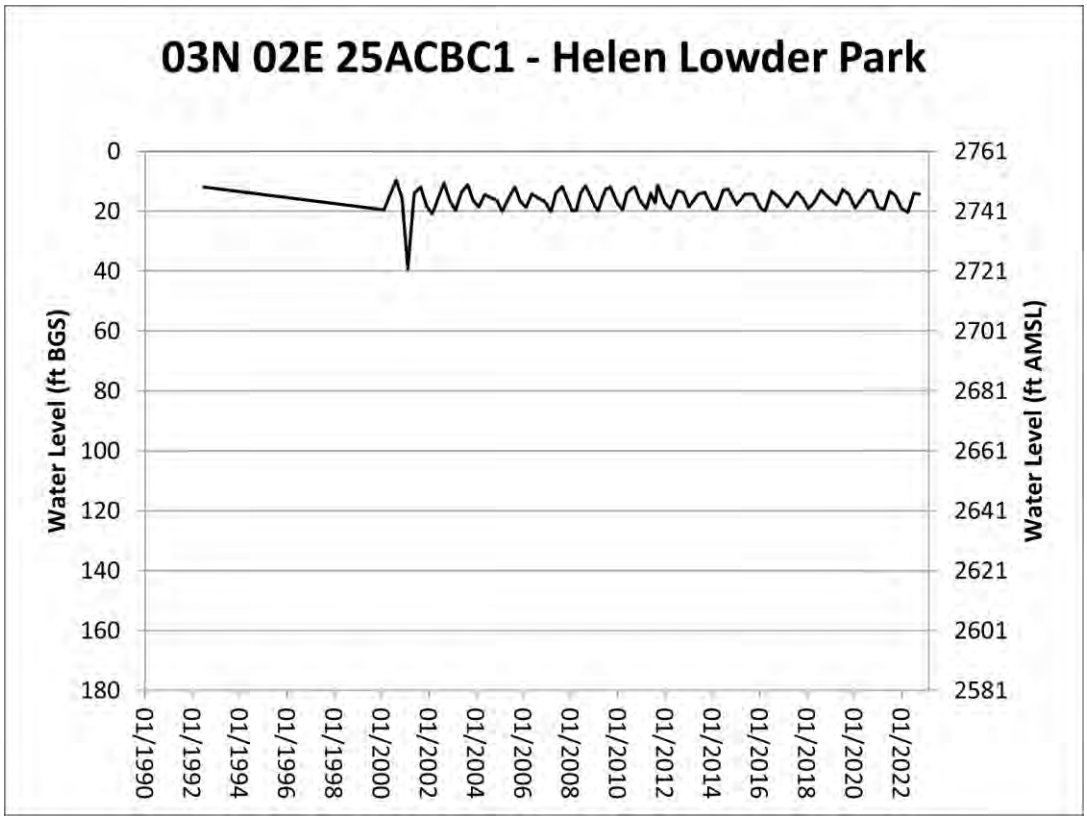
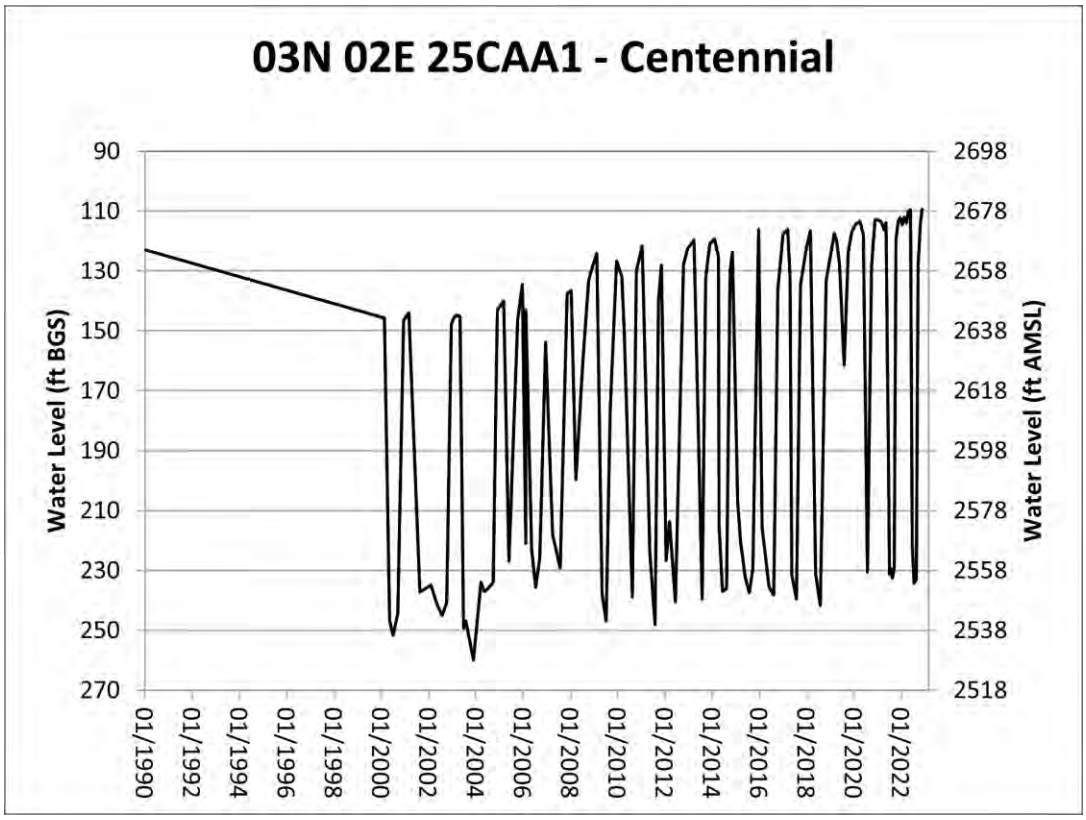
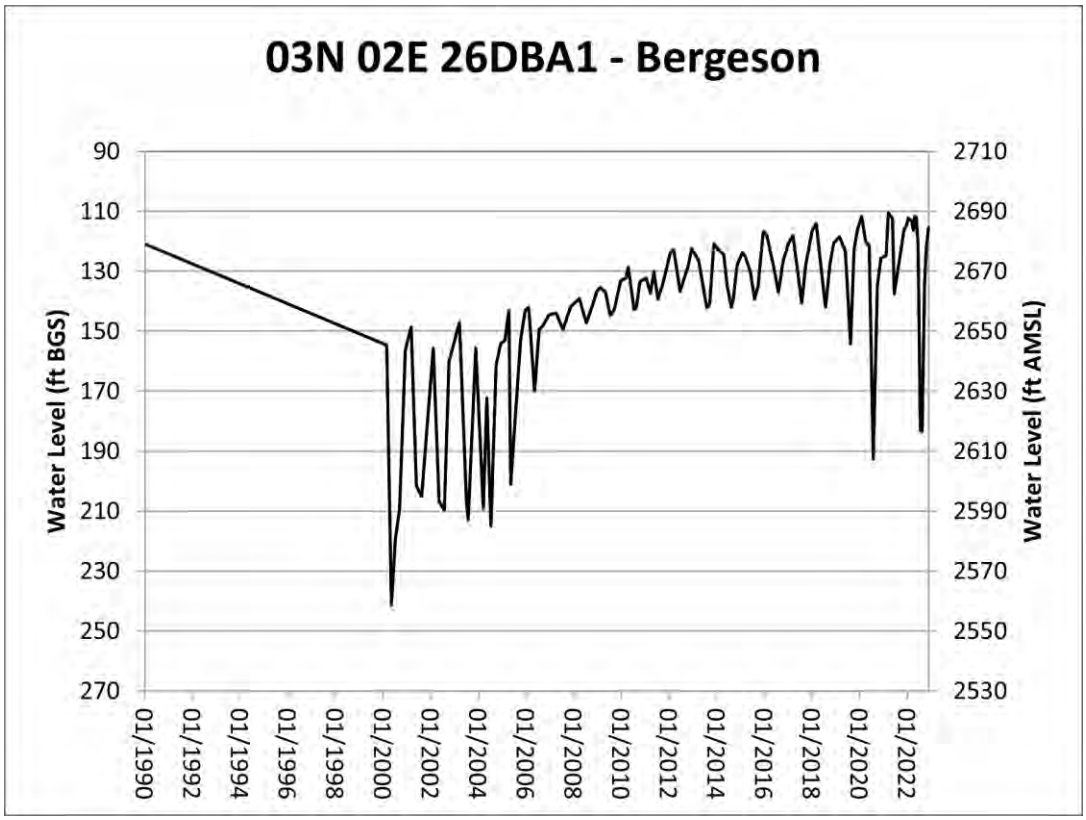

03N 02E 14ABC3 - TVHP 4-3
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

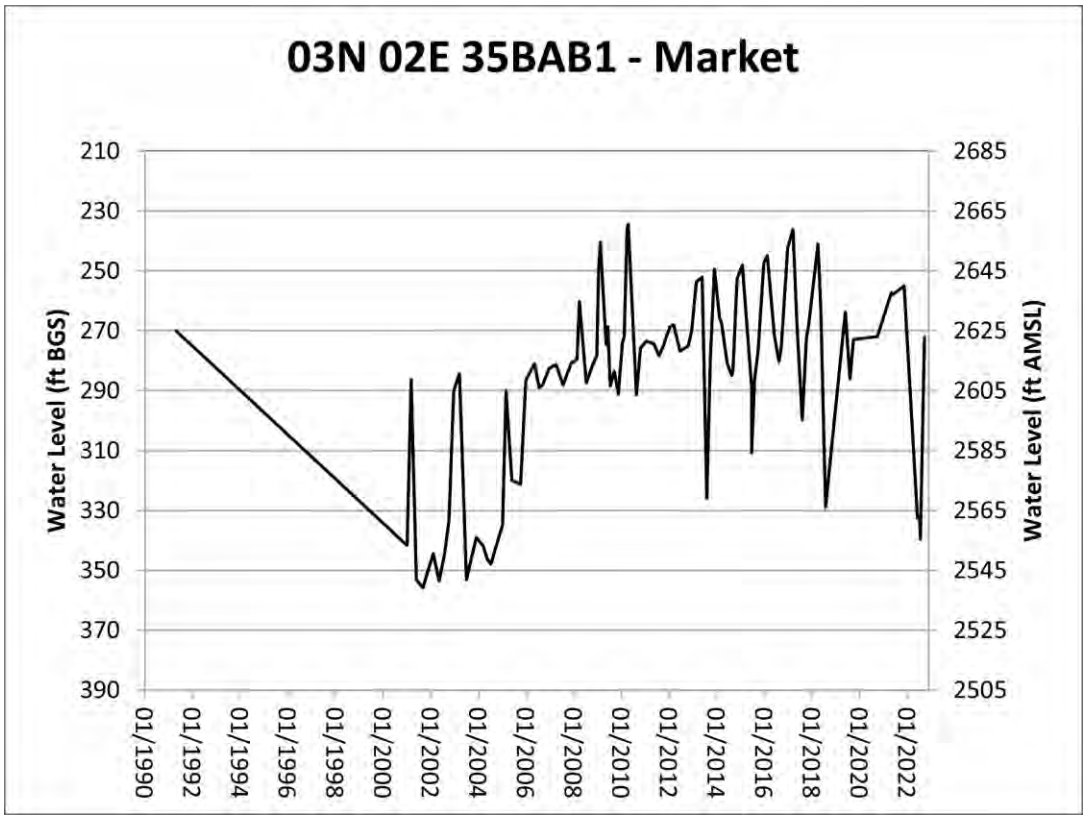

03N 02E 14ABC4 - TVHP 4-4
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

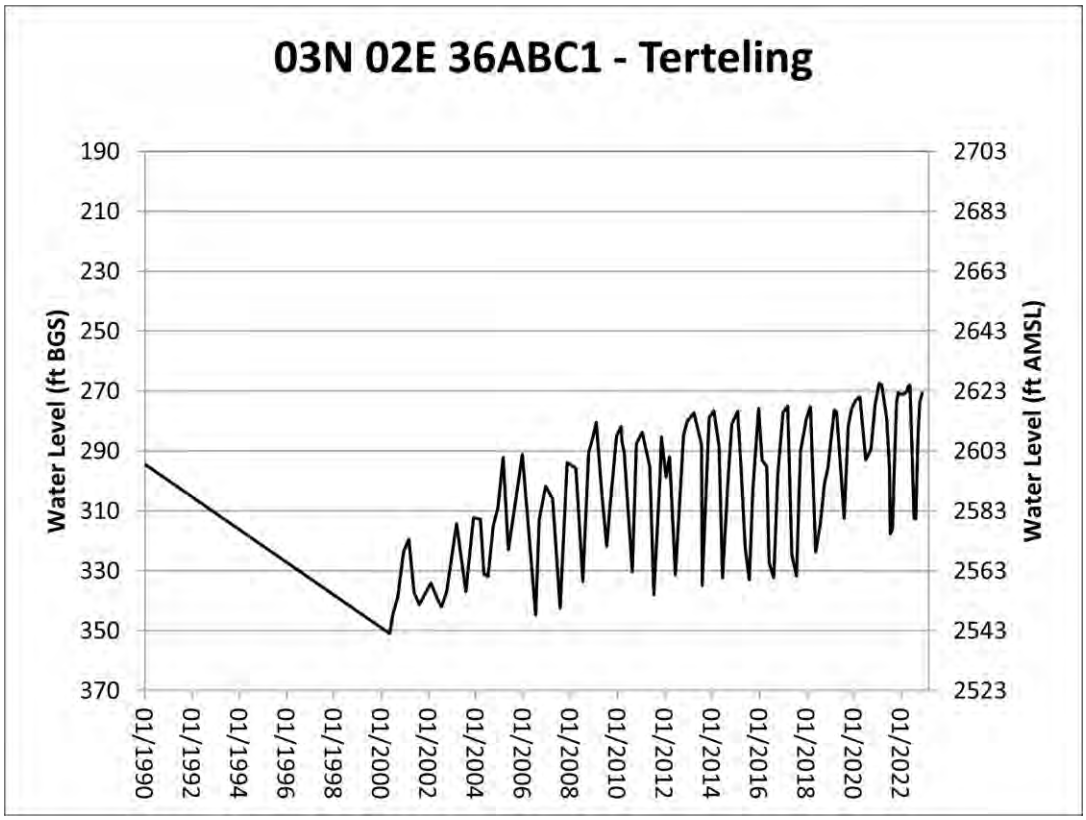

03N 02E 25ABC5 - TVHP 4-5
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2711
2691
2671
2651
2631
2611
2591
2571
2551
2531
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

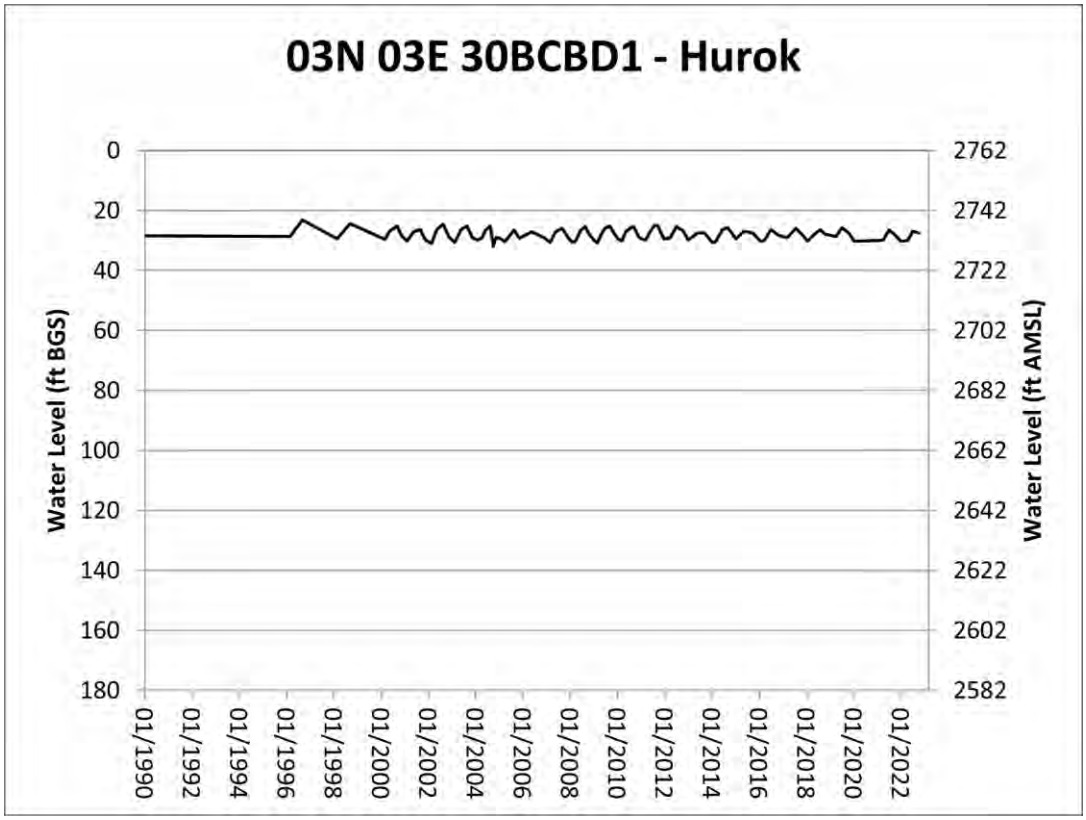

03N 02E 25ACBC1 - Helen Lowder Park
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2761
2741
2721
2701
2681
2661
2641
2621
2601
2581
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

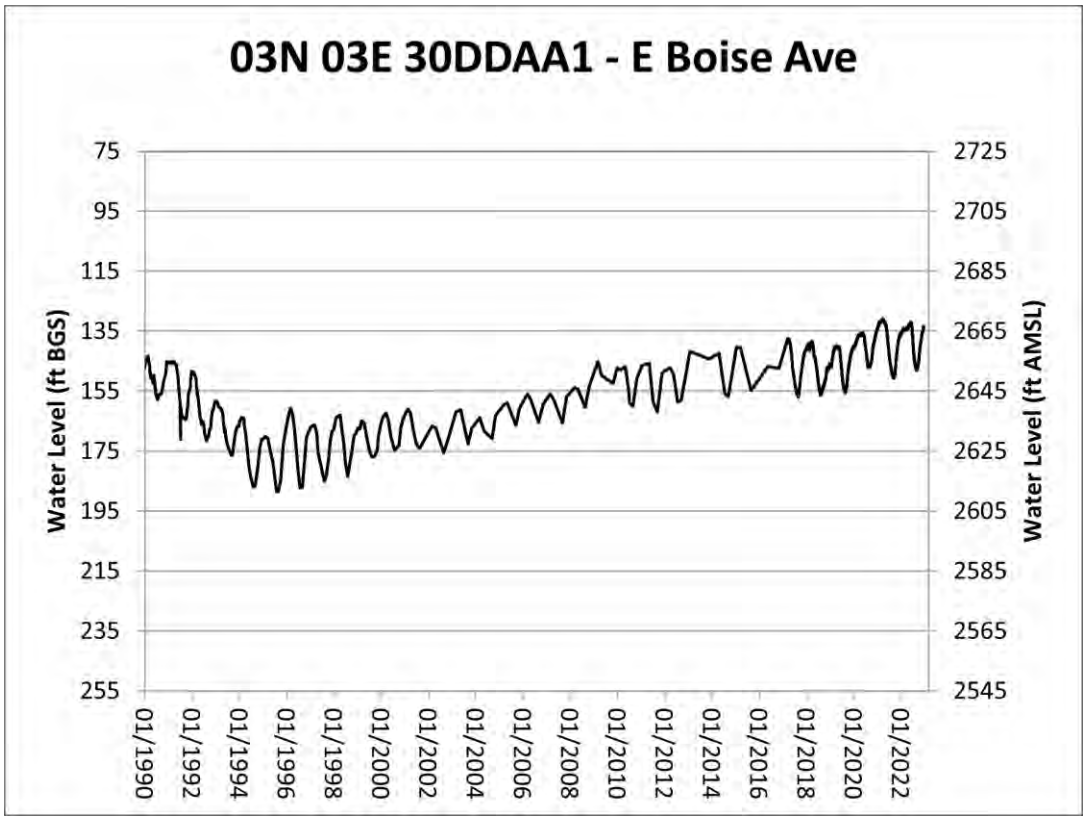

03N 02E 25CAA1 - Centennial
Water Level (ft BGS)
90
110
130
150
170
190
210
230
250
270
Water Level (ft AMSL)
2698
2678
2658
2638
2618
2598
2578
2558
2538
2518
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

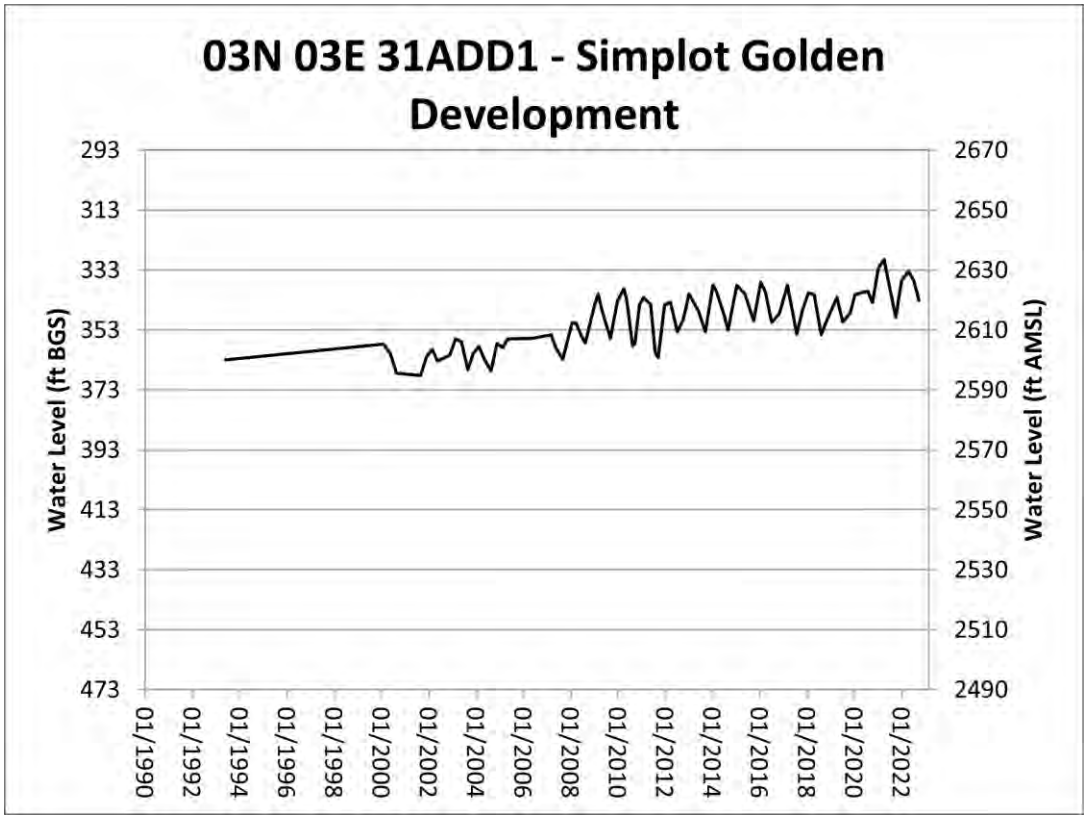

03N 02E 26DBA1 - Bergeson
Water Level (ft BGS)
90
110
130
150
170
190
210
230
250
270
Water Level (ft AMSL)
2710
2690
2670
2650
2630
2610
2590
2570
2550
2530
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

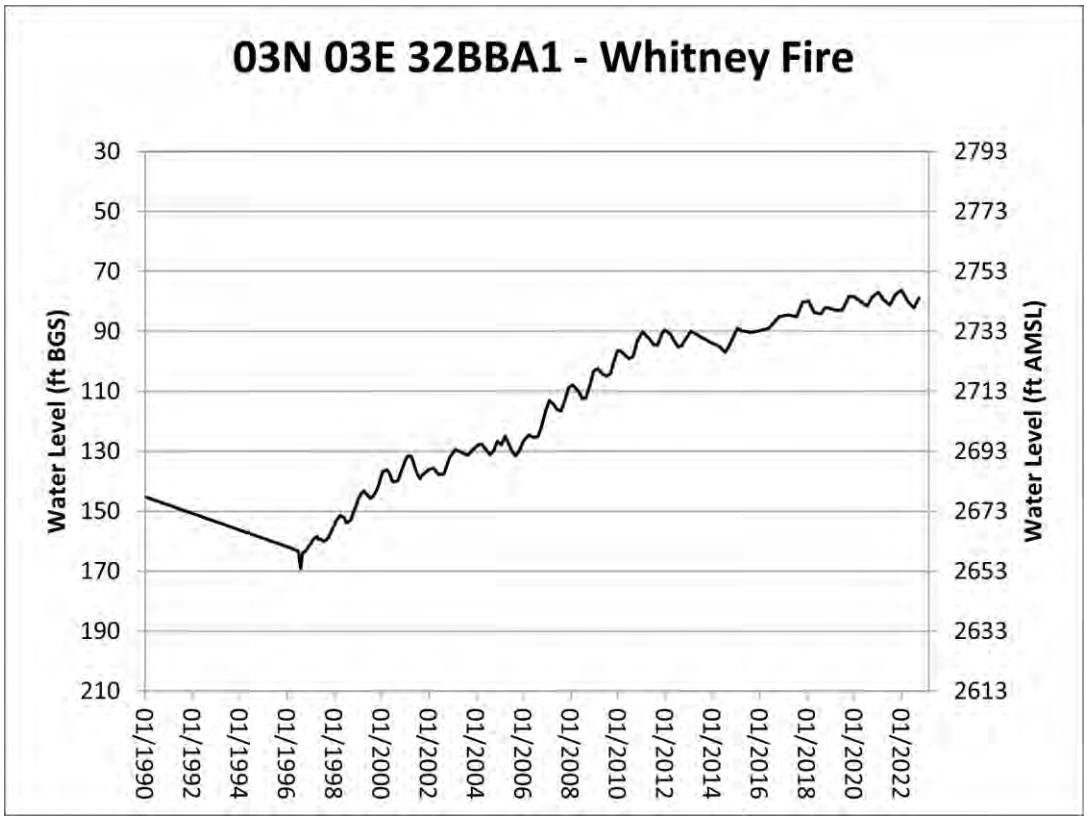

03N 02E 35BAB1 - Market
Water Level (ft BGS)
210
230
250
270
290
310
330
350
370
390
Water Level (ft AMSL)
2685
2665
2645
2625
2605
2585
2565
2545
2525
2505
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

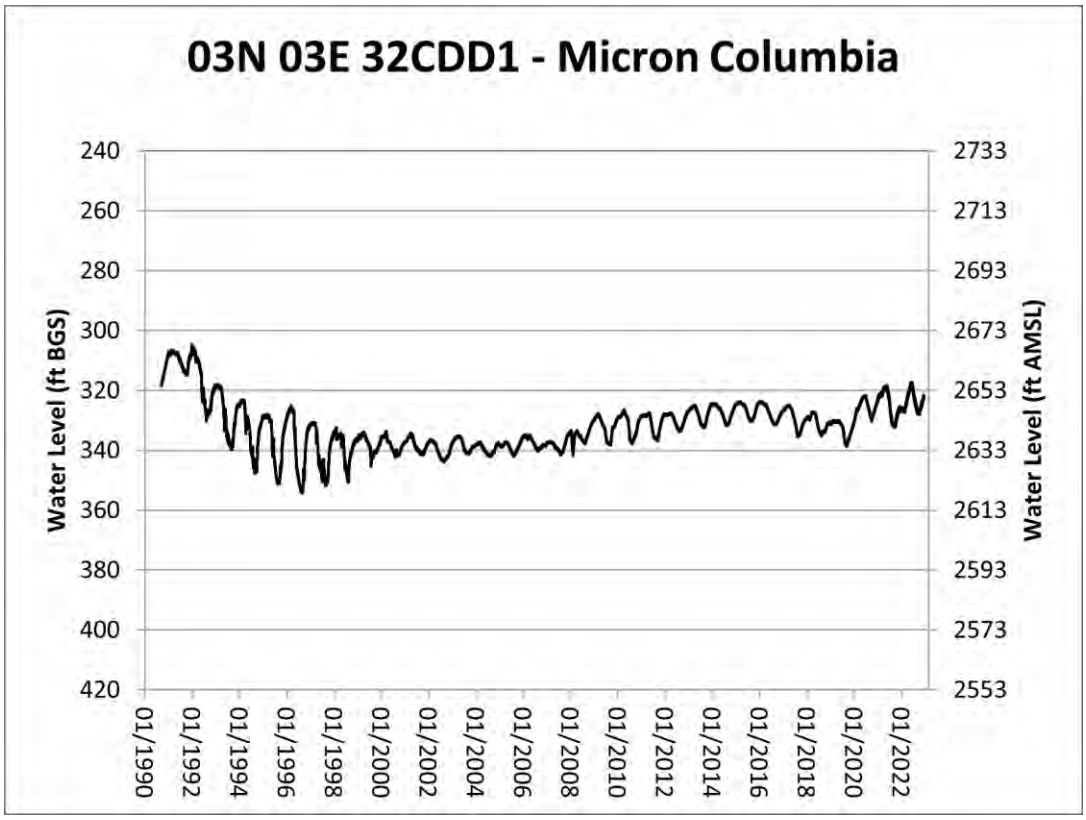

03N 02E 36ABC1 - Terteling
Water Level (ft BGS)
190
210
230
250
270
290
310
330
350
370
Water Level (ft AMSL)
2703
2683
2663
2643
2623
2603
2583
2563
2543
2523
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022

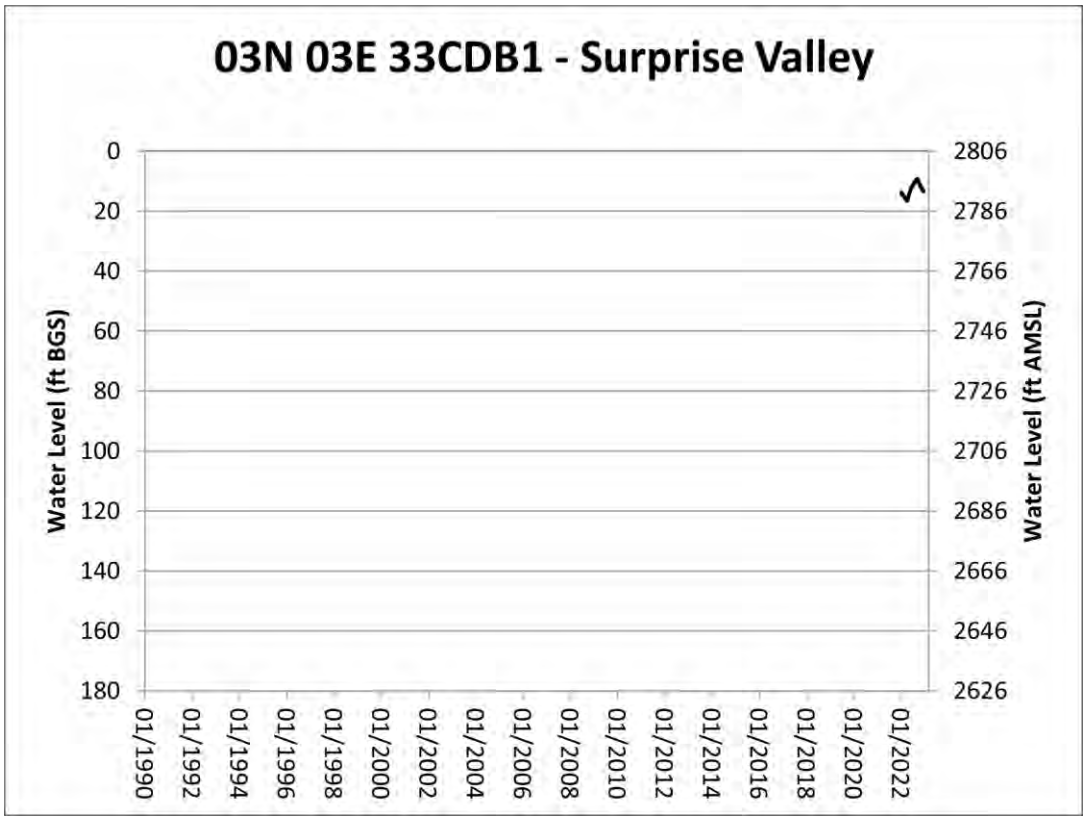

03N 03E 30BCBD1 - Hurok
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2762
2742
2722
2702
2682
2662
2642
2622
2602
2582
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


03N 03E 30DDAA1 - E Boise Ave
Water Level (ft BGS)
75
95
115
135
155
175
195
215
235
255
Water Level (ft AMSL)
2725
2705
2685
2665
2645
2625
2605
2585
2565
2545
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


03N 03E 31ADD1 - Simplot Golden Development
Water Level (ft BGS)
293
313
333
353
373
393
413
433
453
473
Water Level (ft AMSL)
2670
2650
2630
2610
2590
2570
2550
2530
2510
2490
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


03N 03E 32BBA1 - Whitney Fire
Water Level (ft BGS)
30
50
70
90
110
130
150
170
190
210
Water Level (ft AMSL)
2793
2773
2753
2733
2713
2693
2673
2653
2633
2613
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


03N 03E 32CDD1 - Micron Columbia
Water Level (ft BGS)
240
260
280
300
320
340
360
380
400
420
Water Level (ft AMSL)
2733
2713
2693
2673
2653
2633
2613
2593
2573
2553
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022


03N 03E 33CDB1 - Surprise Valley
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2806
2786
2766
2746
2726
2706
2686
2666
2646
2626
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
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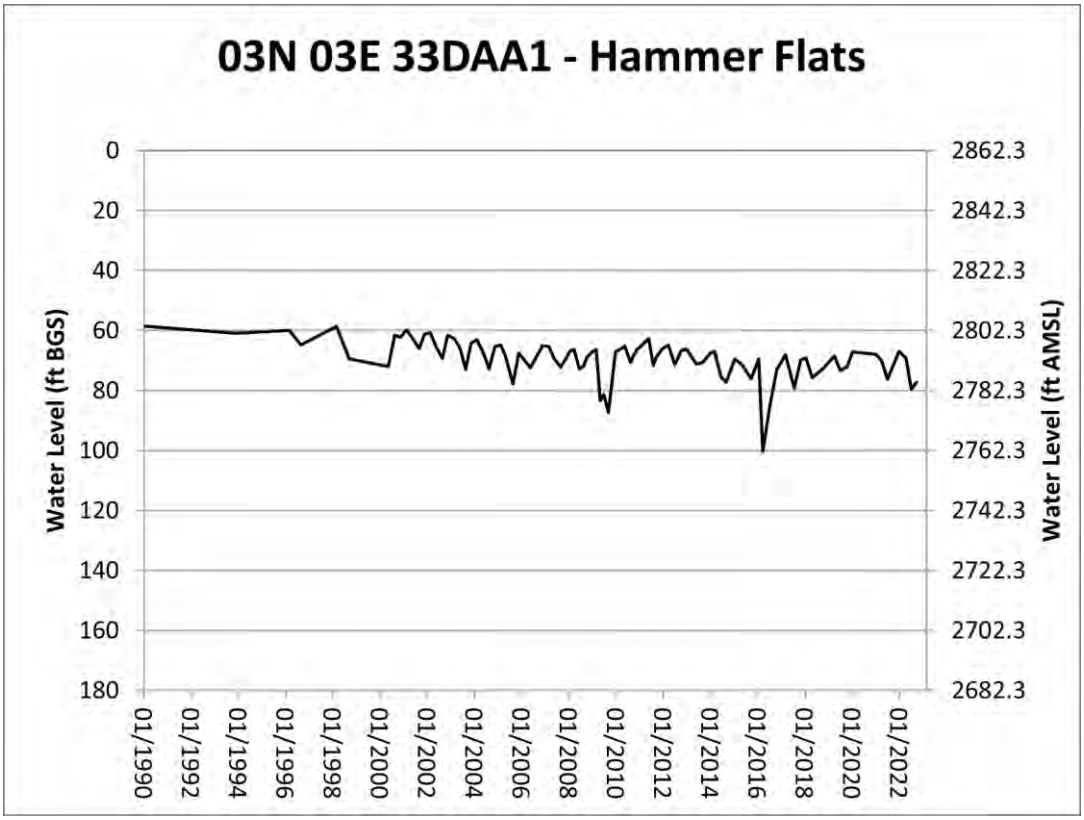
03N 03E 33DAA1 - Hammer Flats
Water Level (ft BGS)
0
20
40
60
80
100
120
140
160
180
Water Level (ft AMSL)
2862.3
2842.3
2822.3
2802.3
2782.3
2762.3
2742.3
2722.3
2702.3
2682.3
01/1990
01/1992
01/1994
01/1996
01/1998
01/2000
01/2002
01/2004
01/2006
01/2008
01/2010
01/2012
01/2014
01/2016
01/2018
01/2020
01/2022